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CONSCIOUSNESS AND COGNITION. THE COGNITIVE PHENOMENOLOGY DEBATE

Edited by Elisabetta Sacchi and Alberto Voltolini

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INTRODUCTION

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Consciousness and Cognition. The Cognitive Phenomenology Debate

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CONSCIOUSNESS AND COGNITION. THE COGNITIVE PHENOMENOLOGY DEBATE

abstract

According to a position which has dominated the theoretical landscape in the philosophy of mind until recently, only sensory states exhibit a characteristic phenomenal dimension, whereas cognitive states either utterly lack it, or inherit it from some of their accompanying sensory states. This position has recently been challenged by several scholars who have stressed the irreducibility of cognitive phenomenology to a merely sensory one. The aim of this introductory paper is to provide a general overview of the debate on cognitive phenomenology in order to give the reader a flavor of the richness of the themes that surround this area of investigation centered on the relationship between consciousness and cognition.

keywords

cognitive phenomenology, sensory phenomenology, irreducibility, consciousness, cognition

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The main aim of this special issue of *Phenomenology and Mind* consists in promoting a reflection on the relationship between consciousness and cognition, by focusing in particular on the question whether there is (and, just in case, how should be conceived) a phenomenology characteristic of the cognitive level of our mental life. According to a position which has dominated the debate in the philosophy of mind and in the cognitive sciences until recently (that we shall call "the conservative position", exemplified among others by Tye 1995, Carruthers 2005, Braddon-Mitchell & Jackson 2007), only sensory states exhibit a characteristic phenomenal dimension, whereas cognitive states either utterly lack it, or inherit it from some of their accompanying sensory states. The conservative position has recently been challenged by several scholars (Strawson 1994, Siewert 1998, Horgan and Tienson 2002, Pitt 2004), who have stressed the irreducibility of cognitive phenomenology to a merely sensory one. Those philosophers have thereby promoted, within the ongoing debate on phenomenal consciousness in the analytic philosophy, a theoretical approach that is sympathetic and consonant with the way in which the issue has been dealt with within the phenomenological tradition.

Even though this debate is very lively and attended on the part of the international philosophical community (one needs only look at the several recent publications on this topic[1]), in Italy it is still widely ignored. Thus, we decided to devote a special issue to this topic. Our hope is that it helps to convey to the Italian philosophical community the main theoretical views driving the ongoing debate and the main critical lines of reflection that it opens up. We think that this can provide a valuable help in improving the philosophical understanding of the nature of the conscious mind.

Part of the material collected here originated from a workshop, *Mind and Consciousness: Some Issues in Cognitive Phenomenology*, organized at the Faculty of Philosophy of San Raffaele University on 8th January 2016[2]. Besides the organizers, Elisabetta Sacchi (San Raffaele University, Milan) and Alberto Voltolini (University of Turin), the other speakers of that workshop were Clotilde Calabi (State University of Milan), Tim Bayne (Monash University,

1 Among the main works on this topic see Bayne and Montague 2011; Smithies 2013a, b; Chudnoff 2015; Kriegel 2015 (ch. 1); Breyer and Gutland 2016; Montague 2016 (ch. 8).

2 This workshop has been supported by the funds of the local PRIN/MIUR national research project "Realism and Objectivity".

Melbourne), Anders Nes (University of Oslo) and Gianfranco Soldati (University of Fribourg). The other papers collected in the issue have been selected through a call.

In this introduction we would like to give a general overview of the debate on cognitive phenomenology, in order to provide the reader with a sufficiently comprehensive framework in which the more specific points addressed by the papers here collected can be properly located. Let us start by considering what is meant by "cognitive phenomenology". Since there is much disagreement among philosophers as regards what the debate is really about, we deem it crucial to start working with a characterization of the main notions at stake as neutral and less theoretically laden as possible. So, let us start by saying that the debate is about *phenomenology* and *cognition* or, more precisely, about the phenomenology of cognition. To claim that a given domain of mental phenomena has a phenomenology amounts to saying that "there is something it is like for the subject" to entertain those mental phenomena. By indicating the subjective/qualitative aspect of our mental life with the phrase "phenomenal character", we can say that a mental phenomenon has a phenomenology if it has a phenomenal character. Many mental states are claimed to have phenomenal character. Paradigmatic and non-problematic examples of such states are perceptual states in all their different modalities, including bodily sensations. For example, pains present themselves to their subjects with a characteristic "feel", and the same goes for all the other sensory states, such as seeing a red rose in a vase, tasting a glass of aged Cognac, smelling the aroma of fresh toasted coffee, feeling by touch the softness of a silk fabric, and so on.

Yet, that there is a red rose in the vase is something that not only can be perceived, but also thought about, judged, believed. In such cases, what we are referring to are mental phenomena (acts, states, processes) categorized as *cognitive*. That there are cognitive states and that such states do differ from the sensory ones are two widely accepted points. Instead, as to the two related questions, (i) what does exactly qualify a given kind of state as cognitive and (ii) what relation is there among cognition and sensibility, we have to register a widespread disagreement among philosophers. Someone believes that there is such a thing as a "mark of the cognitive"[3]; others are skeptics about the possibility of providing necessary and sufficient conditions for the cognitive. Some claim that there is a clear-cut distinction between sensibility and cognition; others claim that there is no neat divide between the two domains, because each is intimately compenetrated by the other.

Important as it surely is, settling these issues exceeds the scope of this introduction. For our purposes here, it is enough to introduce an intuitive characterization of the cognitive domain, which we can take to be the domain to which states such as the following do belong: judging, thinking, believing/disbelieving, accepting, suspecting, surmising, conjecturing, being confident/sure, doubting, remembering, expecting, predicting, realizing, speculating, deeming, assuming... that p (or: that something is the case, that something is thus and so[4]). Such states can be considered the products of activities and processes also belonging to the cognitive domain. Smithies (2013a, p. 744) provides a list of such activities, including among them: considering a hypothesis, judging that a hypothesis is true, recalling a fact learned in the past, recognizing that the conclusion of an argument follows from its premises, inferring the conclusion of an argument from its premises, calculating the solution to a

3 Kriegel, for example, provides the following criterion for demarcating the cognitive: "For any mental state M, M is a cognitive state iff (i) M exhibits the attitudinal property of representing-as-true and (ii) M is not produced by any sensory system" (2015, p. 46).

4 See Kriegel 2015 (pp. 38-39) for this list.

problem, deliberating about what to do, grasping a metaphor, getting a joke, understanding a sentence, having an articulated thought on the tip of your tongue, having a suspicion or a hunch. Bringing all these elements together, we can say, with Smithies himself that "*Cognitive phenomenology* can be defined as the experience that is associated with cognitive activities, such as thinking, reasoning, and understanding " (2013, p. 744).

Having clarified what belongs to the cognitive domain of mental phenomena, we can now say that what people in the debate at stake do query about is the supposed phenomenology of items in that domain. The leading questions in the present debate are therefore the following: Do cognitive activities and their products have a phenomenology? How could they have it?

A very natural reaction one may have as a start is of puzzlement. For one thing, no one seems (seriously) to put into question that sensory states have a phenomenology, that is, that those states are associated with phenomenal properties that account for the state's phenomenal character (for what-it-is-like to entertain those states[5]). No one seems to put into question that this phenomenology exists and that it is proprietary (i.e., that it is irreducible to other kinds of phenomenology). Even though the so called "Intentionalists" claim that the phenomenal properties of sensory states are identical to (or supervenient upon) their intentional properties, they take it for granted that the former exist and are irreducible to other, more primitive, phenomenal properties. This point is worth stressing in order to avoid misunderstandings: what intentionalists deny is not that there are phenomenal sensory properties, nor that these properties are phenomenally primitive. They deny that such properties are basic, by claiming that phenomenal properties reduce to (some kind of) intentional properties. Thus, if the existence and the phenomenal irreducibility of sensory phenomenology are both taken as unproblematic, why should not the same attitude be taken toward cognitive phenomenology? In other words, why should cognitive states, unlike sensory states, raise a problem as to their phenomenology? As Bayne and Montague rightly put it, "one of the striking features of the cognitive phenomenology debate is that it exists at all" (2013, p. 4).

To make this puzzlement even more vivid, it is instructive to consider the impression that this issue could have made on philosophers in the past, within both the phenomenological and the analytic tradition[6]. One first point that stands out in making this confrontation is that very few scholars, if any, in the past would have found problematic the idea that thoughts or other mental states and activities can be conscious. From Descartes to Moore, we can find a plethora of philosophers who applied the notions of experience and of consciousness both to sensory episodes and to thoughts (in the wide sense of "cogitatio" which includes judging, entertaining a given kind of conceptual content in some intentional modality, understanding, and the like), and who assigned to these notions a crucial role in the characterization of the mental nature of an entity. According to Descartes what qualifies a given kind of state as mental is its occurring within us in such a way that we are immediately conscious of it. This point is also explicit in Husserl who says that "Percepts, imaginative and pictorial representations, act of conceptual thinking, surmises and doubts, joys and griefs, hopes and fears, wishes and acts of will etc., are... 'experiences' or 'contents of consciousness'" (1900/01 V, §2). In the same vein, Moore claims "[S]omething happens in your minds – some act of consciousness – *over and above* the hearing of the words, some act of consciousness which may be called understanding their meaning" (1910/1953, p. 57). The examples can be multiplied by considering other

5 Even though this way of characterizing the notion of phenomenal character is quite widespread and common, it has to be stressed that there is no general agreement as to how the "what-it is-like" locution should be understood.
6 On this point see Siewert (2011) and Robinson (2011).

authors such as Kant, Brentano and James. In their writings, the central notion of "experience" is used so as to encompass any occurrent mental episode.

In the light of these considerations, an important issue to consider is what prompted the change of our notion of the mind in a guise so substantial to put into question something that for the philosophers in the past was obvious. A close examination of this topic would of course deserve much more space than it is available in this introduction. Here we limit ourselves to mention some of the main aspects that have played a crucial role in shaping a conception of the mind that has opened up the possibility of a phenomenally unconscious cognitive domain of mental phenomena.

A very influential role in this connection was played by the so called "two-separate realms" conception of the mind. This conception got rid of the idea of the mind as a unitary domain of phenomena and fostered a picture according to which the mind is constituted of two separate domains: the purely cognitive and the purely sensory. The former is the domain of propositional attitudes, mental states endowed with content (that have intentionality); the latter is the domain of states that feel like something to the subject who entertains them (they have phenomenal qualities). Phenomenality, in this framework, is a feature pertaining only to states of the latter kind; intentionality only to states of the former. As a consequence, the idea that the mental domain is unified under a common feature or mark is rejected. An important role in shaping this conception has been played by a number of very influential philosophers in the last century. To name just some of the many, consider C. Lewis (to whom we owe the very label we used to refer to this conception) who claims that no cognitive state can figure in consciousness, since to figure in it a state must have an experiential nature, and yet nothing experiential can be conceptual and nothing conceptual can be experiential. Other important contributions come from Gilbert Ryle (who in his attack to what he calls the "Cartesian myth of the ghost in the machine" ends up reducing the life of the conscious mind to its sensory residue), and Sellars to whom we owe the distinction between *sapience* and *sentience.* What these philosophers passed on to future generations is a sort of schizophrenic conception of the mind, according to which it is constituted by (at least) two irreducible and unconnected compartments – the phenomenal and the cognitive one. The influence that this conception of the mind had both in the philosophy of mind and, more generally, in the sciences of the mind, is a point that can hardly be overestimated. Another important feature that played a crucial role in putting into question the equivalence between being mental and being conscious is the "discovery" of the unconscious, both in psychoanalysis (the psychoanalytic unconscious) and in the cognitive sciences (the cognitive unconscious). The (somewhat unpalatable) idea that an occurrent mental state can be unconscious has subsequently been made more appealing by the claim, originally championed by Block (1995), that consciousness can come in many different varieties, and that phenomenal consciousness is only one among many others. Last but not least, one more aspect to consider is the impact of theories of phenomenal consciousness, such as those put forward by Dretske (1995) and Tye (1995), which characterize it in such a way as to rule out the possibility that it can extend beyond the sensory domain. This is due to some restrictions build into the theory itself such as, for example, that only states with non-conceptual content or only states that can serve as input to the cognitive system can be phenomenally conscious.

Having clarified what is meant by cognitive phenomenology (CP) and what the corresponding debate is taken to be about, let us now consider the main parties that contend for the scene. The divide is between those who take a negative stand and those that take a positive stand towards CP. To refer to these two parties different labels are used, in particular: Exclusivist/ Inclusivist (Siewert 2011); Frugal /Liberal (Robinson 2011); Restrictive/Expansive (Prinz 2011); Conservative/Liberal (Bayne & Montague 2011). Here we shall make use of the last one.

The conservative stance comes in two different versions: one radical and the other moderate. The radical version (endorsed by a small minority of scholars) denies that anything cognitive can be phenomenally conscious. Phenomenality, according to the radical version, only pertains to the sensory domain. Cognitive states and activities, it is claimed, can be conscious only in some non-phenomenal sense of this notion. Those endorsing this position appeal to the idea, originally put forward by Block (1995), that there are different kinds of consciousness which, while normally co-instantiated, can in some cases come apart. This is the distinction between phenomenal consciousness and access consciousness which leads to the claim that cognitive states, if conscious, can be so only in the latter sense of the notion[7]. Paradigmatic advocates of this radical position are Braddon-Mitchell and Jackson according to whom "Cognitive states are prime examples of states for which there is *not* something it is like to be in them; of states that lack a phenomenology" (2007, p. 129). The moderate position instead acknowledges that cognitive states can be phenomenally conscious, but claims that this phenomenology is reducible to the phenomenology of sensory states, that is, to the phenomenology of: (i) perceptual experience in any of its modalities; (ii) conscious bodily sensations (pain, itches); (iii) imagistic experiences of a non-linguistic sort; (iv) conscious linguistic imagery[8]. According to Tye, for example "insofar as there is any phenomenal or immediately experienced quality to the above states [cognitive states], this is due to their being accompanied by sensations or images or feelings that are the real bearers of phenomenal character" (Tye 1995, p. 4). On the same vein, see Carruthers who claims that "Our thoughts aren't like anything, in the relevant sense, except to the extent that they might be associated with visual or other images or emotional feelings, which will be phenomenally conscious by virtue of their quasi-sensory states" (Carruthers 2005, pp. 138-139).

Unlike conservatives, liberals defend the two following claims: (i) there is a phenomenology that pertains to cognitive episodes and activities; and (ii) this phenomenology is *sui generis,* or *proprietary*, that is, it is irreducible to sensory phenomenology. Irreducibility is characterized by Chudnoff as the claim according to which "Some cognitive states put one in phenomenal states for which no wholly sensory states suffice" (2015, p. 15). If the irreducibility thesis is what everyone in the liberal camp defends, there are other claims, stronger than irreducibility, that only some liberals endorse. One such claim is independence. To defend independence is to acknowledge the (logical and metaphysical) possibility of pure phenomenal cognitive states, that is of phenomenal cognitive states occurring without any sensory phenomenal states. Independence is stronger than irreducibility since the former entails the latter, but not vice versa (Chudnoff 2015, pp. 17-18). Besides defending the proprietary character of cognitive phenomenology, some people in the liberal camp also maintain that this phenomenology is *distinctive* and *individuative*. Pitt (2011), for example, as regards our occurring thoughts, claims that their phenomenology is not only distinctive in the sense that what it is like consciously to think a particular thought is different

7 It is worth stressing that even if Block's distinction has encouraged the idea that there are non-phenomenal varieties of consciousness, it is far from obvious that he would subscribe to that conception. It is true that Block (1995, p. 232) cites sensations as paradigmatic examples of states that are phenomenally conscious and propositional attitudes (states with representational content expressed by "that clauses") as paradigmatic examples of states that are access conscious. Moreover, it is true that he claimed that there are cases in which only one variety of consciousness is instantiated and, therefore, that the different notions of consciousness can come apart. Nevertheless, he does not deny neither that cognitive mental phenomena can be phenomenally conscious nor that sensory states can be access conscious. As far as thought is concerned he seems to stay neutral and limit himself in saying the following: "One possibility is that it is just a series of mental images or subvocalizations that make thoughts P-conscious. Another possibility is that the contents themselves have a P-conscious aspect independent of their vehicles" (1995, p. 232).

8 See Lormand (1996, pp. 242-243). Tye and Wright (2011) add a further item in the list, namely: primary emotional experiences such as feeling anger or fear.

from what it is like consciously to think any other thought, but also individuative, in the sense that the phenomenology of a thought constitutes its representational content. The individuative claim is connected with what in the ongoing debate in the philosophy of mind is called "the phenomenal intentionality thesis" according to which there is a kind of intentionality, or a kind of content (phenomenal content), grounded on phenomenal character[9]. Even though there is a close connection between the phenomenal intentionality thesis and the cognitive phenomenology thesis (one that is not always easy to articulate), one must acknowledge not only that they are different, but also that neither implies the other.

People involved in the debate feel the need to take a stance as to whether cognitive episodes have a proprietary phenomenology that attains either to their attitudinal mode (different attitudinal modes are associated with different phenomenal characters – attitudinal cognitive phenomenology) or to their intentional content (different intentional contents are associated with different phenomenal characters – content cognitive phenomenology) or to both. As regards to the attitudes, an important question to consider concerns the individuative role of their phenomenal character: is a given state the kind of state it is, say a belief rather than a desire, because it has the peculiar attitudinal phenomenal character that it has? And, in the positive case, how are attitudinal modes to be characterized? In particular, can they be characterized only in terms of functional roles given that functional roles are merely dispositional properties if they are associated with phenomenal character? As regards the contents, the main question concerns how their impact on the phenomenology of a cognitive state should be conceived. Does any difference in content determine a difference in the phenomenal character? Is there a particular kind of content (phenomenal content) that has such an impact? What characterizes such a content (is it non-conceptual, is it narrow...)? Some of the advocates of the liberal position are Strawson (1994), Siewert (1998), Pitt (2004), Horgan and Tienson (2002). According to Strawson, "[T]he experience of seeing red and the experience of now seeming to understand this very sentence, and of thinking that nobody could have had different parents... all fall into the vast category of experiential episodes that have a certain qualitative character for those who have them as they have them" (1994, p. 194). On the same vein, Horgan and Tienson claim that

> Intentional states have a phenomenal character, and this phenomenal character is precisely the what-it-is-like of experiencing a specific propositional-attitude vis-à-vis a specific intentional content. Change either the attitude-type (believing, desiring, wondering, hoping, etc.) or the particular intentional content, and the phenomenal character thereby changes too (2002, p. 522).

With the exception of the radical version of the conservative position, everyone in the debate acknowledges that cognitive states and activities have a phenomenology. On this ground we can say that the main bone of contention is not so much the existence, but rather the *nature* of cognitive phenomenology. What are then the main issues concerning the nature of cognitive phenomenology? According to Smithies (2013a, p. 745), there are two macro issues to consider: the *intentionality* and the *reduction* issue. The former raises the question of the relationship between the phenomenology of cognition and the intentionality of cognition. The question as to what relation there is between cognitive phenomenal properties and cognitive intentional properties has, as Smithies emphasizes, important repercussions on the issue of the individuation of cognitive states and on the theoretical role played by cognitive

9 For a recent overview of the debate on phenomenal intentionality see Bourget and Mendelovici (2016).

phenomenal properties (do these properties play an individuative role? Is a state the kind of state it is because it has certain phenomenal properties or are those properties only accidentally associated with it?). The reduction issue raises the question of the relationship between the phenomenology of cognition and the phenomenology of sensory perception. Are all phenomenal experiences sensory in nature, as reductionists hold, or there are also non-sensory phenomenal experiences irreducible to those of the sensory variety?

How can these issues be adjudicated? The first idea that very likely comes to one's mind, indeed a very natural and sensible one, is that the most adequate ground to start answering these questions is provided by what can be introspectively revealed. Given that we are here talking about phenomenal consciousness and given that phenomenal consciousness concerns a domain of our mental life towards which we seem to have an immediate (direct, non-inferential) first-personal access, should not introspection be our best guide in these matters? What role introspection can legitimately play in the present debate, and more generally in the theoretical attempt of understanding the conscious dimension of our mental life, is an issue on which there is a wide and deep disagreement[10]. Someone says that it is introspectively obvious that there is such a thing as cognitive phenomenology. Others deny this. The former reply that what we need is "attentive introspection" and that, if sufficient attention is payed to what is going one in one's "stream of consciousness", one cannot miss the presence of cognitive phenomenal properties (Horgan & Tienson 2002, pp. 522-523). The critics generally rebut saying that even by mobilizing "very attentive" introspection, nothing different "appears". This disagreement has had an enormous repercussion on the issue of the reliability of introspection[11] so as to lead most people in the debate to try to settle the issue on a different ground. So, even though there are arguments uniquely based on introspection (such as those aiming at showing the existence of thinking episodes unaccompanied by any sensory features – cases of thoughts occurring unclothed in any kind of linguistic or imagistic garment[12]), most people tend to strip down their appeal to introspection. Even those who do not endorse the radical pessimism about introspection (expressed for example by Carruthers (2011)), tend to be very careful in making use of introspection as a bedrock for their claims. At most, people say, introspection can play a role in giving us evidence concerning the existence of cognitive phenomenology, but not on its nature[13].

As regards the arguments put forward by people in the liberal camp we can distinguish three main varieties: (1) arguments based on phenomenal contrast (so called "phenomenal contrast arguments"); (2) epistemological arguments and (3) content grounding arguments.

The arguments of the first variety can be "pure", "hypothetical" or "glossed"[14]. These

10 For the several implications of this disagreement see Spener (2011).

11 The discussion concerning the reliability of introspective reports and their theoretical role in our theories of the mind is not new in the history of philosophy. A well-known antecedent is provided by the discussion on introspectionism that took place in the late nineteenth century and which saw the contraposition of two schools: the school of Würzburg with Külpe and Bühler and the school of Cornell with Titchener and his followers. While the former took a positive attitude towards the role of introspection, the latter were much more skeptical.

12 Siewert (1998, pp. 276-267) is replete with such examples of "non-iconic thoughts". More complex examples of imageless, dispassionate, languageless, conscious thoughts are presented by Strawson (1994, pp. 18-21) and by Siewert himself (1998, pp. 277-278) concerning complex chains of thoughts unfolding with such a speed and determinacy as to seriously challenge the possibility of explaining them in terms of the occurrence of verbal and non-verbal imagery.

13 A well-advised position on this regards is that of Smithies, according to whom "We cannot make progress in debates about the nature of cognitive phenomenology without relying on introspection at all, but we should nevertheless aim to avoid relying solely upon introspection insofar as it generates widespread disagreement" (2013, p. 751).

14 This terminology is due to Chudnoff (2015, pp. 44-45) who distinguishes phenomenal contrast arguments on the ground of the kind of premises they rely on. While arguments of the first kind rely only on premises about

arguments take as their starting point premises according to which there is some phenomenal difference between pairs of cases which otherwise present the same sensory experience. Moving from such premises these arguments take the form of an inference to the best explanation: cognitive phenomenal properties are what best accounts for the phenomenal contrast between the two situations. The first example of such arguments can be found in Moore (1953) and has been developed by Strawson (1994, pp. 5-9). In a well-known example devised by Strawson, the envisaged situation involves two subjects, Jacques (a monoglot Frenchman) and Jack (a monoglot Englishman), as they listen to the news in French. According to Strawson, "the difference between the two can be expressed by saying that Jacques, when exposed to the stream of sound has what one may perfectly well call 'an experience (as) of understanding' or 'an understanding experience', while Jack does not" (Strawson 1994, p. 6). Other examples of pure phenomenal contrast arguments involve the understanding of sentences or passages in a language that the subject masters, but whose meaning remains unclear until an appropriate parsing is provided (the contrast here is between the situation that precedes and the situation that follows the subject's grasping the sense of the obscure linguistic material[15]), while others concern ambiguous sentences such as "Visiting relatives can be boring" (Horgan and Tienson 2002, p. 523) (here the phenomenal contrast concerns the two different readings of the sentence). The typical conservative reaction to this first kind of arguments consists in denying that the phenomenal contrast in question cannot be accounted for by merely appealing to sensory phenomenology.

The epistemological argument was presented originally by Goldman (1993) and recently developed by Pitt (2004). The starting point of this argument is the acknowledgement that just as we have direct, non-inferential, self-knowledge of our perceptual, sensory states, so we have of our occurrent cognitive states. Since in the first case such knowledge would not be possible if our sensory states did not have a phenomenal character, the same must be true of our cognitive states. What makes it possible for us to have a direct, non-inferential kind of self-knowledge of those states is therefore the fact that such states, like any other occurrent mental state, have their own distinctive phenomenal character that we introspectively experience. Thus, the argument concludes, there must be a cognitive phenomenology. This conclusion is disputed by the conservatives who, either claim, along with Carruthers (2011), that we do not have the kind of introspectively-based direct self-knowledge to account for which cognitive phenomenology is introduced, or, more moderately, that such knowledge can be accounted for without appealing to cognitive phenomenal properties and that to think otherwise is a symptom of a misleading theory of self-knowledge.

The arguments of the third kind conclude that there must be a cognitive phenomenology to account for the determinate content of our cognitive states. For, it is argued, since it is undisputed that our thoughts have a determinate content, and since only cognitive phenomenal character can ground such determinacy (no purely physical or functional relation can do that), it follows that we must admit not only that cognitive phenomenology exists, but also that it plays a crucial role in providing our mental content with the kind of determinacy that we introspectively ascertain. For example, from the first person point of view it is not indeterminate whether what we are thinking is that that rabbit is white or that undetached

the phenomenal differences between actual mental states and those of the second type only on premises about phenomenal differences among the mental states of hypothetical people that lack all sensory phenomenology, the arguments of the third kind are like those of the first one except for the fact of introducing also premises that provide glosses on the phenomenal differences involved. Here we shall confine our attention to pure contrast arguments. For the second variety see Kriegel (2015, pp. 53-63) and for the third variety see Chudnoff (2015, pp. 55-61).

15 Some examples of this kind can be found in Pitt (2004).

rabbit part is white. These two different contents are associated with different phenomenal characters which, it is claimed, are responsible for those contents being the contents that they are. To this argument (which appears in Horgan and Tienson 2002 and which has been recently developed by Horgan and Graham 2012) conservatives reply either by contesting that our mental contents do actually enjoy such a determinacy or by contesting that cognitive phenomenal properties are needed to account for it.
Even though the conservatives limit themselves for the most part in rebutting the liberals' arguments, it is possible to discern in the recent literature some positive arguments against the possibility of cognitive phenomenology. One such argument is provided by Tye & Wright (2011). According to them, cognitive occurrent mental states cannot be phenomenally conscious because they lack the kind of structure required in order for something to figure in the subject's "stream of consciousness". In fact, they maintain, what can so figure must be temporally structured so as to unfold over time. But thoughts do not have any temporal dimension because they are states and not events. Therefore, they conclude, thoughts cannot be phenomenally conscious. What we are phenomenally conscious of when we entertain a thought are only its sensory accompaniments. Another argument against cognitive phenomenology is the one provided by Carruthers and Veillet (2011). According to these authors, if cognitive phenomenology existed, explanatory gaps for thoughts would be possible. But, they argue, no explanatory gap exists for thoughts, because explanatory gaps need conceptually isolated phenomenal concepts and no such phenomenal concept exists for conceptual content. Therefore, they conclude, there is no cognitive phenomenology; and all phenomenology is sensory in nature.

Let us conclude this introduction with an overview of the material here collected. The issue begins with a paper by Bayne and McClelland that presents a challenge to cognitive phenomenology which has not been considered in the literature yet. This novel challenge, which the authors label the "matching content challenge", concerns how cognitive phenomenology advocates could account for the difference between the way in which a given fact, say that an alarm is sounding, is represented in thought and the way in which it is represented in perception. Those who deny that there is a cognitive phenomenology have no problem here, since they can claim that such a contrast is due to the fact that only perceptual representations have a conscious phenomenal character. Yet, this way of capturing the contrast is precluded to those who believe that phenomenology extends beyond the purely sensory-perceptual domain. Advocates of cognitive phenomenology have various options available in order to account for that contrast, but according to the authors each of them meets serious problems. That in the case of occurrent thoughts a dissociation could be claimed to exist between being conscious and being phenomenal is the focus of Jorba's paper, whose main aim is to argue for the co-extensiveness of these two properties. In her view, the most prominent attempts to refute the claim that conscious thoughts are phenomenal and that phenomenal thoughts are conscious, either by arguing for possible cases of conscious non-phenomenal thoughts or for possible cases of unconscious phenomenal thoughts, present several drawbacks that provide us reasons to resist them. On this ground she maintains that the assumption, that most people in the debate share, according to which there is a co-extensiveness of the conscious and the phenomenal, can be transformed into a grounded claim one can confidently believe. Nes' paper focuses on two main questions connected with the kind of experience that we enjoy when we hear people speaking in a language we are fluent in and register the vocalizations heard as having a certain meaning. The first question concerns which role our grasp of meaning has for what-it-is-like for us to take in a given utterance. Is grasp of meaning merely causally relevant to the phenomenal character of understanding

(as conservativism maintains) or is it constitutive of such a character (as the liberal view claims)? The second question concerns the nature, perceptual or extra-perceptual, of the experience of understanding. Is such experience a case of thought (as intellectualism wants), or is it a case of perception (as perceptualism wants)? What Nes argues for in his paper is that perceptualism is preferable to its negation and he does this by discussing and rebutting the main arguments put forward against it in the literature. A kind of experience very much discussed within the cognitive phenomenology debate is that of having a name on the tip of one's tongue. Even though many authors have dealt with such a topic by considering whether it speaks for or against cognitive phenomenology, the question of what kind of experience it is has been left almost unaddressed. To tackle it is Calabi's main aim in her paper. She considers three lines of answers, namely that such experience is a *sui generis* feeling, that it is a second order belief and that it is a perception. The position that Calabi ends up endorsing is a pluralist one which rules out the assumption (that many people discussing this kind of experience share) according to which they are *sui generis* experiences. That cognitive states and activities present a *sui generis* kind of phenomenology irreducibile to sensory phenomenology is defended in the three papers that follow in the issue. Voltolini provides an argument for the claim that cognitive phenomenology is not only irreducibile but also independent of sensory phenomenology. He discusses the phenomenology of having thoughts and the phenomenology of understanding thoughts and maintains that they instantiate different general kinds of cognitive phenomenology promoting in this way the idea that cognitive phenomenology can come in different varieties, against Pitt's claim that all cognitive phenomenology is proprietary, distinctive and individuative. Dorsch provides an argument in defense of the irreducibility of cognitive phenomenology by developing a case based on being in a state with presentational phenomenology of high-level content. He focuses mainly on a kind of understanding experiences called "Aha! Experiences", and claims that his case, based on such experiences, unlike other cases for cognitive phenomenology present in the literature, is able to withstand the main counterarguments that have been put forward against irreducibility. Sacchi's paper deals with the issue of irreducibility from a methodological perspective by considering how the irreducibility claim should be argued for. Sacchi's proposal is to integrate the phenomenal contrast methodology with a methodology that instead of contrasting couples of cases, compare them in order to disclose phenomenological commonalities not accountable for in purely sensory terms. This kind of methodology is in her view compliant with the claim she defends that cognitive phenomenal properties are factually inseparable from sensory phenomenal ones. Woodward's paper raises a criticism against the way in which participants in the cognitive phenomenological debate have shaped the discussion. In his view, the method that has been followed has failed to illuminate the commonalities and differences among conscious intentional states of different kinds. What is needed to that end is in his view a theory of the structure of these states. To put forward such a theory is thus Woodward's main aim. Soldati deals with the issue of deductive reasoning, in particular with the kind of reasoning involved in inferences in the first person. What he defends is the idea that this kind of reasoning is experientially based; our self-concept, he claims, has an experiential nature. This constitutes the phenomenological basis for the fact that we experience the beliefs involved in an inference as belonging to one and the same person, the person we think about under the concept <self>. Vitasovic's paper focuses on the relationship between the phenomenal intentionality thesis and the unconscious intentionality claim. After having argued for their compatibility, and having criticized the attempts to defend it by endorsing the idea that the intentionality of unconscious states derives from the intentionality of conscious phenomenal states, she suggests a revised version of Pitt's proposal for unconscious phenomenal intentionality. Lavazza's paper focuses on the concept of qualia of meaning that is

strictly connected with both James' and Husserl's accounts of the phenomenological aspects of consciousness. Qualia of meaning, according to Lavazza, have an intentional cognitive aspect strictly connected to their phenomenal aspect. To try to describe what qualia of meaning are is his main aim in this paper. The last paper of this issue deals with the phenomenology of occurrent thinking. According to Anderson, something is missing from the account of occurrent thinking in the cognitive phenomenology debate. What is missing is in his view the "dynamic" aspect of thinking whose structure he tries to clarify by also considering the several implication that his claims have on the cognitive phenomenology thesis.

We hope to have given the reader a flavor of the richness of the themes treated in this issue and of how large and fascinating are the questions that surround this area of investigation. The repercussions that these questions have on our conception of the mind are straightforward. One repercussion has to do with whether phenomenal consciousness can be taken as a plausible mark of the mental namely as the distinctive feature of mental states. Another important repercussion concerns the so-called hard problem of consciousness. If the liberals were right, it would follow that the hard problem of consciousness is not confined to the sensory qualitative aspects of our mental life, but it extends also to its cognitive aspects. Moreover, if they were right, it would follow not only that present accounts of phenomenal consciousness are incomplete (in so far as they only deal with sensory consciousness), but, what is worse, also that they would be wrong since, in most cases, they characterize phenomenal consciousness in such a way as to rule out the existence of phenomenal cognitive consciousness[16].

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CONSCIOUSNESS AND COGNITION

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"FINDING THE FEEL": THE MATCHING CONTENT CHALLENGE TO COGNITIVE PHENOMENOLOGY

abstract

From the first-person point of view, seeing a red square is very different from thinking about a red square, hearing an alarm sound is very different from thinking that an alarm is sounding, and smelling freshly-roasted coffee is very different from thinking that there is feshly-roasted coffee in one's vicinity. How might the familiar contrast between representing a fact in thought and representing it in perception be captured? One influential idea is that perceptual states are phenomenally conscious whereas thoughts are not. However, those theorists who hold that thoughts have a distinctive kind of phenomenal character – often known as "cognitive phenomenology" – cannot account for the contrast between thought and perception in this manner. This paper examines the various options that are available to advocates of cognitive phenomenology for capturing the experiential contrast between thought and perception, and argues that each of them faces serious challenges.

keywords

mental content, cognitive phenomenology, perceptual content, fregean content, representational format

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1. The matching content challenge

As Horgan and Tienson (2002) have observed, the mainstream tradition in philosophy of mind since the middle decades of the last Century has tended to adopt a "divide and conquer" approach to the analysis of intentionality and phenomenal consciousness. Paradigmatic intentional states, such as judgment, desire and intention, have typically been regarded as devoid of any distinctive phenomenal character, whereas paradigmatic examples of phenomenal consciousness, such as perceptual experiences and bodily sensations, have typically been regarded as not inherently intentional. However, this separatist tradition in the philosophy of mind has been under serious pressure since the early 1990s, and it is now widely held that there are deep and important points of contact between intentionality and phenomenal consciousness. As the inseparatists see things, phenomenal consciousness and intentionality are "intertwined, all the way down to the ground" (Chalmers 2004, p. 179).

This paper is concerned with a puzzle that emerges from the interaction between two facets of inseparatism. The first facet involves representationalism regarding perceptual phenomenology, according to which the intentional content of an experience is reflected in its phenomenal character, such that any two perceptual experiences with the same content will have the same character. How best to understand perceptual content is an issue to which we will return, but for now we can equate the content of a perceptual experience with its accuracy conditions.
The second facet of inseparatism with which we are concerned involves the nature of conscious thought. An increasingly influential group of theorists holds that thoughts have a distinctive kind of phenomenal character that sets them apart from other kinds of phenomenally conscious states, such as perceptual experiences, bodily sensations, and emotional feelings. The kind of phenomenology that is allegedly associated with (and proprietary to) thought has become known as "cognitive phenomenology".
The commitment to cognitive phenomenology can take various forms (Bayne & Montague 2011; Chudnoff 2015; Horgan & Tienson 2002; Smithies 2013). On a maximally coarse-grained conception of cognitive phenomenology, there is a single type of phenomenal property associated with thought, a property that characterizes thoughts in general and which fails to distinguish one kind of thought from another. However, most advocates of cognitive phenomenology endorse a richer and more nuanced conception of cognitive phenomenology, according to which the phenomenal character of thought reflects its intentional properties – notably its content and attitude. Horgan and Graham have articulated a representative (and influential) view of this kind:

> There are phenomenologically discernible aspects of ... cognitive phenomenology, notably (i) the phenomenology of *attitude type* and (ii) the phenomenology of *content*. The former is illustrated by the phenomenological difference between, for instance, *occurrently hoping* that Hillary Clinton will be elected U. S. President and *occurrently wondering* whether she will be – where the attitude-content remains the same while the attitude-type varies. The phenomenology of content is illustrated by the phenomenological difference between occurrently thinking that Hillary *will* be elected and occurrently thinking that she will *not* be elected—where the attitude-type remains the same while the content-type varies (Horgan and Graham 2012, p. 334; see also Horgan and Tienson 2002, p. 522).

Similar claims have been advocated by a number of other theorists. For example:

> ... generally, as we think – whether we are speaking in complete sentences, or fragments, or speaking barely or not at all, silently or aloud – the phenomenal character of our non iconic thought is in continual modulation, which cannot be identified simply with changes in the phenomenal character of either vision or visualization, hearing or auralization, etc. (Siewert 1998, p. 282; emphasis suppressed).

> In addition to arguing that there is something it is like to think a conscious thought, I shall also argue that what it is like to think a conscious thought is distinct from what it is like to be in any other kind of conscious mental state, and that what it is like to think the conscious thought that *p* is distinct from what it is like to think any other conscious thought (Pitt 2004, p.2).

> ... both perceptual and cognitive experiences have intentional properties that are identical with their phenomenal properties. This extended version of intentionalism is needed in order to avoid the objection that the phenomenal properties of judgment are not specific enough to individuate their intentional contents and attitude types. On the extended version of intentionalism, the phenomenal properties of judgment are content-specific and attitude-specific. (Smithies 2014, p. 111)

Although these theorists do not share a single view of cognitive phenomenology, we take them all to endorse the claim that the intentional content of a thought plays a distinctive role in determining its phenomenal character. We can capture this idea with the following thesis:

> *Phenomenal Content Thesis* (PCT): Occurrent thoughts have a distinctive kind of non-sensory phenomenal character, the nature of which is determined by their intentional content.

Note that many cognitive phenomenologists insist on distinguishing two forms of intentional content, internal (or "narrow") content and external (or "broad") content. The claim that a thought's phenomenal character reflects its intentional content is relativized to internal content, and no such claim is made with respect to external content. We will reflect further on how different kinds of content fit into the discussion in due course.

PCT is controversial. Critics typically allow that conscious thought has a phenomenology of some kind, but they deny that there is any kind of *sui generis* cognitive phenomenology that might be associated with the contents of occurrent thought. Some critics reject cognitive phenomenology on the grounds that they can find no hint of it in their own acts of introspection (Prinz 2011; Wilson 2003); some reject it on the grounds that its existence

would be at odds with influential assumptions about the relationship between phenomenal consciousness and explanatory gap intuitions (Carruthers & Veillet 2010); and some reject it on the basis of a perceived tension between the (allegedly) non-processive nature of thought and the (allegedly) processive nature of conscious mental phenomena (Tye and Wright 2011)[1]. We put these objections to one side here in order to focus on a fourth – and, we believe, novel – challenge to cognitive phenomenology: the *matching content challenge*.

To a first approximation the matching content challenge can be put as follows. Contrast a situation in which you *see* a wall painted a certain shade of blue at a certain distance from you (say, exactly 10 meters) with a situation in which you *judge* that there is a wall that is painted blue 10 meters in front of you. (Suppose that you have the thought in the absence of any visual experience.) Call the visual experience *V* and the experienced thought *T*. Intuitively, *V* and *T* have the same contents, yet it seems clear that there would be a phenomenal difference between them. What it is like to perceive that one's environment is thus-and-so is very different from what it is like to judge that one's environment is thus-and-so; certainly no-one would be tempted to confuse an act of judgment with an act of visual perception. But if it is possible for a judgment and a perceptual experience to share the same content, and if the phenomenology of a mental state reflects its content, then – the objection runs – *V* and *T ought* to have the same phenomenology. The advocate of PCT owes us an account of why the phenomenal character associated with thinking that *p* differs from that which is associated with perceiving that *p*. We will argue that providing such an account is a far from straightforward matter.

2. Refining the challenge

To the best of our knowledge the matching content challenge has not previously been discussed in the literature. However, there is a sizeable literature devoted to an objection that bears more than a passing resemblance to the matching content challenge: the common-sensibles objection to intermodal representationalist accounts of perceptual phenomenology. Intermodal representationalism is the view that the phenomenal character of a perceptual experience supervenes on its intentional content. A number of theorists have argued that intermodal representationalism must be false on the grounds that there are phenomenal differences between the perceptual modalities which cannot be captured by appealing to their intentional contents. For example, it is claimed that hearing something as happening overhead differs in phenomenal character from seeing it as happening overhead, and that seeing that an object is square differs in phenomenal character from feeling that it is square (see Block 1996; Lopes 2000; O'Dea 2006).

Some representationalists respond to this objection by appealing to manners of representation. They concede that perceptual states in different sense modalities can share the same content, but explain the phenomenological difference between these states in terms of a difference in their manners of presentation (Chalmers 2004; Crane 2007). On this line of thought, representing something as being overhead in an auditory way differs phenomenologically from representing something as being overhead in a visual way[2]. What interests us here is not whether this line of response is needed in order to meet the common sensibles objection, but

1 For discussion of the objection from introspection see Bayne (unpublished); Spener (2011); Schwitzgebel (2008); for discussion of the explanatory gap objection see Bayne (2009) and McClelland (2016); for discussion of the processive objection see Forrest (in press).

2 Another way in which people have responded to the common sensibles objection is to concede that the objection undermines intermodal representationalism, and to retreat to a weaker, restricted, form of representationalism, according to which phenomenal character supervenes on intentional content only with respect to experiences drawn from the same sensory modality (Lycan 1996).

whether an analogous response might address the matching content challenge.

At the core of the following proposal is the idea that even when a thought and a perceptual state have matching content, they will differ with respect to the attitudes that are taken to those contents, and this difference is likely to bring with it a difference in phenomenal character. As we noted in the previous section, advocates of cognitive phenomenology typically take the attitude of a cognitive state to have a bearing on its overall phenomenal character. To use the example given by Horgan and Graham (see above), the claim is that occurrently *hoping* that Hillary Clinton will be elected President differs phenomenally from occurrently *wondering* whether she will be elected.

How might an appeal to attitude-related phenomenal character enable the cognitive phenomenologist to respond to the matching content challenge? Return to the scenario that we used to motivate the matching content challenge, in which one has a thought (*T*) and a visual experience (*V*), where *V* and *T* appear to have exactly the same intentional content. Now, even if the phenomenal character of a mental state reflects its content, it doesn't follow that *T* and *V* will have the same phenomenal character, for they clearly involve different attitudes: at a coarse-grained level of analysis the former is a thought and the latter is a perceptual state; at a more fine-grained level of analysis, the former is a judgment and the latter is a visual experience. The existence of attitude-related aspects of phenomenology ensures that the overall phenomenal character of *T* will be very different from that of *V*.

Horgan and Graham, along with most other advocates of cognitive phenomenology, seem to regard propositional attitudes as an isolable aspect of one's phenomenology. They claim, for instance, that what it's like to hope that Hilary Clinton will be elected U.S. President is a combination of what it's like to adopt the hoping attitude toward a proposition and what it's like to be in a state with the propositional content that Hilary Clinton will be elected U.S. President. On this view, one aspect of a state's overall phenomenology is fixed by its content and another aspect of its overall phenomenology is fixed by its attitude.

The existence of attitude-based phenomenal character complicates the evaluation of the matching content challenge, for we can now no longer assume that *T* and *V* will have the same overall phenomenal character. However, a version of the matching content challenge can still be identified, for if the attitude and content of a state make isolable contributions to its phenomenology, then their overall phenomenal characters associated with *T* and *V* ought to have a common phenomenal element in virtue of their shared content. Thus, we ought to be able to bracket off attitude-based differences in the overall phenomenal characters and identify an aspect of their phenomenology that they share. But – so we claim – this cannot be done. It is not merely that *T* and *V* differ in their overall phenomenal character, they *also* seem to lack any common phenomenal element. As we will put it, there is no *aspectual match* in the phenomenal characters of *T* and *V*. The matching content challenge can thus be reformulated to accommodate attitude-dependent phenomenal character.

One might object that the refined formulation of the matching content challenge misrepresents the role that attitudes play in cognitive phenomenology. We have assumed a *componential* view of attitudes according to which the attitude and content of a state make phenomenologically distinct contributions to a state's overall phenomenal character. However, an alternative, non-componential, conception of cognitive phenomenology holds that the contribution that a state's attitude makes to its overall phenomenal character is in some way inseparable from the contribution that its content makes to its overall phenomenal character, such that their distinct contributions are not independently discernible in the phenomenology itself but are fused into a single phenomenal property. (Think of the role that eggs play in baking: they make a fixed contribution to the end product, but that contribution might not be identifiable in the baked

goods themselves[3].) On the non-componential view, there will be no phenomenal element in common to all cognitive states with a certain attitude (say, judgments), nor will there be any phenomenal element in common to all thoughts with the same content.

Unlike the componential view outlined earlier, this non-componential view *would* block the matching content challenge, for if the contribution that a state's content makes to its overall phenomenal character is not discernable as such, then we would not expect *T* and *V* to have a phenomenal aspect in common. But although the non-componential view of cognitive phenomenology would block the matching content challenge, we set it to one side in what follows. We have two reasons for doing this. First, we ourselves regard the componential view as more plausible than the non-componential alternative. Insofar as a state's attitude and content both contribute to its overall phenomenal character, they seem do so by generating distinct phenomenal characters, rather than by simply giving rise to a single, undifferentiated, phenomenal character. Second, it seems clear that most advocates of cognitive phenomenology also find the componential view more compelling than the non-componential view – indeed, we know of no explicit endorsement of the non-componential view.
Consider the passage from Horgan and Tienson discussed above, in which they refer to the phenomenology of attitude-type and the phenomenology of content as "phenomenologically discernable aspects of cognitive phenomenology".
So, how *should* one respond to the matching content challenge? We will examine three general lines of response. The first appeals to the idea that perception exhibits a form of richness that is absent from thought; the second appeals to the idea that thought involves a fundamentally different kind of content from that involved in perception; and the third appeals to the idea that perception and thought involve different representational formats. Each of these three lines of response draws on the idea that thought is "conceptual" whereas perception is "non-conceptual", but they develop that rather nebulous suggestion in very different ways.

3. The richness of perception and the poverty of thought

It is often suggested that the phenomenal contrast between thought and perception has something to do with the richness of perception and the (relative) poverty of thought. In this section we examine three very different ways of developing this proposal.

3.1. The package response

We call the first of these three responses "the package response". The idea here is inspired by a plausible account of modality-specific differences in perceptual experience. Consider Dretske's response to the claim that representationalists cannot accommodate the contrast between seeing motion and feeling motion. In seeing motion, he points out,

> ... one also experiences the object's shape, size, colour, direction of movement, and a host of other properties. That is why seeing and feeling [by touch] are much different even though the same thing (movement) is represented in both modalities (1995, p. 95).

3 This non-componential view of cognitive phenomenology can be understood on the model of a similar view of perceptual phenomenology. One might claim that the difference between seeing and hearing an object is not to be understood in terms of a modality-specific component that differs between the two perceptual experiences, and a content component that each experience shares. Rather, heard content is phenomenally unlike seen content, and the difference in modality means that the shared content of the states need not correspond to any shared phenomenology. Block seems to be hinting at just such a conclusion: "Imagine the experience of hearing something and seeing it in your peripheral vision. It is true that you experience the sound as having a certain loudness, but can't we abstract away from that, concentrating on the perceived location? And isn't there an obvious difference between the auditory experience *as of that location* and the visual experience *as of that location*?" (1996, p. 38).

Just as the contrast between visual experiences of motion and tactile experiences of motion is plausibly explained by appeal to the fact that the former represents motion only in the context of one "package" of attributes (one that contains representations of color) but the latter represents motion only in the context of a different "package" of attributes (one that contains representations of pressure), so too one might suggest that the phenomenal contrast between the perceptual representation of a property and its cognitive representation derives from the fact that the former involves a kind of clustering that is not required by the latter. For example, the perceptual representation of color is possible only in the context of a relatively rich representation of an object as having a particular form, size and spatial location[4]. By contrast, thought can represent color (or any other sensory attribute, for that matter) independently of the representation of any other sensory attribute. Thus, the richness of perception is mandatory in a way that the richness of thought is not. Might this difference between thought and perception account for the phenomenal contrast between them[5]?

We think it cannot. Although the richness of thought might not be *mandatory*, there is no reason to conclude that thought *cannot* represent the same range of objects and properties that are represented in perception. Consider again the scenario with which we introduced the matching content challenge, in which one both perceives a wall of such-and-such a hue at such-and-such a distance and also judges that there is a wall of such-and-such a hue at such-and-such a distance from one. It might well be true that the various elements of the perceptual experience are essential to it in a way in which the corresponding elements are not essential to the thought, but this need not entail any phenomenal difference between the two states. The fundamental point that lies at the heart of the matching content challenge is that identity of content ought to be accompanied by identity in (an aspect of) phenomenal character, but here we have identity of content in the absence of identity in any aspect of phenomenal character. The modal features that might distinguish perceptual representations from thoughts seem to be irrelevant when it comes to accounting for the phenomenal contrast between these states.

3.2. The specificity response

A second respect in which the richness of perception and the relative poverty of thought might be held to account for the contrast between perceptual phenomenology and cognitive phenomenology concerns the *grain* with which perception represents sensory features. Differences in degrees of specificity are strongly associated with the distinction between conceptual and non-conceptual content, as is highlighted in the following passage from Tye:

> Beliefs and thoughts involve the application of concepts. One cannot believe that a given animal is a horse, for example, unless one has the concept *horse*. At a minimum, this demands that one has the stored memory representation *horse*, which one brings to bear in the appropriate manner (by, for example, activating the representation and applying it to the sensory input). However ... phenomenal seemings are *not* limited in this way. My experience of red_{19}, for example, is phenomenally different from my experience of red_{21},

4 Exactly what features are mandatory is of course open for debate. On some interpretations of type-2 blindsight, for instance, subjects perceptually experience motion without perceptually experiencing color or shape (Macpherson 2015; Foley 2015). But even if certain kinds of sensory features are not strictly mandatory, it is hard to deny that perception involves a clustering of features in a way that thought does not.

5 It is interesting to note that Jackson (2003) invokes something like the clustering idea to explain why (as he sees it) perception has a phenomenology whereas thought does not. In other words, he treats these features as necessary conditions of phenomenality. The proposal that we are considering is of course that the clustering of perception might explain the contrast between perceptual phenomenology and cognitive phenomenology.

> even though I have no stored memory representations of these specific hues, and hence no such concepts as the concepts red_{19} and red_{21} ... Phenomenal character, and hence phenomenal content, on my view is non-conceptual (Tye 1995, p. 139).

Tye is here appealing to the idea that the existence of phenomenal character derives from the fact that perceptual content is non-conceptual, where a mental state is taken to have non-conceptual content in virtue of the fact that it is not built up out of stored memory representations. Tye's appeal to non-conceptual content is of course deployed in an attempt to explain why (as he sees it) perceptual experiences have phenomenal character whereas thoughts do not, but cognitive phenomenologists might be tempted to deploy a version of Tye's position in an attempt to explain why perceptual phenomenology *differs* from cognitive phenomenology. The basic idea is that perception represents properties with a specificity – that is, a fineness of grain – that thought cannot match[6].
Although many theorists would echo Tye's claim that ordinary perception outstrips (ordinary) thought with respect to its fineness of grain (see e.g., Peacocke 1992, p. 111; Heck 2000, pp. 489-490; Martin 1992, p. 745), the view does have its detractors. For example, Jackson rejects the idea that the specificity of perception outstrips that of thought, claiming that "we can *think* that things are *exactly* as our experience represents them to be" (2003, p. 266; italics in original). We do not take Jackson to be suggesting merely that there are logically possible scenarios in which we can think that things are exactly as our experience represents them to be; nor do we take him to be suggesting that we can think that things are exactly as our experience represents them to be only via an opaque mode of presentation (i.e. "things are exactly as they seem to be"). Rather, we take Jackson to be suggesting that ordinary thought can quite literally reflect the contents of ordinary perception with respect to the specificity of its contents.

We are not convinced that Jackson is right on this point. Although demonstrative thought can represent that things are thus-and-so (McDowell 1994; Brewer 2005), one might argue that in such cases the content of thought corresponds to that of perception only in an opaque or oblique manner. Certainly ordinary non-demonstrative thought seems to lack the resolving powers of perception. Consider what it is like to look at an ordinary perceptual scene, form a judgement about what that perceptual scene contains, close one's eyes for a few seconds, and then look again at the perceptual scene. It seems hard to deny that ordinary perceptually-mediated information about the world outstrips in its specificity that which can be encoded in ordinary thought[7]. But does this fact provide an adequate response to the matching content challenge? We are inclined to think not. Although the specificity of perception *typically* outstrips that of thought, it seems highly unlikely that this fact reflects a deep and essential contrast between perception and thought, for we see no reason to deny that the contents of thought *could* match those of perception with respect to their degree of specificity. In fact, there seem to be two ways in which a situation of this kind might arise. Firstly, we can conceive of a scenario in which the

6 One might also raise the mirror-image of this objection and suggest that perception is unable to achieve the level of generality that can be achieved by thought. On this view, perception might represent highly specific colors such as red_{23} but would be unable to represent red (Heck 2007). Of course, it is controversial just what kinds of high-level or more abstract properties can be represented in perception. See McClelland and Bayne (2016).

7 Frank Jackson writes: "To perceptually represent that things are thus and so essentially involves discrimination and categorisation, and that is to place things under concepts" (2003, p. 267). Jackson is here operating with a very thin conception of what it is to place something under a concept. It is certainly true that to represent a property involves discrimination and categorization, but perceptual systems can categorize properties without deploying representations that have the properties canonically associated with concepts, such as stimulus-independence and general recombinability (see e.g. Camp 2009). This is why perceptual learning is different from ordinary, non-perceptual learning.

contents of perception are extremely coarse-grained, and the agent is able to perceive features of its environment only with the kind of specificity possessed by ordinary human thought. Secondly, we might imagine a scenario in which a creature's thoughts have unusually fine-grained content of the kind that matches the specificity of its perceptual content. (Consider, for example, an agent with stored representations corresponding to each of the shades that can be represented in conscious vision.) Would either of these scenarios bring about a content-reflecting match in the phenomenology of thought and vision? That seems highly unlikely. Of course, the very nature of the case makes it difficult to be certain on this point – by hypothesis, the scenario in question is radically unlike anything that we ourselves have experienced – but we think it implausible that one could engender a common phenomenal element to thought and perception merely by equating the grain of their contents. The phenomenal gap between thought and perception seems to be a difference in kind and not one of degree.

3.3. The bandwidth response

A third variant in this family of responses to the matching content challenge begins with the idea that the bandwidth of vision (and perception more generally) is higher than that of conscious thought. Put bluntly, the idea is that at any one point in time we can take in more of the world perceptually than we can entertain in conscious thought, and it is this difference in bandwidth which explains the phenomenal contrast between *T* and *V*.

One response that one might have to the bandwidth response is to challenge the claim that the bandwidth of perception really does outstrip those of conscious thought. It is certainly true that there is considerable debate about the bandwidth of perceptual content. Some theorists appeal to the data deriving from the partial-report paradigm pioneered by George Sperling (1960) to argue that the contents of visual consciousness overflow that of conscious thought (e.g. Block 2007; Tye 2006); other theorists argue that the bandwidth of conscious perception is coeval with that of conscious thought (e.g. Cohen et al. 2016), and that the apparent richness of visual experience is an illusion that can be explained away (e.g. O'Regan and Noë 2001). Our own view is that although certain conceptions of consciousness probably do over-estimate the richness of perception, there is nevertheless good reason to believe that the bandwidth of perception outstrips that of conscious thought (McClelland and Bayne 2016). But this issue can be put to one side here, for even if conscious perception does have a higher bandwidth than conscious thought, it is difficult to see how this fact might account for the phenomenal contrast between thought and perception. Even if a single perceptual experience of the wall contains significantly more information than could be contained in a single thought about it, the point remains that the thought and the perceptual state share a common content, and this content seems not to be reflected in their respective phenomenal characters.

4. Fregean content

So far we have been assuming a univocal understanding of content. Put simply, a state's content is a matter of the objects and properties that a state represents, and so any two states that represent the same objects and properties share the same content. This reflects a Russellian understanding of content. However, some theorists adopt a *pluralistic* understanding of content according to which a single state has different layers of content that play different explanatory roles. In particular, many theorists countenance a distinction between a state's Russellian content and its "Fregean" content[8]. Russellian content is a matter of what objects

8 We follow Chalmers (2004) and Thompson (2009) in referring to this content as "Fregean", but it should be noted that it differs from strictly Fregean content in certain ways, most notably in the fact that it is not committed to the idea that sameness of sense entails sameness of reference.

and properties are represented, whereas Fregean content is a matter of *how* those objects and properties are represented i.e. it involves an appeal to the modes of presentation via which things are represented. Two states might have the same Russellian content but different Fregean content. For instance, the belief that Hesperus is a star and the belief that Phosphorous is a star represent just the same entities but under different modes of presentation. Similarly, two states might have the same Fregean content but different Russellian contents. For instance, your belief that water quenches thirst and your twin-earth counterpart's belief that water quenches thirst represent different entities (H_2O and XYZ respectively) under the same mode of presentation (the transparent liquid that falls from clouds etc.).
How might the distinction between Russellian and Fregean content bear on the matching content challenge? The idea is that if the phenomenology of (at least one of) these states is determined by Fregean content rather than Russellian content then PCT would no longer entail that they would have an aspect of their phenomenology in common.
Some might object to the very idea that perceptual experiences could have a different kind of content to thought. For example, Frank Jackson writes:

> Belief is the representational state *par excellence*. This means that to hold that [perceptual] experience has content in some sense in which belief does not is to deny rather than affirm representationalism about experience. There needs to be a univocal sense of 'content' at work when we discuss representationalism; a sense on which content is how things are being represented to be, and on which both beliefs and experiences have (representational) content (Jackson 2003, pp. 265f.).

It is true that representationalists are (by definition) committed to the idea that perceptual experiences have representational content, but it does not follow that this content must be identical in kind to that which characterizes thought. We see no reason to saddle the representationalist (or the cognitive phenomenologist, for that matter) with the assumption that the notion of content at play in discussions of perceptual experience and conscious thought must be univocal.
In principle, there are three ways in which an appeal to Fregean content might be deployed to meet the matching content challenge. Firstly, one might hold that the phenomenal content of perception is Fregean while that of thought is Russellian. But although this position might enable the matching content challenge to be met, we see little reason to take it seriously. For one thing, we know of no advocate of cognitive phenomenology who is at all tempted by this position. (The internalism that cognitive phenomenologists typically espouse surely militates against any inclinations that they might have towards Russellianism.) Moreover, Fregean accounts of thought are surely much more plausible than are Fregean accounts of perception, and it would be odd for a theorist to hold the latter but reject the former. A rather more plausible way of invoking Fregeanism to block the matching content challenge would be to argue either that perceptual content is Russellian while thought content is Fregean, or to argue that both perceptual content and thought content are Fregean, but that they present their intentional objects via distinct modes of presentation. We consider these two possibilities in turn.

4.1. Restricted Fregeanism

According to what we will call *Restricted Fregeanism*, the contrast between perceptual phenomenology and cognitive phenomenology derives from the fact that perceptual phenomenology is fixed by Russellian content whereas cognitive phenomenology is fixed by Fregean content. On this view, when we perceptually experience the blue wall we represent the wall and its blueness without representing the wall or its properties under any particular

guise, whereas judging that the wall is blue involves representing the wall and/or its blueness under some specific mode of presentation. Assuming that our cognitive phenomenology reflects the Fregean content of our judgement rather than its Russellian content, we could then explain why *T* and *V* lack a common phenomenal component.

What might motivate Restricted Fregeanism? Some support for the view might be derived from the literature on non-conceptual content, in which the suggestion that perceptual content is non-conceptual is sometimes equated with the claim that it is non-Fregean, whereas thought content is Fregean (see Byrne 2005). However, this line of argument is highly tendentious, not only because it is only one of many accounts of the conceptual/non-conceptual distinction, but also because the claim that perceptual content is exclusively non-conceptual is itself a matter of dispute.

Another line of argument would be to appeal to Restricted Fregeanism's capacity to explain the contrast between the directness of perceptual experiences and the relative indirectness of thought. This difference, the Fregean might suggest, obtains because thought represents things via modes of presentation whereas perception represents things without any such intermediaries. But this line of support is problematic, for the Fregean should not be understood as holding that the direct objects of thought are modes of presentation rather than objects and their properties; instead, the Fregean claim should be understood as the claim that we are aware of entities and their properties in specific ways. Modes of presentation should not be understood as intermediaries between a subject and the world, and so cannot be used to explain the putative indirectness of cognitive phenomenology.

In addition to the problems facing the leading arguments for Restricted Fregeanism, the view will also face objections from those who take the phenomenal character of perception to be determined by its Fregean content. For example, Chalmers (2004) and Thompson (2009) have argued that the possibility of qualia inversion demonstrates that perceptual phenomenology cannot be directly determined by represented objects and properties but must instead involve modes of presentation. Fregean treatments of perceptual phenomenology are of course controversial, but the point remains that any defence of Restricted Fregeanism will need to address them.

4.2. Unrestricted Fregeanism

Another way of using Fregean content to address the matching content challenge would be to suggest that both thought *and* perception have Fregean content. This view – which we will call *Unrestricted Fregeanism* – allows that even when *V* and *T* share their Russellian content, their phenomenal characters might differ in virtue of the fact that those phenomenal characters will be determined by the ways in which the objects and properties that the two states represent are presented. For example, if *V* and *T* represent the wall's color or its spatial location under different modes of presentation then they would not share their Fregean content, and so need not share an aspect of their phenomenology.

One advantage of Unrestricted Fregeanism is that it respects both the arguments for attributing Fregean contents to thoughts *and* the arguments for attributing Fregean contents to perception. However, this view constitutes a reply to the matching content challenge only if it is not possible for thought and perception to share the same Fregean contents (more carefully: only if it is not possible for thought and perception to share the same Fregean content without also sharing the same content-involving phenomenal character). In other words, Unrestricted Fregeanism requires either that thought and perception can never represent objects and properties via the same modes of presentation, or that if they did then the content-involving phenomenal contrast between them would disappear. We doubt that this conditional is true. Consider again states *V* and *T*. The two states represent the wall and its blueness, but do

they represent them under different modes of presentation? Focusing on the color property represented by both states, it is plausible that our thought represents blueness under just the same mode of presentation as our perceptual experience (Chalmers 2004). The burden of proof would certainly be on someone to motivate a difference in Fregean content here. Why think that blueness is represented under one guise by perception and another by thought? Perhaps Jackson's case of Mary (1982) the neuroscientist might be taken to support such a view: Mary has a concept of blueness before escaping her achromatic prison – she can categorize objects as blue or not blue and understands complex theoretical propositions about how the perception of blue works – and yet it is arguable that when she perceptually experiences a blue object for the first time she represents that property under a mode of presentation previously unavailable to her.

Doubt might be cast on whether Mary's pre-escape concept of blue is really the same as our ordinary concept of blue, but how would things stand if we granted that the thought that the wall is blue presents blueness under a different mode of presentation to perception? Surely we would be able to introduce a different thought that represents it under the same mode of presentation (Chalmers 2004). Whatever reference-fixing condition our perceptual experience uses to refer to blueness, why could not we have a belief that uses just the same reference-fixing condition to refer to blueness? Why think there are modes of presentation unavailable to thought? After all, when Mary escapes her achromatic prison she does not just gain a new kind of experience, she gains a new concept with which to frame thoughts about colors – a concept that plausibly has just the same Fregean content as her perceptual experience of blueness. So long as it is possible to have a thought with the same Fregean content as one's perceptual experience, the matching content challenge persists.

5. Representational format

A third response to the matching content challenge involves the idea that perceptual content and thought content have very different representational formats, and that this difference might explain the contrast between their phenomenal characters. According to one venerable tradition, thought has a discursive or language-like structure whereas perception is imagistic or topographical. The contrast between discursive and non-discursive representation has also been associated with the contrast between conceptual and non-conceptual content (see e.g. Fodor 2007; Heck 2007), although this is perhaps a less influential unpacking of the conceptual/non-conceptual distinction than the accounts that we considered in the previous two sections. There are three respects in which discursive representations differ from non- discursive ones. Firstly, in discursive representations the relationship between the vehicles of representation and their contents is essentially arbitrary, whereas in non-discursive forms of representation there is some degree of isomorphism between representational vehicles and their contents. Secondly, non-discursive forms of representation typically fail to possess the capacities for logical structure that can be achieved by discursive representations. For example, discursive representational formats enable negation ("There are no robbers in the bank"), universal generalization ("All of the robbers are in the bank") and conditionalization ("If the robbers are in the bank then they will be caught"), whereas non-discursive representational formats typically struggle to support such features (although see Camp 2007). Thirdly, non-discursive representation is holistic whereas discursive representation is atomistic. For example, a part of a map of Greece represents a part of Greece, whereas a part of the word "Greece" does not represent anything at all[9].

9 Some theorists have also suggested that there are other points of contrast between discursive and non-discursive representations. For example, Crane (2009) suggests that although non-discursive representations have accuracy

Now, one might argue that the contrast between the phenomenology of thought and that of perception is to be accounted for by appealing to the fact that thought is fundamentally discursive whereas perception is fundamentally non-discursive. This proposal allows that both thought and perception are kinds of propositional attitudes, and that the propositional contents of a thought might (in principle at least) perfectly match those of a perceptual experience. Might this proposal provide a plausible response to the matching content challenge?

As we see it, there are two significant problems with it. For one thing, the assumption that thought is discursive whereas perception is non-discursive is not universally granted. Some suggest that perceptual experience is discursive; or at least that even if certain kinds of perceptual representations are non-discursive those that underwrite perceptual experience are discursive (Fodor 2007). Others deny that thought is fundamentally discursive, suggesting instead that the structure of (certain forms of) thought is likely to be topographical rather than linguistic (Braddon-Mitchell & Jackson 2007; Camp 2007; Jackson 1998; Rescorla 2009)[10]. Even if the contrast between thought and perception does map onto the distinction between discursive and non-discursive representations, it is a further question whether this would yield the kind of phenomenal contrast between *T* and *V* for which we are looking.

The fundamental issue here is that the contrast between discursive and non-discursive representation is primarily a contrast in the nature of the representational vehicles and the ways in which vehicular properties are related to contentful properties, rather than a contrast in representational content as such[11]. One can treat both discursive and non-discursive content in propositional terms (Matthen 2014), and there is nothing to prevent a single proposition (or set of propositions) from being represented either discursively or non-discursively. Of course, discursive formats can support the representation of propositions that cannot be represented non-discursively – we have already noted that the non-discursive representation of certain kinds of logical structures is far from trivial (see Camp 2007) – but this fact has no direct bearing on the question at hand, for we are here interested in propositions that *can* be represented both discursively and non-discursively.

The upshot of the foregoing reflections is that differences in representational format have a bearing on the matching content challenge only if the phenomenal character of a mental state does not supervene on its content. Representationalists are not universally committed to the claim that phenomenal character supervenes on content: when it comes to perception, intra-modal representationalists hold that the sensory modality to which a state belongs also has an impact on its phenomenal character, and the advocates of cognitive phenomenology typically hold that a thought's overall phenomenal character is fixed by both its content and its attitude. In principle there is nothing to prevent the cognitive phenomenologist from appealing to differences in representational format to account for the phenomenal contrast between perceiving that *p* and thinking that *p*. Nonetheless, we think that this move ought to be resisted. It is one thing to say that differences in manners of representation are reflected in our phenomenology, but quite another to say that differences in representational *format* are so reflected. At least some have argued on introspective grounds that manners of representation

conditions, only discursive (or what he calls "propositional") representations have truth-conditions. Although it is certainly true that we tend to describe maps and images as in/accurate rather than true or false, we are not convinced that this fact reflects anything particularly deep about the contrast between discursive and non-discursive formats.

10 Although a number of philosophers have argued that (rational) thought requires a discursive format (e.g. Devitt 2006; Rey 1995), we take such claims to have been significantly undermined by the work of Camp (2007) and Rescorla (2009).

11 Note, however, that this point is contested, for both Crane (2009) and Heck (2007) treat the contrast between discursive and non-discursive representation as having implications at the level of content.

(i.e., sensory modalities or propositional attitudes) show up in our phenomenology. It is, however, noteworthy that those debating the representational format of perceptual and cognitive states do not appeal to introspection. They take it to be an empirical question whether the format of an experience is discursive or non-discursive, suggesting that they do not regard representational format as the kind of thing that shows up in one's phenomenology.

6. Conclusion

The central aim of this paper has been to develop a novel challenge to cognitive phenomenology, understood here as the claim that there are phenomenal characters that are proprietary to the intentional contents of thought. The challenge is premised on the observation that advocates of cognitive phenomenology are committed to PCT: the claim that the contents of a thought are reflected in its phenomenology. PCT entails that if a thought and a perceptual experience have the same content then they also share an aspect of their phenomenology. But thoughts and perceptual experiences never seem to share such a phenomenal aspect, so advocates of PCT must respond by casting doubt on the possibility of thoughts and perceptual experiences sharing the same content.

The first response involved the suggestion that perceptual content is richer than the content of thought. However, we found there is no viable understanding of "richness" that plausibly precludes a thought and a perceptual experience from having the same degree of richness, and we suggested that thoughts and perceptual experiences which were equally rich would nonetheless differ in phenomenal character. The second response involved the suggestion that differences between thought content and perceptual content emerge once Fregean content is considered. But we found that no plausible version of this response can capture the required difference in phenomenal character. The third response involved the suggestion that the phenomenal contrast between thought and perception might be explained in terms of differences in representational format. In addition to noting that claims surrounding the representational format of perception and thought are themselves contentious, we also argued that appealing to such differences would help address the matching content challenge only if one assumes that the format of a representation is reflected in its phenomenology, and that assumption seems implausible. Each of these three responses draws on a plausible – or at least influential – understanding of the contrast between conceptual and non-conceptual content. As such, the apparent failure of these responses suggests that the matching content challenge will not be met by appealing to that distinction[12].

By way of bringing this paper to a close, we want to consider one very different line of response that might be taken to the matching content challenge. We have framed the matching content challenge in terms of the assumption that perceptual experiences have representational

12 One further response that is worth mentioning at this point is inspired by Horgan's (2014) reflections on the contrast between the way in which color is represented in thought and the way in which it is given in perception. Horgan claims that colors are presented in perception as intrinsic, sensuous properties of external objects themselves – "properties whose manifest nature is just their intrinsic, sensuous, what-they-are-like-ness" (2014, p. 336). Following Chalmers (2006), Horgan refers to these color properties as "Edenic properties". However, he also argues that science has shown that there are no such properties, and thus that nothing corresponds to the way in which colors are perceptually presented. With respect to judgment Horgan takes a very different line, arguing that in worlds (such as ours) from which Edenic colors are absent the color-involving content of judgment refers to a Lockean disposition of a certain sort. Horgan's treatment of color points the way to a possible response to the matching content challenge, for if perception and thought traffic in very different properties then it is no wonder that the phenomenology of perception differs so radically from that of thought. In our view the central problem with this proposal concerns its generality. Even if the proposal can be plausibly extended beyond the phenomenal character of color-involving contents to include the phenomenal contrasts associated with secondary qualities of all forms, we find it difficult to see how it might account for the phenomenal contrasts associated with the representation of primary qualities, such as spatial relations.

content, and that perceptual phenomenology in some way reflects this content. But of course there is an influential school of thought, naïve realism, which denies that perceptual experiences have representational content (Brewer 2006; Johnston 2006; Travis 2004). Some members of this school allow that perceptual experience can be taken to have "content" in some sense of that term, but they are keen to describe such contents as "presentational" in order to distinguish them from the "representational" contents of thought.

Might the appeal to naïve realism address the matching content challenge? The answer to this question depends on the answer to two further questions: Firstly, does naïve realism really side-step the matching content challenge? And, secondly, will naïve realism hold any appeal for the advocates of cognitive phenomenology?

It is not implausible to suspect that the answer to the first question might be "yes", for naïve realists have long argued that one of the virtues of their view is that it (alone) can account for the first-person contrast between thought and perception (see e.g. Brewer 2006; Campbell *forthcoming*; Hellie 2007). More directly, one might think that insofar as naïve realists deny that perceptual experiences have "content", then the matching content challenge cannot even be formulated, for the challenge was premised on the assumption that perceptual experiences have content. Of course, one might challenge the naïve realist to explain why a thought representing a certain state of affairs has no phenomenal aspect in common with a perceptual experience that presents the very same state of affairs. (After all, if phenomenology is fixed by what we are directly aware of, then naïve realists would be lumbered with the (false) prediction that thoughts and perceptions that are intentionally directed towards the same objects/properties will share the same phenomenology.) In response, the naïve realist might simply argue that the contrast between representation and presentation does all the explanatory work that is needed: cognitive access to a state of affairs differs so dramatically from perceptual access to it because the former is representational whereas the latter involves a direct relation. We suspect that this response will ultimately founder against the rock of hallucination, for hallucinations share the directness of perception (they are perceptual experiences in our terminology), and yet they involve no relations to their intentional objects. But whether or not naïve realists can successfully meet the matching content challenge, we suspect that this issue will ultimately be of little interest to the advocates of cognitive phenomenology, for we see little enthusiasm for naïve realism among their ranks. The reason for this, we suspect, is that cognitive phenomenologists are typically internalists about phenomenal properties, holding that a subject's phenomenal properties are fixed by their internal/intrinsic properties. By contrast, naïve realism entails a fairly radical form of externalism, for it holds that facts about a subject's phenomenal states constitutively depend on its environmental relations. Any solution to the matching content challenge which implied that certain kinds of phenomenology are relational rather than monadic would be anathema to most advocates of cognitive phenomenology.

The matching content challenge is not a knock-down objection to the view that cognitive episodes have a proprietary phenomenology that reflects their content. It does, however, show that a great deal more work needs to be done to understand the relationship between perceptual and cognitive phenomenology. If thoughts and perceptual experiences can share content, and the phenomenology of both thoughts and perceptual experiences reflects their content, why do our cognitive and perceptual experiences not share a phenomenal aspect? Perhaps there is no distinctive phenomenology of thought – or at least, not one that is fixed by thought's intentional content[13].

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THE CONSCIOUS AND PHENOMENAL CHARACTER OF THOUGHT: REFLECTIONS ON THEIR POSSIBLE DISSOCIATION

abstract

In this paper I focus on what we can call "the obvious assumption" in the debate between defenders and deniers (of the reductionist sort) of cognitive phenomenology: conscious thought is phenomenal and phenomenal thought is conscious. This assumption can be refused if "conscious" and "phenomenal" are not co-extensive in the case of thought. I discuss some prominent ways to argue for their dissociation and I argue that we have reasons to resist such moves, and thus, that the "obvious assumption" can be transformed into a grounded claim one can explicitly believe and defend.

keywords

cognitive phenomenology, phenomenal character, cognitive access, co-extension, higher-order theory

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1. The "obvious assumption" in the cognitive phenomenology debate

The recent literature on cognitive phenomenology has revolved around the question of the existence of a kind of phenomenal character specific to thought, thinking or cognitive states and processes (Bayne and Montague 2011). Defenders of cognitive phenomenology believe, while deniers do not, that there is at least specific or proprietary phenomenal character of thought[1]. Arguments in the debate have put forward topics such as the temporality of thought, inner speech, intentionality, categorical perception, or value (see Jorba and Moran 2016 for a review) and the question has also included approaches from the phenomenological tradition in philosophy (Breyer and Gutland 2016). Importantly, there is one shared assumption among both defenders and one kind of deniers of cognitive phenomenology, namely, the idea that conscious thought is phenomenal in the first place. By this I mean phenomenal in general, not specifically *sensory* or *cognitive* phenomenal – on pain of begging the question. It is by assuming this claim that the parties that have mainly engaged in the discussion start arguing against each other. On the side of defenders of cognitive phenomenology, it is clear that they assume that conscious thought is phenomenal *simpliciter* – as the basis of afterwards arguing that it is cognitive-phenomenal. But this is also the case on the side of some deniers of cognitive phenomenology. Tye and Wright, for instance, claim that "we are not opposing the following thesis: For any conscious thought *t* and any subject *s,* there is something that it is like for *s* when she thinks *t*" (2011, p. 328). Or Prinz, who thinks all phenomenal consciousness is perceptual phenomenal consciousness, presents the debate as follows: "the debate I'm interested in is not about whether conceptual activity can feel like something to a subject, but whether it feels different than sensory activity" (Prinz 2011, p. 177). We can see that these deniers of cognitive phenomenology state (and assume) that conscious thought "feels" like something, and thus it has a certain phenomenal character; what they disagree with defenders of cognitive phenomenology is on the nature of such phenomenality – they see such phenomenal character as not specifically cognitive but rather sensory or emotional, for instance (we can thus call these views "*reductionists*").

However, the assumption that conscious thought is phenomenal *simpliciter* might be doubted to begin with. This is the case of another view within deniers of cognitive phenomenology,

1 Stronger claims of defenders of cognitive phenomenology include a distinctive and individuative phenomenal character for thought, or the claim that thought content is grounded in phenomenal character (see Pitt 2004, Strawson 2008, among others).

namely, *eliminativists* regarding the phenomenal character of thought or cognition (of whatever kind). In this sense, Braddon-Mitchell and Jackson state that "cognitive states are prime examples of states for which there is not something it is like to be in them, of states that lack a phenomenology" (Braddon-Mitchell and Jackson 2007, p. 129). If this line of argumentation succeeds, the cognitive phenomenology view can be debunked, and also the debate between defenders of cognitive phenomenology and deniers of the reductionist sort would not even get off the ground.

The mentioned assumption can be seen as part of a larger argument, that states the following: (i) If a mental state is conscious, then it has phenomenal character; (ii) Conscious thoughts are conscious mental states; (Conclusion) Conscious thoughts have phenomenal character. A version of this argument was proposed by Pitt (2004), who labelled it "the obvious argument". The name of this argument comes from the possible objection of seeing it as trivially true. That is, if we consider one sense of "conscious" that just means phenomenal (Block 1995) or analytically entails phenomenal, then the argument is trivially true. But this in fact cannot be so, as there are many who are inclined to deny (i) – then the argument does not seem that obvious. Moreover, (C) is not necessarily true if consciousness and phenomenal character come apart in the case of conscious thought. That is, the possibility of conscious thought without phenomenal character would go against (i) and would allow one to deny (C).

The possibility of "conscious" meaning phenomenal or entailing phenomenal does not seem conceptually necessary because the two concepts are distinct (Burge 1997; Lormand 1996; Kim 1996). I have so far presented the idea that conscious thoughts are phenomenal as a shared assumption between defenders of cognitive phenomenology and deniers of the reductionist sort, but notice also that the claim that unconscious thoughts do not have phenomenal character is also somehow assumed in the debate. In this respect, Bayne and Montague state: "we start with a point that is common ground among all parties to the debate: dispositional or unconscious states have no phenomenological character" (2011, p. 11). Also, Kriegel talks about "phenomenally unconscious states" in the following way: "by 'phenomenally unconscious' states I mean states that are unconscious in the phenomenal sense of 'conscious'; I do not mean to refer to, or *even suggest the existence of,* states that are *unconscious but nonetheless have a phenomenal character*" (Kriegel 2011, p. 79, my emphasis). Levine, who denies cognitive phenomenology, also claims: "mental states that lack phenomenal character are all those states, including non-occurrent beliefs and desires, that are classified as unconscious" (Levine 2011, p. 103). From these quotes we can see that phenomenality (as far as the cognitive domain is concerned) is normally assumed by both parties to be associated with conscious thought and not with unconscious thought (or states, more generally).

In this paper I focus on these two mentioned aspects, which we can call "the obvious assumption" in the debate between defenders and deniers (of the reductionist sort) of cognitive phenomenology: conscious thought is phenomenal and phenomenal thought is conscious. This assumption can be refused if "conscious" and "phenomenal" are not co-extensive in the case of thought, and so the following possibilities are open: (a) non-phenomenal conscious thoughts and (b) phenomenal unconscious thoughts. In the next two sections, I discuss some prominent ways to argue for (a) and (b) and I argue that we have reasons to resist such moves, and thus, that the "obvious assumption" can be transformed into a grounded claim one can explicitly believe and defend[2].

2 Note that by arguing against such possibilities, one still remains neutral regarding the debate between defenders of cognitive phenomenology and deniers of the reductionist sort, as the aim is just preserving the idea that "conscious" and "phenomenal" are co-extensive terms when applied to thought.

2. Non-phenomenal conscious thought

There are several accounts defending the view that we have conscious thought but that it is non-phenomenal. One could think that reductionists do present a prominent example, given that the sense in which conscious thought is not phenomenal is that it is not *specifically cognitive* – phenomenal, namely, that it does not enjoy a specific phenomenal character. Thus, what reductionists deny is not that there is phenomenally conscious thought, but just that there is cognitive-specific phenomenal conscious thought. They argue that conscious thought is phenomenal but its phenomenal character can be explained by appealing to familiar kinds of phenomenal character such as sensory, perceptual, emotional or bodily phenomenal character. I have argued elsewhere against two main reductionist views (Jorba 2015), and it is not my purpose to enter in such discussion here. Nothing I say here depends on whether these views succeed or, in contrast, if cognitive phenomenology views are correct; as I have said, both parties as described assume the claims I am concerned with here that can be understood as the idea of the co-extensiveness of the conscious and the phenomenal character of thought. Notice, however, that the assumption that conscious thought is phenomenal is indeed simply denied by the above mentioned eliminativists, such as Braddon-Mitchell and Jackson (2007). The following section is an attempt to examine in which ways one can substantiate the eliminativist idea that conscious thought is not phenomenal, besides merely stating it.

2.1. An example of definitional restriction

In Kim (1996) there is a way of arguing that *phenomenal* and *conscious* may come apart. After leaving aside unconscious states as possible bearers of phenomenal character (another instance of one aspect of the "obvious assumption", treated below) Kim asks whether *occurrent conscious instances* of belief[3] are characterized by a "special qualitative character unique to beliefs" with a certain content. And his answer is "no", given that a belief about George Washington, for example, may have a mental image of him or the words "George Washington" passing through one's mind, etc., or "no particular mental image or any other sort of phenomenal occurrence at all" (Kim 1996, p. 158). In this answer we see that Kim is using what can be called *definitional restriction* of "phenomenal character". Phenomenal character is understood as just *sensory* phenomenal character, and given that beliefs can be accompanied by images or words or any of these elements, there is no specific qualitative character of conscious belief. It is worth noting that if one construes "phenomenal character" as just sensory phenomenal character, the debate on cognitive phenomenology is biased from the start and reductionist positions are right. This definitional restriction of the notion is certainly not an isolated use in the literature, but rather a common way of talking in philosophy of mind during most of the second half of the XXth century.

Kim then addresses the question of whether there is something like a "belief-like phenomenal character" in conscious occurrent beliefs, that is, in beliefs we are actively entertaining. He claims that some people think that in occurrent beliefs there is a certain feel of assertoric or affirmative judging, something like an "Oh, yes!" feeling (Brown 2007 presents the feeling of conviction as that associated with belief). Similarly, an occurrent disbelief can be accompanied by an experience of denial and remembering is accompanied by a feeling of *déjàvu.* Wants and desires could be accompanied by a sense of yearning or longing combined with a sense *of present deprivation*. All these experiences *could* count as specific to the cognitive state but, in fact, Kim describes them as the "coming to be aware that we believe a certain proposition" (Kim 1996, p. 159), where this coming to be aware is not accompanied by any

3 One might doubt that the category of "occurrent belief" is appropriate, as beliefs are normally construed as being dispositional states. But I will follow Kim's terminology here, and skeptics of occurrent beliefs can apply the reasoning to instances of occurrent judgments or thoughts.

kind of *sensory quality:* "When you are unsure whether you really believe some proposition, say, that euthanasia is morally permissible, that Mozart is a greater composer than Beethoven, or that Clinton will win in 1996, you do not look for a sensory quale of a special type" (Kim 1996, p. 159). This contrasts with what happens when you are asked if you feel pain in the elbow, in which case you presumably look for a sensory *quale* of a special type. One first thing to note with respect to Kim's position is that the definitional restriction he operates with (phenomenal as sensory in kind) precludes the possibility of a belief-like phenomenal character, but this certainly by itself does not preclude specific "feelings" for conscious thought. But what does indeed preclude this last option is what this phenomenal character is supposed to be able to do, that is, to type identify the kind of state we are talking about[4].
In this section we have used Kim's view as paradigmatic of a particular perspective that has been very common in the field, namely, to use "phenomenal character" with the definitional restriction to sensory states or sensory elements. This is of particular interest here insofar it allows one to envisage a possible dissociation between phenomenal and conscious character in thought (belief, in Kim's case). However, the definitional restriction does not really present a viable position in the cognitive phenomenology debate because it directly amounts to a denial of cognitive phenomenology without further argument.

2.2. Access consciousness or cognitive accessibility

A more promising way to reject the claim that a mental state is conscious if and only if it has phenomenal character is by presenting the case of access conscious thought without phenomenal consciousness. Block's famous distinction between *access consciousness* (A-consciousness) and *phenomenal consciousness* (P-consciousness) is relevant here. The idea would be to equate phenomenal consciousness to experience and contrast it with access consciousness. A mental state is phenomenally conscious if there is something it is like to be in it, and it is access conscious if its content is available for reasoning and the rational control of action (Block 1995). Block provides sensory states as the paradigm example of phenomenal and propositional attitudes as the paradigm example of access conscious states. By distinguishing between the two notions in this way, Block *encourages* the view that propositional attitudes are not phenomenally conscious, and thus thoughts would not have phenomenal character. This seems to be a very influential assumption in the field.
However, as he introduces both terms, he does not deny that thoughts have phenomenal character (or analogously, that sensations can be access conscious). In fact, he claims that it is unclear what the phenomenal character of thought involves: "One possibility is that it is just a series of mental images or subvocalizations that make thoughts P-conscious. Another possibility is that the contents themselves have a P-conscious aspect independent of their vehicles" (Block 1995, p. 24 footnote 3). The two possibilities Block sees for the phenomenal character of thought phenomenology are, thus, non-specific cognitive phenomenology, for which mental images and sensory elements make the thought phenomenally conscious, and phenomenal cognitive *content,* which will not be identified with the sensory vehicles. In fact, these are not the only possibilities, given that there could be phenomenal character associated with different cognitive attitudes (in addition to, or instead of, content phenomenology – see Klausen 2008; Jorba 2016).
We could first notice that, contrary to what it might have seemed, the notion of A-consciousness is not really a form of *consciousness*. With respect to this, it is symptomatic

4 The issue of type identification is certainly important and worth taking into account in the cognitive phenomenology debate, but in Kim's account this question is parasitic on the definitional restriction of phenomenality.

that Block (2007) gives up the notion of *access consciousness* and talks about *cognitive accessibility*, which is a functional property that underlies reporting. This change of terminology indicates that there are not two fundamental kinds of consciousness, as the initial terms suggest, but just one kind, whereas the other notion is meant to capture a purely functional property. Although this might always have been the case from the beginning when he introduces the distinction, talk of access-consciousness has confused the issue. As Montague notes, "Block originally introduced the notion of A-consciousness precisely as an attempt to see how close a state could get to being a genuinely conscious state, i.e. a phenomenally conscious state, without actually being a conscious state at all" (Montague 2016, p. 171). Thus, one first source of caution goes against considering access consciousness as a form of consciousness at all, so that the possibility of non-phenomenal access conscious thoughts would not amount to a form of consciousness but to a functional property that makes the content of the thought available for reasoning and rational control of action. What has to be shown in any case is that the existence of this functional property in thought *precludes* the existence of phenomenal conscious thought. The only thing the existence of a cognitive accessible thought shows is that the content of this thought is available for reasoning and rational control, but there is no implication from there to thought's contents being not able to be P-conscious.
However, even if access consciousness is not really a form of consciousness, one could argue that independently of how we characterize the notion, it suffices to explain what needs to be accounted for in relation to thought, so there is no further need to appeal to phenomenality. Let us now present the main line of argument against this possibility of the dissociation of the conscious and the phenomenal character. That we can have access to the content so four thoughts is something that should be uncontroversial, because otherwise, how could we explain the conscious control that we have over our own actions? And normally, one is A-conscious of the same thing (same kind of content) one is P-conscious of. Block seems to illustrate this, when he is discussing the possibility of P-consciousness without A-consciousness:

> Suppose that you are engaged in intense conversation when suddenly at noon you realize that right outside your window, there is – and has been for sometime – a pneumatic drill digging up the street. You were aware of the noise all along, one might say, but only at noon are you consciously aware of it. That is, you were P-conscious of the noise all along, but at noon you are both P-conscious and A-conscious of it (Block 1995, p. 234).

This way of presenting the distinction suggests that the distinction has nothing to do with different kinds of contents, so it seems reasonable to assume that we are P- and A-conscious *of* the same contents. Moreover, the example suggests that A-consciousness consists in being aware of what is already P-conscious – at least in this and analogous cases. One could try to deny this by appealing to the overflow argument, which leads Block to conclude that P-consciousness overflows A-consciousness. He refers to this issue as follows:

> One of the most important issues concerning the foundations of conscious perception centers on the question of whether perceptual consciousness is rich or sparse.
> The overflow argument uses a form of "iconic memory" to argue that perceptual consciousness is richer (i.e., has a higher capacity) than cognitive access: when observing a complex scene we are conscious of more than we can report or think about (Block 2011a, p. 1).

But notice that what Block argues is that P-consciousness has a higher capacity, but he does not deny that we are P- and A-conscious of the same contents. So it seems that normally we are P- and A-conscious of the same kind of content and that what is A-conscious is also P-conscious. With respect to this, Kriegel (2006) presents the view that P-consciousness is the *basis* of A-consciousness, that is, the for-me-ness aspect of P-conscious states (that they are self-consciously entertained) is what makes those states available for cognitive control. This view draws on the distinction between qualitative (what-it-is-likeness) and subjective character (for-me-ness) and also shows, importantly for my purposes here, that the distinction between A- and P-consciousness has nothing to do with the contents or with the things we are conscious of [5].
One could resist the claim that what is A-conscious is also P-conscious by appealing to the imaginary case of the superblindsighter, which is introduced as a case of A-consciousness without P-consciousness: the superblindsight patient is a person that can guess what is in the blind portion of her visual field without being told to guess, that is, without prompting (this is the main difference with the blind sight patient). She spontaneously says that she knows that there is an *X* in her visual field although she cannot see it. As Block notes, the thought of the superblindsighter is both A-conscious and P-conscious but what he is talking about is the state of the perceptual system, which is A-conscious without being P-conscious[6].
The superblindsighter case shows that what is A-conscious is not necessarily P-conscious. However, this is an extreme case and normally in all other cases it is true that what is A-conscious is also P-conscious, or at least this seems to be assumed in the literature. In any case, for our present purposes, in order to claim that A-consciousness is not P-consciousness in thought, one would have to show that the normal case of conscious thought is as atypical as is the superblindsighter case in perceptual experience. My contention is, thus, that one would have to show that in conscious thought we are normally conscious in the *atypical* way in which the superblindsighter is perceptually conscious. To my knowledge, the case for this has not been made and the prospects for doing it do not appear *prima facie* very plausible.
To recapitulate: firstly, the notion of A-consciousness or cognitive accessibility (if it is a notion of consciousness at all) does not preclude conscious thought from also being phenomenal. In fact, the implication from A- to P-consciousness seems to be what is assumed in the discussion of the distinction in the perceptual case. This implication is just what is questioned by the superblindsighter case, which does not seem to pose a problem for conscious thought. Drawing on the discussion of Block's distinction and examples, we have reasons to believe that what is A-conscious is normally also P-conscious[7].

3. Non-conscious phenomenal thought

Let us turn to a second different movement to deny the co-extensiveness of the conscious and the phenomenal character: cases of non-conscious phenomenal thought[8]. As I already mentioned in the first section, it is worth noting that a commonly held assumption among

5 See also Clément and Malerstein (2003) for an ontogenetic account of consciousness according to which P-consciousness is a *precondiction* for A-consciousness: they present empirical evidence in developmental psychology for the claim that P-consciousness is present at a very early age and is what makes A-consciousness possible.
6 "Of course, the superblind sighter has a thought that there is an 'X' in his blindfield that is both A-conscious and P-conscious. But I am not talking about the thought. Rather, I am talking about the state of his perceptual system that gives rise to the thought. It is this state that is A-conscious without being P-conscious" (Block 1995, p. 233).
7 See Jorba and Vicente (2014) for the argument that defenders of cognitive phenomenology are in an advantageous position than deniers when it comes to explaining how we can have access to the contents of our thoughts.
8 These cases are different from putative cases of phenomenal consciousness without access consciousness or cognitive accessibility – discussed with reference to the overflow argument, Block (2011a) – in that the ones presented in this section do not involve any *conscious* character, whereas in the overflow cases it is argued that we have phenomenal *consciousness* without cognitive access.

most parties in the cognitive phenomenology debate is that non-conscious or unconscious states have no phenomenal character (Kim 1996; Pitt 2004; Levine 2011; Prinz 2011; Tye and Wright 2011). In what follows I will consider two ways in which one could argue for the existence of non-conscious phenomenal thought, and I will argue that they do not in fact provide good reasons to believe in this kind of phenomenon.

3.1. A conceptual distinction: phenomenality and (phenomenal) consciousness

The conceivability of non-conscious phenomenal states has been explored by Burge (1997) through his distinction between "phenomenality" and "phenomenal consciousness". The idea here is not to separate phenomenality from another form of consciousness but rather phenomenality (what-it-is-likeness) from phenomenal consciousness (what it is occurrently like for the individual):

> although phenomenal qualities are individuated in terms of what it is like to feel or to be conscious of them, one may have phenomenal states or events with phenomenal qualities that one is unconscious of. Thus, phenomenal qualities themselves do not guarantee phenomenal consciousness. To be phenomenally conscious, phenomenal states, or their phenomenal qualities, must be sensed or felt by the individual subject (Burge 2007, p. 383).

Pains that are not felt because of some distraction or obstruction are an example. These may remain pains even though they are not conscious for the subject at certain points. Similarly and applied to our case, thoughts would also retain their phenomenality in cases in which they are not conscious. This would open the door to the idea that phenomenality is not enough for phenomenal consciousness and, thus, it would be absurd to maintain that an occurrent episode of thinking with some phenomenal character is a form of phenomenal consciousness.

Burge suggests that there are phenomenal properties or qualities that are not felt by the subject. An element that would make this position understandable would be to appeal to *attention*. If the subject does not pay attention to the pain, for example, "she does not feel it", but the pain could exist with its phenomenal properties. According to this possibility, attention would be responsible for making a state phenomenally conscious. But it would be wrong to attribute to Burge the association (or equivalence) of attention and phenomenal consciousness[9]: "In entertaining such a distinction I am not merely supposing that the individual does not attend to the pain. I mean that the individual does not feel it. It is not phenomenally conscious for the individual. Yet the individual still has it. The pain is individuated partly in terms of how it consciously feels" (Burge 2007, p. 415). And also:

> Phenomenal consciousness is not attention. The states that I have listed can be phenomenally conscious whether or not they are attended to, and whether or not things sensed through them are attended to. When they are not the objects of attention, and when attention does not operate through them, however, the consciousness is commonly less intense or robust (Burge 2007, p. 399)[10].

9 A development of this idea is precisely Prinz's theory of consciousness (2012).

10 The states he lists are felt pains, felt tickles, felt hunger pangs; qualitative elements in conscious vision, hearing, smell, or taste; feelings of tiredness or strain from effort; the feels associated with touch, phenomenal blur and phenomenal static (Burge 2007, p. 398).

There has to be another element, then, that is responsible for the distinction between phenomenality and phenomenal consciousness. This turns out to be the *effective occurrence* of the state regarding the constitutive possibility of becoming conscious:

> The conceptual distinction is this. On the view I am exploring, *an occurrent phenomenal quality is constitutively individuated in terms of how it would be felt if it were to become conscious*. Its nature is constitutively, not just causally or dispositionally, related to occurrently conscious ways of feeling. This constitutive point is what makes the quality phenomenal even when it is not actually conscious. On this view, the unfelt pain is still a pain – not just a neural state or a dispositional state that happens to be capable of producing pain under the right conditions – even though it is not occurrently felt and is not conscious for the individual (Burge 2007, p. 415, my emphasis).

Burge thus proposes that phenomenal qualities are constitutively capable of becoming occurrently conscious, even if they are not always phenomenally conscious. This is a distinction between a *phenomenal quality* and a *conscious phenomenal quality* and it is what allows Burge to claim that there are states that are non-conscious but still have phenomenal properties. Both properties are normally co-extensive if there is no obstruction or interference. The distinction, though, is a *conceptual* one, and Burge leaves open the possibility of its empirical soundness. If there is no such empirical distinction, he would assume that these states do not exist and he would therefore have to accept that every phenomenal quality is also conscious[11].

Even if this conceptual distinction is merely exploratory, I have some reservations about its use. First, and as a minor point, it is not very clear why the phenomenal occurrent property that is not conscious is called "phenomenal" at all if it is not felt in any way. But we could grant this stipulation. However, secondly, and contrary to what Burge suggests, it does not seem possible to empirically test this distinction: what would confirm or refute this conceptual possibility? It seems difficult to establish any criteria for testing it. All the methods to empirically test the presence of phenomenal consciousness rely, in one way or another, on the reports of the subject, even when there are fMRI methods involved: the neural activation is measured when the subject is asked a question or is required to do a task. Therefore, it is not clear how we could know that a state has phenomenal character if it is not conscious or the subject is somehow aware of it, because first-person reports would be of no use. Another way to put the point would be to say that when the presence of phenomenal consciousness is manifested, this would thereby also show that a phenomenal quality is also present. No empirical way to distinguish among these notions seems to be available. Thirdly, continuing to entertain this distinction would have as a consequence the proliferation of "hard problems" of consciousness, as Pitt (2004, p. 3, footnote 4) notes, as there would be the hard problem of phenomenality and the hard problem of consciousness itself, on pain of defining "phenomenality" in a way totally alien to the puzzles of phenomenal consciousness. This is not a *prima facie* reason to abandon the distinction, but a consequence whose characterization seems difficult even to conceptualize: what would it mean to say that there is a problem explaining an occurrent phenomenal property that is not conscious? All these doubts put some pressure on the adequacy of the conceptual possibility of dissociating the phenomenal character from the conscious one in the way open by Burge's suggestion.

11 It should be noted that this is an exploratory distinction and not his main point about phenomenal consciousness.

3.2. Non-conscious phenomenal qualities: HOT theories

There is another way of understanding consciousness in which a state may be phenomenal without being conscious. This can be so within higher-order theories (HOT) of consciousness, for which the qualitative or phenomenal character and consciousness can dissociate or come apart. Higher-order approaches to consciousness can be divided into those that think that the higher-order state is a perceptual state (Armstrong 1968; Lycan 2004) or a thought (Rosenthal 2005). According to the latter, a phenomenally conscious mental state is a state of a certain sort that is the object of a (unconscious) higher-order thought, and which causes that thought non-inferentially. The object of the thought, namely, the first-order state, can possess qualitative character without being conscious:

> since states with mental quality occur both consciously and not, mental qualities can occur without appearing in one's stream of consciousness. So one's being in a state with qualitative character is independent of one's being in a conscious state, and we need different theories to explain the two. A theory of consciousness will explain one's mental life subjectively appearing a particular way; a distinct theory must address what mental qualities are, independently of whether they occur consciously (Rosenthal 2011, p. 435).

Rosenthal's motivation for dissociating phenomenal qualities and conscious character comes from evidence from blind sight patients, presumably described as instantiating phenomenal qualities without being conscious or aware of them and subliminal perceiving: "states with mental qualities sometimes occur subliminally, that is, when one subjectively takes oneself not to be in any such state. And it is quixotic to regard as conscious a state that one subjectively takes oneself not to be in" (Rosenthal 2011, p. 434).

If there is the possibility of dissociation of the phenomenal and the conscious character for the first-order state at which the higher-order thought is directed, one could think that the theory predicts the same when a thought is itself the first-order state and can thus be the target of another higher-order state. The idea would then be that we can have phenomenal thoughts that are not conscious because there is not a higher-order thought directed at them that makes them conscious.

I think there are different possible responses to that possibility of dissociation. First, as Block (2011b) argues, this kind of theory has two possible versions: a modest and an ambitious one. The first just aims to give an explanation of *one kind* of consciousness or consciousness in one sense of the term, namely, higher-order consciousness, and reserves the name "quality" to the first-order state, without pretending to explain the what-it-is-likeness of this state (precisely the question of phenomenal consciousness). The second aims to be an ambitious theory that explains phenomenal consciousness or what-it-is-likeness of the first-order mental state. Regarding the modest version, we can see that it uses a notion of "quality" that is different from phenomenal character as what-it-is-likeness, and so it is of no interest as a possible case of phenomenal character without consciousness. The issue would here turn to a terminological one without positing a real threat to the co-extensive character of conscious and phenomenal character.

In the ambitious version, though, the issue is not terminological because it aims to be a theory of phenomenal consciousness, not just of a kind of consciousness that is precisely the higher-order one. However, in this case we do not find a dissociation of the conscious and the phenomenal character anymore with respect to the first-order state, given that according to the theory, the first-order state is phenomenally conscious in virtue of the relation to a higher-order thought. What happens with the higher-order thought itself, though? When this thought is responsible for making conscious a first-order one, this thought is certainly

unconscious. This is made clear by the acceptance of the HOT theories of the problem they have to respond to regarding the question of how it is that the relation between an unconscious thought and an unconscious pain, for example, can make the latter conscious (Neander 1998; Zahavi 2006). But when this thought is itself the target of another higher-order thought, we cannot say it is phenomenal and *un*conscious anymore, as it will precisely become conscious in virtue of such a relation (when this thought is phenomenal but not conscious we come back to the case of the modest version of the theory). The upshot may be, then, that under the ambitious reading of the HOT theory, the dissociation between phenomenal and conscious character is not found, as the target state is a case with both phenomenal and conscious character (phenomenal consciousness) precisely when it is the target of another thought. Moreover, one can think of the ambitious version of the HOT theory as an attempt at dispensing with phenomenal character in its equating it with a second-order unconscious thought, more than a theory that precisely explains such a phenomenal character.

In summary, the possibility of unconscious phenomenal states is undermined by a use of "quality" or "phenomenal" in a different way than "phenomenal character" as what-it-is-likeness (in the modest version of HOT theory) and by the fact that when the theory wants to explain phenomenal consciousness (the ambitious version), the dissociation between phenomenal and conscious character somehow vanishes[12,13].

As a general reflection for the whole section, it seems that we have reasons to doubt the dissociation between phenomenal and conscious character in thought in the form of non-conscious phenomenal thought presented in this section. It appears more reasonable to think that the phenomenal character of a certain state implies the conscious appearance of that state, and if the state is unconscious, namely, if it has no presence at all, then we can say that it has no phenomenal character. I take this idea to be also a common assumption within the phenomenological tradition in philosophy starting with Brentano and Husserl, even if we can also find different uses of "consciousness" that could perhaps cast doubt on this assumption (see Siewert 2011 for an overview of the term in the phenomenological tradition). In general, then, I think we can say the experiential or qualitative features that comprise the phenomenal character of a mental state are conscious and qualitative just because they are consciously felt. Block summarizes this idea in the following way: "Lacking consciousness requires lacking what-it-is-like-ness and so a state of what-it-is-like-ness is a state of consciousness" (Block 2011b, p. 424).

4. Conclusive remarks

In this paper I have focused on an important assumption in the debate between defenders of cognitive phenomenology and deniers of the reductionist sort, which I have labelled the

12 As a side reflection on HOT theories, it is worth mentioning that it has been argued by Brown and Mandik (2012) that, as theories of phenomenal character, HOT theories are indeed committed to the existence of cognitive phenomenology: "It is also easy to see why the view is committed to distinct phenomenology for distinct conscious thoughts...This is because what it is like for one, on the higher- order thought theory of consciousness, is determined by the exact contents of the higher-order state. So if one represents oneself as thinking that P as opposed to Q we should expect that one's conscious thought will be like thinking that P whereas the other will be like thinking that Q for the subject of these thoughts" (Brown and Mandik 2012, p. 7).

13 A similar reflection applies to self-representationalist accounts of consciousness. For Kriegel (2009), there are two components to phenomenal consciousness: qualitative (color-ish component, for instance) and subjective character (for-me component). However, this theory does not really present a real case of dissociation between phenomenal and conscious character, and would present, if any, an orthogonal dissociation of qualitative and subjective character: "a phenomenally conscious state's qualitative character is what makes it the phenomenally conscious state it is, while its subjective character is what makes it a phenomenally conscious state at all (Kriegel 2009, p. 1). Both qualitative and subjective character jointly make a state phenomenally conscious.

"obvious assumption": the co-extensiveness of the conscious and the phenomenal character in thought or, what is the same, the idea that conscious thought is phenomenal and phenomenal thought is conscious. It is important to examine this co-extensiveness claim because it can be undermined in several ways and this would imply shaking the ground on which the cognitive phenomenology debate as presented is set. I have examined some ways to cast doubt on the assumption: possible cases of conscious non-phenomenal thought and possible cases of unconscious phenomenal thought.

Regarding the first, I have considered Kim's view for the dissociation and have shown that his reasoning was based on a definitional restriction of "phenomenal character". Another way of arguing for cases of conscious but non-phenomenal forms of thought is by considering the kind of consciousness involved in thought as just access consciousness. I have argued that the notion of access consciousness should not be seen as a form of consciousness but as a functional notion that, *per se*, does not preclude conscious thought from being phenomenal. Indeed, we have reasons to believe that A-conscious states are also normally P-conscious ones; its denial would imply attributing a surprising level of atypical character to conscious thought.

Regarding the second possibility of dissociation, namely, cases of unconscious phenomenal thought, I considered Burge's conceptual distinction and higher-order thought theories. I have shown my reservations about Burge's distinction and have proposed to understand HOT theories as either not talking about phenomenal character (by employing "quality" in another sense) or as not presenting real cases of dissociation (when accounting for phenomenal consciousness).

I should say that I do not have the pretension to exhaust all the logical possibilities one might find as proposals of dissociation between the conscious and the phenomenal character in thought, but just to examine the most prominent ones and those that *prima facie* present some plausibility. Thus, this paper does not present a knock down argument for the co-extensiveness claim, but I hope that it at least casts doubt on the dissociation and presents reasons to transform a shared assumption in the cognitive phenomenology debate into an explicit claim one can confidently believe in and defend[14].

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ON WHAT WE EXPERIENCE WHEN WE HEAR PEOPLE SPEAK

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.

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[1].

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[2].

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,

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[3]. 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

3 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[4]; (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[5]. 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

4 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 features 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.

5 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[6]. 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[7].
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.

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

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

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

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[8]. 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 the present suggestion, that there is a difference between hearing the Estonian word "jääääär" (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[9]. Now, if perceptualism is to apply to one's grasp of meaning when hearing the word "jääääär" 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 semanitically 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

8 The example is due to Davis 2014.
9 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[10]. Their contention is also consistent with the observation that there may well be a contrast between hearing a single word, such as "jääääär" 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

10 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[11].

2.3.2. Choice of notion of meaning: bearing on conservatism *vs* liberalism

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[12]. 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[13]. 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

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[14]. 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[15]. 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[16].

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.

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

15 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.

16 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*[17]. Further, it might seem that an ordinary speaker may well lack conceptual resources to think *about C*[18]. 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^{you} – 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^{you}, how is it that one is mentally representing the relevant function here, i.e. C^{you}?". It is unhelpful to answer, "One is representing C^{you} 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

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.[19]. 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[20]. 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[21]. 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)

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.

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

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

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.

4. Phenomenal contrasts III: Subtitle Cases

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)[22]. 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

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

the employment of semantic competence[23]. 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

23 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[24].

4.2. A liberal intellectualist treatment of Subtitle Cases

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

24 For arguments against conservativism, 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[25]. 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

25 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 objectually 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 phase, 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[26].

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).

26 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 comprenhension, 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[27]. 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.

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 by 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 thing 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-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[28]. 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.

6. Conclusion

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

28 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[29]. 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[30].

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

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TIP-OF-THE-TONGUE EXPERIENCES. A MODEST PROPOSAL ON COGNITIVE PHENOMENOLOGY

abstract

The experience of having a name on the tip of one's tongue is often considered as evidence either in favor of pure cognitive phenomenology or against it. Yet the question of what kind of experience it is, is barely addressed. My task is to address this preliminary question. After discussing some answers to this question, I argue in favor of a pluralist account of TOTs, according to which they are second order beliefs about our knowledge of words, perceptions or bodily feelings.

keywords

tip-of-the-tongue experience, metacognitive feeling, cognitive phenomenology, phonological information

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1. TOTs: sensuous or not-sensuous?

Cognitive phenomenology contends that mental states and events such as having a belief, entertaining an idea and understanding an argument, when they are occurring, have a phenomenology. In other words, it contends that there is something it is like to have thoughts of such kinds. Pure cognitive phenomenology further claims that this something is non-sensuous, that is, that the phenomenology of thought is unlike the phenomenology of perceptual experience[1].

With regard to the hypothesis that there is a cognitive phenomenology (pure or impure), one issue in the current debate is whether the phenomenology of thoughts is structured in terms of propositional attitudes alone (the mode of thoughts), or also in terms of their contents. Some philosophers insist that since belief and doubt are different mental states, believing that p and doubting whether p have different phenomenologies; other philosophers claim that what we believe and what we doubt, that is, the contents of our cognitive states, have a direct impact on their phenomenology. The discussion on this latter issue is complicated by the fact that theorists hold different views on content.

The experience of having a name on the tip of one's tongue (from now on: TOT) is often considered as evidence either in favor of pure cognitive phenomenology or against it. Yet the question of what kind of experience it is, is barely addressed. For example, Alvin Goldman contends, with no supporting argument, that TOT experiences are clearly examples of a non-sensory phenomenology:

> When one tries to say something but cannot think of the word, one is phenomenologically aware of having requisite conceptual structure, that is, of having definite ...content one seeks to articulate. What is missing is the phenomenological form: the sound of the sought-for word. The absence of this sensory quality, however, does not imply that nothing (relevant) is in awareness. Entertaining a conceptual unity has a phenomenology, not just a sensory phenomenology (1993, p. 24).

On the contrary, Eric Lormand (1996), who identifies the TOT with the experience of a sense

1 The claim that cognitive states have a pure phenomenology is unlike the claim that cognitive states have a proprietary phenomenology. Pure cognitive phenomenologists claim that cognitive states may have phenomenal properties even in absence of sensory phenomenal properties.

of effort together with the experience of the absence of phonological representation, claims that TOTs have a sensory phenomenology. Tim Bayne and Michelle Montague, while reporting Goldman's and Lormand's opposite views, comment that the question remains "as to whether tip-of-the-tongue-experiences ... are states with a distinctive cognitively-structured phenomenology" (Bayne & Montague 2011, p. 19). An answer to this question, however, would require knowledge of what kind of states TOTs are. Only once we know this, can the issue of their phenomenology be raised. Take the case of belief. We know more or less what a belief is, and it makes sense to ask whether there is something that it is like to believe that p and, if there is something, what it is. It may be that there is something it is like to have a word on the tip of the tongue. However, if we wish to rely on more than introspection alone before establishing whether this something is sensuous or non-sensuous, we need to know what kind of experience is involved: that is, its mode and content. My task is to address this preliminary question, hoping to reach a significant conclusion. I shall discuss three answers. The first is that this experience is a *sui generis* feeling; the second is that it is a second order belief; the third is that it is a perception.

2. Feelings

I can have on the tip of my tongue the beginning of a poem, the title of a novel, the words of a song. I can also have a melody, someone's look, a color or a perfume on the tip of my tongue (perhaps I should say that I have these latter things on the tip of my eyes and on the tip of my nose). I shall focus on lexical items, and particularly on names. Whatever the TOT is, it is a state occurring after a *failed retrieval* of the name. In the literature, there is often reference to William James' description of such a state:

> Suppose we try to recall a forgotten name. The state of our consciousness is peculiar. There is a gap therein; but no mere gap. It is a gap that is intensely active. A sort of wraith of the name is in it, beckoning us in a given direction, making us at moments tingle with the sense of our closeness and then letting it sink back without the longed-for term. If wrong names are proposed to us, this singularly definite gap acts immediately so as to negate them. They do not fit into its mould. And the gap of one word does not feel like the gap of another, all empty of content, as both might seem necessarily to be when described as gaps (James 1890/1950, p. 251)

James is not providing a definition of TOT. He is tentatively describing its phenomenology – he says that the TOT is awareness of a lexical gap that needs to be filled.
We may be aware of a lexical gap in many different situations, and it is not obvious which of them are TOTs. Take the following case. I try to recall the names of the kids who were in my third grade school class. Alas, too many years have passed, and I remember only two of them; the rest of those names have vanished. There is a large lexical gap that I am aware of. Is this a TOT? The answer is probably no.
One suggestion is that in the school case, I make a cold judgment about my knowledge. I judge that (I know that) some of the names are A, B, C... and that I do not know the other names. Instead, in the TOT I *feel* that I know a certain name, although I cannot immediately say what that name is. This suggestion leads us to the hypothesis that the TOT is a feeling.
This feeling hypothesis is attractive, and appears consistent with James' description of the phenomenon. Yet it raises the following objection. The expression "feeling" is an umbrella term for many different things: there are feelings of pleasure/pain, feelings of heat/cold, feelings of easiness/uneasiness, affective feelings and, as in the case under scrutiny, feelings of knowledge. The problem is that we need a substantial enough theory of feelings to explain what feelings of knowledge are and how they differ from other feelings. In addition, we need to know what differentiates the feeling of knowing a name from other feelings of knowledge, such as the feeling

of uncertainty. Jerôme Dokic (2012) acknowledges that "in advance absence of a substantial theory of feeling it is difficult to classify certain feelings as 'noetic feelings'", but according to Dokic there are feelings that are clearly noetic, and TOTs are among them[2]. Similarly, Bruce Mangan (2000) and Santiago Arañgo-Munoz (2014) accept the hypothesis that TOTs are noetic feelings, and that since noetic feelings are *sui generis* experiences, TOTs are *sui generis* experiences. The problem with this proposal is not only its vagueness. More seriously, it amounts to putting the cart in front of the horse. By definition, feelings have a phenomenology. Thus, if TOTs are a typical example of cognitive state, and we claim that they are feelings, we claim ipso facto that (some) cognitive states have a phenomenology. A more promising path is to reduce TOT to another state and argue that its phenomenology is the phenomenology of that state (if there is one).

3. Beliefs

Famously, David Rosenthal proposes a reductionist account according to which the TOT is a conscious occurrent belief, and elaborates this within the context of his HOT (higher order thought) theory of consciousness[3]. Briefly, for Rosenthal, a mental state M is conscious if it is accompanied by a simultaneous higher-order (i.e., meta-mental) state whose content is that one is now in M. M can be a belief, a desire or an emotion, and the higher order thought has as its object that state *with its intentional content*. The mode of this thought is one of assertion, that is, the metacognitive state is a judgment on one's first-order mental state. Rosenthal further contends that HOT about M occurs simultaneously with M and there are no intermediaries between them such as sense data, other judgments, images or feelings.

For Rosenthal TOTs, too, are HOTs – that is, metacognitive judgments. Yet, they are metacognitive judgments of a peculiar kind. Despite the fact that their content is one's first order state of knowledge, the content of that first-order knowledge is not part of their content. This means that if I have a name on the tip of my tongue, I am conscious *that* I know the name, but I am not conscious of *what* name it is.

> When I have Mark Twain's real name on the tip of my tongue, I must be conscious of the particular state that carries that information. But I am not conscious of that state in respect of the specific information the state carries; rather, I am conscious of the state only *as* a state that carries that information (Rosenthal 2000a, p. 204).

As we may put it, to be in a TOT state is to make a higher order judgment representing a state of knowledge as the state that has the appropriate intentional content, without representing that content. This is Rosenthal's general idea. I shall now give more details by comparing TOTs with some neighbouring mental states.

Consider the following case. I distinctly remember that one day I told my teacher Mark Twain's real name and she gave me a good mark. That is, I remember that I remembered that name at that time, although I do not remember it now. Remembering is a factive state. Hence, it is an instance of knowledge. In this case, I am conscious of a state (remembering) as a state that carried that information, but I am not conscious of that state with respect to the specific information the state carried. Is my remembering a TOT? Intuitively, it is not. Rosenthal can reply that my example misses an important feature of TOTs: to be in a TOT state is to be in a state that *presently* carries

2 Dokic, (2012), p. 303; see also Arañgo-Munoz, (2014): "'Feeling' will be used to refer to the conscious, phenomenal, or qualitative experience that a subject undergoes when faced with a given stimulus or a given circumstance" (p. 3).
3 Rosenthal (2000a), Rosenthal (2000b).

the information about the name, without my having access to the information the state carries. And yet, this is not the end of the story, because we have another troubling case.

CHARADE. Mary loves charades and she loves mischievous Jane even more. She comes across one from *Emma*:

My first doth affliction denote
Which my second is destin'd to feel.
And my whole is the best antidote
That affliction to soften and heal.

She has read the novel several times, and she is aware that she knows the word, but cannot currently recall it. She ponders the cues – "my whole" refers to the word to be guessed, "my first" is its first syllable, and "my second" its second syllable. At this point the word "woman" comes to her mind, and it clicks (1. "woe", 2. "man").

For CHARADE, like for TOTs, Mary has a word that is "in there", and she knows that the word is in there. Interestingly enough, for Rosenthal CHARADE is unlike TOT, and the reason is the following. An important element of his HOT theory of consciousness is that if a state is conscious, its owner is non inferentially conscious of being in that state. He contrasts immediate awareness and awareness as the result of a conscious inference:

> Not every way of being conscious even of our own states makes those states conscious. I may be conscious of being in a state by applying a theory to myself or because somebody whose judgment I trust tells me. We can, however, readily, rule out such counterexamples by positing that a HOT results in the target state's being conscious only when the HOT is not based on any conscious inference, that is, not based on any inference *of which* one is conscious. This does not mean that a state being's conscious hinges on a HOT's having some particular etiology... It is only *apparent* aetiology that counts: if it subjectively seems that we are conscious of a state *only* by inference, that state is not a conscious state (Rosenthal 2000, p. 207).

Whereas in CHARADE, Mary is not conscious of knowing the answer (given Rosenthal's constraint on inference), if I am in a TOT state, I am conscious that I possess a piece of knowledge, because when I am in a TOT state I am not conscious of making any inference. This idea may reflect the following intuition. For CHARADE Mary has to consider cues that are not already in her possession. They are, so to speak, external with respect to her. Instead, for TOTs cues already belong to the subject – they are, so to speak, internal to him. This is why TOTs have a more intimate relation with cues than CHARADE does, and is this more intimate relation that justifies the idea that for TOTs there is no conscious inference at work[4].

Here is the definition of TOT that we may extrapolate from Rosenthal's account:

(R) X has a word on the tip of her tongue iff (a) X is *non inferentially conscious* that X presently knows the word, but (b) X is not conscious of what the word is[5].

4 Thanks to Elisabetta Sacchi for suggesting me this point.
5 Rosenthal concedes that unconscious inferences may occur also in the TOT case, but their premises must be unconscious.

Is the difference between CHARADE and TOT as substantial as Rosenthal would claim? We should notice that sometimes, when a name is on the tip of my tongue I have cues which concern the name itself (its gender, the initial letter, the number of syllables, the syllabic stress), its bearer or the context in which I acquired it, and in the presence of cues, it appears to me that I know the name, on the basis of this initial knowledge. Here is an example of a TOT resulting from pre-existing cues. I try to recall the name of the author of *Huckleberry Finn*, but I fail. I recall that it rhymes with "rain". "Brain"? No, it starts with "T". "Train"? I ponder. I would not have these cues unless I knew the name... I know it!
In this example, it appears to me that I am making some kind of inference, an inference to the best explanation of why I have that information. The conclusion of the inference is my awareness that I know the name, and this awareness is a TOT. This is not to say that in presence of cues, it always appears to me that I know the name on the basis of my awareness of cues. It may happen that I simply believe that I know the name, and *then* I find reasons that ground my knowledge claim. In such case I become aware of reasons after being aware that I know the name. In fact, both situations are possible – sometimes there are pre-existing cues of which I am conscious; other times I find reasons that justify my being in a TOT state. In the former case, but not in the latter my TOT is the result of a conscious inference, and it provides a counterexample to the claim that condition (a) in (R) is a necessary condition.

Rosenthal's reply to the counterexample is as follows. Of course, when armed with information that the name rhymes with "rain" and starts with the letter "T", I still do not become conscious of the thought that the name is "Twain". Once this fact is acknowledged, my awareness that the name rhymes with "rain" and starts with "T" *is* a TOT, and it is only at the moment in which the name comes to me that my thought about it stops being a TOT. But until the cues have done their work, we have a TOT. In other words, the additional conscious information providing cues to the name could be no less TOT than the standard case with the absence of cues (Rosenthal, *private correspondence*).

Rosenthal's move involves the claim that any time we are conscious of a cue and we believe that we know the name, our consciousness of the cue is itself the belief that we know the name (and hence the TOT). If consciousness of the initial letter or of any other information about the name *is* the TOT state itself (that is, being aware of cues is identical to being aware that one knows the name), it *canno*t appear to us that those cues consciously guide us to the awareness that we know the name. In other words, it cannot be that consciousness of the cue and awareness that one knows the name are different states, one serving as guidance for the other – in this and in other similar cases awareness of cues is identical to being in a TOT state.

The problem with his reply is that if awareness of cues and awareness that one knows the name are belief states and beliefs are identified by their content, these beliefs have different content. Thus they cannot be one belief. In particular, if the awareness that the name rhymes with "train" is a belief state, it cannot be a TOT, and if we have two beliefs, then the question arises about their relation[6].
I think that the main motivation for Rosenthal's constraint on inference expressed in (R) is that immediacy is a proprietary feature of TOTs (and more generally, of consciousness). But I have pointed put that the idea that awareness of cues is the premise of a conscious inference

6 I raise other objections to Rosenthal's account of TOTs in Calabi (2016).

to the effect that I know the name runs against such immediacy. Yet a different hypothesis is also available, which nicely combines awareness of cues and immediacy and is perfectly suitable to my Twain case. The hypothesis, which has not been addressed in the literature on TOTs, is that in the presence of conscious phonological cues, TOTs are perceptions of words. This means renouncing to give a uniform account of TOTs – since the perceptual hypothesis applies to cases like my Twain case only.

4. Perceptions, and a modest proposal

Here is the general idea. If in a TOT experience there is phonological information about the word to be retrieved, this information guides us in some way to the discovery that we know the word. To say that it guides us is not to say that we are making some conscious inference. It is to say that the information we possess is sufficient to become aware of the word. This information supports both the claim that we are perceptually acquainted with the name itself, without having full access to it, and the claim that its full recognition is imminent. As we already know, these two features are essential properties of TOTs.

The perception hypothesis is justified by some obvious analogies between TOT states and perceptual states, particularly visual states. Consider the following. I look at a window and it seems to me as if there is a moving body behind the curtains. I see *something*, but the curtains hide it so well that I do not see what it is. In some way, however, I visually differentiate it from its background. Suppose further that it is very windy, and I am expecting that a gust will blow the window open. In fact, I am expecting that the object's recognition is imminent. More generally:

1) When I look at an F, even very limited visual information allows me to become visually aware of the object itself.
2) Visual information about F grounds both the perceptual judgment that there is an F, despite the fact that I do not have full access to it and – at least in some cases – the judgment that its recognition is imminent.

In addition to (1) and (2), we should also note that perceptual experience allows us to keep track of external objects. Similarly, TOT states allow us to keep track of words stored in our memory. Moreover, if there is representation, misrepresentation is also possible. In the case of perceptual experiences, failure amounts to illusion and hallucination. In presence of conscious phonological cues, veridical TOTs are experiences that represent a word stored in memory. In an illusory TOT it is as if the target word is there, despite the fact that there is no such word. In such cases (again, in presence of conscious phonological cues), TOTs are sensuous imaginings[7].

I am not arguing that the perceptual account of TOTs applies to all TOTs – I introduced it as the best explanation for my Twain case and any other similar to it. Yet, there are TOTs with no cues at all and TOTs with semantic cues, and they require an explanation also. (R) may fit the bill for TOTs with no cues, but not for TOTs with conscious semantic cues for already given reasons. Thus either we analyze TOTs with semantic cues as involving two beliefs (a first order belief about the semantic cues, and a second order belief about one's state of knowledge),

7 From the first person point of view, there is no difference between veridical perception and hallucination. How to account for the fact that they are different mental states depends on one's preferred theory of perceptual experience. I said that TOTs with phonological cues represent words stored in memory. Hence, I am implicitly endorsing an intentionalist theory.

with obvious loss of immediacy, or we analyze them as involving a first order belief about the semantic cue and a (bodily) feeling. Whatever way we go, it is a significant departure from Rosenthal.
Eventually I endorse a pluralist account of TOTs, according to which they are second order beliefs about our knowledge of words, perceptions or bodily feelings, as in Normand's analysis. They are not *sui generis* experiences.

How does my conclusion impinge on the debate on cognitive phenomenology? One might think that if there is no reason to consider TOTs as *sui generis* experiences, there is no reason to claim that they enjoy a proprietary phenomenology, let alone a pure phenomenology. However, this inference would require the further assumption that if a state has a proprietary phenomenology, then it is a *sui generis* experience[8]. I am not sure that this is a plausible assumption. Emotions such as fear have a proprietary phenomenology, but they are not *sui generis* experiences – at least according to many theories of emotions. In the end, I am unsure how strong a case may be made with regard to TOTs either in favour of or against pure cognitive phenomenology. The question remains to be settled, even after establishing what kind of states TOTs are[9].

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8 It could be objected that by definition a state with a proprietary phenomenology is a *sui generis* experience because to have a proprietary phenomenology is to have a phenomenology that only that state has. In response to this objection, I contend that at least for some theorists, there are states that result from the combination of other states and yet qua resulting states, have a phenomenology that is not shared by any other state. Emotions are typical examples. Thanks to Alberto Voltolini for the objection.

9 I would like to thank Davide Bordini, Elisabetta Sacchi e Alberto Voltolini for their useful comments. I am very grateful to David Rosenthal for his enlightening remarks in the correspondence we had on tip-of-the-tongue experiences.

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VARIETIES OF COGNITIVE PHENOMENOLOGY

abstract

In this paper, I first want to provide an argument (actually, a two-step argument) in favor of the claim that, qua primitive form of phenomenology, cognitive phenomenology is not only irreducible to, but also independent of, sensory phenomenology. Second, I want to claim that the two cognitive phenomenologies that the previous argument has respectively shown to be independent of and merely irreducible to sensory phenomenology, namely the phenomenology of having thoughts and that of understanding thoughts, also instantiate different general kinds of cognitive phenomenology, i.e., a merely proprietary phenomenology and a both proprietary and distinctive phenomenology respectively. Third, I gesture towards a generalization of this distinction: any independent cognitive phenomenology is merely proprietary, any irreducible cognitive phenomenology is both proprietary and distinctive. In order to do so, finally, I have to dismantle Pitt's (2004) argument to the effect that all cognitive phenomenology is not only both proprietary and distinctive, but also individuative.

keywords

cognitive phenomenology, having thoughts, grasping thoughts, independence, irreducibility

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Introduction

In this paper, I first want to provide an argument (actually, a two-step argument) in favor of the claim that, *qua* primitive form of phenomenology, cognitive phenomenology is not only *irreducible* to, but also *independent* of, sensory phenomenology. Second, I want to claim that the two cognitive phenomenologies that the previous argument has respectively shown to be independent of and merely irreducible to sensory phenomenology, namely the phenomenology of *having* thoughts and that of *understanding* thoughts, also instantiate *different* general kinds of cognitive phenomenology, i.e., a merely proprietary phenomenology and a both proprietary and distinctive phenomenology respectively. Third, I gesture towards a generalization of this distinction: *any* independent cognitive phenomenology is merely proprietary, *any* irreducible cognitive phenomenology is both proprietary and distinctive. In order to do so, finally, I have to dismantle Pitt's (2004) argument to the effect that all cognitive phenomenology is not only both proprietary and distinctive, but also individuative.

1. The state of the art[1]

In the recent literature on cognitive phenomenology, several arguments have been provided in order to support the position according to which cognitive phenomenology is different from sensory phenomenology, the so-called *liberal* position[2]. Among such arguments, the one from phenomenal contrast, the so-called Moore-Strawson argument[3], and the one from first-person knowability, the so-called Goldman-Pitt argument[4], are the two main varieties. Recently, Kriegel has said that a new argument to this purpose is required. For, he holds, the two aforementioned kinds of arguments, though acceptable, suffer from a lack of elucidation of the target notions they involve, i.e., the notions of cognitive and of phenomenal. In this respect, he has put forward a new argument in favor of the same position whose starting point precisely consists in providing such an elucidation: "with the right characterization of the cognitive and the phenomenal [...] one can start to imagine the kind of scenario whose possibility would establish the existence of primitive cognitive phenomenology" (2015, p. 41). To be sure, this argument still *is* a phenomenal contrast argument (PCA). Yet unlike the standard arguments of this form, it does not rely on introspection. Notoriously, appealing to introspection is a doubtful move.

1 This and the following Section are an elaboration of what originally appeared in Sacchi and Voltolini (2016).
2 Cf. Bayne and Montague (2011, p. 3).
3 Cf. Kriegel (2015, p. 40). One can find the argument in Moore (1953, pp. 58-59) and in Strawson (1994, pp. 5-13).
4 Cf. Kriegel (2015, p. 40). One can find the argument in Goldman (1993) and in Pitt (2004). See later in the text.

To begin with, says Kriegel, let us imagine the case of Zoe. Zoe is a sensory zombie of a very radical kind: she is devoid not only of any form of sensory phenomenology, both perceptual (linked to esteroceptive sensations) and algedonic (linked to interoceptive and proprioceptive sensations; in order to take into account the fact that such a phenomenology includes not only pains but also pleasures, one may perhaps better label it *alg/hedonic*), but also of any form of emotional phenomenology, which is for Kriegel grounded on sensory phenomenology at least. Yet, continues Kriegel, Zoe's life is not that boring as one may suspect. For, Kriegel stipulates, on the basis of some internal yet nonconscious processes that still take place in the sub-personal areas of her brain respectively implementing perceptual, alg/hedonic and emotional experiences, Zoe still entertains an interesting cognitive life entirely devoted to thoughts concerning mathematical calculations. In such calculations, she *inter alia* realizes some important mathematical proofs. Any such realization involves a contrast in her cognitive life. He argues that this contrast is phenomenal, thereby involving (different) phenomenal mental states, not by appealing to introspection, as standard PCAs actually do, but rather by mobilizing his characterization of what is phenomenal[5]. Since by hypothesis such mental states are not sensory, it follows that they are endowed with a cognitive phenomenology. Thus, he concludes, Zoe has a cognitive phenomenology while lacking a sensory one. As a result, Kriegel's argument allegedly supports not only the claim that cognitive phenomenology is irreducible to sensory phenomenology, but also the more radical claim that the former is independent of the latter[6].

As some people have remarked, the immediate problem with this argument is that although we can conceive the previous story, this is no guarantee that the story amounts to a *logical* possibility. Indeed, we do not positively imagine that story[7]. Granted, Kriegel believes the opposite, for the story betrays no trace of a contradiction[8].

Yet, his opponents may reply, even if this showed that the story amounts to a positive form of imaginability, hence to a logical possibility, why must we further endorse the claim that the story is also *metaphysically* possible? In such a case, does being logically possible entail being metaphysically possible? To this reply, Kriegel rejoins that "it is certainly highly plausible that some types of conceivability – including conceivability by an epistemically responsible agent in normal or favorable circumstances – provide *prima facie, defeasible* evidence for metaphysical possibility"; Zoe's case represents one of these types (2015, p. 62).

Yet can we be satisfied with the absence of any defeater? What if some defeater should eventually pop up[9]? In order to rule out such an option, it may be useful to look for another argument that strengthens Kriegel's credence in what he calls "cognitive-phenomenal primitivism" (2015, p. 38), by however displaying *another* case of an individual whose cognitive phenomenology is not only irreducible to, but also independent of, sensory phenomenology. (When suitably reconceived, Zoe herself may be such an individual). For if I am right, this case amounts to a genuine metaphysical possibility. To be sure, since the independence claim entails the irreducibility claim of cognitive phenomenology to sensory phenomenology[10],

5 Cf. Kriegel (2015, pp. 30-31). To be sure, unlike *pure* PCAs, Zoe's argument is a *hypothetical* PCA, that is, an argument in which the imagined case in not actual, as Chudnoff (2015, pp. 45-55) holds. Yet this does not undermine its non-introspective nature.

6 To put things in Chudnoff's (2015, pp. 15-17) terms.

7 Cf. Pautz (2013, p. 219). For the notion of a positive imaginability and its link to logical (and also metaphysical) possibility, cf. originally Chalmers (1996).

8 Cf. Kriegel (2015, p. 56).

9 Chudnoff's (2015, p. 54) criticism of Kriegel's argument may be taken to go along this direction.

10 Cf. Chudnoff (2015, p. 17).

to argue for the former is *eo ipso* to argue for the latter. Yet we will also see in the course of the argument that there is another instance of cognitive phenomenology that is merely irreducible to the sensory one.

2. The Vita argument

Let me start with focusing on the most general phenomenal contrast, the one between phenomenal life on the one hand, where what Kriegel calls "the highest phenomenal determinable" aka "*phenomenality per se* (what-it-is-like-ness as such)" (2015, p. 10) is instantiated, and the absence of such a life, where no phenomenality at all occurs. Needless to say, this amounts to the contrast between being awake and being asleep (in the further supposition that no dream occurs while sleeping; from now on, let us take this specification for granted). Passing from being awake to being asleep is precisely switching from having phenomenality *per se* to have no such thing at all[11].

Once taken the most general phenomenal contrast into account, I can put forward another argument in favor of the independence of cognitive phenomenology from sensory phenomenology. The argument indeed starts by presenting a case that involves the above phenomenal contrast, the case of Vita. Vita is an addicted insomniac who tries all the possible techniques in order for her to fall asleep. While going to bed, she puts a black band on her eyes and she switches on a radio that obsessively repeats the same sounds; while lying in bed, she finds the most comfortable position for her body to stay; she covers herself with a very soft blanket so as to feel warm enough, and so on and so forth. In this condition, she manages to keep her sensory phenomenology stable as much as possible, so as to favor her falling asleep. She thereby manages to relax herself: she feels no anxiety, fear or anger. Yet as to falling asleep, no way. These practices notwithstanding, she goes on *thinking*. Indeed, she does not fall asleep precisely *because* she cannot stop thinking. This reason has not to do with any underlying processes in her body (her brain included), as if she did not fall asleep because her heart beats too fast. Such processes, if any, may *cause* her not to fall asleep, but they are no *reason* for the phenomenal switch from being awake to being asleep to occur. Rather, that reason has to do with the fact that she *experiences* such thoughts, that they are *conscious* for her. Clearly enough, generally speaking the reasons for Zoe (as much as for us) not to undergo that sort of maximal phenomenal switch must be phenomenal. Indeed, she might go on being awake in virtue of a variety of phenomenally relevant cases: e.g. because she were anxious, or she suffered from a terrible itch, or even her sight were hit by a ray of light. Yet, as we have seen before, it is not her sensory phenomenology that is responsible for her failing to pass into another state where she lacks phenomenology at all, as in all the above cases. Thus, another form of phenomenology must do that job. The *conscious* thoughts she entertains over and above that sensory phenomenology play this inhibitory role; phenomenal life goes on with her precisely because of them.

Let me now assess this first step of my argument. To begin with, this argument is a form of PCA, for it involves considering a phenomenal switch from being awake to being asleep. However, it has some features of its own. For, unlike standard PCAs and like Kriegel's Zoe argument, the argument does not focus on different phenomenal states whose phenomenal difference is given introspectively. For there is no introspection as regards one's being asleep: obviously enough, being asleep is not a mental state, hence *a fortiori* it cannot be something

11 In (2016, pp. 181-183), by relying on the contrast between conscious and unconscious perception, Montague remarks that a similar contrast occurs between conscious and unconscious thought. Yet I am uncertain whether, unlike the one I am pointing out in the text, this contrast can be straightforwardly meant as a *phenomenological* contrast. One might object that the difference between conscious and unconscious thought can be dealt with in functional terms.

one is introspectively conscious of. Thus, it would be better to conceptualize the phenomenal difference the argument points out as a difference between the existence of phenomenal awareness on the one hand and the lack of such awareness on the other[12].

Moreover and more importantly for my present purposes, unlike Kriegel's argument, it is hardly disputable that the argument's story describes a *metaphysical* possibility. Not only there certainly are insomniac, but there *may* well be insomniac of the Vita kind. As a matter of fact, any of us may find her/himself in Vita's state.

If we put these two assessments together, we get not only that Vita's case is a genuine metaphysical possibility, but also that the overall *phenomenal* difference her case mobilizes involves her having (for her unstoppable) *thoughts*, not her having the sensory states she tries to keep at a minimum. Thus up to now, I should have managed to prove the claim that there is a cognitive phenomenology irreducible to a sensory one: over and above those sensory states, Vita has thoughts whose phenomenal character prevents her from switching from an overall phenomenal condition of being awake to the nonphenomenal condition of sleeping.

Obviously enough, detractors of the liberal view of cognitive phenomenology will immediately protest that I have not proved the above claim. For, they would say, even if one concedes that Vita has a cognitive phenomenology that exceeds her standard sensory phenomenology, that cognitive phenomenology may well be reduced to some other form of sensory phenomenology; namely, sensory imagery[13]. For any such thoughts, Vita entertains some kind of sensory imagery, typically but not exclusively a visual one. While thinking, say, of her work tomorrow, she has some flashes of the building where she works; while thinking of how to get to that building, she auditorily images the noise of the traffic around, and so on and so forth. Yet no such imagistic phenomenology may account for *all* the thoughts Vita entertains while lying in bed. As she is very ingenious, she has developed a technique for thinking boring, sleep-inducing, thoughts: typically, item-counting thoughts. Yet instead of counting sheep as normal people do, Vita counts items featuring an even less exciting subject; namely, geometrical figures. As you already know, she is an addicted insomniac. So, her enumeration proceeds: after a while, she arrives at counting a chiliagon first, and a circle afterwards. Yet as we all know, no sensory imagery distinguishes a thought of a chiliagon from a thought of a circle. Thus, this passage in Vita's thoughts cannot be accounted for in terms of (having vs. not having) sensory imagery. More in general, her having a thoughtful life that prevents her from falling asleep cannot be so accounted for[14].

Yeah, yeah – will the detractor say. Yet in counting geometrical figures, as in any other thought for that matter, Vita engages herself in some inner speech, which definitely has an aural counterpart. So, while counting a chiliagon, Vita silently says to herself (and auditorily images her saying) "This is a chiliagon"; while counting a circle, Vita silently says to herself (and auditorily images her saying) "This is a circle". Thus, her change in thought is matched by a change in (auditory) imagery that concerns the different phonology and possibly also the different syntactical parsing of such sentences[15].

12 One might take this PCA as a form of what Chudnoff (2015, pp. 55-60) labels a *glossed* PCA, in whose premises one also glosses on the nature of the phenomenal difference involved.

13 Cf. Prinz (2011, pp. 181-193). Kriegel himself (2016) seems sensitive to this sort of reply.

14 For a similar move, cf. Mendelovici (2010).

15 Cf. Prinz (2011), Tye and Wright (2011). One might take this objection also as a reply to Montague (2016, pp. 193-194) that a given sensory imagery is no necessary condition for a thought, for one and the same thought may be surrounded by different sensory images. See also Wilson (2003, p. 417). For in inner speech, the objector may say, a certain thought is surrounded always by the same (auditory) image. To be sure, Montague would reply (*ib*., pp. 194-195) that in inner speech, speakers of different languages surround one and the same thought with different (auditory) images. Yet this reply works for intersubjective, but not for intrasubjective, cases of thinking the same

Yet even if this were the case, it is easy to figure out a continuation of the story where Vita exploits another technique: namely, obsessively repeating to herself in her inner speech the very same sentence endowed both with the same phonology and the same syntax, yet meaning it now one way, now another way. For instance, she obsessively repeats to herself "Dionysius is Greek" once meaning Dionysius the Elder, ruler of Syracuse, Sicily, in ancient times, once meaning Dionysius the Younger, son of the preceding. It is quite likely that in her mind, not only she does not visually tell the two guys, with whom obviously she has never had any physical contact – she sticks to the very same mental image of a distinguished ancient adult Greek – but also she does not aurally tell the different yet both phonetically and syntactically alike tokens of the above sentence[16]. In this case, she repeatedly undergoes a thought alternation that constitutes her thoughts in their having an overall, sleep-preventing, phenomenology. Yet by hypothesis that alternation cannot be accounted for by any sort of change in sensory imagery. Thus once again, her having a thoughtful life that prevents her from falling asleep cannot be imagistically accounted for[17].

Now, if I have managed to show that cognitive phenomenology is irreducible to *any* sensory phenomenology, it is relatively simple to also show that the former is independent of the latter. This is the second step of my argument.

As is well known, Wittgenstein repeatedly said that meaning something by means of an expression does not consist in any sort of mental process, which at most *accompanies* that meaning[18]. Now, Vita's case shows that the very same point can be made as to the relationship between sensory and cognitive phenomenology, at least as far as the phenomenology of *having* thought is concerned. Let me concede that any of Vita's thoughts is actually flanked by some sort of sensory phenomenology or other: in actual fact, there is no thought of Vita's that is not flanked by some phenomenal sensory state or other, ultimately a sensory imagery of some form or other (visual, auditory, etc.). Yet clearly enough, this relationship between the two kinds of phenomenologies is no more intimate than that of an accompanying or a surrounding. Yet this is to say, there is no *intrinsic* relationship between a cognitive form of phenomenology and a sensory form of phenomenology. In other terms, the cognitive phenomenology of having thoughts is *independent* of any sensory phenomenology. There indeed is a possible world in which Vita still has the thoughts that prevents her from falling asleep and yet she has no phenomenal sensory states at all. Needless to say, this is a world in which Vita is a Zoe-like person[19].

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thought. Wlison (2003, p. 417) puts forward such an intrasubjective case that however mobilizes mere visual imagery.

16 For similar examples, see e.g. Siewert (1998), Horgan and Tienson (2002).

17 As Wittgenstein once magistrally said in his own way: "When someone says the word 'cube' to me, for example, I know what it means. But can the whole *use* of the word come before my mind when I *understand* it in this way? Yes; but on the other hand, isn't the meaning of the word also determined by this use? And can these ways of determining meaning conflict? Can what we grasp *at a stroke* agree with a use, fit or fail to fit it? And how can what is present to us in an instant, what comes before our mind in an instant, fit a *use*? What really comes before our mind when we *understand* a word? -- Isn't it something like a picture? Can't it *be* a picture? Well, suppose that a picture does come before your mind when you hear the word 'cube', say the drawing of a cube. In what way can this picture fit or fail to fit a use of the word 'cube'? -- Perhaps you say: 'It's quite simple; if that picture occurs to me and I point to a triangular prism for instance, and say it is a cube, then this use of the word doesn't fit the picture.' -- But doesn't it fit? I have purposely so chosen the example that it is quite easy to imagine *a method of projection* according to which the picture does fit after all. The picture of the cube did indeed *suggest* a certain use to us, but it was also possible for me to use it differently" (2009[4]: I, § 139).

18 Cf. e.g. "Neither the expression 'to mean the explanation in such-and-such a way' nor the expression 'to interpret the explanation in such-and-such a way' signifies a process which accompanies the giving and hearing of an explanation." (2009[4]: I, § 34)

19 Accepting this claim means accepting what Chudnoff (2015, p. 118) labels the Disembodied Qualia Premise: "if there are cognitive phenomenal states, then there should be parts of phenomenally different total phenomenal states T_1 and T_2 such that: T_1 includes both sensory and cognitive states and T_2 is the same as T_1 with respect to cognitive phenomenal states but lacks all sensory phenomenal states".

To be sure, someone may still wonder whether there really is no intrinsic relationship between cognitive and sensory phenomenology. In a sense, this perplexity is correct. For there are situations in which, unlike the previous one, irreducibility of cognitive phenomenal states to sensory phenomenal states does not lead to the former states' independence from the latter states. Yet this only shows that there is a difference between the cognitive independent phenomenology of *having* thoughts, which is what we have talked about all along, and the cognitive merely irreducible phenomenology of *grasping* thoughts, namely that form of phenomenology that paradigmatically takes place in experiences as of understanding, those originally pointed out by Strawson (1994) among others. Let us see.

In experiences as of understanding, there definitely is a dependence of the cognitive phenomenology of understanding on the sensory phenomenology of hearing or reading. One could not understand the thought that is expressed by a sentence that by itself is "dead", i.e., meaningless, if one did not hear or read that very sentence, or even another such sentence that is ascribed the very same meaning (for instance, a synonymous sentence yet in a different language), by then suitably interpreting it. Yet such an experience of understanding does not reduce itself to the sensory phenomenology that hearing or reading a meaningless sentence involve, as ambiguous sentences clearly show. One could not understand the famous Wildean joke "To lose one parent, Mr. Worthing, may be regarded as a misfortune; to lose both looks like carelessness" if one did not first hear or read that sentence as a meaningless sentence by then interpreting it in the sense having to do with misplacing rather than in the sense having to do with suffering from deprivation[20]. Yet moreover, those experiences of understanding do not reduce themselves to sensory experiences, as this ambiguity case shows. For in this case, *two* experiences of understanding correspond to *one and the same* sensory experience of the relevant sentence (including any imagistic apprehension of that sentence's syntax). Thus, also experiences of understanding involve cognitive phenomenology.

Yet in *having* a thought, no such act of interpretation of a previously perceived sentence has to be involved. It is not the case that one mentally hears or reads a certain sentence and then understands it by interpreting in a certain way, possibly choosing one among different theoretically legitimate interpretations[21]. Rather, one immediately thinks the thought in the only sense it has. Thus, even if some sentence or other imaginatively heard or read in inner speech pops up while having that thought, this sentence only accompanies the thought in an *extrinsic* sense: one might have thought that very thought without silently repeating to herself that sentence, or any other sentence for that matter[22]. Consider Vita again. In alternately thinking that Dionysius the Elder is Greek and that Dionysius the Younger is such, her silently repeating to herself "Dionysius is Greek" is unnecessary. But if by chance she had heard this very sentence, now grasping one of its meanings now grasping the other one – we

20 It may well be the case that also in the other two cases that Chudnoff (2015, p. 107) points out, namely: grasping a mathematical proof that uses a diagram and intuiting a mathematical proof by visualizing a shape, cognitive phenomenology is grounded in sensory phenomenology. For both such cases are cases in which one perceives something meaningless and then has a perceptually-based realization of the proof it manages to express. See later in the text.

21 Perhaps interpreting that sentence amounts to match it with a Mentalese sentence in the brain, as Fodorians say. Yet the Mentalese sentence is not a meaningless sentence that is first (imaginatively) sensed as such and then interpreted in some way or other, for it is an *originally meaningful* yet inaccessible sentence. Thus, if it is a vehicle of thinking, it is not such in the same way as a meaningless sentence is a vehicle of understanding.

22 Chudnoff acknowledges that there may be cases of thoughts endowed just by a cognitive phenomenology. Yet by echoing Prinz (2011), he wonders whether such cases are actually possible (2015, p. 108). If I am right in splitting in the above way these cases from cases of understanding as cases of thought entertainment vs. cases of thought grasping, there is no problem in accepting their being genuinely possible.

may suppose that *this* is the sentence that obsessively the radio she is listening to repeats – then hearing that sentence would be necessary, though insufficient, in order for her to have now one, now another, understanding experience. Thus, there is a difference in this form of cognitive phenomenology: the cognitive phenomenology of having thoughts is independent of any sensory phenomenology, while the cognitive phenomenology of grasping thoughts is merely irreducible to it.

Let me take stock. The difference between the cognitive phenomenology of having thoughts and that of grasping thoughts explains why in the former kind of phenomenology the relationship between cognitive and sensory phenomenology is not the one holding in the latter kind of phenomenology; namely, it is an extrinsic and not an intrinsic one. Thus, it leads in such a case to the independence of cognitive phenomenology from sensory phenomenology[23]. Hence, if I am right, by appealing to the case of Vita I have managed to show that there is a kind of cognitive phenomenology that is not only irreducible, to but also independent of, sensory phenomenology.

3. Kinds of cognitive phenomenology

The contrast between the phenomenology of having thoughts and the phenomenology of grasping thoughts I have pointed out in the previous Section is illuminating for various reasons. First, it tells us not only, and obviously, that there is a plurality of cognitive phenomenologies[24], but also that such a plurality is *typologically* differentiated. For, to trace back to Pitt's (2004) own characterization, while the phenomenology of having thoughts is merely *proprietary*, that is, it is a *sui generis* kind of phenomenology different from any other such kinds[25], the phenomenology of grasping thoughts is also *distinctive*, that is, it is such that distinct types of experiences as of understanding have distinct cognitive phenomenal properties[26].

Why so? For in the latter case, as we saw before, there may well be a phenomenal switch between grasping a certain thought and grasping another thought that is however expressed by the same sentence without any change in the underlying sensory phenomenology concerning that sentence's apprehension. By hypothesis, therefore, that switch must be taken to be a switch in the cognitive phenomenology that the two types of experiences as of understanding respectively possess. A certain experience as of understanding and another such experience, which respectively belong to different types of such experiences, are also distinct in their cognitive phenomenology. Yet in the former case, passing from having one thought to having another thought prompts no such switch. Thus, distinct types of having thoughts still share the same cognitive phenomenology. In the Vita case, her *overall* going on *thinking* prevents her from sleeping, not her passing from one thought to another. If she switched from entertaining certain cognitive phenomenal properties to entertaining

23 Incidentally, by drawing such a difference in those cognitive phenomenologies, as to the phenomenology of having thoughts one may reject Chudnoff's premise in the argument he labels "the missing explanation argument" (2015, pp. 117-120) that is meant to undermine irreducibility of cognitive phenomenology to sensory phenomenology via undermining independence of the former to the latter. That premise supposedly leads from irreducibility of cognitive phenomenology to sensory phenomenology to independence.

24 As Kriegel (2015, 2016) also maintains.

25 Bayne and Montague acknowledge that the fact that cognitive phenomenology has proprietaryness, which they take as the defining feature of that phenomenon, does not entail that it also has the other features. Cf. (2011, pp. 12-13). See also Bourget and Mendelovici (2016). Yet the idea that cognitive phenomenology is at least also distinctive is defended by various people: cf. e.g. Horgan and Graham (2012, p. 334), Horgan and Tienson (2002, p. 522), and Montague herself (2016).

26 Cf. also Kriegel (2011, p. 49), who may be however meant to use the case as supporting the claim that cognitive phenomenology *in general* has a proprietary as well as a distinctive character (Bourget and Mendelovici 2016).

different cognitive phenomenal properties when obsessively thinking now that Dionysius the Elder is Greek now that Dionysius the Younger is such, her reason for endorsing that thinking technique, namely preventing her from being distracted by any phenomenal change (remember that in that case her sensory phenomenology remains the same), would be futile[27].
Second, those cases may prompt one to put forward a general hypothesis. *Whenever* a kind of cognitive phenomenology is independent of sensory phenomenology, it is merely proprietary. Conversely, *whenever* a kind of cognitive phenomenology is merely irreducible to sensory phenomenology, it is both proprietary and distinctive.
Granted, it is hard to prove this hypothesis in its generality. For irreducibility *per se* merely entails that, *if* there is a phenomenal difference between sensuously identical mental states of the same sort having an irreducible kind of cognitive phenomenology, say two aurally or visually identical experiences as of understanding, this difference is a difference in their cognitive phenomenology, hence such a phenomenology is distinctive. But it does not entail that there is such a difference between two mental states of *any* such sort instantiating that kind of cognitive phenomenology, hence that such a kind of cognitive phenomenology is distinctive. Conversely, independence merely entails that, *if* there is no phenomenal difference between sensously identical mental states of the same sort having an independent kind of cognitive phenomenology, say two aurally or visually identical thoughts, then such a phenomenology is merely proprietary. But it does not entail that there is no phenomenal difference between two mental states of *any* such sort instantiating that kind of cognitive phenomenology, hence that such a cognitive phenomenology is merely proprietary.
Nevertheless, the hypothesis is quite sensible. For on the one hand, if phenomenal independency has to do with the fact that sensory phenomenology is neither a necessary nor a sufficient condition of the overall phenomenology of the relevant mental state, it is quite likely that any two mental states of the same sort do not differ in their kind of cognitive phenomenology, thereby prompting that kind of phenomenology to be merely proprietary. Whereas on the other hand, if phenomenal irreducibility has to do with the fact that sensory phenomenology is a necessary but not a sufficient condition of the overall phenomenology of the relevant mental state, it is quite likely that there will be two mental states of the same sort that differ just in their kind of cognitive phenomenology, thereby prompting that kind of phenomenology to be both proprietary and distinctive. In this respect, it can be definitely shown not only that there are *other* cases of mental states whose cognitive phenomenology is independent of sensory phenomenology, in which the former phenomenology is merely proprietary, but also that there are *other* cases of mental states whose cognitive phenomenology is merely irreducible to sensory phenomenology, in which the former phenomenology is both proprietary and distinctive.
To begin with, consider the phenomenology of endorsing thoughts. Some people claim that there is a difference between the phenomenology of *having* thoughts, of merely entertaining certain proposition-like contents, and the phenomenology of *endorsing* thoughts, of believing,

27 This may prompt one to wonder whether the cognitive phenomenology of thinking does not reduce once again to the sensory phenomenology of imagining, which in such a case remains constant, as we have seen before. Yet there is no such risk. For not only Vita still has the cognitive feeling that her thoughts differ, a feeling that cannot be explained by that constancy in imagery. But I may also suppose that Vita has thoughts that, by belonging to different attitude types, induce an overall change in cognitive phenomenology that is matched by no corresponding change in sensuous imagery. For instance, while sticking to the same mental images, she may *endorse* the thought that Dionysus [the Elder] is Greek while *wondering* whether Dionysus [the Younger] is such. For the idea that there is a variety of types of cognitive phenomenology that matches the difference in the attitude type of the relevant thoughts, cf. both Horgan and Tienson (2002) and Horgan and Graham (2012).

if not even knowing, such contents[28]. I am not sure whether endorsing thoughts amounts *per se* to instantiating a form of cognitive phenomenology. On behalf of this idea, one may claim that, just as any perceptual experience involves a feeling of presence as to the object perceived, any endorsing of a thought involves a feeling of certainty in the subsistence of the propositional-like content so endorsed. Perhaps. Yet one is not forced to defend such a claim. For one may nevertheless hold that there is a phenomenal difference between the phenomenology of *having* thoughts and the phenomenology of *realizing* thoughts, that is, the cases in which one *comes* to believe, or to know, a certain thought that was previously at most merely entertained. Now, just as the cognitive phenomenology of having thoughts, the cognitive phenomenology of realizing thoughts is independent of any sensory phenomenology. Thus, one may well expect that it is merely proprietary as well.

Consider again the case of Zoe when she realizes that a certain mathematical proposition she merely thought is true. Now, as I said before, I agree with Kriegel that in that case there is a phenomenal switch. Yet the switch in question precisely concerns one's passing from *entertaining* a certain proposition-like content to *realizing* that such a content subsists. However, passing from a certain realization to another such realization involves for Zoe no such switch. This may further be seen once one notices that mathematical cases are definitely not the only cases in which such realizations are involved. Someone's coming to know the informative value of an "a is b" – form of identity, such as Hammurabi's coming to know that Hesperus is Phosphorus, is an another example of such realizations[29]. Now, consider the most famous case of such realizations, namely when Oedipus realized at one and the same time both that Jocasta was Mummy and that Laius was Daddy. Both such realizations are definitely imbued with a proprietary kind of phenomenology. Possibly, before that discovery Oedipus had already wondered whether Jocasta was Mummy and Laius was Daddy; yet such wonderings, i.e., the entertaining of the corresponding thoughts, did not definitely have on him the same experiential impact as those realizations. Yet there is no phenomenological difference for him in realizing the two things. Definitely, they were the realizations of different *thoughts*. Yet they were not phenomenally different *realizations*. Thus, the phenomenology of endorsing thought, which as we have seen is independent of any sensory phenomenology (just as the phenomenology of having thoughts), is again a merely proprietary but not a distinctive kind of phenomenology.

Yet suppose now that someone, call her Mata, instead of mumbling *à la* Zoe whether a certain mathematical proposition is true, attends to its demonstration performed via a certain diagram that she faces. Mata again entertains a realization, yet unlike the previous realization, this realization essentially involves her seeing the dots constituting the diagram. In want of a better term, let me call it a *perceptually-based realization* (*PB-realization*)[30]. In this case, the phenomenology of a PB-realization is not independent of, but is merely irreducible to, that of sensory phenomenology. One must see the dots in order to capture the mathematical proof. Thus, it is quite likely that the phenomenology of PB-realizations is not only proprietary,

28 Kriegel (2016) holds that, unlike the first kind, only the second kind of phenomenology deserves the label of *cognitive* phenomenology, for the first kind is just a *contemplative* phenomenology. If however both kinds are just, admittedly different, proprietary sorts of phenomenology, perhaps the issue here is merely verbal: there is a general cognitive phenomenology of *cogitating* thoughts that may be specified in terms of different sorts such as *entertaining* thoughts, *endorsing* thoughts, etc. One may say that the phenomenology of cogitating covers what Montague labels a subject's "conscious thought field" (2016, p. 173). As I said in the previous footnote, both Horgan and Tienson (2002) and Horgan and Graham (2012) have acknowledged that there is a variety of types of cognitive phenomenology that matches the difference in the attitude type of the relevant thoughts.

29 On such cases, see my Voltolini (2016).

30 Chudnoff (2015, p. 116) provides an example of such a case.

but also distinctive. For it is quite imaginable that a phenomenal switch in PB-realizations arises with respect to the perception of the very same dots when however involving distinct mathematical proofs, for example if they were used as a support now of a geometrical proof, now of an utterly different arithmetical proof, which are respectively apprehended[31]. In such a case, since the switch cannot be ascribed to sensory phenomenology, it must be ascribed to the different cognitive phenomenologies the distinct PB-realizations of the different mathematical proofs would instantiate. Thus, the phenomenology of PB-realizations, which as we have seen is merely irreducible to sensory phenomenology (just as the phenomenology of grasping thoughts), is not only a proprietary, but also a distinctive, kind of phenomenology.

4. An objection and a reply

At this point, an important objection to my distinction between the above two kinds of cognitive phenomenologies may be raised by arguing in favour of the claim that *all* cognitive phenomenology, of whatever kind, is not only both proprietary and distinctive, but also *individuative*, i.e., it is such that a mental state has a *specific* intentional content in virtue of its having the cognitive phenomenal property it has[32]. As is well known, Pitt defends this claim by appealing, via an argument to the best explanation, to the kind of introspective acquaintance with an intentional (occurrent) mental state, an (occurrent) thought, which enables one to be immediately aware of that state. According to Pitt's argument, one is able to identify via that acquaintance an intentional (occurrent) mental state as the (occurrent) thought it is: that is, via that acquaintance one is able not only to distinguish it from any other (occurrent) mental states she entertains, her other (occurrent) thoughts included, but also to capture it as the particular (occurrent) thought it is as endowed with a certain intentional content. Yet one could not be so able unless that thought had a cognitive phenomenology that is not only proprietary, but also distinctive and individuative. Hence, that thought has that phenomenology[33].

Yet in order for this argument to go through, as to its second premise one has first of all to rely on a disputable analogy between (occurrent) thoughts and sensory mental states. True enough, in order to identify via introspective acquaintance a sensory mental state as the state it is, one must be able to grasp the sensory phenomenological property that makes it different from any other such state. When sipping a glass of Burgundy, one can identify via introspective acquaintance her present headache while simultaneously telling it from her kinaesthetic sensation affecting her lips as well as from her tasting that wine. For such an immediate awareness of that headache is the awareness of the sensory phenomenological property that makes that headache the sensory state it is rather than another one. Now, let me well suppose that in being introspectively acquainted with an (occurrent) thought, a subject grasps the nonsensory phenomenal property that thought admittedly has. Yet it is not in virtue of that grasping that she identifies via introspective acquaintance that thought, unless it has been already established that it is precisely that property that makes that thought differ from any other (occurrent) thoughts of hers, rather than a different property, typically its having the intentional content it has. That is, unless it has already been established that the identification via introspective acquaintance of an (occurrent) thought depends on grasping a certain phenomenal property insofar as that property is also responsible for that thought's individuation. Moreover, the argument risks to be trivialized, for this was what it

31 On intellectual Gestalts and on how they are related to sensory Gestalts (those in which the phenomenal switch occurring can be taken to be basically sensory), so as to possibly undergo Gestalt switch as well, see Chudnoff (2013, 2015).

32 For more about this final point, see my Voltolini (2016).

33 Cf. Pitt (2004, pp. 7-25).

was supposed to prove. That is to say, the argument was supposed to prove the claim that the cognitive phenomenal properties of an (occurrent) thought individuate its intentional content, hence that thought as well[34].

To see the point, consider the following case. Russell once thought that one may be immediately aware of universals[35]. Even if this were true, then the fact that one is immediately aware, say, of the Bold as different from the Beautiful would not have to do with the phenomenal properties, if any, that are involved in being immediately aware of the first universal and in being immediately aware of the second universal respectively. Instead, it would have to do with what makes what one is firstly aware of, i.e., the Bold, be a different item from what one is secondly aware of, i.e., the Beautiful. To deny this, one would implausibly need to say that those awarenesses are what makes what one is firstly aware of different from what one is secondly aware of, by also risking of trivializing the whole issue. *Mutatis mutandis*, the same holds as to (occurrent) thoughts in general. To come back to a previous example, it is quite likely that what essentially constitutes the realization that Jocasta is the same as Mummy as different from the realization that Laius is the same as Daddy that poor Oedipus made at one and the same time are their different intentional contents. Thus, the fact that Oedipus identifies via introspective acquaintance the first realization as different from the second has to do not with the proprietary phenomenology of such realizations, but with the distinct intentional contents of such realizations that make such realizations be different thoughts. Unless one implausibly said that such a phenomenology respectively makes it the case that the first realization is the realization that Jocasta is the same as Mummy while the second realization is the realization that Laius is the same as Daddy, by also risking of trivializing the whole issue[36].

Recently, Montague has argued in a different way for the thesis that cognitive phenomenology must be as Pitt describes it. For only in such a case, she says, one can account for a principle that Montague takes as "intuitively obvious" (2016, p.176), namely the *conscious content principle* (CC): "if an occurrent thought T is to be a conscious thought, the (representational) content of that thought must in some manner be consciously occurrent" (2016, p.176.) (for instance, a conservative account of cognitive phenomenology in terms of sensory phenomenology won't do)[37].

Pace Montague, however, I think that CC is neither intuitive nor obvious. For not only CC presupposes a *propositional* account of a thought content which many take to be problematic, since there are *objectual* thoughts, i.e., thoughts whose content collapses onto the very object they are about[38]. But also CC is a problematic principle whatever conception one endorses of what a thought content is: either an externalist conception, or an internalist conception (or even a mixture of the two). *Pace* Montague, if a thought content is conceived externistically,

34 For a similar criticism see Chudnoff, who however also worries whether (occurrent) thoughts have proprietaryness. Cf. (2015, pp. 37,41). For a different critique to Pitt's argument, which rejects the premise of its argument that identification of an (occurrent) mental state relies on being immediately acquainted with it, see Levine (2001, pp. 106-107) and Tye and Wright (2011, p. 340).

35 Cf. e.g. Russell (1912).

36 Pitt would rejoin that, unlike universals, (occurrent) thoughts are mind-dependent objects (2004, p. 22). This may be true, but it still fails to entail that to be immediately aware of mind-dependent (occurrent) thoughts means to identify them by means of their nonsensory phenomenal properties rather than by means of their intentional contents.

37 Cf. Montague (2016, pp. 197-203).

38 Cf. e.g. Crane (2001, 2013). As Montague herself admits, "the Eiffel Tower isn't conscious" (2016, p. 198). Yet an objectual thought of the Eiffel Tower has precisely the very tower itself as its content.

Twin Earth cases abundantly show that it may not be consciously occurrent[39]. But insofar as more sophisticated Twin Earth cases may occur also if a thought content is conceived internistically[40], a thought content does not have to be consciously occurrent also if it is conceived. Thus, a defender of cognitive phenomenology is not forced to account for CC. Hence, that defender must not endorse Montague's Pitt-like conception of that phenomenology.

5. Conclusion

To sum up. In this paper, I have first tried to show that there really is a primitive form of cognitive phenomenology, by contrasting its independence of sensory phenomenology with the irreducibility to sensory phenomenology of another such form. Second, by reflecting on the fact that sensory phenomenology is neither necessary nor sufficient for an independent cognitive phenomenology while it is necessary for an irreducible cognitive phenomenology, I have maintained that such phenomenologies in general are typologically different, for the former is merely proprietary while the latter is both proprietary and distinctive. Hopefully, I have managed to show that this is the case for the cognitive phenomenologies of having thoughts and realizing thoughts on the one hand, and for the cognitive phenomenologies of grasping thoughts and perceptually-based realizations of thoughts on the other hand[41].

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39 As Montague instead says: "for any given conscious thought the content of that thought itself has got to be *entertained* ['live']"(2016, p. 198).
40 As Baker (1991) has convincingly shown.
41 I thank Elisabetta Sacchi for her comments to the parts of this paper she had not previously shared.

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IRREDUCIBLE COGNITIVE PHENOMENOLOGY AND THE AHA! EXPERIENCE

abstract

Elijah Chudnoff's case for irreducible cognitive phenomenology hinges on seeming to see the truth of a mathematical proposition (Chudnoff 2015). In the following, I develop an augmented version of Chudnoff's case, not based on seeming to see, or intuition, but based on being in a state with presentational phenomenology of high-level content. In contrast to other cases for cognitive phenomenology, those based on Strawson's case (Strawson 2011), I argue that the case presented here is able to withstand counterarguments, which attempt to reduce cognitive phenomenology to sensory phenomenology. To support my argument, I present findings from Bowden and Jung-Beeman's experiments with the Aha! Experience (Bowden & Jung-Beeman 2004), and argue that the Aha! Experience is a species of the experience of understanding presented here. I interpret the results of these experiments to provide further evidence for irreducible cognitive phenomenology.

keywords

cognitive phenomenology, Aha! Experience, eureka moment

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Introduction

Consider the following mathematical proposition: if $a < 1$, then $2 - 2a > 0$. Take a moment to see that this proposition is true. Now consider how you determined the veracity of the proposition. If you are like me, you plugged in numbers for *a*. I started with 1 and saw that 1 was too large. At that point, it became clear that any number smaller than 1 would suffice, which meant the proposition was true. Compare the moment you realized the proposition was true to when you first read the proposition. Is there a difference? If you are like me, there is. In the first moment, I was not aware that the proposition was true and in the second moment I was. Now ask yourself this question: did it feel like anything when you realized the proposition was true? If you are like me, you felt a few things upon realizing the veracity of the proposition. I felt I had understood the proposition in a way I had not at first, I felt joy because I felt I had understood it, and I felt a deep sense of certainty that the proposition is true. I felt all three experiences more or less at once. These experiences characterize the experience of understanding the proposition. In this paper, I shall argue the following: this experience of understanding is an example of irreducible cognitive phenomenology, this case for irreducible cognitive phenomenology succeeds where other cases fail, in particular those cases based on Strawson's case, and a species of this experience of understanding is the Aha! Experience, which provides further evidence for irreducible cognitive phenomenology.

1. Chudnoff's case for irreducible cognitive phenomenology

The example of the mathematical proposition above is from Elijah Chudnoff's case for irreducible cognitive phenomenology (Chudnoff 2015, pp. 55-61). I think Chudnoff's case is largely correct, but I also think it can be simplified and augmented. In what follows, I will present an augmented version of Chudnoff's case. But before I discuss the details, I would like to be explicit about what I mean by *irreducible* cognitive phenomenology. By *irreducible* I mean not reducible to sensory phenomenology. So, if you are in a cognitive state and that state possesses some phenomenal property for which no phenomenal property of a wholly sensory state suffices, then the cognitive state possesses irreducible cognitive phenomenology. In other words, what makes a cognitive state irreducible to a sensory state is the possession of some phenomenal property that cannot be reduced to the phenomenal properties of wholly sensory states. If no combination of sensory states is sufficient for the possession of some phenomenal property possessed by a cognitive state, then that phenomenal property of that cognitive state cannot be reduced to the phenomenal properties of wholly sensory states. In that case, it can be said of the cognitive state that it possesses irreducible cognitive phenomenology.

Which phenomenal property is irreducible to the phenomenal properties of wholly sensory states? I wish to present two such properties. I shall call the first property the *presence* property and the second property the *truth-maker* property. I am convinced that these two properties characterize the experience of understanding. To see why I am convinced by this, let us return to the example of the mathematical proposition above. When you understand the mathematical proposition, you seem to be aware of at least two things, and necessarily so. First, you seem to be aware of what the proposition entails. Second, you seem to be aware of a truth-maker for the proposition. Without being in a state that possesses these two properties, I do not see how it can be said that you understand the proposition. Seeming to understand what the proposition entails and seeming to understanding how the proposition is true, seem to me to be necessary requirements for understanding the proposition. How could you otherwise understand the proposition other than seeming to understand its entailment and seeming to be aware that the proposition is true? If you do not seem to be aware of what it entails, you do not understand what it means. If you do not seem to be aware of a truth-maker for the proposition – something which seems to tell you that the proposition is true – you do not understand that the proposition is true and so do not understand the proposition. I will discuss in more detail what is meant by a truth-maker, but first I need to dismiss a possible misconception.

The state that you are in when you understand the proposition might be said to possess some property other than the two properties I just mentioned, presence and truth-maker. Though there might be additional properties that characterize the experience of understanding, I believe that any additional properties are inessential. For example, I had an experience of joy at understanding the mathematical proposition above. The experience of joy might be thought of as a property that characterizes the experience of understanding. As such, you might like to say that it is a phenomenal property of the cognitive state that you are in when you understand the proposition. That said, I can easily imagine that you understand the proposition without experiencing joy. Instead, the emotional state might be one of indifference toward understanding the proposition. So, the feeling of joy is a contingent phenomenal property of the state of understanding the proposition. On the other hand, I cannot imagine how you could understand the proposition without being in a cognitive state that possesses the two phenomenal properties, presence and truth-maker. Both seeming to be aware of what the proposition entails and seeming to be aware of a truth-maker for the proposition are necessary for understanding the proposition and therefore necessary for the experience of understanding the proposition.

The two phenomenal properties, presence and truth-maker, together constitute what Chudnoff calls presentational phenomenology (Chudnoff 2013). There is nothing more to Chudnoff's presentational phenomenology than these two properties. For this reason, I will simply refer to a state's possession of presentational phenomenology as shorthand for the state's possession of the two phenomenal properties, presence and truth-maker. Though my case for irreducible cognitive phenomenology is indebted to Chudnoff's notion of presentational phenomenology, it differs from Chudnoff's case in a number of ways. I would like to discuss these ways.

First, Chudnoff does not make explicit mention of the two properties, which I call presence and truth-maker, as being constituents of presentational phenomenology for cognitive phenomenology. In his case for irreducible cognitive phenomenology, Chudnoff seems to have abandoned presentational phenomenology altogether and to have instead opted for what he calls "seeming awareness". This change is not a mere relabeling, however; for his argument for irreducible cognitive phenomenology does not make use of the properties of presentational phenomenology. Instead, his argument relies on a kind of intellectual perception, which

grants mental awareness of an abstract state of affairs. One might see in Chudnoff's argument the use of the presence property of presentational phenomenology; for example, when he says that "a state of affairs is felt to be before one's mind" (Chudnoff 2015, p. 59). But there is no reference to the truth-maker property. Instead, he argues by positing that you *see* that the proposition is true, not that the state you are in seems to make you aware of a truth-maker for the proposition. It seems to me that his use of intellectual perception is in part due to his own terminus technicus *intuition*, which carries a host of epistemological assumptions (Chudnoff 2013). So, my case augments Chudnoff's in the following way: One does not need to accept the epistemological implications involved in intuition; instead of intuition, my case is simplified, such that one only needs to admit states with phenomenal properties. One advantage of this approach is that it can be applied to determine whether states possess the phenomenal properties of presentational phenomenology, the details of which I will discuss shortly.

The challenge facing my case is to provide a convincing argument for the claim that the cognitive state of understanding the proposition possesses two phenomenal properties, presence and truth-maker, and, furthermore, provide a convincing argument for the claim that those phenomenal properties cannot be reduced to the phenomenal properties of wholly sensory states. I would like first to show how the phenomenal properties of presence and truth-maker cannot be reduced to the phenomenal properties of wholly sensory states. Thereafter, I will argue that the cognitive state of understanding the proposition possesses those two phenomenal properties, presence and truth-maker.

To show that these two phenomenal properties cannot be reduced to the phenomenal properties of wholly sensory states, I think it is helpful to see first how those properties are possessed by a state if and only if that state meets corresponding conditions. So, for example, an object, such as vase, has the property of fragility, if and only if that object breaks upon light impact. We can think of phenomenal properties as being possessed by a state in the same vein as the property of fragility being possessed by a vase. So, if we would like to know whether a state possesses the first phenomenal property, presence, we can ask whether it fulfills some condition. If the state seems to make you aware that p, where *p* stands for some proposition, then that state possesses the phenomenal property of presence. In other words, a state possesses the phenomenal property presence, if and only if that state seems to make you aware that p. The same can be said for the phenomenal property of truth-maker. For a state to possess the second phenomenal property truth-maker, that state must seem to make you aware of a truth-maker for p. In other words, a state possesses the phenomenal property of truth-maker, if and only if that state seems to make you aware of a truth-maker for p. Since presentational phenomenology is nothing less than those two phenomenal properties, it necessarily follows that a state possesses presentational phenomenology if that state possesses the two phenomenal properties, presence and truth-maker. As shorthand, I will refer to these two conditions as the two conditions of presentational phenomenology or as the enabling conditions for presentational phenomenology.

I would like to discuss the layout of this paper. I will first provide an example of a sensory state that fulfills these conditions and thus possesses the two phenomenal properties, presence and truth-maker; but that sensory state will involve only low-level content. What I mean by low-level content is content that does not involve concepts. This example is discussed in section 2. I would like to introduce this example for two reasons. It will help to illustrate what I mean by presentational phenomenology, and set up my argument for irreducible cognitive phenomenology. In support of my argument, I will introduce a sensory state that involves high-level content; which is to say, content that necessarily involves concepts. Unlike the first example of low-level content, a sensory state that involves high-level content will not fulfill the conditions for presentational phenomenology. It follows from my argument that no

wholly sensory states involving high-level content possess presentational phenomenology. In section 3, I will return to the cognitive state of understanding the mathematical proposition above. I will show that this cognitive state, which involves high-level content, does possess presentational phenomenology. The result is that the phenomenal properties of some cognitive states cannot be reduced to the phenomenal properties of wholly sensory states, which is evidence for irreducible cognitive phenomenology. In section 4, I will discuss why my case succeeds where other cases fail, and how my case might be used to augment those cases. In section 5, I will discuss evidence for irreducible cognitive phenomenology, which correlates with my case based on Bowden and Jung-Beeman's experiments with the Aha! Experience. In section 6, I will make the argument that it is plausible to accept this evidence as supporting my case for irreducible cognitive phenomenology.

2. No wholly sensory states possess presentational phenomenology of high-level content

Let us begin by examining whether a sensory state involving low-level content possesses presentational phenomenology in respect to its content. Recall that the first condition ensures that the state seems to make you aware that p. This condition is just as basic as it sounds. Consider the state of looking at a red apple. Does this state fulfill the first condition of presentational phenomenology? Does it seem to make you aware that the apple is red? I believe it does. What else seems to make you aware that the apple is red, except the sensory state of looking at the red apple? So, it is a rather simple affair that a state of looking at a red apple seems to make you aware of the apple's being red. One objection you might want to raise is the use of *seem:* by only seeming to be aware of p, you may not actually be aware of p. But actually being aware of p is not necessary for present purposes: it is only relevant how things seem to you, not how things are in reality.

The second condition for presentational phenomenology stipulates that the state seems to make you aware of a truth-maker for p. This condition is simpler than it sounds. Let us consider the state of looking at a red apple again. To determine whether this state fulfills the second condition, we need to determine the truth-maker for *the apple is red*. The apple is red just in the case that red is the color of the apple. That is simply a reformulation, though. Let us ask this question instead: when you have an experience of a red apple, how do you know that the apple is red? You know it is red because you have an experience of redness. Does the state of looking at a red apple seem to make you aware of redness? This seems uncontroversial. You have an experience of redness when looking at the red apple, so the sensory state of looking at the apple seems to make you aware of the truth-maker for the apple is red.

Do sensory states with high-level content possess presentational phenomenology? I shall argue along with Chudnoff that they do not (Chudnoff 2013); but unlike Chudnoff, I will support this claim by examining whether sensory states meet the conditions for possessing the two phenomenal properties of presentational phenomenology, presence and truth-maker. To get started, we need an example. Let us take the word *drawer*. The low-level content of a visual sensory state that concerns the word *drawer* is constituted by the color and shape of the word's letters. The high-level content of a sensory state that concerns this word is constituted by its semantic content[1]. Let us discuss whether this sensory state meets the two conditions of presentational phenomenology.

Recall the first condition of presentational phenomenology. It stipulates that the state seems to make you aware that p. Does the sensory state seem to make you aware that *drawer means xyz*? Affirming this question is not as straightforward as it was with low-level content. What

1 The high-level content of a word might be constituted by more than just its semantic content, depending on your philosophy of language. But for present purposes, semantic content will be enough.

are you aware of when you are aware of the meaning of the word *drawer*? I think you are first and foremost aware of drawer's *wordhood*; which it to say, you are aware that *drawer* is a word and not just a string of squiggly lines. If the sensory state seems to make you aware that *drawer* means something, then this entails that *wordhood* is sensed in the act of sensing the word *drawer*. To see the contrast, compare *wordhood* to drawer's low-level content: When looking at the word *drawer*, the sensory state seems to make you aware of its color, its blackness, its low-level content. But in the case of high-level content, does the sensory state seem to make you aware of drawer's *wordhood*? Does the state seem to make you aware that *drawer* is a word? If you think it does, you need to argue that the sensory state seems to make you aware that *drawer* refers to something. To see the need for referentiality, consider the invented word *ewitzle*. Even though you have never seen this word before, you might take it for a word, and if you take it for a word, it is because you believe it refers to something. Furthermore, you might take it to refer to something independently of knowing what the word actually denotes. If you are like me, you might read the word and feel some sense of what *ewitzle* might mean. If you contrast *wordhood* with blackness, it is clear that there is a way in which the sensory state seems to make you aware of blackness, which is wholly different from how you might be aware of *ewitzle's* (or drawer's) *wordhood*. Being in a state of awareness of a word's *wordhood* goes beyond any wholly sensory state because this awareness requires cognition.

Recall the second condition of presentational phenomenology. It stipulates that the state seems to make you aware of a truth-maker for p. What is the truth-maker for *drawer means xyz*? *Drawer means xyz* precisely when *xyz* is the meaning of the word *drawer*. But a reformulation does not help. So let us ask the question, when looking at the word *drawer*, how do you know that *drawer means xyz*? You know *drawer means xyz* because you have an awareness of the meaning of the word *drawer*. That claim is in need of defense, so allow me to unpack it.

Consider the following sentence: *The letter is in the drawer*. How do you know what *drawer* means in this sentence? If you are like me, you imagine a wooden desk with a series of drawers. You imagine that there is a letter, perhaps in a sealed envelope, in one of these drawers. In this sentence, *drawer* means the place where the letter can be found, which I presumed is a part of a desk. But why a desk? Why not a filling cabinet? Perhaps this is because *desk* is associated with letter writing. So, it can be said that I inferred that *drawer* was a part of a writing desk from the association of letter writing. Drawing this inference is an example of having an awareness of the meaning of the word *drawer*. So, I know what *drawer* means in this sentence by having an awareness of how *drawer* is being used.

Does the sensory state seem to make you aware of the meaning of the word *drawer*? That this is false is easier to see than the first condition. Does the sensory state of looking at the word *drawer* in the sentence *The letter is in the drawer* seem to make you aware of a wooden desk with a series of drawers, wherein a letter is kept? Patently, the visual experience of looking at the word *drawer* in the above sentence does not seem to make you aware of a desk. To claim that it did would be tantamount to overseeing crucial steps in describing and explaining the experience of understanding the meaning of the word *drawer* in the sentence above. Compare this to low-level content once again. When looking at a red apple, you *do* see redness. When looking at *drawer*, you do not see *drawerness* or drawer's *wordhood*. The visual experience of looking at the word does not make you aware of the fact that the word is a word. It follows from this that the truth-maker for linguistic meaning is too abstract to be reducible to properties of wholly sensory states. Since neither condition was met by the sensory state, it is plausible to maintain that sensory states do not possess presentational phenomenology of high-level content.

We need to discuss whether presentational phenomenology of high-level content exists. As of now, my argument only shows that wholly sensory states lack two phenomenological

properties of presentational phenomenology, presence and truth-maker. Call this the negative argument. Now we need the positive argument. Setting up the positive argument requires answering the following question: Do some cognitive states possess presentational phenomenology of high-level content? Since the two phenomenal properties of presentational phenomenology cannot be reduced to phenomenal properties possessed by wholly sensory states, if some cognitive states possess presentational phenomenology, it is plausible to maintain that the phenomenology of those cognitive states cannot be reduced to the phenomenology of wholly sensory states.

3. Some cognitive states possess presentational phenomenology of high-level content

Do some cognitive states with high-level content possess presentational phenomenology? I shall argue along with Chudnoff that they do (Chudnoff 2013), but, unlike Chudnoff's argument, my argument is not based on whether cognitive states involve intuition; instead, my argument is based on whether cognitive states meet the conditions of presentational phenomenology. To get started, we need an example. Let us return to the mathematical proposition from earlier. The high-level content of the proposition if $a < 1$, then $2 - 2a > 0$ is an abstract state of affairs. I use the term *abstract state of affairs* because there are many different abstract components to the high-level content of the proposition: there is the meaning of *if*, $<$, $-$, etc. – not to mention a host of real numbers less than 1.

I have already discussed how the two phenomenal properties of presentational phenomenology are not possessed by wholly sensory states involving high-level content. I will now address whether some cognitive states possess those properties. For the sake of clarity, the state in question is the state that involves the awareness of the veracity of the mathematical proposition. So the question becomes, does the state involving awareness of the veracity of the mathematical proposition meet the conditions whose satisfaction is required by the two properties of presentational phenomenology?

Recall the first condition. It stipulates that the state seems to makes you aware that p. Does the state seem to make you aware that if $a < 1$, then $2 - 2a > 0$? Recall our discussion at the introduction. If you are like me, this state was characterized by these experiences: the feeling of understanding the proposition, the feeling of joy because of the feeling of understanding the proposition, and the feeling of certainty that the proposition is true. I have already discussed why the feeling of joy is unnecessary for understanding the proposition. So, I will remove it from consideration. The first characterization, *the feeling of understanding the proposition*, seems to indicate a phenomenal property possessed by the state that meets the first condition of presentational phenomenology. The feeling of understanding the proposition seems to indicate that the state of understanding the proposition seems to make you aware that if $a < 1$, then $2 - 2a > 0$. I think that this point is uncontroversial, so I will not argue anymore for it here. However, because fulfilling this condition is rather simple, a greater burden now lies on arguing for the fulfillment of the second condition.

Recall the second condition of presentational phenomenology. It stipulates that the state seems to make you aware of a truth-maker for p. What is the truth-maker for if $a < 1$, then $2 - 2a > 0$? To answer this question, you might simply reformulate the proposition: $2 - 2a > 0$ is true, if $a < 1$. But reformulation is of no use for present purposes. So let us ask the question, when considering the mathematical proposition, how did you know that the proposition is true? I believe the proposition seemed true to you at least in part due to your feeling of certainty that the proposition is true. This claim is in need of defense, so allow me to unpack it. In determining the truth of the proposition, you performed a mental calculation, and as a result of that calculation you had the feeling that the proposition is true. That said, I believe that the feeling of certainty that the proposition is true played a role in your awareness of the veracity of the proposition. In the example above, if you had not had the feeling of certainty,

you might not have known that the proposition is true. In other words, if you had never felt certain that if $a < 1$, then $2 - 2a > 0$, then you could have thought that the proposition is false or could have thought that you did not know either way. So, the question becomes, is it possible to know that a proposition is true without first having a feeling of certainty in regard to its truth? I do not think so. For example, I believe, not know, that Goldbach's conjecture is true. Since I do not feel certain about my belief, I do not know whether that belief is true. Moreover, I cannot imagine a case of *knowing p* and *not feeling certain that p*[2]. If the feeling of certainty is necessary for an awareness of veracity, then it is plausible to think that the feeling of certainty in the above example of the mathematical proposition indicates that the state of understanding the proposition seems to make you aware of a truth-maker for the proposition. If the proposition seems true to you, you have an awareness of the veracity of the proposition, and if you have an awareness of the veracity of the proposition, then you necessarily have a feeling of certainty that the proposition is true. So the feeling of certainty that the proposition is true is indicative of an awareness of what makes the proposition true and therefore the feeling of certainty is indicative of an awareness of a truth-maker for the proposition.

This awareness of the veracity of the proposition is analogous to the awareness of the meaning of the word *drawer*. There the awareness of *drawer's* meaning was the result of a combination of association and inference; in the case of the mathematical proposition, similar cognitive processes develop an awareness of veracity. In particular, you deduced from a range of real numbers a possible set that might hold for the proposition and assessed the validity of that deduced set against what the proposition might entail. Does the state of understanding the proposition seem to make you aware of the veracity of the proposition? The third characterization, *the feeling of certainty*, seems to indicate that you are aware of the veracity of the proposition in the state of understanding the proposition. The feeling of certainty seems to indicate that, in this state, you seem to be aware of a truth-maker for if $a < 1$, then $2 - 2a > 0$ [3]. Since the two conditions of presentational phenomenology are met, this cognitive state possesses the presentational phenomenology of high-level content. Recall that presentational phenomenology of high-level content is not possessed by wholly sensory states. So, the phenomenology of this cognitive state is not reducible to that of wholly sensory states. Hence, this phenomenology is irreducible cognitive phenomenology. If you wish to reject this claim, I can see two possible routes you might take. Either you need to build a convincing case for the presentational phenomenology of high-level content of sensory states or you need to deny that a state that involves the awareness of the veracity of high-level content is cognitive. I simply do not see how the second route is possible, so let me discuss why I think the first route implausible.

Let us consider high-level content that specifies that something belongs to a kind. Now consider the two conditions for presentational phenomenology. Does the sensory state seem to make you aware that, for example, *this person is a priest*? I would be open to considering a case that does, but that would meet only one of the conditions for presentational phenomenology. Does the sensory state seem to make you aware of a truth-maker for *this person is a priest*? I do not believe this is plausible. The truth-maker would need to be the experience of *priestness*, and *priestness*, like *wordhood*, like mathematical entailment, is too abstract to be the content of

2 Feeling certain *that p* is not sufficient for knowing *that p*, but that does not matter for my claim: I only need to establish a necessary, and not a sufficient, condition.

3 I would like to note that it might be the case that the state you are in when you are *not* aware of the veracity of the proposition might be indicative of some form of cognitive phenomenology. But the only cognitive phenomenology that concerns me in this paper is that which meets the conditions of presentational phenomenology, such that you are aware of a truth-maker.

a wholly sensory state. For that reason, I do not think a convincing case can be established for the presentational phenomenology of high-level content of sensory states.

4. My case succeeds where other cases fail

I would like to discuss why my case for irreducible cognitive phenomenology succeeds where other cases do not, particularly those cases based on the experience of understanding in Strawson's case. It is often thought that Strawson's case is not sufficient for establishing irreducible cognitive phenomenology. I will briefly discuss the reasons for thinking so. After that, I will show how my case succeeds where Strawson's case fails, and I will discuss how Strawson's case might be augmented in light of my case. Later, in section 6, I will argue that Bowden and Jung-Beeman's experiments provide evidence for two different experiences of understanding – one is my case and one is Strawson's – which is the reason why my case succeeds where Strawson's case does not. I will discuss the two different experiences of understanding in this section.

One prototypical argument for cognitive phenomenology is the Jack/Jacques example developed by Galen Strawson (Strawson 1994, pp. 5-6). It turns on the phenomenology of language comprehension, which is taken *prima facie* as cognitive. Both Jack and Jacques are listening to a radio broadcast in French. But Jack does not speak French. Thus Jacques is in a different cognitive state than his counterpart. The argument is that this difference is attributed to the phenomenology of the cognitive state of understanding the broadcast. There are two objections to this argument, both of which amount to denying one of the premises the argument depends on. The first objection to the argument denies the premise that there is no sensory difference between Jack and Jacques' experience. In other words, Jack and Jacques' perceptual states do not, contrary to the premise, have the same auditory content. In addition to the objections discussed in the literature (e.g. Chudnoff 2015, pp.45-49, Carruthers & Veillet 2011), I can provide testimony for these objections. Having spent several years teaching English as a foreign language, I have experienced teaching phonetic accuracy. While learning the phonemes of a foreign language not produced in the languages already known, the learner's first step is to learn to hear the foreign phonemes. This learning process is not complete until the student has learned to produce those phonemes herself. Since Jack must first learn to produce the phonemes before hearing them accurately, Jack cannot hear what Jacques does. My testimony may not be enough to convince some of you, but for me it makes the objections to this premise all the more tenable.

The second objection to the Jack/Jacques example denies the premise that ordinary language comprehension is cognitive. By *ordinary* I mean cases of language comprehension such as reading this sentence and understanding it in a word-to-word, compositional fashion. There is much debate about whether this language comprehension is a cognitive process. This is because the admission of high-level sensory content compels us to consider whether ordinary language comprehension is not merely sensory. In order to defend against this counterargument, I believe Strawson's case can be augmented using presentational phenomenology. In order to see how this might work, we need to discuss the difference between the experience of understanding in my case and in Strawson's case. But before the difference between the experience of understanding in the Jack/Jacques example and the experience of understanding in the mathematical proposition example can be presented, we need to first discuss the difference between the two experiential states of Jack and Jacques. This will help settle the matter that needs to be discussed when comparing the two experiences of understanding.

Arguably, Jacques' experiential state is at least in part constituted by his understanding of the meaning of the broadcast. And Jack's state is likewise constituted by his understanding of the meaning of the broadcast, but Jack does not understand, to what the sounds of the broadcast refer. The words are perhaps felt by Jack just as French sounding sounds. One difference between

Jack and Jacques' experience is that the former knows the referents of the sounds. To see this difference clearly, imagine you do not speak French. Consider the sentence: *il pleut*. *Il pleut* translates in English as *it is raining*. Now consider the sentence again. This time you see *il* and know that it refers to what *it* refers to and you see *pleut* and you know that it refers to what *is raining* refers to. Is there a difference between the first and second reading of the sentence? If you are like me, the French words were first read as words without referent and then, in the second case, the words were read as words with referent. That said, there might be other differences between Jack and Jacques' experiential state, perhaps sensory differences, but for present purposes the only difference under consideration concerns the knowledge of the words' referent, or lack thereof.
Let us discuss the difference between the experience of understanding in the Jack/Jacques example and the experience of understanding in the mathematical proposition example. If my case is able to succeed where Strawson's case fails, then there should be a significance difference between the two experiences of understanding. Recall the three characteristics of the experience of understanding the mathematical proposition: the feeling of understanding the proposition, the feeling of joy because of the feeling of understanding the proposition, and the feeling of certainty that the proposition is true. For reasons already discussed, the feeling of joy can be omitted from consideration. After reading *il pleut* the second time, did you have a feeling of understanding the proposition? If you are like me, you did. That said, does this experience of understanding meet the first condition of presentational phenomenology? In other words, does the state of understanding the linguistic proposition seem to make you aware that it is raining (*il pleut*)? Though you understand that *il pleut* means what *it is raining* means, the experience of understanding does not seem to make you aware of the weather conditions. Compare this to the example of the mathematical proposition. Does the state of understanding the mathematical proposition seem to make you aware that if $a < 1$, then $2 - 2a > 0$? The state you are in when you understand the mathematical proposition does seem to make you aware of the abstract conditions that make this conditional true. So the experience of understanding in the Jack/Jacques example does not meet the first condition of presentational phenomenology. Neither does it meet the second condition. When reading *il pleut*, do you have a feeling of certainty that it is raining? The difference between the two experiences of understanding is presentational phenomenology. The experience of understanding in my case possesses it; the experience of understanding in Strawson's case does not. If the experience of understanding in Strawson's case were augmented to possess presentational phenomenology, then Strawson's case might be able to withstand counterarguments that attempt to reduce the phenomenology of this experience of understanding to sensory phenomenology.
I believe that presentational phenomenology is not contrary to Strawson's case; instead, I believe that presentational phenomenology might be used to augment it. Discussing how this might work exactly would go beyond the scope of this paper, but I will briefly sketch how I think it possible. Consider the Jack/Jacques example once again. Jacques' experiential state might have presentational phenomenology with respect to the broadcast. How is this possible? Let us say the broadcast is a reading of a recently published crime novel. When the author reads *il pleut*, Jacques' state of understanding might be said to have presentational phenomenology with respect to the context of the story. Does this state seem to make him aware of the weather conditions in the story? Does this state seem to make him aware of a truth-maker for the weather conditions in the story? Thus augmented, I believe Strawson's case might be able to withstand the counterarguments[4].

4 I would like to point out that Jung-Beeman has conducted experiments involving subjects drawing inferences when reading and understanding short stories; he provides evidence for a connection between the underlying mechanism

5. The Aha! Experience is a species of the experience of understanding in my case

The most palpable example of the Aha! Experience is the story of Archimedes and the golden crown. Hiero of Syracuse posed the problem of how to determine whether his newly forged crown was made of pure gold without melting it down. Perplexed, Archimedes decided to take a bath. Upon getting into the tub, Archimedes noticed that the water displaced must be equal to his submerged body. At that moment, Archimedes realized he could measure the volume of irregular objects like Hiero's crown. Archimedes was so excited by his discovery that, as the story goes, he ran naked through the streets shouting *eureka* – I've found it. The eureka moment is synonymous with the Aha! Experience.

The cognitive mechanism underlying the Aha! Experience has been of much interest to the scientific community in the past two decades. There have been two theories about this mechanism. The majority of psychologists have theorized that the Aha! Experience is the result of a unique process different from ordinary experiences of understanding. This uniqueness thesis depends on solutions reached by what researchers call *insight*. If a problem is solved by insight, then the upshot is the Aha! Experience. Bowden and Jung-Beeman developed two experiments to test this thesis (Bowden & Jung-Beeman 2004). The result is empirical evidence for the case that the cognitive mechanism underlying the Aha! Experience is unique. Before we discuss the relationship between Aha! Experience and the experience of understanding in my case for irreducible cognitive phenomenology, it is important we discuss the details of these experiments.

Bowden and Jung-Beeman's experiments involved subjects solving compound remote associate problems. These problems were first developed by Sarnoff Mednick in order to test for creativity (Mednick 1962). An example of one of these problems is *crab / tree / pie*. Subjects are presented with three words and asked to name a fourth that builds a semantic association with each. The answer to this compound remote associate problem is *apple* – so, crab apple, apple tree, and apple pie. The solving of compound remote associate problems is found to depend on insight and leads to subjects reporting having undergone an Aha! Experience (Bowden & Jung-Beeman 2004). Researchers developed 144 of these problems and measured subjects' brain activities via functional magnetic resonance imaging (fMRI) and electroencephalogram (EEG) while solving the problems (Bowden & Jung-Beeman 2004). After each solution, subjects were asked whether they had solved the problem with insight and had undergone an Aha! Experience. The Aha! Experience was found to be the upshot of an insight-based solution (Bowden & Jung-Beeman 2004). In the first experiment, images of brain activity were taken via fMRI. If the unique thesis is true, fMRI ought to reveal neuroanatomical locations unique to insight solutions. In the second experiment, neural oscillations were measured via EEG. If the unique thesis is true, EEG ought to reveal both the suddenness of insight as well as frequency characteristics of the neurophysiological differences.

Concerning the first experiment, activity in anterior superior temporal gyrus of the right hemisphere (aSTG RH) was detected in insight-based problem solving. This activity was not detected in problems solved without insight (Bowden & Jung-Beeman 2004). Concerning the second experiment, a sudden gamma burst was detected above the anterior temporal lobe of the right hemisphere (Bowden & Jung-Beeman 2004). These gamma bursts were not detected in problems solved without insight (Bowden & Jung-Beeman 2004). These two detections suggest that insight has unique neuroanatomical locations and possesses frequency characteristics of this difference. Moreover, there was a third finding that contributes to our discussion of irreducible cognitive phenomenology. Alpha bursts over the right posterior

of the Aha! Experience and the underlying mechanism of story comprehension (Jung-Beeman, 2005). If you grant the conclusion of my argument in section 6, i.e. the correlation between presentational phenomenology and the Aha! Experience, there is reason to agree with me about how to refine Strawson's case.

parietal cortex proceeded gamma bursts during insight-specific activity from 1.4s until 0.4s before the solution response (Bowden & Jung-Beeman 2004).

Before we discuss the significance and relevance of these findings, I shall argue that the Aha! Experience meets the sufficient conditions for the experience of understanding in my case for irreducible cognitive phenomenology. We already know that there are two phenomenal properties that a state involving high-level content must possess in order for that state to be a candidate for irreducible cognitive phenomenology. The existence of these two properties is determined by assessing whether the state in question meets the two conditions of presentational phenomenology. Does the state that someone is in when she undergoes an Aha! Experience concern high-level content? Does this state meet the two conditions of presentational phenomenology? I take it for granted that compound remote associate problems concern high-level content. So the question is whether the state involving the Aha! Experience possesses presentational phenomenology.

A theoretical account of the Aha! Experience is proposed by Topolinski and Reber (Topolinski & Reber 2010). They give four defining characteristics. *Suddenness*: the solution to the problem occurs suddenly. *Ease*: After the solution has been found the problem-related processing is fast and easy. *Positive Effect*: the experience is a genuine positive one that arrives before the solution has been assessed. *Truth and confidence*: Before systematically assessing the veracity of the solution in formal analysis, problem solvers judge the solution to be true and express confidence in that judgment. Before we begin arguing that the *Truth and Confidence* characteristic indicates the properties needed to fulfill the conditions for presentational phenomenology, let us simulate an experiment. Consider the following compound remote associate problem: *horse / human / drag*. Take a moment to discover the fourth word that creates a semantic association with each. Now ask yourself, what was it like for you to discover the answer? If you are like me, you felt three things. You felt you had understood the answer to the problem, you felt joy at having understood the problem, and you felt a sense of certainty that the answer to the problem was correct. These three sensations match the *Ease*, *Positive Effect*, and *Truth and Confidence* characteristics.

Let us compare these characteristics to the two conditions for presentational phenomenology. Recall the first condition. The state seems to make you aware that p. For clarity, I take the state in question to be the state you are in when you first realize the answer to the compound remote associate problem. Does this state seem to make you aware that *race* builds a semantic association with *horse*, *human*, and *drag*? This appears to be uncontroversial. The state of understanding the solution to the problem seems to make you aware of the solution to the problem. Recall the second condition. The state seems to make you aware of a truth-maker for p. Does this state seem to make you aware of a truth-maker for *race builds a semantic association with horse, human, and drag*? What is the truth-maker for *race builds a semantic association with horse, human, and drag*? Race builds a semantic association with horse, human and drag if and only if horse, human and drag semantically associate with race. But reformulation gets us nowhere. So let us ask, when you discovered that *race* is the solution, how did you know that *race* is correct? You knew *race* is correct in part because you had an experience of veracity – same as with the mathematical proposition. Thus the state that you are in when you become aware of the solution to the compound remote associate problem meets the two conditions of presentational phenomenology. Therefore the Aha! Experience is a species of the experience of understanding in my case for irreducible cognitive phenomenology[5].

5 I would like to be more explicit about what I mean by a *species*. I understand the experience of understanding, as I have presented it here, to include more cognitive experiences, not only the Aha! Experience. In the afterword, I will suggest two more possible candidates.

6. The Aha! Experience provides evidence for irreducible cognitive phenomenology

Since the Aha! Experience is established as a species of the experience of understanding in my case for irreducible cognitive phenomenology, we can discuss the findings of Bowden and Jung-Beeman's experiments as they pertain to our discussion of irreducible cognitive phenomenology. Recall that the activity in the right hemisphere and the gamma bursts above anterior temporal lobe of the right hemisphere are evidence for the thesis that the mechanism underlying the Aha! Experience is unique. Regarding our discussion of the two different experiences of understanding (mine versus Strawson's), the unique mechanism underlying the Aha! Experience further supports the argument that there are two different experiences of understanding: one for my case and one for Strawson's. Recall that the state associated with the experience of understanding in the example of the mathematical proposition meets the conditions for presentational phenomenology, but the example of Jack/Jacques does not. If we assume that there is a correlation between the unique mechanism underlying the Aha! Experience and the experience of understanding that possesses presentational phenomenology, it is plausible to think that the unique mechanism thesis endorsed by Bowden and Jung-Beeman provides evidence for the two different experiences of understanding[6].
Recall the third finding. Alpha bursts were located over the parietal-occipital cortex. Bowden and Jung-Beeman concluded that these alpha bursts meant that the visual cortex had been inhibited of idled (Bowden & Jung-Beeman 2004). Recall that alpha bursts preceded the gamma bursts. Gamma bursts play a critical role in the accessibility of semantic representations; in these experiments, they reflected "the sudden conscious availability of a solution word resulting from insight" (Bowden & Jung-Beeman 2004, p. 506). Before subjects discovered the solution to the compound remote associate problem, the visual cortex had been either inhibited or idled, and visual information flowing into the perceptual system had been gated (Bowden & Jung-Beeman 2004). From this, Bowden and Jung-Beeman concluded, "...allowing one process to proceed relatively *independently* requires active attenuation of this interaction" (Bowden & Jung-Beeman 2004, p. 507, emphasis added). This *relatively independent process* is integral to the underlying mechanism of solving a problem with insight, whose upshot is the Aha! Experience. In other words, the Aha! Experience is the result of a process that is relatively independent of the visual information flowing into the perceptual system.
Recall the claim for irreducible cognitive phenomenology: some phenomenal property of some cognitive state cannot be reduced to the phenomenal properties of wholly sensory states. The argumentative crux of this claim is presentational phenomenology of high-level content. As already discussed, sensory states do not possess presentational phenomenology of high-level content, while some cognitive states do. The Aha! Experience possesses presentational phenomenology of high-level content, which means the Aha! Experience is sufficient for a cognitive state with irreducible cognitive phenomenology. Recall that gamma bursts in the right hemisphere were indicative of the Aha! Experience; recall that the gamma bursts were preceded by alpha bursts and that the alpha bursts over the parietal-occipital cortex indicated the inhibition or idling of visual information flowing into the perceptual system. This means, having the Aha! Experience requires first attenuating the flow of visual information into the perceptual system. If you make the assumption that there is a correlation between the gamma bursts and the presentational phenomenology of high-level content, then it is plausible to think that this correlation indicates that the cognitive phenomenology of the Aha! Experience

6 That is, the experience of understanding that corresponds to solving problems with insight is reflective of being in state of high-level content that possesses presentational phenomenology, while an experience of understanding that corresponds to solving problems without insight is reflective of being in a state of high-level content that does not possess presentational phenomenology.

is decoupled from sensory phenomenology, which provides further evidence for irreducible cognitive phenomenology.

Afterword

If everything presented here is correct, I see two ways forward. Either presentational phenomenology of high-level content, with its two phenomenal properties presence and truth-maker, is an example of irreducible cognitive phenomenology in every case, or presentational phenomenology of high-level content is an example of irreducible cognitive phenomenology only in the case of the Aha! Experience. The latter claim is more defensible, since one has additional evidence to support it: testimony from solvers of compound remote associate problems on the one hand, and the correlation of irreducible phenomenal properties with the underlying neurological mechanism of the Aha! Experience on the other. For my part, I am inclined to believe that the experience of understanding, which I have presented here, is phenomenologically related to the Aha! Experience as the experience of drinking water is related to the experience of drinking juice. If you compare what it is like to taste water versus what it is like to taste juice, patently juice stands out as having a more prominent taste. That said, that does not mean that water is insipid. It is my opinion that an experience of understanding that possesses presentational phenomenology of high-level content reflects a 'ground' of cognitive phenomenology, from which other variants of understanding sprout. Not only would there be the feeling of suddenly realizing the solution to a problem (the Aha! Experience), but also the feeling of realizing what you had previously held for true is in fact false (the Achso! Experience), and the feeling of realizing what you currently have in mind is in fact the solution you had been seeking (the O-Duh! Experience). I believe each one of these variants is indicative of a state that possesses presentational phenomenology of high-level content. If this is correct then presentational phenomenology of high-level content is not merely an indicator of an experience-token, but an indicator of an experience-type possessing irreducible cognitive phenomenology.

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ON THE RELATIONSHIP BETWEEN COGNITIVE AND SENSORY PHENOMENOLOGY

abstract

My main aim in this paper is to consider what methodology is best suited to adopt for one who believes that there is cognitive phenomenology (CP) in order to argue for its irreducibility to sensory phenomenology. I shall first present and criticize a methodology widely adopted by the deniers of CP in order to reject the irreducibility claim, the so called "exclude-and-isolate" methodology. I shall use my criticisms against it as a lever for backing up a certain conception of the nature of cognitive phenomenal properties. The key notion in this conception is that of factual intimacy which I shall mobilize to put forward the idea that cognitive phenomenal properties are inseparable, in practice and in ordinary cases, from sensory phenomenal properties (leaving open the possibility of their explanatory and metaphysical independence). I shall then present a strategy to prove irreducibility which is compliant with the inseparability claim. One such strategy is in my view provided by combining the so-called phenomenal contrast methodology with a methodology that, instead of contrasting couples of cases, compares them in order to disclose the presence of phenomenological commonalities. What the comparison methodology shows is that experiences with different sensory features can share a common phenomenal component. Since this possibility obtains even by assuming that all of a subject's sensory features differ, it follows that the common phenomenal component cannot be sensory in nature. This is enough to prove that the phenomenology in question is cognitive and that this phenomenology is irreducible to the sensory one.

keywords

cognitive phenomenology, sensory phenomenology, irreducibility, separability, independence

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1. The Reduction Question

My main aim in this paper is to consider what kind of methodology is best suited to adopt for one who believes that there is cognitive phenomenology and that this phenomenology is irreducible to sensory phenomenology. In the ongoing debate the advocates of cognitive phenomenology (CP) have put forward several different argumentative strategies in support of their position. What I shall suggest in this paper is a partly new strategy that, while incorporating some aspects of a widely used one (the so-called phenomenal contrast strategy), integrates it in a more complex framework (that is the reason why I qualify the strategy I shall put forward as "partly new").

My paper has two main sections. The first one is critical, whereas the second one contains my positive proposal for dealing with the aforementioned issue. In the first part I shall discuss some criticisms that those who oppose CP have put forward. I shall consider in particular those criticisms that have been grounded on the fact that, up to now, no one has succeeded in presenting clear and unquestionable examples of cases in which cognitive phenomenal properties (cpp_s) are instantiated, but no sensory phenomenal property (spp) is. My attitude towards these criticisms will not consist in contrasting them by devising some further example, not yet cooked up, more fanciful and ingenious than the ones already suggested by the advocates of CP. My reason for so doing is that, many valuable attempts notwithstanding, I believe that no example up to the requested standards can actually be provided. What I shall do instead is to use those criticisms as a lever for backing up a certain conception of the nature of cpp_s. The key notion in this conception is that of *factual intimacy* which I shall mobilize to put forward the idea that cpp_s are inseparable*, in practice and in ordinary cases*, from spp_s (leaving open the possibility of their explanatory and metaphysical independence). As I shall claim, factual inseparability does not have to be taken as equivalent with *dependence* conceived in the strong metaphysical sense; these two notions are distinct. Even though I agree that a possible move for a defender of CP to make from the failure of finding cases of states which only exemplify cpp_s but no spp is to hold a dependence claim of the former on the latter, I do not believe that this move is mandatory. In my view, not only a proponent of CP is not forced to make such a move, but rather she would better avoid making it (since it is a rather risky concession to her adversaries), unless she endorses the dependence claim for other reasons, grounded on her conception of the nature of the phenomenological domain.

In this paper I shall not argue for the existence of cognitive phenomenology. Rather, I shall take its existence for granted and focus my attention on its nature, in particular as regards

its relation with sensory phenomenology[1]. In my view, a reflection on the nature of the phenomenology of cognitive states and processes is an essential preliminary step towards dealing with the methodological issue of how to argue for the cognitive phenomenology thesis. For, what methodology is best suited to adopt largely depends on what the nature of cognitive phenomenology and its relation to sensory phenomenology turn out to be.

In the ongoing debate, the issue as to whether there is a phenomenology associated with cognitive states and processes is hardly ever called into question, apart from some isolated exceptions[2]. In general, what people quarrel about is not whether cognitive states and activities such as thinking, reasoning and understanding are associated with some kind of experience which is phenomenally conscious in the sense that there is something it is like for the subject who undergoes those experiences to be in them (this is the most neutral and the least theoretically-laden characterization of cognitive phenomenology that almost everyone accepts[3]), but rather whether the phenomenology associated with such states and activities is proprietary and *sui generis*[4]. My main reason for not arguing for the existence of cognitive phenomenology, understood in the above mentioned neutral characterization of the notion, is not that this is an almost undisputed point within the current debate on this topic[5]; rather, I do not feel any need to argue for its existence, because that there is a phenomenal conscious experience associated with (at least some of) our cognitive states and activities seems to me a self-imposing datum of our experiential life that no one could seriously put into question. If I were asked to provide some evidence in support of this claim, I would invite to consider a situation that I am pretty sure most people are likely to have gone through sometimes. I, for one, have undoubtedly had it. The situation is the following. You are reading a book/listening to someone who is talking to you and due to some kind of disturbance that seriously affects you at that moment (anxiety, stress, tiredness or something else) you do not understand a word of what you are reading/listening to. The linguistic material you are exposed to in such cases is one you are familiar with and you are aware of this; they are all well-known words of

1 In so doing I shall mainly concentrate on what Smithies (2013) labels the "Reduction Question" in the current debate on cognitive phenomenology which he puts as follows: "What is the relationship between the phenomenology of cognition and the phenomenology of sensory perception? Are the phenomenal properties of cognition identical or distinct from phenomenal properties of sensory perception?" (Smithies 2013, p. 745).

2 A paradigmatic example of one such position can be found in the following passage: "Cognitive states are prime examples of states for which there is *not* something it is like to be in them; of states that lack a phenomenology" (Braddon-Mitchell & Jackson 2007, p. 129).

3 For this characterization see Smithies (2013, p. 744).

4 To claim that the phenomenology associated with cognitive states is "proprietary" is to claim that what-it-is-like consciously to be in any one of them is different from what-it-is-like consciously to be in any other sort of conscious mental state. Some people in the debate qualify (CP) not only as proprietary but also as "distinctive" and "individuative". Saying that it is *distinctive* amounts to the claim that what-it-is-like consciously to entertain a particular cognitive state is different from what-it-is-like consciously to entertain any other cognitive state. *Individuative* is instead used for the claim that the phenomenology of a cognitive state constitutes its representational content. See Pitt (2011) and Montague (2016) for a defense of the proprietary, individuative, distinctive character of the phenomenology of thoughts.

5 I say almost undisputed because, eliminativists aside (and there are very few of them, if any, around), those who say that there is no cognitive phenomenology take as their critical target a characterization of the notion which is laden with (what they take to be) questionable assumptions. So what they say can be taken to amount to the claim that there is no phenomenal conscious experience associated with our cognitive activities and states that satisfies those assumptions. A parallel can be found in the debate on sensory phenomenology. When people like Dennett (1991), for example, claim that (sensory) qualia do not exist what they mean is that there are no intrinsic, directly accessible, ineffable, private, incorrigible properties of our sensory experience. Of course Dennett does not deny that there is something it is like for one to enjoy an experience and therefore that there is sensory phenomenal consciousness.

your mother language towards which you even have a feeling of familiarity. And yet, pretty mysteriously (actually not completely so, given the influence of the disturbing factors that seriously impair your comprehension on that occasion) your experience is pretty much like, even though not exactly alike, the one you would be in if the (written or acoustic) signs you are exposed to belonged to a language you do not understand[6]. Sometimes very anxious students under exam-tests report having undergone experiences of this kind. But then if you succeed in regaining control over the situation (you relax or do some other helpful activities) what happens to you is a radical change in your "experiential landscape". Suddenly, those shapes and sounds appear, once again, as meaningful. You still see and hear them (the sensory elements involved are still present to you) but, in a sense, they seem to slide back and live the front stage to their meaning.

Grasping meaning makes a difference in the phenomenal character of your overall experience. Now you are understanding, not just hearing linguistic sounds/seeing linguistic shapes. That there is a difference before and after the event of comprehension occurred is hardly disputable. Your conscious phenomenal experience has undergone a change; the phenomenal character of the experience you are now undergoing is the one typical of understanding experiences (it would not make sense saying to oneself: "Maybe I am not understanding, I am just imagining doing it"[7]). You feel that you are now understanding what you are reading/hearing and this feeling is different from the one you had when you were in the frustrating situation I described. In my view, if one honestly reflects on one's experience in such cases, one cannot but concede the above stated points. In my view this is enough to start reasoning about the nature of the phenomenology associated with cognitive states and activities.

If one were not content with these intuitive remarks and asked for an explicit argument in support of the existence of cognitive phenomenology, I think that the best argument to provide at this stage is what Kriegel (2015) labels the "life would be boring argument"[8]. Not a real knock down argument, as Kriegel himself admits, but maybe the best way to deal with what can be taken a rather awkward request. I say "awkward" because the idea that phenomenal consciousness is a prerogative of the sensory domain is utterly unjustified, despite an influential philosophical tradition, originally fueled by philosophers such as Gilbert Ryle and Charles Lewis, and still dominant until recently, has strived to champion a conception of the mind as constituted by two separate domains (what is known as the "two-separate realms conception of the mind), the purely cognitive and the purely sensory[9]. What grounds the claim that only sensory states and activities can be phenomenally conscious? What grounds the ruling out from the phenomenal conscious domain of what is peculiar and characteristic of us as thinking creatures? In my view nothing, apart from a wrong and misleading theory of consciousness on the one hand (one which denies the legitimacy of cognitive phenomenology for its incompatibility with some requirements built into one's

6 I say "pretty much" in order not to conflate this case with those in which no comprehension occurs because the linguistic material the subject is exposed to belongs to a language the subject does not master. I shall present a case of this latter kind in the third section while discussing an example of the "phenomenal contrast argument" provided by Strawson (1994).

7 Of course this does not rule out that the subject may doubt whether she is correctly comprehending and not instead misunderstanding what she is reading or listening to.

8 Actually, it is an observation that can be dressed as an argument. This is Kriegel's way of framing it: "1) If we did not have irreducible cognitive phenomenology, the contents of our phenomenal awareness from phenomenal onset to sunset would not be disposed to elicit differential feelings of interest in us; but 2) they do; so, 3) we do have irreducible cognitive phenomenology" (Kriegel 2015, p. 41).

9 A clear example of this attitude is the one stigmatized by Sellar's (1956) famous dicothomy between *sentience* and *sapience.*

theory of phenomenal consciousness[10]), or/and, on the other hand, a conception of cognitive phenomenology burdened with controversial assumptions.

Let me now conclude this section with my "credo" and with some terminological clarifications. I believe that there is a phenomenology of cognition (CP) and that such phenomenology is different in kind from, and irreducible to sensory phenomenology (SP). To defend the irreducibility of CP to SP is to defend what is called in the literature the liberal/inclusivist/ expansive view and reject what is otherwise variously called the conservative/exclusivist/ frugal/restrictive view[11]. Before starting let me provide some clarifications, in particular concerning: (a) what I am talking about when I talk of *cognitive phenomenology*; (b) what I mean by *sensory phenomenology* and, last but not least, (c) what I mean by *irreducibility*.
First. Cognitive phenomenology. In saying that there is a phenomenology of cognition I want to claim that there is a phenomenology of cognitive processes and activities and also of their products, namely states and acts[12]. Examples include thinking/ judging/ believing/ surmising/ doubting/ remembering/ assuming/understanding something – that p – that p is thus and so[13].
Second. Sensory phenomenology. By sensory phenomenology I mean the phenomenology of conscious sensory states. Following Lormand (1996, pp. 242-243), I include within that category the following "quartet" of conscious states: i. perceptual experiences (in the different sensory modalities: seeing something, hearing something, feeling something, smelling something, tasting something); ii. conscious bodily sensations (pains, tickles, itches); iii. imagistic experiences of a non linguistic sort; iv. conscious linguistic imagery (as when we think in words)[14].
Third. Irreducibility. In his recent book Chudnoff characterizes irreducibility as the claim according to which: "Some cognitive states put one in phenomenal states for which no wholly sensory states suffice" (2015, p. 15). In my paper I shall not make use of this characterization. My main reason for so doing is that, even though this way of formulating the irreducibility claim does not (logically) imply that phenomenal cognitive states do indeed require sensory phenomenal states (in the sense that they could not occur in isolation from the latter) – and I think that any acceptable characterization of irreducibility should live this option open –, to talk of the non-sufficiency of sensory phenomenology for cognitive phenomenology strongly "encourages" the idea that the former is nonetheless required. Now, I think that this is not something that should be taken for granted by "building" it into the very characterization of the notion of "irreducibility" itself. That is why I prefer to avoid Chudnoff's characterization of the notion of irreducibility and make use of the more traditional one framed in terms of non-identity. According to this characterization, a property P1 is irreducible to another property P2 if and only if P1 fails to be identical with P2. So, as regards our present discussion,

10 This is so for example with Tye (1995), Dretske (1995), and Carruthers (2000). One such requirement is the one that follows from the claim that conscious states are representational states endowed with non-conceptual content. If one allows that only perceptual states can have such a kind of content, it follows that all conscious states are perceptual states.
11 In the foregoing I shall use the couple liberal/conservative for talking about the two parties in the debate.
12 On why this distinction between cognitive processes and activities and their products is worth drawing see Kriegel (2015, p. 38).
13 Kriegel (2015) provides a list of cases of cognitive propositional states. For a list including other types of cognitive activities see Smithies (2013, p. 744). Among the items in Smithies' list there are the following cases: considering a hypothesis, judging that a hypothesis is true, recognizing that the conclusion of an argument follows from its premises, calculating the solution to a problem, grasping a metaphor, getting a joke, understanding a sentence, having an unarticulated thought on the tip of one's tongue.
14 Sometimes this quartet is integrated with a fifth element, primary emotional experiences (feeling anger, fear). See e.g. Tye and Wright (2011, p. 329).

irreducibility of cpp_s to spp_s amounts to the claim that the former are not identical with the latter. This way of characterizing irreducibility is in line with the way in which Smithies frames the "Reduction question" that he takes to be one of the central questions in the debate about the nature of cognitive phenomenology. According to this way of phrasing the notion of irreducibility the main issue turns out to be the following: "Are the phenomenal properties of cognition identical with or distinct from phenomenal properties of sensory perception?" (Smithies 2013, p. 745). Those who defend irreducibility answer the question by saying that the two properties are different, whereas those who defend reducibility answer the question by saying that they are identical.

As I have said, my main aim here is to defend irreducibility and consider which methodology is best suited to adopt for achieving that aim. So the central question to consider is how the non-identity claim should be argued for. One possibility is to prove it by proving that cpp_s are independent of spp_s (that is they can exist in isolation from the latter). Even though this is a possible strategy to pursue because, as Chudnoff rightly claims (2015, p. 16), independence entails irreducibility (and therefore if you prove independence then irreducibility follows as a free lunch), but not viceversa because irreducibility is weaker than independence, this is not the strategy I shall adopt here. For, even though I believe that it is possible to hypothesize a situation in which cpp_s occur without any spp_s (in the sense that there does not seem to be any logical incoherence in conceiving one such situation[15]), I do not think that any such situation could ever be positively conceived by us (because, as I shall claim, cpp_s are factually inseparable from spp_s). If this were not so, one should be able to provide compelling examples of states which exemplify cpp_s but no spp_s. But all the attempts to provide such examples notwithstanding, I do not think that they are good enough to convince a denier of CP (who will always say that it is simply false that there is no accompanying sensory phenomenology). I therefore prefer to follow a different line of defense of the non-identity claim.

Instead of showing that cpp_s are not identical with spp_s because they can exist in isolation from the latter, I shall show that they are non-identical because they can vary independently from each other (two states with the same spp_s can present differences in their overall phenomenology and two states with different spp_s can exhibit similarities in their overall phenomenology). This will be the topic of the third section. In the next one I shall take into account some criticisms that have been put forward against the irreducibility of CP. What I shall try to show is that what they put into question is not irreducibility, but factual separability. I shall concede this point, that is I shall accept what in my view those criticisms show, but I shall also contend that factual inseparability is compatible with irreducibility.

2. Irreducibility and separability

In this part I want to discuss and criticize some assumptions concerning what irreducibility should require that are mobilized by many deniers of CP in their arguments. According to these assumptions, irreducibility requires non-identity and non-identity, in its turn, requires separability, or, as I shall say, it requires the satisfaction of the "separability requirement". The line of thought that can be taken to be in place in many of the conservatives' arguments can thus be reconstructed as follows. Two assumptions concerning irreducibility are taken in and then a conclusion is drawn as to what irreducibility should require.

Assumptions:

15 An emblematic example is provided by Kriegel's Zoe case (Kriegel 2015, pp. 54-61). For a critical but sympathetic discussion of Zoe argument see Sacchi & Voltolini (2016) and Voltolini (this volume).

(A1) (Irreducibility requires non-identity): a given kind of properties is irreducible to another kind of properties iff the two kinds are non-identical;
(A2) (Non-identity requires factual separability): two kinds of properties are non-identical iff each one of them can actually occur without the other.
(Conclusion)
A given kind of properties is irreducible to another kind of properties iff each one of them can actually occur without the other.

Even though I agree with (A1), I disagree with (A2): two properties can fail to be identical and yet one of them could not actually occur without the other. Of course the rejection of (A2) needs some motivation, but I think that this is something that can be provided.
Let me now consider some arguments that exemplify the above sketched argumentative strategy. What all of them exhibit is a kind of methodology, quite common in the conservative camp, which can be labelled the "exclude-and-isolate methodology". I shall criticize it by claiming that it is based on an ungrounded assumption, namely (A2): that non-identity requires separability. In my view, this assumption reflects a conception of the structure and nature of the phenomenological domain that is not mandatory for an advocate of CP to endorse. Actually, I shall claim, the defender of the liberal view should reject that assumption. One example of this strategy is provided by Prinz (2011, p. 193). According to Prinz,

(1) If the liberal position is true, there are phenomenal qualities over and above sensory qualities. That is:
(2) When we add up our sensory simulations, inner speech, and emotions, there is a phenomenal remainder.
(3) If this were the case, it should be possible to experience the remainder *without* the concomitant imagery.

(1) and (2) are OK. If the liberal position is true, then sensory qualities do not exhaust phenomenal qualities. But what about (3)? What reasons are there for claiming that (3) holds? The considerations that Prinz adduces in support of (3) are the following:

(3^1) the components of *sensory* consciousness can all be experienced in isolation;
(3^2) If there were distinctively cognitive phenomenal qualities, then there is no reason to suppose that they are different in this respect.

(3^1) and (3^2) license the conclusion that we should be able to experience cognitive phenomenal qualities in isolation. But, he claims "I have encountered no compelling example of an imageless, dispassionate, languageless, conscious thought. If there were cognitive phenomenology, examples should be abundant" (Prinz 2011, p. 193).

Another application of the "exclude-and-isolate methodology" comes from Tye and Wright (2011). According to them there is no phenomenology that outstrips the purely sensory one: any phenomenal feature of a conscious state can be accounted for in terms of sensory phenomenology. For, they claim "If you doubt this, take it away. Take away *all* the associated images, *all* the relevant perceptual experiences, *all* the experienced bodily reactions...*all* the emotional responses. Do you really think that there is any *phenomenal* difference left?" (2011, p. 337). The argument that can be reconstructed from this passage is analogous to Prinz's. According to Tye and Wright,

(a) if the liberal view were correct, there should be something more in the phenomenology of a given state besides its sensory phenomenal features.
(b) If there were something more in the phenomenology of a given state besides its sensory phenomenal features, it should be something that is left over after we strip our total experiential states of their phenomenal sensory features.
(c) But when all the sensory phenomenal features are taken away no phenomenal difference is left.
(d) Therefore: the liberal view cannot be correct.

Again (a) is OK. But what about (b)? What ground is there for claiming that (b) holds? A possible explanation (which does not figure in Tye and Wright's quote but which was explicit in Prinz's) is that since "factual separability" holds in the sensory phenomenal domain, it should also hold in the cognitive phenomenal domain if it existed.
In what follows I shall critically discuss the "exclude-and-isolate" methodology exemplified in the two previous arguments and consider which possible moves are open to a defender of CP.

To start with, and on behalf of the conservatives' strategy, it must be said that the separability requirement (the requirement figuring in A2 that non-identity requires separability), seems to be satisfied in a considerable number of cases. It certainly holds for many kind of physical properties. Let us consider for example a shape property (being round) and a color property (being red). These two properties satisfy the separability requirement, because even though it is possible for them to be co-instantiated (an object can be both round and red), it is also possible for each one of them to occur without the other (a round object can be non-red and a red object can be non-round). Moreover, and most importantly, the separability requirement seems to be satisfied not just by physical properties of objects, but also by the corresponding phenomenal properties. Let us consider for example the phenomenal properties that correspond to the two aforementioned properties of physical object: red* and round* (the properties that our experience exemplifies when we see or seem to see a red/round object and which account for the phenomenal character of our experience, for what-it-is-like for us to enjoy it). What holds for red and round holds also for red* and round*: it is possible for one's experience to exemplify red* but not round* and vice versa.
Granting the plausibility of the separability requirement, a possible move for a defender of CP is to accept both (A1) and (A2), but deny that there are no compelling examples of imageless, dispassionate, languageless, conscious thoughts. Siewert (1998, pp. 276-267) is replete with such examples of "non-iconic thoughts"[16]. If one does not find these examples compelling one could consider the more complex ones presented by Strawson (1994, pp. 18-21) and by Siewert himself (1998, pp. 277-278) which concern complex chains of thoughts unfolding with such a speed and determinacy as to seriously challenge the possibility of explaining them in terms of the occurrence of verbal and non-verbal imagery. To further support the claim that cognitive phenomenal properties can occur without any sensory accompaniment the advocate of CP could avail herself of those empirical studies (such as the one by Hurlburt and Akhter 2008) that seem to attest, on the ground of the experimental subjects' reports, the frequent occurrence of episodes of conscious thinking unaccompanied by any kind of imagery, be it linguistic or non-linguistic.
My attitude towards this line of response is negative. First of all, I do not think that these

16 These examples include suddenly remembering or realizing something, e.g. that you have left your pen drive in your office at the very beginning of your talk; your suddenly realizing that you are late for the flight you had planned to take.

cases could really convince the opponent; they heavily hinge on the subjects' introspective reports and, as everyone in the debate knows, this is not taken to be a firm ground on which to back a philosophical claim[17]. As a matter of fact, an opponent could always reply, on the ground of her own introspective access to those experiences, that it is false that in the suggested cases there is no sensory phenomenology involved and that this phenomenology, or better an appropriate combination of sensory phenomenal properties, can explain all the apparent counterexamples to the conservative position[18]. Moreover, if there were examples that resisted the above mentioned reductive line of explanation, the opponent could resort to the strategy of explaining them away as introspective errors along the lines indicated by Carruthers (2011), according to whom what we take to be a genuine introspective access to our cognitive experience is actually the result of an interpretative process automatic and unconscious akin to confabulation[19].

On the ground of these considerations, instead of accepting (A1) and (A2) and try to deny the conclusion of the opponent's argument, I believe that a better option is to stick to (A1) and reject (A2). This is the strategy I shall adopt. First of all, despite the fact that the separability requirement seems to hold in many cases involving physical and phenomenal properties, one can question its general validity even as to the sensory phenomenal domain. An interesting example that can be used to cast doubts on the idea that all of a sensory state's phenomenal features can be experienced in isolation is that of the experience of hearing a tone. This is a complex sensory state which includes several distinct sensory features, such as timbre, pitch and volume. Each of such features contributes to the phenomenal character of the total sensory state (that phenomenal character would not be the way it is if those sensory features were not present or if any one of them were different from how it is). As regards this case, it does not seem possible to discover the contribution of each sensory feature by applying the exclude-and-isolate methodology. As Hopp maintains on this point, "We could not possibly exclude our consciousness of any two, or even any one, of the tone-components and have an experience of the remaining components left over. Eliminate the experience of a tone's pitch, timbre, or volume, and you eliminate the experience of the tone altogether" (Hopp 2016, p. 47)[20].
An opponent could object that the failure of the separability requirement in the above mentioned example is due to the complexity of the sensory property involved and that this does not challenge her claim which is meant to apply to simple sensory phenomenal properties. Let us grant, for the sake of the argument, that the conservative is right in claiming that the separability requirement holds (unrestrictively or restrictively) in the sensory phenomenal domain. But even granting this, what ground is there for claiming that this requirement should hold also in the cognitive phenomenal domain? Prinz's claim that what holds for one domain should also hold for the other toots the restrictivist own horn and as

17 For worries about the reliability of introspection in the CP debate see Bayne and Spener (2010); Spener (2011).
18 For such a reply see Tye (1995), Robinson (2005), Prinz (2007).
19 For a criticism of Carruther's idea that introspection of cognitive experience can always be taken as the result of an unconscious process of self-interpretation see however Smithies (2013, p. 749).
20 This example seems to me better than the one of the McGurk effect which is sometimes discussed in connection with the separability requirement. For even though in that case the resulting perceptual phenomenal state (the subject's hearing the syllable /da-da/) comes out of an interaction between sensory features in different sensory modalities (i.e. the auditory component of one sound, the syllable /ba-ba/, is paired with the visual component of another sound, the syllable /ga-ga/), this does not show that the auditory features of the resulting perceptual states are inseparable from visual features. For, as Chudnoff (2015, p. 106) rightly stresses, one could be in that same auditory phenomenal state without being in that visual phenomenal state (or in any other visual states). One might just hearing /da-da/ for example.

such should not be taken for granted in a critical assessment of the dispute. Why should the cognitive phenomenal domain be structured in the same way as the sensory phenomenal domain? So, to come back to Prinz's argument, not only (3^1) can be questioned, but even if one concedes it, (3^2) has to be resisted because if one opens to the possibility of there being two phenomenal domains, the sensory and the cognitive, there is no reason to demand that what holds in one domain holds in the other as well.

I therefore accept (A1) but reject (A2). Even though I agree that separability is sufficient for non-identity, I contest that it is also necessary. Two properties can be non-identical and therefore irreducible even though one of them is inseparable from the other. In my view this is precisely what happens as far as cpp_s are concerned.

Of course if one claims that these properties are inseparable from spp_s an explanation is needed for their inseparability. A possible explanation is to say that cpp_s are inseparable from spp_s because the former depend on the latter in the strong metaphysical sense that rules out the possibility of cognitive phenomenal states in the absence of any sensory phenomenal state. Even though I acknowledge the legitimacy of this move, I will not endorse it. First because I do not think that the opponents' arguments force a defender of CP to reject Independence[21]. Actually, what those arguments put pressure on is not Independence, but rather factual separability which is a weaker thesis that can be rejected while keeping on sticking to Independence. Second, because I think that the rejection of Independence infects irreducibility itself and weakens the liberal position. Notwithstanding some terminological differences, I think that this is also the moral that can be drawn from Chudnoff's discussion of the opponents' arguments[22]. Even thought he characterizes his position as the conjunction of irreducibility and dependence[23], I think that what he ultimately means by "dependence" is not the negation of Independence, but rather of "factual separability". For, even though he says that his position is inconsistent with independence, what he wants to rule out is the possibility of *actual* cognitive states being instantiated without the concomitant instantiation of some phenomenal sensory state. His talk of *actual* cognitive states is precisely meant to leave open the possibility of cognitive phenomenal states in the absence of all sensory phenomenal states. As regards this possibility (which is what Independence requires) he says that it is one with which no one is acquainted with because, as a matter of fact, any actual cognitive state occurs in conjunction with some sensory state (Chudnoff 2015, p. 121).

If factual inseparability is not explained in terms of the failure of Independence, then an alternative explanation is needed. One possible explanation is provided by Chudnoff himself in terms of a complex conception concerning the structure and the nature of the phenomenal domain that boasts a respectable philosophical pedigree. His conception, that he labels "Phenomenal Holism", and that he characterizes as the thesis that "All partial phenomenal states depend on the total phenomenal states to which they belong" (2015, p. 121), is a strengthened version of classical Gestaltism strongly inspired by Aron Gurwitsch's work. Even though I find this position appealing and recognize that it actually provides an interesting explanation of the failure of the separability requirement, I want to suggest, as a further possible line of explanation, one that a conservative like Prinz could not question, since it is based on that

21 I shall use the capital letter for signaling that I am referring to the notion in its strong metaphysical sense.

22 Besides Prinz's argument (which he calls "the extra-modality" argument) Chudnoff in his book considers also an argument by Pautz (2013) (that he calls "the missing explanation argument").

23 As Chudnoff claims "even though there are phenomenal states for which wholly sensory states do not suffice, there are no phenomenal states for which wholly cognitive states do suffice. On this view whenever one is in a phenomenal state it is at least in part because one is in a sensory state" (2015, p. 18).

very conceptions of the nature of concepts that he himself endorses, namely neo-empiricism. If one adopts the neo-empiricist conception of concept, either in Prinz's version (concepts as proxytypes[24]) or in Barsalou's version (concepts as simulators[25]) and accepts therefore the idea that the vehicles that the conceptual system uses in cognitive states and activities originate out of the ones used by the perceptual system itself (and so takes concepts as perceptually based[26]), then the fact that cpp_s are inseparable from spp_s is exactly what has to be expected given that theoretical framework. To insist that if cpp_s existed they should occur in isolation from spp_s, would amount to claim that concepts could occur without their corresponding vehicles and this is not something that could actually take place. It is curious, to say the least, that in his argument against CP, Prinz mobilizes an assumption that patently violates the very principles that follow from his own theoretical commitments as regards the perceptually based nature of concepts[27].

Let me sum up. We have considered a prominent methodological strategy adopted by the CP deniers and have shown that what that strategy puts pressure on is the claim that cpp_s are factually separable from spp_s. We have distinguished factual separability from Independence and have claimed that the questionability of the former does not affect the latter which is a stronger claim. Our next step will consist in addressing the following question: if one allows, as I think one should, that cpp_s are factually inseparable from spp_s, which methodology a defender of CP could adopt to prove irreducibility? Of course if irreducibility holds, then, to borrow the opponents' words, there must be something more in the phenomenology of a given cognitive state besides its sensory phenomenology. But how to argue for the existence of this "phenomenological surplus" if the exclude-and-isolate method cannot be adopted? In the next section I shall present a proposal for addressing this issue.

3. Contrast and compare

One possible strategy, even though not the one I shall pursue here, is to prove Independence and infer irreducibility from it. For, as Chudnoff shows (2015, p. 17) given that the former entails the latter one can ground a belief in irreducibility in a belief in Independence[28]. A recent attempt to prove Independence is the one provided by Kriegel with his Zoe argument which is a contrast argument of the hypothetical variety[29]. Even though I agree with Kriegel that the envisaged scenario is genuinely logically possible, in the sense that it does not reveal any manifest incoherence or contradiction[30], I think that the factual inseparability of cpp_s

24 Prinz (2002, 2005).

25 Barsalou (1999, p. 586; 2003, p. 1180).

26 As Prinz puts it "To say that concepts are perceptually based is to say that they are made up from representations that are indigenous to the senses. Concepts are not couched in an amodal code. Their features are visual, auditory, olfactory, motoric, and so on. They are multimedia presentations" (Prinz 2005, p. 7).

27 As a matter of fact, even though the theoretical framework that Prinz adopts in his account of concepts is neutral as regards the reducibility/irreducibility issue, it is not neutral as regards the separability/inseparability issue.

28 This is so for example in Pitt who claims "I believe this [that CP is a *sui generis* sort of phenomenology] because I believe that the conscious occurrence of any of the more familiar sorts of phenomenal properties is neither necessary nor sufficient for the occurrence of conscious thought" (2011, p. 141).

29 This terminology is due to Chudnoff (2015, pp. 44-45) who distinguishes the three following kinds of contrast arguments: (i) pure; (ii) hypothetical and (iii) glossed, where the differences among them have to do with the kind of premises on which they rely on. (i) rely only on premises about the phenomenal differences between actual mental states; (ii) on premises about phenomenal differences between the mental states of hypothetical people that lack all sensory phenomenology and (iii) besides relying on premises about the phenomenal differences between mental states (like the ones of the first variety) rely also on premises that provide a gloss on the phenomenal differences between the mental states involved.

30 Kriegel's argument consists of three stages. In the first stage we are asked to imagine *some partial zombie* Zoe (a creature functionally identical with a normal human being but who lacks phenomenal states of certain kind: visual, auditory, tactile, gustatory, olfactory, algedonic, emotional); in the second stage, by synthesizing all the

from spp_s prevents us from actually, positively conceiving such a situation and therefore proving Independence (if it is true, that what is needed to prove Independence is to prove the metaphysical possibility of such a scenario and if metaphysical possibility requires that such a scenario be not only negatively but also positively conceivable)[31]. For if positive conceivability requires actual imaginability[32], then I think that, pace Kriegel[33], Zoe's situation cannot be imagined, by us at least, not even by using, as Kriegel claims (2015, p. 254, note 38), imaginative empathy, because Zoe's life is so unusual and alien from us that we could never succeed in putting ourselves in Zoe's shoes. As a matter of fact *we* cannot start imagining such a situation without mobilizing any sensory imagery; as a consequence what we would end up imagining is not Zoe's life, as that life is given to her from the first person point of view, but a different one[34].

In any case, I shall here adopt a different strategy to prove irreducibility, one which is compliant with the inseparability claim. One such strategy is in my view provided by combining the "phenomenal contrast methodology" with a methodology that, instead of contrasting couples of cases, compares them in order to disclose the presence of phenomenological commonalities. If the former is used to highlight *phenomenal differences* between conscious states which share some of their phenomenal sensory features, the latter, that I shall label the "phenomenal comparison methodology", is used to highlight *phenomenal commonalities* among conscious states which differ in their phenomenal sensory features. These differences notwithstanding, both methodologies make use of one and the same strategy which consists in varying some features of a conscious state while keeping some of its other features constant. I shall label it the "variation methodology" (VM). What (VM) prescribes doing is the following: consider some conscious state (PS1) of a subject S. Make some variation either in (some of) S's cognitive states (while keeping some of S's sensory states constant) or in (some of) S's sensory states (while keeping some of S's cognitive states constant). Call (PS2) the state so obtained. Compare (PS1) with (PS2) and consider (i) whether there is some phenomenological difference between the two and/or (ii) whether there is some phenomenological commonality between them.

preceding partial zombies, we are asked to envisage a *total sensory-algedonic-emotional zombie*; finally, in the third stage, a *stipulation* is made about this creature. The stipulation consists in taking that person to be a mathematical genius spending her all days formulating mathematical propositions and trying to prove them from a set of axioms. According to Kriegel it is possible to imagine, relatively to our hypothetical creature, a contrast in her inner life. He considers, as an example of this "shift-in-though", the difference between cases in which the creature grasps a proof and cases in which she fails to have such a grasp. He provides an argument in support of the claim that the contrast in question is phenomenal. From the possibility of the phenomenal contrast he infers that Zoe has phenomenal mental states. Since Zoe does not have any sensory phenomenal state it follows that cognitive phenomenal states can be conceived to occur without any sensory accompaniment, and that therefore they are Independent.

31 The distinction between positive and negative conceivability is due to Chalmers. According to Chalmers "S is negatively conceivable when S is not ruled out a priori, or when there is no (apparent) contradiction in S...Positive notions of conceivability require that one can form some sort of positive conception of a situation in which S is the case. One can place the varieties of positive conceivability under the broad rubric of *imagination*: to positively conceive a situation is to imagine (in some sense) a specific configuration of objects and properties" (2002, pp. 149-150).

32 I am here taking "actual imagination" to be imagination grounded in sensory imagery. One could question such a characterization (see e.g. Chalmers 2002) and open to the possibility of imagination devoid of any sensory accompaniment.

33 Kriegel says "It seems to me perfectly possible to imagine such an inner life, even to imagine it from the first-person perspective – to imagine, that is, that it is *one's own* inner life" (2015, p. 57). It has to be stressed however that what Kriegel takes his argument to provide is *prima facie*, *defeasible* evidence for metaphysical possibility.

34 Commenting on this point Pautz says "we *cannot* positively imagine such a case. At least *I* cannot. Just try...If you try to imagine what it would be like, you might imagining seeing all black, having an experience of inner speech ('nothing much is happening'), and so on. But then you will not be imagining a case in which you have cognitive phenomenal properties but *no* sensory properties" (2013, p. 219).

My rationale for integrating the phenomenal contrast methodology within this more general framework is that even though I think that the former is necessary in order to show that cognition can have an impact on the phenomenology of a total mental state, it is not, on its own, sufficient to prove irreducibility, because that method is silent as regards the exact nature of that impact, in particular whether it is merely causal or constitutive (which is what must be proved to prove irreducibility). This is in my view what the phenomenal comparison methodology can instead provide. On its turn, this methodology needs the other because it is unable to prove that phenomenology has an impact on cognition. That is why both are needed: as the phenomenal contrast methodology cannot be used to prove the exact nature of the impact of cognition on phenomenology, so the phenomenal comparison methodology cannot be used to prove that cognition makes an impact on phenomenology. Let me thus summarize the structure of (VM) by saying that in the first step (by applying the phenomenal contrast methodology) one proves that cognition has an impact on the phenomenology of a conscious state; in the second step (by applying the phenomenal comparison methodology) one proves that cognition plays a constitutive and not just a causal role on the phenomenology of the conscious state.
Let me start with the phenomenal contrast methodology and consider the dialectic between the CP defender and the CP denier concerning what this methodology can actually prove[35]. Let us consider as a start the structure of the arguments that people adopting it have put forward. These arguments take as their starting point a premise according to which there is some phenomenal difference between some pair of cases which otherwise (seem to) present the same sensory experience. In one known example, devised by Strawson, the envisaged situation involves two subjects, Jacques (a monoglot Frenchman) and Jack (a monoglot Englishman), as they listen to the news in French. By moving from the following three premises[36]:

- 1. Jacques's case and Jack's case contain different phenomenal states
- 2. Jacques's case and Jack's case contain the same sensory states
- 3. Jacques's case and Jack's case contain different cognitive states

the argument takes the form of an inference to the best explanation:

- 4. either the difference in the two subject's phenomenal states is a difference in their sensory states or it is a difference in their cognitive states
- 5. the best explanation for the difference in the phenomenal states is the difference in the cognitive states

And concludes that

- 6. There are phenomenal states such that cognitive states and not sensory states put one in them.

In Strawson's own words "the difference between the two can be expressed by saying that Jacques, when exposed to the stream of sound has what one may perfectly well call 'an experience (as) of understanding' or 'an understanding experience', while Jack does not" (Strawson 1994, p. 6).
Even though it is open to the opponent to reject any of the three above mentioned premises (1-3), the one that is most frequently attacked is (2). Tye and Wright for example say:

35 In the foregoing, I shall consider only so called pure phenomenal contrast arguments. These arguments have been used inter alia by Strawson (1994); Siewert (1998), (2011); Pitt (2004); Horgan and Tienson (2002).
36 For this way of reconstructing Strawson's argument see Chudnoff (2015), p. 46.

> We agree that there is a real phenomenal difference here ...When we hear someone speaking in a language we understand, the phonological processing of the sound stream is different from the processing that goes one when we hear someone speaking in a language we do not comprehend. In the former case, the "grouping" of the sound stream is causally influenced by the semantic processing. The result is that the auditory experiences we undergo are different from those we would undergo were we to hear the same sound stream without understanding the language (2011, p. 337).

So, (1) is accepted: there is a contrast and this contrast is phenomenal in nature; (3) is accepted as well: linguistic understanding is a cognitive process; but (2) is rejected: it is not true that the sensory states involved in the two cases are the same[37].

How can a defender of CP react to her opponent's move? I my view the best reaction to take is not to deny that the sensory phenomenologies involved are different (this would bring the whole dialectic in a standstill), but to concede this point and claim that the phenomenal difference in the sensory states of the two subjects is nevertheless due to the difference in the cognitive states involved. As a matter of fact, as Tye and Wright's above quote testifies, that some cognitive states can have an impact on the phenomenology of the whole state one is in is a point that a conservative has not only any problem in conceding, but also generally does concede. In my view, that cognition can have an impact on the whole phenomenology of an at least partly sensory state is exactly what the phenomenal contrast methodology based on phenomenal contrast arguments does actually show. Of course this is not sufficient to prove irreducibility, because to prove it one needs to show that the impact that cognition has on the phenomenology of a conscious state is not merely causal (as the conservative claims[38]), but constitutive. But to prove this last point the phenomenal contrast methodology is of no help, because this methodology is by itself silent as regard the exact nature of the impact of phenomenology on cognition. So my assessment of the phenomenal contrast methodology is this: I agree with the conservative, and disagree with the liberal, that this methodology is unsuited to prove irreducibility. Nonetheless, while judging it not sufficient for the liberal's own purpose, I deem it necessary as a first step in a more complex argument whose second step is precisely meant to show the constitutive nature of the impact that cognition has on the phenomenology of a partly sensory state.

This second step is in my view provided by the comparison phenomenal methodology. As a start, I shall consider a case of comparison analogous to Strawson's contrast case. Since in this case more than one subject is involved I shall refer to it as the "intersubjective phenomenal comparison case" to distinguish it from cases of the intrasubjective variety I shall introduce later. The intersubjective case I shall start with is this: think of Jacques and Jack again, but this time, instead of considering, as in Strawson's case, Jack's hearing news in French, consider Jack hearing the very same piece of news in English, that is in the language that Jack understands (being Jack an English monoglot). It is undisputable that Jacques's and Jack's total experiences in the two cases are different. But their different experiences have also something in common. We have already proved, by applying the first step of the variation methodology, that (some) cognitive states can have an impact on the phenomenology of the whole state the subject is in (as regards our present example, the cognitive states we are concerned with are those of understanding). The central question to address now in order to

37 For an analogous reaction to Strawson's argument see Carruthers and Veillet (2011, p. 52).
38 See Carruthers and Veillet (2011, p. 37).

prove that cognition plays a constitutive, and not just a causal, role in that phenomenology is this: is this commonality cognitively phenomenal in nature? If the answer is positive, that is if it can be proved that this commonality is both (i) *phenomenal* and (ii) *cognitive*, it would follow that what the two subjects' experiences share is a cognitive phenomenal core irreducible to sensory phenomenology. Of course, a denier of CP could reject either (i) or (ii). Let us consider these possible countermoves starting from the first one. What the objector could claim is that the subjects of our example do not actually share anything at the phenomenological level and that their phenomenology is completely different as it is the phenomenology of a subject who hears a bell ringing and that of a subject who hears a moo. Jacques and Jack are in cognitive states of the same kind all right, allows the objector, but their states are associated with wholly different phenomenal features. To show the implausibility of this line of defense, I suggest to move to some examples of the intrasubjective variety of the comparison methodology.

Our first example is this. Let us consider a subject (S) who hears two synonymous sentences in two different languages that she masters: say, (E1) "A cat is on the mat" and (E2) "Un gatto è sul tappeto". A second and similar example is that of a subject (S) entertaining a thought in her inner speech (that the cat is on the mat, say) and then expressing it in outer speech by uttering the corresponding sentence "The cat is on the mat". Now, we think it is undisputable that a subject in such situations is able to judge that E1 and E2 express the same content (as regards the first intrasubjective case considered) and to judge, as regards the second case, that she has put into words the very some thought she was silently entertaining in her inner speech. The question to consider now is this: what grounds the subject's judgements? And, more importantly, could the subject make those judgments (in the immediate, non-inferential way in which she ordinarily makes them) if she did not enjoy a "feeling" of phenomenal sameness?
To address these questions consider how one would deal with a corresponding case involving sensory recognition. The case is this. Consider the two following experiential situations: in E3 you hear a melody, Jingle Bells say, played on a given instrument, while in E4 you hear that melody played on a different instrument at a different volume. You recognize the same melody in the two different executions. Would that recognition be possible (in the way in which it normally occurs) if the commonality between the two executions were not felt/ experienced? Well, if one allows, as I think one should, that such a recognition would not be possible, why should not the same point be allowed as regards our two previous examples? Moreover, how could one concede it without conceding that the subject experiences the contents of her two mental states and that she experiences those contents to be the same (she has a "feeling of sameness" analogous to the one enjoyed in the melody example). At this point the conservative can concede that a common element is present in the two cases, that this element is phenomenal in nature and that it is responsible for the subject's "feeling of sameness", but deny that this common phenomenal element is not wholly sensory (and so denying the point ii. above). A possibility here is to appeal to imagistic experience of a non-linguistic sort. To this possible countermove my reply is the following. First of all it seems doubtful that the imagistic experience stays fix from one experience to the other, because it often changes even as regards one and the same sentence in different times. Moreover, and more importantly, one can conceive it as changing without this affecting the phenomenal commonality that the subject feels in the two experiences. To show this point you just need to make a further application of the comparison method. So, what the comparison method shows is that experiences with different sensory features can share a common phenomenal component. Since this possibility obtains even by assuming that all of a subject's sensory features change, it follows that the common phenomenal component cannot be sensory in

nature. I take this to be sufficient to prove that the phenomenology in question is cognitive and that this phenomenology is irreducibility to the sensory one.

Let me take stock. My main concern in this paper was to consider what kind of methodology a liberal can adopt in order to prove that cognitive phenomenology is irreducible to sensory phenomenology. As I said from the very beginning, I did not provide any argument in support of the claim that there are cognitive phenomenal properties. That the phenomenology of our conscious lives outstrips the merely sensory domain and encompasses also the cognitive domain is a point that I took for granted. What is the real and substantive matter of dispute is not whether there is a phenomenology of our conscious cognitive states, but rather whether this phenomenology is proprietary and *sui generis*. So, by taking as my starting point an as neutral as possible characterization of cognitive phenomenology – one that in my view both parties in the debate should agree upon –, I focused my attention on the question of the relationship between sensory phenomenal properties and cognitive phenomenal properties. Addressing this question is a preliminary necessary first step in order to start reasoning about any methodological issue; what methodology should be adopted (either to argue for the irreducibility of cognitive phenomenology or against it) very much depends on what kind of relation cognitive phenomenal properties are claimed to stand to the sensory ones. Is the relation in question one of identity or of non-identity? Is it one of independence or of dependence? I focused my attention on the first question because it is the most crucial one as regards the irreducibility *vs.* reducibility issue. I criticized an assumption that many conservatives make and use in their arguments against CP according to which the non-identity of two properties requires their factual separability (that is the possibility for each one of them to actually occur without the other). I rejected this assumption as ungrounded and claimed that what their arguments actually show is that cognitive phenomenal properties are not factually separable from sensory phenomenal properties. Since factual inseparability is consistent with irreducibility (in the sense that a given kind of properties can turn out to be factually inseparable from another one and yet be non-identical with and therefore irreducible to it), in my next step I tried to put forward a methodology for defending the irreducibility claim that is compliant with factual inseparability. Since irreducibility requires non-identity, to prove that cognitive phenomenal properties are non-identical with sensory ones, albeit factually inseparable from them, I suggested a methodology which shows that each of those properties can vary independently from the other. This is enough in my view to prove the irreducibility of cognitive phenomenology to sensory phenomenology. I do not intend to claim that the variation methodology that I have presented is the only one, or even the best one, available to defend the irreducibility claim. My purpose here was just to show that it is a possible methodology to adopt for someone who endorses the idea that the cognitive phenomenal domain is factually inseparable from the sensory phenomenal domain. What explanation can be provided of the inseparability claim is one further and crucial question that should be addressed. But this is a matter for another paper[39].

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CONSCIOUS INTENTIONALITY IN PERCEPTION, IMAGINATION, AND COGNITION

abstract

Participants in the cognitive phenomenology debate have proceeded by (a) proposing a bifurcation of theoretical options into inflationary and non-inflationary theories, and then (b) providing arguments for/against one of these theories. I suggest that this method has failed to illuminate the commonalities and differences among conscious intentional states of different types, in the absence of a theory of the structure of these states. I propose such a theory. In perception, phenomenal-intentional properties combine with somatosensory properties to form P-I property clusters that serve as phenomenal modes of presentations of particulars. In imagination, somatosensory properties are replaced with phenomenal-intentional properties whose intentional objects are somatosensory properties, thus resulting in imaginative facsimiles of perceptual P-I property clusters. Such structures can then be used as phenomenal prototypes that pick out individuals and kinds. Sets of such prototypes constitute a subject's conception of individuals and kinds. Combined with a few additional elements, these imaginative P-I property clusters serve as the building-blocks of conscious cognitive states. Different ways of carving up theoretical space classify my theory either as inflationary or as non-inflationary. I conclude that the theory is anti-inflationary in letter but inflationary in spirit.

keywords

cognitive phenomenology, phenomenal intentionality, perception, imagination, cognition

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1. Introduction

Parties to the cognitive phenomenology debate disagree about much. One thing they all seem to agree about is the *method* for exploring the nature of cognitive phenomenology: first, bifurcate the space of theoretical options into the more inflationary and the less inflationary theories, and second, provide arguments for or against one of the two sides of the bifurcation. Here are four strikingly similar ways that this theoretical division has been made (two of them by inflationists and the other two by anti-inflationists):

> *Conservative conception*: It is not the case that conscious thought possesses a distinctive phenomenal character.
> *Liberal conception*: Conscious thought possesses a distinctive phenomenal character. (Bayne & Montague 2011, pp. 2-3).

> *Irreducibility*: Some cognitive states put one in phenomenal states for which no wholly sensory states suffice.
> *Reducibility*: It is not the case that some cognitive states put one in phenomenal states for which no wholly sensory states suffice (Chudnoff 2015, p. 15)[1].

> *Liberal view*: There is a conscious, occurrent, phenomenologically present understanding that does not consist in anything imagistic and is not a change in emotional state.
> *Frugal view*: Everything that is occurrent and phenomenologically present in such cases is either imagistic or a change in emotional state (Robinson 2011, p. 203).

> *Restrictivism*: All mental representations that have a phenomenal character represent only sensory qualities.
> *Expansionism*: Some mental representations that have a phenomenal character represent non-sensory qualities (Prinz 2011, p. 176)[2].

1 Chudnoff only specifies the first of these two theses; I am extrapolating the second.

2 This is my gloss on Prinz's more technical formulations:
Restrictivism is true iff, for every vehicle with qualitative character, there could be a qualitatively identical vehicle that has only sensory content.
Expansionism is true iff some vehicles with qualitative character are distinguishable from every vehicle that has only sensory content.

I want to suggest that setting up the debate in this way has been highly misleading. Unqualifiedly endorsing any of the above theses involves over-emphasizing or under-appreciating the commonalities between conscious sensory states and conscious cognitive states. Consider an analogy. Suppose we were asked whether automobile engineering is "reducible to" other forms of engineering, or whether there is a "distinctive" form of engineering used to design cars. In one sense, it is quite obvious that automobile engineering cannot be reduced to other forms of engineering: designing a different type of product will require a different design-process. At the same time, there may not be any elements of the automobile design process that are truly "distinctive" in the sense that no other engineers use them. Asking whether automobile engineering is reducible to other forms of engineering obscures the ways that engineering is a structured process whose components are shared among many forms. If you want to understand the nature of automobile engineering and its relationship to other types of engineering, you need to ask a different question.

The purpose of this paper is to ask a different question (about cognitive phenomenology), viz.: how are conscious perceptual, imaginative, and cognitive states structured? Only as we answer this question can the similarities and differences among such states come into focus. Here is the plan: In section 2, I discuss two distinct ways that a feature can be "present in" consciousness, and the way that such features can be semantically structured to form conscious perceptual states. In section 3, I discuss the relationship between conscious perception, imagination, and memory, and the way that states of these types are used by subjects to conceive of individuals and kinds. In section 4, I turn my attention to conscious cognition and to whether the elements discussed in sections 2 and 3 are sufficient for it. Finally, in section 5, I return to the four characterizations of the debate listed above, bringing them to bear on my proposals. As we shall see, my proposals locate me closer to the anti-inflationists in letter but closer to the inflationists in spirit.

2. Conscious features and conscious perception

One hallmark of conscious states is that within them and/or through them subjects encounter properties and relations: colors, sounds, tastes, bodily sensations, shapes, distances, and so forth. Such features are sometimes said to have their natures "revealed" to the subject in consciousness, in contrast with other properties and relations that are represented in consciousness but whose nature remains hidden (e.g., natural kinds)[3]. How best to understand this revelatory encounter between subject and feature has been a matter of perennial philosophical dispute. A first division among disputants is between those who treat the subject-feature nexus as fundamentally *relational* and those who treat it as fundamentally *non-relational* or *monadic*[4]. I mention relationalism only to set it aside; in what follows I develop a version of monadicism.

A second, less familiar division can be found within monadicism, pertaining to two ways that a feature can be monadically present in consciousness. One way is for the feature in question to be instantiated by the subject. Plausibly, *moods* are present in such manner: when I am

3 Johnston (1992) seems to have introduced the language of "revelation" into discussions of phenomenally-presented features. Note that I use the term "features" to cover properties and relations encountered in consciousness. For the sake of clarity, I restrict my usage of the term "properties" to refer to *phenomenal properties*. Some features encountered in consciousness are phenomenal properties, and some are not, as will become clear in what follows.

4 Philosophers in first camp, the so-called "act-object theorists", include those who take a subject's encounter with a feature to be a matter of the subject's bearing a cognitive relation to a mental particular that has that feature (per the sense-datum theory), to an external particular that has that feature (per direct realism), or to a universal (per Platonism). By contrast, philosophers in the second camp, the so-called "adverbialists", deny that no such a cognitive relation between subject and encountered object is needed. For example, for a subject to encounter redness could be for a subject to instantiate the property *sensing redly*, where this is a non-relational modification of the subject, and not a relation to an object (redness, or an instance of it).

presented with conscious moods, I am encountering *my properties*, i.e., properties that I, the subject, instantiate. On my view, all of the traditional "sensory qualities" – colors, sounds, tastes, smells, etc. – as well as all somatic qualities – pains, pleasures, and emotions – can be present in consciousness via instantiation by the subject. Call these properties "somatosensory properties". Somatosensory properties constitute a broad class of phenomenal property (where phenomenal properties are just *ways of being conscious*).

But there is another class of phenomenal property, corresponding to the other way for features to be monadically present in consciousness. A conscious feature can be present in consciousness when *intended* – semantically pointed toward – by the subject. Compare the difference between having an itch, on the one hand, and mentally grasping what it is like to have an itch, on the other. I suggest that in the first case, the feature *itchiness* is presented to you by being *instantiated* by you. In the second case, the feature *itchiness* is likewise presented to you, but in a different way: it is *intended* by you. That is, among the constituents of your consciousness is a grasping of the feature. The property of mentally grasping the feeling of an itch is thus a phenomenal property, but it is not a somatosensory property. It is what I call a "phenomenal-intentional property". A phenomenal-intentional property is a phenomenal property whose nature consists in the presentation to the subject of an intentional object (in the case at hand, the intentional object *itchiness*). When a subject instantiates a phenomenal-intentional property, that property's intentional object is thereby present in the subject's consciousness – by intention, rather than by instantiation[5,6].

Which features are present in consciousness via intention? In principle, any feature whatever could be. But I suspect that our conscious states are constructed out of a somewhat restricted set of phenomenal-intentional properties. The features present in our conscious states by intention rather than instantiation are those (a) whose nature we can come to understand simply by reflection, and (b) which we cannot ourselves instantiate. We can begin to identify these features via phenomenological analysis (i.e., attending to the basic intentional constituents of our conscious mental states). But other avenues of inquiry can provide assistance. For example, developmental psychologists investigate those components of our conceptual repertoire that show up very early in all normally-functioning children[7]; perceptual psychologists investigate those features of scenes that are processed first in the relevant cortical systems[8]; and cognitive linguists investigate the most basic categories with which we imbue phonemes with meaning[9]. A conservative list, compiled on the basis of convergence among these three methodological routes, includes object, agent, cause, motion, egocentric location, and some set of shape- and size-properties.

I propose that phenomenal properties of these two types – somatosensory properties and phenomenal-intentional properties – together explain both the phenomenal and intentional content of all of our conscious states, across perception, imagination, and cognition. Before I get to the details, it will be helpful to briefly acknowledge two sources of inspiration for my

5 Recently, Farkas (2013) and Masrour (2013) have proposed a strategy for *reducing* phenomenal-intentional properties to somatosensory properties. While I am skeptical that this reduction can be carried out (see Woodward [under review]), nothing I say about phenomenal-intentional properties in what follows is obviously inconsistent with the claim that the reduction *can* be carried out.

6 In *Wittgenstein on Rules and Private Language*, Kripke notes and dismisses the possibility that "a headache with a very special quality" – that is, a special way of being conscious, a special phenomenal property – explains how a thinker determinately grasps the addition-function (rather than some other function, her grasp of which would just as readily rationalize all of her behaviors). Far from dismissing this possibility, I take the possibility to be actual.

7 Cf. e.g. Kinzler & Spelke (2007); Carey (2009).

8 Cf. e.g. Marr (1982); Martin (2007).

9 Cf. e.g. Lakoff & Johnson (1980); Langacker (1991).

theory. The first is Bertrand Russell's semantic theory in "Knowledge by Acquaintance and Knowledge by Description". Russell's core conviction is that "Every proposition which we can understand must be composed wholly of constituents with which we are acquainted" (Russell 1910, p. 117). The idea here is that we can only completely understand a proposition only if we grasp the natures of all of its constituent features. But we do not grasp the natures of very many features, and of hardly any *particulars*. (On my view, we only grasp the natures of those features that are presented in consciousness, either by instantiation or by intention; Russell's view is a bit different). So in order for us to have beliefs about ungrasped features or individuals, we have to be able to construct descriptions of those features and individuals *out of grasped features*. What this means on my view is that we use a sparse set of phenomenally-presented features to form *phenomenal modes of presentation* (I here insert a bit of Fregean jargon into a Russell-inspired theory) of all the intentional contents we can consciously represent.

The second source of inspiration is Laurence Barsalou's "embodied" or "grounded" theory of cognition. Barsalou explores the possibility that we do not have two different sets of representational resources – one for perception, another for cognition – but rather that cognition amounts to the offline redeployment of perceptual-representational resources[10]. In what follows I will be developing a version of this idea as it applies to conscious intentionality. That is, I will be exploring the possibility that conscious cognition involves the deployment of phenomenal modes of presentation that are closely related to, and derived from, those deployed in conscious perception.

Let us begin with perception, then. In order to understand how somatosensory properties and phenomenal-intentional properties together explain conscious perceptual intentionality, we need two more phenomenal elements in the picture. The first element is a mechanism for generating semantic structure within phenomenal states. As Frank Jackson (1975) points out, semantic structure poses a problem for the monadicist: to say that a subject encounters redness, blueness, circularity and squarehood in consciousness is not yet to say that a subject is presented with a red square and a blue circle rather than with a red circle and a blue square (or simply with four distinct qualities in semantic isolation from one another). As far as I can tell, the only way to respond to Jackson's challenge is to acknowledge the presence of an additional phenomenal element that semantically links presented features. I call this element "phenomenal-intentional attribution" or "P-I attribution". P-I attribution is a monadic property instantiated by the subject, but which intentionally points beyond itself toward phenomenal features presented in consciousness (either by instantiation or by intention), in two directions: it points in one direction, toward the recipient of an attribution, and in another direction, toward the subject of an attribution.

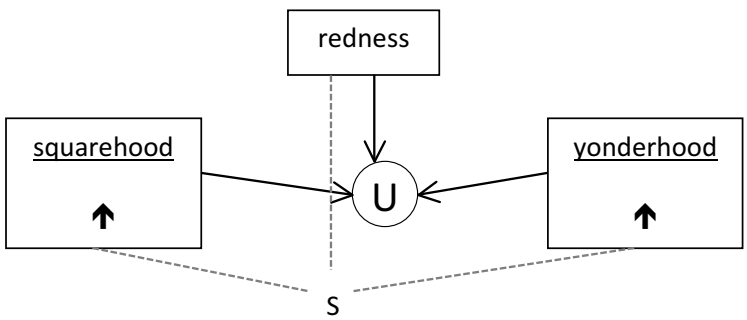
The second element is a mechanism for *particularization*. For a subject to be presented with a red square is emphatically not for a subject to be presented with redness and squarehood such that one of these is attributed to the other. Redness is not square! Rather, there must be an additional phenomenal element, to which both features are attributed, and such that both features are presented as features of a particular – the phenomenal equivalent of the "bare particulars" posited by ontologists[11]. I call such elements "P-I units". Again, P-I units are monadic properties instantiated by the subject, but what they present to the subject are not features but bare countables as such.

Positing P-I attribution and P-I units solves philosophical-cum-semantic problems that come up for monadicism. But there are also straightforwardly phenomenological reasons

10 See Barsalou (1999), (2003), and (2008).

11 Cf. Armstrong (1997).

to grant that phenomenal states frequently include them, reasons having to do with the contrast between closely related phenomenal states. First: consider the features *being ugly* and *being angry*. Now, entertain the proposition that anger is ugly. Something has changed: in the latter case, ugliness is being *attributed to* anger in your conscious state. Plausibly, your conscious state has acquired new semantic structure in virtue of acquiring a new feature (P-I attribution). Second: imagine a red object. Now, imagine a second, identical red object alongside it. Something has changed: in the latter case, the feature *redness* is presented as instanced twice rather than once. Plausibly, your conscious state has acquired new, quantitative structure in virtue of acquiring a new feature (a second P-I unit)[12].
We are now able to state, in response to Jackson, what is minimally involved in a subject's having a perceptual experience of a red square: the subject is presented with redness and with squarehood; the subject instantiates a P-I unit; the subject instantiates P-I attribution in such a way that redness and squarehood are semantically connected to the P-I unit; and, finally, the subject instantiates a phenomenal-intentional property whose intentional object is an ego-centric spatial relation, such that the red square is presented as *yonder* (I will thus call this feature "P-I yonderhood"[13]). We can pictorially represent the subject's phenomenal state as follows:



(Here the encircled U represents a P-I unit; dotted lines represent the instantiation-relation; arrows represent P-I attribution. For simplicity, I have omitted lines of instantiation between instances of P-I attribution and the subject and between the P-I unit and the subject. The vertical arrows indicate those features which are present as the intentional objects of phenomenal-intentional properties, rather than as somatosensory properties instantiated by the subject). Call the whole bundle a "P-I property cluster". P-I property clusters are monadic states that present intentional contents to subjects[14]. The contents of P-I property clusters are triply indeterminate (1) between definite descriptions and propositions ("The red square" vs. "The square is red"); (2) between existentially quantified propositions, demonstrative propositions, and atomic propositions ("There is a red square" vs. "That square is red" vs. "The square is red"); and (3) regarding what is predicated of what ("The red thing is square" vs. "The square is red").

12 I suspect that P-I attribution and P-I units are *primitive* phenomenal features, but nothing I have said is inconsistent with their being reducible to other phenomenal elements.
13 A thing is yonder if it is a certain distance *from me*. Yonderhood is thus not a property or relation as these are ordinarily understood, but is rather what Andy Egan (2006) calls a "centering feature". Of course there are many determinates of yonderhood, one for every discriminable egocentric distance.
14 Here and in what follows, I countenance two layers of "intentional contents": descriptive contents presented to a subject, and the referent of those descriptive contents (roughly, Frege's *Sinn* and Frege's *Bedeutung*). I recognize that some philosophers restrict the term "intentional content" to one or the other of these layers. I prefer to distinguish between the two layers by speaking of "presented" intentional content, on the one hand, and "represented" intentional content, on the other.

If in the foregoing I have successfully anatomized a perceptual experience, I have revealed it to be a curious creature indeed: while squarehood and yonderhood are present in the subject's consciousness via intention, redness is present via instantiation – yet all three features are attributed to the self-same particular. That is to say: a property *of the subject* is being attributed to an object presented as located *at a distance from the subject*. It is as though perceptual experience is continually presenting the subject with category errors (akin to Buster Bluth's declaration, "Oh man, it's tired in here!").

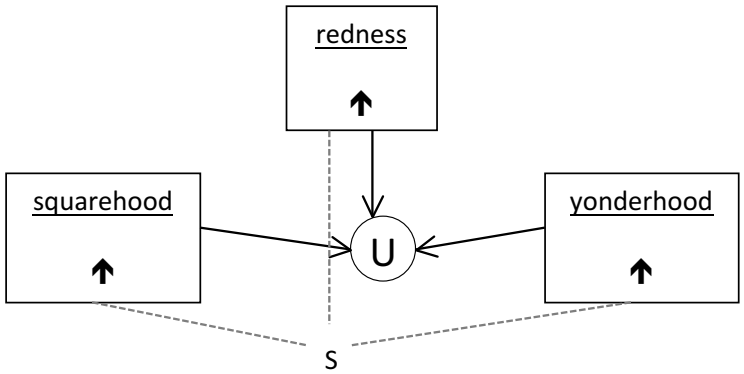
I *do* think that is what is going on. If so, it explains why philosophers have disagreed so dramatically and interminably about the metaphysics of sensory qualities such as colors. (At one extreme, some philosophers hold that a color is a type of phenomenal property – I include myself in this camp – whereas, at another extreme, some hold that a color is a type of surface-reflectance profile, or even that it is the disjunction of the physical realizers of such a profile). But much more importantly, it explains the epistemic significance of perceptual experience. Each of the three features in the P-I property cluster plays a crucial role in that cluster's providing the epistemic grounds for beliefs about the object presented. (1) P-I yonderhood presents the referent of the cluster as part of the extra-mental world; in its absence, the cluster would present an item indistinguishable from a phosphene or after-image – a "subjective particular", as it were. (2) P-I squarehood serves to provide grounds for discriminating the referent of the cluster from other elements of the perceptual scene – the beginnings of a criterion of identity/persistence for the object, a first clue as to what it is. (3) Somatosensory redness *locates the referent of the cluster in vivid, manifest, occurrent reality*, rather than in a merely imagined or conceptualized locality. It is precisely the inclusion of a somatosensory property that serves up the *irresistibility* of perceptual episodes, in contrast with imaginative and cognitive episodes.

Of course, simply because a subject instantiates a P-I property cluster (barely!) rich enough to perceptually present a particular, it does not follow that the subject *perceives a particular*. Two further conditions must be met for this to be so: (4) the cluster has to correspond to an object in the world, such that this object instantiates all or most of the intended features included in the cluster, thereby satisfying the descriptive content the cluster represents. In cases where no object in the vicinity instantiates all the features bound up with a P-I unit in a perceptual state, reference may be indeterminate[15]. (5) The same object that satisfies the descriptive content of the cluster must also be the cause, in the canonical way, of the instantiation of the cluster. ("In the canonical way" is meant to rule out cases of "deviant" causal chains such as the following: I seem to see a red square yonder; there is a red square yonder; the red square is emitting gases that cause me to hallucinate that there is a red square yonder. I leave it open how precisely to cash out canonical causation, trusting that there is a way to do so).

3. From perception to conception

A perceptual P-I property cluster must include a somatosensory property – more specifically, one of the traditional "sensory qualities" – in order to play the unique epistemic role that perception plays, viz., presenting the subject with vivid, manifest, occurrent reality. But now suppose that we replaced the somatosensory property in a perceptual P-I property cluster with a phenomenal-intentional property whose intentional object is that same somatosensory property. For example, suppose we replaced phenomenal redness in the P-I property cluster depicted above with *intended* redness, as follows:

15 See Montague (2013). Some philosophers maintain that descriptive content plays *no* role in fixing referents of perceptual modes of presentation, a view I reject (for reasons I cannot go into here). My view is thus intermediate between what Recanati (2012) calls "satisfactional" and "relational" theories of perceptual reference.



(Intended redness is what I will call a "P-I sensation" – i.e., a phenomenal-intentional property whose intentional object is a somatosensory property). In this case, the subject is still presented with a red square yonder, but it no longer appears to the subject as really out there in objective space. What she experiences, instead, is *an imaginative facsimile of a perceptual experience*. That is, the resulting P-I property cluster would constitute the same phenomenal mode of presentation as the original cluster, but in the form of an imaginative state rather than in the form of a perceptual state[16]. Further, it would remain a uniquely *visual* phenomenal mode of presentation, because redness is still included in the cluster. (This is what makes the cluster *imaginative* rather than purely cognitive). But it would not seem to present to the subject a manifest constituent of objective, local reality.

This feature of imaginative property clusters – that they can replicate perceptual property clusters – provides the crucial connection between our ability to consciously perceive the world and our ability to consciously think about it. To anticipate: imaginative property clusters can serve as *phenomenal prototypes* for previously perceived individuals and kinds, and a set of such prototypes constitutes a subject's *conception* of those individuals and kinds. In the remainder of this section, I explain in more detail how this can happen.

First, a subject has to have a capacity for tracking persisting objects over time. In the first instance, this will mean that when a subject instantiates a P-I property cluster in a perceptual state over a time interval, the particular thereby presented will seem to endure through that time interval. Such must be part of the nature of P-I units: not just that they particularize contents but that they present particulars as enduring.

Second, presented particulars need to be experienced *as of a certain sort*. That is, a subject's capacity to experience particulars as enduring leaves open the matter of *the conditions under which* a given particular is experienced as enduring, which is a matter of the sortal under which the object is taken. Sortals need not be *explicitly* represented (i.e., as the intentional object of one of the P-I properties in the cluster) so long as they are *implicitly* represented. A subject implicitly represents an experienced object as of a sort if she expects the object to behave as things of that sort behave, which is to say that she would experience feelings of surprise were it to behave otherwise[17].

16 Thus, crucially, phenomenal modes of presentation are multiply realized. Their constituents can be swapped out – a feature present by instantiation for the selfsame feature present by intention, and vice versa – while remaining the very same phenomenal mode of presentation. That is, phenomenal modes of presentation are individuated according to their descriptive contents, not according to their phenomenal feels (as instantiating a feature and intending a feature do differ phenomenologically).

17 Example of an implicitly represented property: I reach out for and grasp my pen, thereupon reacting with surprise at its massive weight. Had I been I consciously, explicitly under-representing its weight? That is implausible.

A third step[18] toward representing individuals is being able to remember past experiences of them. On my view, conscious memories of perceived individuals are imaginative episodes of a unique kind. A subject S's conscious episode M counts as a perceptual memory of an individual O under the following circumstances: (a) it is caused in the right way[19] by a past perceptual state P (or by multiple such states) that included a P-I property cluster that was in turned caused in the canonical way by O, (b) it includes a P-I property cluster that (roughly[20]) replicates the cluster in P, but with somatosensory properties swapped out for P-I sensations, and (c) it includes phenomenology as of the cluster's being familiar. In other words, I am remembering a perceived object if my imaginative episode feels like a memory of it and is in fact caused (in the right way) by my past perception of it.

Once these elements – (1) the experience of diachronic persistence, (2) sorts, and (3) perceptual memory – are in place in consciousness, the subject is in a position to form a *phenomenal prototype* of an individual. A phenomenal prototype is an imaginative P-I property cluster that binds together those features of an individual that the subject uses to pick out that individual – including (explicitly or implicitly) the individual's sort, as well as the individual's prototypically identifying features. Though a prototype is not a memory of any particular perceptual encounter with an individual, it is abstracted from one or more perceptual memories, and thus it traces its causal ancestry through one or more perceptual experiences of an individual. Thus a phenomenal prototype is the phenomenal equivalent of a definite description, of the following form: the familiar [sort] such that [identifying features][21].

If a phenomenal prototype's descriptive content is sufficiently rich, or if the subjects' causal exposure to individuals is sufficiently poor, of descriptive contents presented in a single prototype can be sufficient to establish determinate reference. For example, if a toddler entertains a phenomenal prototype that expresses the description *that familiar physical object that is red and octagonal and has S-T-O-P written on it*, there may be just one satisfier of the prototype to which the toddler stands in the requisite causal/historical relation. Or again, it is plausible that our sensitivity to facial details makes it possible for a phenomenal prototype as of a face to uniquely pick out a person. Ordinarily, however, subjects will have – and will *need* – multiple ways of referentially homing in on an individual. To begin to get these more complicated referential mechanisms up and running, a subject needs to be able to entertain two co-referential P-I property clusters at the same time – for example, by simultaneously perceiving an object and remembering it – and needs to be able to experience the two clusters *as* co-referential. This could happen via the inclusion of a phenomenal-intentional property whose intentional object is the relation of numerical identity, and which links the two P-I property clusters.

Under such circumstances, a subject is in a position to compare distinct phenomenal modes of presentation of the same individual. This process of comparison can result in a modified prototype that integrates the content from both sources. Or, it can result in the association

18 Though this step is typically involved in process of constructing a conception of an individual, I do not think it is required: it is possible to make the leap from a perceptual representation of a particular to an imaginative prototype of an individual.

19 I leave unspecified what this causal condition on perceptual memory is, just as I leave unspecified what the causal condition on perception is, but I take it that it will be subject to the same sorts of constraints: it will have to be non-deviant, i.e. robust enough across counterfactual scenarios to deliver a sufficient degree of reliability.

20 I can remember my having perceived O while misremembering some, but not all, of the features whereby I had perceptually picked out O.

21 While the term "prototype" is standard in cognitive science (for discussion see Laurence & Margolis (1999) pp. 27ff), my use is non-standard inasmuch as I am treating prototypes as picking out individuals rather than picking out kinds. My usage is only very gently revisionary.

of the two prototypes *as co-referential*[22]. Consider, for example, my ability to think about *my house*. One prototype I can deploy in thinking about my house presents its visual appearance from the street: *that familiar structure shaped and colored thus-and-so.* Other prototypes involve its visual appearance from inside any of its rooms, or experiences of working in my study, of cooking in the kitchen, of a particular dinner party I once hosted, etc. If suitably related to one another, these numerous prototypes comprise my *conception* of my house[23]. Put more formally: a subject's conception of O is constituted by a set of dispositions to instantiate members of a set of phenomenal prototypes when (a) the subject is disposed to experience arbitrary pairs of such prototypes as presenting numerically identical individuals, (b) the instantiation of one such prototype occasions, or makes more readily available, the instantiation of others in the set, and (c) O is the best candidate satisfier of the conjunction of all the contents expressed by the members of the set[24]. Of course, only a small subset of a subject's conception of an individual will be occurrent at any one time – likely a single prototype. But given that prototypes are associated in the way just described, the subject can use just one to stand in for the lot. A single prototype – whose descriptive content may be too impoverished on its own to pick out a single individual – nevertheless serves to pick out the individual that is the best candidate satisfier of a *set* of prototypes.

In sum, a subject's ability to consciously conceive of individuals is a matter of (1) remembering and comparing perceptual episodes in which particulars are presented as enduring, sorted individuals; and (2) on the basis of these capacities for perception, memory and comparison, constructing prototype-based conceptions. What about our ability to consciously conceive of *kinds*? The process will look very similar, but it differs in two crucial ways. First, while the comparing of presented particulars plays a crucial role in generating and refining kind-prototypes (just as it does in generating and refining individual-prototypes), what gets compared are not modes of presentation of individuals that the subject treats as *numerically* identical, but rather modes of presentation of individuals that the subject treats as *type-identical.* For example, the process of forming and refining my conception of the kind *dog* may involve instantiating a perceptual P-I property cluster that presents a dog to me, simultaneously instantiating an imaginative P-I property cluster that constitutes a memory of past perceptual contact with a dog, and the linking of these two property clusters via a phenomenal-intentional property whose intentional object is *type-identity*. As before, such

22 The first result is very much like what Recanati calls the "merging" of mental files; the latter result is very much like what he calls the "linking" of mental files. See Recanati (2012), ch. 4 ("Mental Files and Identity").

23 There is another, very different but crucially important, way that I can refer to my house that I have not yet discussed: I can think of it in terms of its *address*. That is, I can think of it as *that familiar structure located* ____, where the blank is filled in either by reference to nearby landmarks, or by reference to its location in the broader (centered) world. Locations are themselves a type of individual. I can refer to locations insofar as I can consciously represent their spatial relation to other locations, and ultimately to my own location (current or remembered). In employing relational/locational features of my house to identify it, I leverage reference off of a large chunk of my theory of the world. This theory will make reference to other individuals, and each of these individuals will require its own referential apparatus. Hence conceptions of distinct individuals may be interdependent.

24 In trying to account for the phenomenon of conscious conceptualization, I talk of *conceptions* rather than *concepts*. Conceptions, on my view, are sets of prototypes used by a cognizer to pick out a kind. On some theories of concepts, conceptions (in my sense) could not possibly be concepts, for example because concepts are intrinsically representational abstracta (and so cannot be mental particulars), or because concepts are constituents of thoughts or propositions (and so cannot be *sets* of anything). If conceptions (in my sense) satisfy all of your commitments regarding the ontology of concepts, I invite you to identify conceptions with concepts in what follows.
More generally: the relationship between a theory of conceptualization and a theory of concepts is to me much like the relationship between a theory of smiling and a theory of smiles: I am much more keen to understand the activity than its reification. (Thanks to an anonymous referee for encouraging me to clarify these points).

a comparison might result in two linked prototypes or a single prototype that integrates components of both property clusters.

A second crucial difference is that the resulting prototypes will not serve to pick out individuals but rather to pick out kinds. Consider the difference between hearing a definite description as referring to an individual and as referring to a class, as in "The yellow spruce danced in the wind" vs. "the yellow spruce is native to Alaska". In the second case, a grammatically singular phrase is used fully generally. Whatever phenomenal element is present in the second case, and is absent in the first, could also serve to explain how phenomenal prototypes can be taken as picking out perceptually encountered individuals vs. perceptually encountered kinds. There must be, in other words, an element in consciousness that presents a particularized content as a token of a type. When this element affixes to a prototype, it de-particularizes the prototype, letting it stand for the category of items that match it qualitatively. Thus, where individual-prototypes express the content *that familiar [sort] such that [identifying features]*, kind-prototypes express the content *that familiar kind of [sort] such that [identifying features]*.

Aside from these two differences, individual-conceptions and kind-conceptions are alike. Consider the process of learning about salt. A first encounter might be with a variety of tastes that share a quality in common, from which a prototype emerges that expresses the content: *that kind of stuff that tastes thus-and-so*. Visual experiences with salt might result in a distinct prototype or prototypes, depending on how much variation there has been in the subject's visual experience of salt – depending on how much the salt crystals of her acquaintance have varied in size, say. And so on, as the subject encounters salt under new guises and thus expands her conception of salt. Once the subject's salt-conception has been constructed, any one of her salt-prototypes can serve to pick out the best candidate satisfier of the whole set. Once one has formed a conception of a kind, that conception can seed the forming of more abstract categories. For example, prototypes from one's duck-conception, one's tree-conception, one's human-conception, and so forth could be type-identified in a new conception that picks out the kind *organism*. Again, such abstract categories can serve as the sortals that form the backbone of prototypes for less abstract categories, such as the kind *fungus*. Thus, previously acquired conceptions serve as a scaffold for the acquisition of new conceptions, in an upwards direction (of increasing abstractness) and a downwards direction (of decreasing abstractness). And new sortal-categories allow the subject to more readily form conceptions of individuals. (I could perhaps form an individual-conception of my car without ever being able to categorize it as a car, but it would be much easier to do so with a car-sortal at hand).

My account of how we use phenomenal prototypes to pick out individuals and kinds has so far assumed that the starting point is perceptual encounter with a kind. But of course we can form conceptions of individuals and kinds that we have never perceived. One very common example of this is our ability to form conceptions of individuals and kinds we have only seen *pictures* of. We can also form conceptions of individuals and kinds we have only had described to us, and we can even form conceptions of kinds we could not possibly perceive (quasar, electron). The causal relations required to anchor reference for prototypes of kinds we *have* perceived is complicated enough: a prototype of a kind K has to have been caused in the right way by a perceptual state (or by memories that were caused in the right way by a perceptual state) that was caused in the right way by an instance of K. But when what is perceived is not an instance of kind K but rather a *representation* of kind K (be it an image or an utterance or an inscription), then this representation has to itself have been caused in the right way by instances of kind K – quite directly in the case of a photograph (say), and more indirectly in the case of an utterance (by being in the causal ancestry of the speaker's own conception of

the kind). Such *deferential anchoring* of the reference of our prototypes is, I suspect, as common as it is complicated.

4. Perceptual recognition and cognitive phenomenology

So far, I have explained (1) two ways that features can be present in consciousness, by instantiation (via somatosensory properties) or by intention (via phenomenal-intentional properties); (2) the means of semantic combination whereby clusters of such properties constitute phenomenal modes of presentations of perceived objects; and (3) the process whereby such property-clusters are replicated as imaginative prototypes, a set of which forms the subject's conception of an individual or kind. So far, that is, perceptual and imaginative phenomenology have loomed large but cognitive phenomenology has not yet gotten a mention. So: whence cognitive phenomenology?

I am tempted to answer: why, it has been there all along, right under our noses. Perceptual states, after all, involve the attribution of features to objects; that is, they already include the basic semantic mechanism with which presented contents can be assembled into propositional thoughts. Further, in imaginative states, property-clusters serve as prototypes that pick out individuals and kinds. So, just as items within a P-I property cluster are semantically linked to one another (via P-I attribution), so whole clusters can presumably be semantically linked to one another, thereby presenting propositional thoughts whose conceptual components are *not* features presented in consciousness, but are, rather, "wide" (e.g., salt). Indeed, we have already explicitly mentioned an example of a conscious state structured in such fashion. When a subject simultaneously entertains two prototypes such that their referents are presented as numerically identical (in the process of forming an *individual*-conception) or as type-identical (in the process of forming a *kind*-conception), the subject thinks a thought of the form "A = B". When one learns that water is identical to H_2O, one might undergo an imaginative episode with just this structure.

Of course, our conscious cognitive lives rarely include thoughts so simple and concrete as "water is identical to H_2O". But let us suppose (as seems plausible to me, though I cannot work out all the details here) that the prototype-based version of phenomenal descriptivism I sketched in the last section can be applied to the panoply of conceptual categories we deploy in conscious thought – relations of various sorts, psychological kinds, evaluative properties, abstract kinds, and so forth[25]. In that case, we do not need a further theory of cognitive phenomenology. We already have one: we use imaginative states as the vehicles of conscious thought, when suitably structured via P-I attribution and other consciously presented semantic links (such as numerical identity and type-identity).

This answer is tempting, but not quite right, because cognitive phenomenology is at once *more* than this and *less* than this. It is more than this, first, because propositional thought involves *quantification*, and not merely the representation of individuals/kinds and semantic links between these representations[26]; and second, because propositional thought involves

25 In case this supposition strikes you as recklessly ambitious, perhaps the following will help: I am convinced by the work of George Lakoff and Mark Johnson that if we bring into the picture some mechanism for *metaphorical abstraction* – i.e., using phenomenal prototypes that present concrete particulars as the metaphorical grounds for conceiving of abstract kinds – it becomes much easier to see how subjects might use a sparse set of primitive intentional categories to form conceptions of the innumerable categories we can entertain.

26 Some semanticists, e.g. Soames (2010), treat quantifiers as a special kind of predicate. We already have the phenomenal equivalents of predicates in the picture (in the form of phenomenal-intentional properties and P-I property clusters), so if Soames is right, we need not add quantifiers as a new element-type in cognition. But even granting that Soames' model of propositional thought is formally adequate, his treatment of quantifiers strikes me as pretty far removed from their intuitive meaning. And their intuitive meaning is likely to be the best guide to how quantifiers show up in conscious cognition.

propositional *attitudes* – judging, wondering, doubting, etc. – and not merely propositional contents[27]. I am inclined to say that these two elements of conscious thought really are primitive additions; you cannot get there via abstraction from and recombination of perceptual/imaginative phenomenology[28].

Cognitive phenomenology is *less* than the deployment of imaginative states, because it is possible to have conscious thoughts without in any way *imagining* their representational contents[29]. Now, there is nothing in what I have said so far that *requires* cognitive episodes to be imagistic. What makes an episode imagistic is that it includes a P-I sensation (i.e., a phenomenal-intentional property whose intentional object is a somatosensory property). P-I property clusters that include neither somatosensory properties nor P-I sensations are "purely" cognitive: they are conscious intentional states that lack any perceptual or imagistic components. Recall my example of entertaining the thought that anger is ugly. Suppose that *anger* and *ugliness* are among the repertoire of primitive contents you can entertain (by being the intentional objects of phenomenal-intentional properties, rather than by being picked out indirectly via phenomenal descriptions constructed from phenomenal-intentional properties). Because no imaginative prototypes are involved in your having the thought, your intentional state counts as purely cognitive and not imaginative at all. So, one possible way to account for conscious, imageless thinking is to restrict it to contents we do not need to use images to consciously represent.

This strategy won't go the distance, however; there are clear cases of imageless conscious thought about things that we *do* need to use images to consciously represent. The cases I have in mind are cases of high-level perceptual recognition. Suppose I suddenly recognize that the person walking toward me is my brother. Three elements of the scenario are noteworthy. First, there is a change both in the intentional content and the phenomenal feel of my overall experience. Second, I *do* need to use images as modes of presentation of my brother: I do not think of him by "grasping his essence" (if it even makes sense to speak of him as having one), but rather by entertaining one of the many perceptually-based prototypes I have of him. Third, my conscious perceptual state is not obscured, so to speak, by a *distinct*, imaginative P-I property cluster (whereby I recognize him) in addition to the perceptual P-I property cluster (whereby I perceive him). It would seem then, that my means of consciously representing my brother as my brother (viz., an imaginative prototype of him) is not present in the case in which I perceptually recognize my brother as my brother. How could this be possible?

What occurs in such cases, I suggest, is that a *placeholder* that stands in for my entire conception of my brother is bound to the P-I property cluster that presents him. This placeholder effectively renders the perceptual P-I property cluster that presents him as a temporary member of the set of prototypes that constitutes my conception of him. The

27 Horgan & Tienson (2002) can be credited with bringing this aspect of cognitive phenomenology into the forefront.

28 Prinz (2011) suggests that propositional attitudes are not conscious as such but do make a phenomenal difference by way of concomitant epistemic feelings (e.g. "curiosity, interest, awe, wonder, familiarity, novelty, puzzlement, confusion, and surprise" [p. 191]). In a sense, this is exactly what I am saying: consciously judging that p involves having a feeling – the feeling of taking-as-true – about that proposition. For Prinz such a feelings cannot *be* the propositional attitude of judgment because attitudes are partly individuated by their functional role – a thesis that has no appeal to me. More importantly, Prinz seems to think that all emotional phenomenology reduces to somatic phenomenology. If we are talking about *epistemic* emotions, I do not see how the reduction is supposed to go.

29 Plausible examples include cases in which cognitive content seems to shift while perceptual and imaginative phenomenology remains unchanged, e.g. (a) shifting from not understanding to understanding a spoken language (Strawson [1994], pp. 5ff); (b) shifting from understanding an ambiguous sentence one way vs. another way (Horgan&Tienson [2002] p. 523 and Siewert [1998] p. 279); and (c) abrupt redirections in one's thinking, such as a so-called 'aha'-moment (Siewert [1998] pp. 276-277).

presence of this placeholder is marked by three features: (a) a feeling of familiarity; (b) expectations with respect to the perceived individual, in keeping with my conception of him; and (c) the ready availability of conscious judgments from my conception of the individual, especially in the form of other phenomenal prototypes. There is, then, no phenomenology proprietary to seeing my brother as my brother. But when I recognize my brother, a phenomenal shift does take place: the phenomenology of familiarity is newly instantiated. And certain dispositions to think and react in certain ways are activated. (Similar things can be said about perceptual recognition of *kinds*).

Here, then, is how to account for non-imagistic conscious thought: if there can be such placeholders in conscious perception, they can presumably be deployed in the absence of any perceptual phenomenology. So, it is possible for me to think *bears are dangerous* without entertaining any conscious imagery, so long as my conscious state includes placeholders that are associated in the right way with my dispositions to instantiate imaginative prototypes that exemplify my conception of bears (and danger). Now, these placeholders do not represent anything at all by themselves; they are intrinsically indistinguishable. And this might seem surprising: the contribution they make to fixing the content of a cognitive state is a matter of the imaginative states they *dispose* the subject to instantiate. But I do not think this suggestion is so surprising after all. It is frequently the case that I have a conscious thought that I later struggle to put into words; the struggle can even reveal to me that there was no coherent thought to be had. My view nicely explains how a subject's grasp of her thoughts can be quite poor on one occasion but quite rich on another[30]. It also explains why we so often use inner speech to think, since "inner words" *are* intrinsically distinguishable.

We have now compiled all of the phenomenal elements needed to construct conscious cognitive states, complete with logical and attitudinal structure: (1) phenomenal "variables", in the form of P-I units; (2) phenomenal "predicates", viz., (a) phenomenal-intentional properties; (b) imaginative prototypes (i.e., P-I property clusters that pick out individuals and kinds in virtue of being part of an associationally linked set of such clusters), and (c) placeholders for such prototypes; (3) phenomenal quantifiers; (4) semantic structure presented via P-I attribution (as well as P-I identity); and (5) attitudinal structure presented via phenomenal attitudes.

5. Conclusion

Let us return to the four characterizations of the cognitive phenomenology debate listed above, applying them to the theory of conscious thought I have been developing. Per Bayne & Montague (2011), does conscious thought possess a "distinctive phenomenal character"? If we bracket the special cases of quantificational and attitudinal phenomenology and focus on the conscious entertaining of atomic propositions and sub-propositional categories, the natural answer is *no*. If a phenomenal-intentional property can be part of an imaginative property cluster, then there is no reason to think it cannot be part of a perceptual property cluster. If anything, it is conscious *perception* that is distinctive: perceptual property clusters include somatosensory properties (in addition to phenomenal-intentional properties), and this is what allows them to play their unique epistemic role. So the view I have been proposing counts as *conservative*, in Bayne & Montague's sense.

Per Chudnoff (2015), do some cognitive states put one in phenomenal states for which no wholly sensory state suffices? The answer depends on what it is for a state to be "wholly sensory". If "wholly sensory" means *composed entirely of somatosensory properties*, then the natural answer to the question is *yes*. Conscious cognitive states include phenomenal-

30 See Siewert (1998), pp. 276ff and Pitt (2011) for related discussions of this phenomenon.

intentional properties, and unless phenomenal-intentional properties can be reduced in some way to somatosensory properties, then somatososensory states are not sufficient for conscious cognitive states. So the view I have been proposing counts as *non-reductive*, in Chudnoff's sense. Now, my theory of conscious *perceptual* states also counts as non-reductive in Chudnoff's sense, so it is not clear how notable this verdict is.

Per Robinson, can there be a conscious, occurrent, phenomenologically present understanding that does not consist in anything imagistic and is not a change in emotional state? The natural answer is *yes*. If a subject instantiates a (non-perceptual) cluster of phenomenal-intentional properties none of whose intentional objects are somatosensory properties – e.g., she instantiates phenomenal-intentional properties whose intentional objects are *anger* and *ugliness* such that she is presented with the thought that anger is ugly – then she is in a conscious cognitive state that does not involve images or emotions. So the view I have been proposing counts as *liberal*, in Robinson's sense.

Finally: per Prinz, do some mental representations that have a phenomenal character represent non-sensory qualities? The answer depends on what Prinz counts as a "sensory quality". Prinz says that sensory qualities are "aspects of appearance", and that non-sensory qualities are aspects that "transcend appearance"[31], but this is only helpful insofar as we have a grip on which features can *appear* to us to be instantiated. Can three-dimensional shapes (such that a thing "appears" to have an occluded backside)? Can causal relations? Presumably many kind-properties *cannot* appear to us be instantiated, at least under normal circumstances: a substance does not wear its atomic number on its sleeve, so to speak (except perhaps under very special laboratory conditions). And certainly we can consciously represent such kind-properties. But I have been suggesting that we consciously represent kinds via phenomenal descriptions constructed from a restricted set of phenomenal-intentional primitives. If the elements in this set are the sorts of qualities that *can* appear to be instantiated – which may be plausible, given a generous conception such that 3-D shapes and causal relations and suchlike can so appear – then it seems to me that we can get pretty far, cognitively, on Prinz-style "sensory qualities" alone. So the natural answer to the question is *no*: the view I have been proposing counts as *restrictivist*, in Prinz's sense.

What has emerged is a theory of cognitive phenomenology that is *conservative*, *non-reductive*, *liberal*, and *restrictivist*. That is, the theory has both anti-inflationary and inflationary elements. It is anti-inflationary in the sense that conscious thoughts are built largely from the same elements as conscious percepts and conscious images. But it is inflationary in the sense that conscious percepts and conscious images are *themselves* pretty inflated, phenomenologically – they involve structured complexes of phenomenal-intentional properties. The theory is thus anti-inflationary in letter – the conscious mind is considerably more unified and bottom-up than inflationists describe it – yet inflationary in spirit, since the leap from mere sensation to conscious intentionality *of any sort* is a major one.

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31 His formulation: "The content of a vehicle is *sensory* just in case it represents some aspect of appearance. A content is *non-sensory* if it transcends appearance; i.e. if there can be two things that are indistinguishable by the senses, one of which has the property and the other of which does not" (Prinz 2011, p. 176).

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INFERENCES IN THE FIRST PERSON

abstract

This paper deals with the experiential basis of deductive reasoning. It concentrates on the case of inferential knowledge in the first person. It first describes the specific kind of entitlement involved in such knowledge. A comparison is then made with inferential knowledge involving other indexical and demonstrative concepts. The entitlement involved in those cases is based on the fact that indexicals such as "here" and "now" are associated with experiential concepts. It is submitted that the concept associated to the expression "I" is an experiential concept application of which presupposes a special sensitivity to the identity of the self through time.

keywords

first person, phenomenology, experience, inferential entitlement

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I. Consider an inference in the first person of the form:

(E) (a) I am *F*.
(b) I am *G*.
(c) I am *F* & *G*.

On the face of it, inferences of this form are valid. Indeed, with validity defined in terms of truth-preservation, the premises cannot be true and the conclusion false. This presupposes, however, that the utterer remains the same throughout the inference. Having different occurrences of the same expression "I" does not alone suffice to guarantee this fact. Different persons could use the self same expression.
This point might easily be underestimated. Consider: "All mammals are animals with lungs; all animals with lungs have a heart; so all mammals have a heart". No presupposition concerning the utterer of the sentences involved in this inference needs to be made in order to state its validity. The inference is valid whoever utters the occurring sentences. It ought not to be so trivial, then, to observe that inferences in the first person presuppose the identity of the utterer. Suppose the subject is considering the following inference:

(E*) (a) I am *F*
(b) NN is *G*
(c) I am *F* & *G*

As John Campbell (Campbell 1994, p. 84) puts it, (E*) is enthymematic, it relies on the suppressed premise "I am NN". One could suggest that the same applies to (E): it relies on the suppressed premise that the utterer of (Ea) is identical to the utterer of (Eb). Campbell, however, argues that this is wrong, (E) being "valid as it stands" (ibid.) and not enthymematic. It might be noted that the requirement that the utterer remains the same throughout (E) is an immediate consequence of the "I"-rule:

(*"I"-rule*) Any token of "I" refers to whoever produced it[1].

1 See Campbell 1994, p. 102. Campbell calls it the "token-reflexive rule".

If (E) is valid only if the expression "I" has the same referent throughout the inference and if occurrences of "I" are governed by the semantic "I"-rule, it follows that (E) is valid if the premises as well as the conclusion are uttered by one and the same person[2].
This fact alone, however, is not enough to dismiss the charge that (E) is enthymematic. One still needs to ensure that the premises and conclusion are *in fact* uttered by one and the same person. The "I"-rule alone can hardly guarantee this. Of what, then, does the argument for the claim that (E) is not enthymematic comprise? Campbell's central point is that:

> For an argument to be formulated at all, we require a single subject to orchestrate it; we cannot have the various premises and conclusion distributed across different subjects, with no one marshalling them all together. This is true for any inference, not just those involving the first person (Campbell 1994, p. 105).

If correct, this requirement – the *single orchestration requirement* – appears to yield an interesting result for inferences in the first person. We have the following *background argument*: (i) In inferences in the first person, just as in any other inference, the premises and the conclusion must be uttered by one and the same person (*single orchestration requirement*); (ii) The expression "I" occurring in inferences in the first person obeys the "I"-rule, following which any token of "I" refers to its utterer; (iii) Thus: in an inference in the first person the different occurrences of "I" must refer to one and the same person. This appears to establish Campbell's claim that inferences in the first person are not enthymematic. Given the single orchestration requirement and the "I"-rule as background assumptions, (E) appears to be valid as it stands. (E*), instead, would still remain enthymematic.
Should we accept the single orchestration requirement? I have said above that the evaluation of an inference in general is not relative to the person uttering or, for that matter, entertaining it. Logical relations, such as those established by valid inferences, hold between concepts or propositions, not between events of uttering or, for that matter, events of thinking taking place in some particular mind. The issue at stake does not concern logical validity, however, but the justification of beliefs acquired through inferences that are supposedly valid. In this perspective the questions to be asked are of a different kind. One may wonder, for instance, whether a subject entertaining a valid inference is entitled to its conclusions if she lacks the means to grasp or reflect on its premises. Can a person be considered to have reached a conclusion through an inference if she is not entertaining both the premises and the conclusion? It cannot simply be assumed that the logical possibility to derive *q* in a valid inference yields an epistemic entitlement to the belief that *q*.
It is in the light of such considerations that it appears reasonable to propose, as a norm of inferential knowledge, that an argument ought to be "orchestrated" by one and the same person. Even where the conclusion is a valid consequence of the premises, the subject's entitlement to draw the conclusion might indeed be challenged if premises and conclusion are distributed among different persons. This norm certainly applies to any inference, not only to inferences in the first person.
The single orchestration requirement applies as a general epistemological requirement on inferential knowledge. Applied to inferences in the first person, it yields logical validity, as shown by the background argument mentioned above. With the I-rule being satisfied by the

2 In what follows I shall generally consider the relation between utterances. I do think that the issue I am discussing concerns the underlying mental acts of judging, entertaining and inferring just as much as their linguistic manifestation.

utterer, and the orchestration requirement being fulfilled, no shift of reference with respect to the first person can occur. But does fulfilment of these conditions suffice to establish the subject's epistemic entitlement to the conclusion of (E)? The mere fact that satisfaction of epistemic and semantic norms guarantees the validity of an inference does not by itself ground an epistemic entitlement to its conclusion. At least two considerations can be taken to speak against the idea that it does.

A first consideration would insist on the fact that for a subject's behaviour to fulfil a norm, it is not enough for it to correspond to the factual requirements implicated by the norm. As a consequence, one may require that the norm itself plays a role in the explanation of the behaviour. One does not act on a command just by behaving in the way the command would require one to do, one does it by behaving in a certain way *because* it was mandatory to do so. In our case this line of thought would require the explanation of the subject's inferential behaviour to make reference to the orchestration requirement, just as much as her linguistic behaviour is explained by reference to the "I"-rule. If it is appropriate to state that, given the relevant circumstances, the subject uses the expression "I" *in order* to refer to herself, because that is how the "I"-rule says the expression *ought* to be used, then it should also be appropriate to state that the subject utters (or entertains) both the premises and the conclusion, because that is what the orchestration requirement says the subject ought to do in order to infer the conclusion. In order for this pattern of explanation to be applicable, more is required than simply the fact that the subject utters or entertains both premises and conclusions.

The second consideration starts from the observation that even if it is true that an inference in the first person cannot contain any shift of reference when it is entertained by one single person who correctly uses the pronoun "I", that alone does not suffice to show that the subject engaged in such an inference is as such entitled to *assume* that no shift of reference has occurred. An *independent* entitlement to such an assumption might be required for the subject's conclusion to be properly justified by the premises. The determination of the conditions under which such an entitlement can be earned would be an essential part of a proper account of inferential knowledge in the first person[3].

The requirement for an independent entitlement to the assumption might be challenged on grounds analogous to those one can find in other epistemological contexts. For a perceptual belief to be warranted, for instance, relevant enabling conditions must be satisfied[4]. It is sometimes denied that perceptual warrant depends on an entitlement to the assumption that the enabling conditions obtain. The assumption, it is said, is something for which the subject might simply not be in a position to earn an independent entitlement. In our context, this would mean that the subject's drawing of the conclusion would be warranted even if no entitlement were at her disposal for the assumption that she was in fact responsible for the uttering, or the entertaining, of the premises.

The fact alone that one is not in a position to earn an independent entitlement to an assumption that plays the function of an enabling condition for an epistemic project one is engaged in cannot ground the dispensability of the entitlement. A number of further conditions must be met. It must be ruled out, for instance, that the local incapacity is the manifestation of a more general cognitive insufficiency. The dispensability might also be

3 We are confronted with a triad composed of: (I) I am F & I am G; (II) I am F & G; (III) The different occurrences of the expression "I" in (I) and (II) refer to the same subject. As with other I-II-III cases, (I) provides evidence for (II) only if (III) obtains. Even if (III) is implied by (I) and (II), warrant for (III) cannot be obtained uniquely by logical implication. One is expected to earn an independent warrant for it.

4 Those conditions typically refer to external and internal conditions, such as light conditions and the functioning of the perceptual system.

withdrawn by virtue of the fact that the subject has available evidence showing that the assumption does not hold. Suppose, in our case, that although satisfying the I-rule and the orchestration requirement, the subject engaged in (E) associates different concepts to the different occurrences of "I". In that case the subject would need further warrant for the premise that the different concepts do in fact have the same extension.
Campbell appears to think that the situation to which I appealed is not possible. In reference to the "I"-rule, he writes:

> The fact that two tokens are governed by this rule and the fact that they were produced by one and the same person are enough to guarantee that inferences by this person that trade on the identity of reference are legitimate. There is no possibility of a person referring to himself twice using the first person but associating different senses with it on both occasions (ibid., p. 102).

In Campbell's terminology, an inference "trades on the identity" of two terms when it is not necessary to add the identity statement as a further premise. It is true, as we have seen, that (E) is logically valid by virtue of the satisfaction of the single orchestration requirement together with the "I"-rule. Nevertheless, this does not by itself imply that (E) could not involve different concepts <I>. All the "I"-rule says is that any token of "I" refers to its utterer, not that it refers *in the same way* to the same utterer. Unless one can prove this further claim, the second sentence in Campbell's quotation cannot be accepted.
The argument can be illustrated with the help of an example. Consider the following inference:

(F) (a) The utterer of (Fa) is *F*.
(b) The utterer of (Fb) is *G*.
(c) The utterer of (Fc) is *F* and *G*.

The single orchestration requirement suffices to make (F) valid: it establishes the identity of the utterers and thus the fact that all the left-hand expressions refer to one and the same entity. Yet the expressions "The utterer of (Fa)", "The utterer of (Fb)", and "The utterer of (Fc)" do not express the same concept. Witness the following inference:

(G) (a) The utterer of (Fa) is *F*.
(b) The utterer of (Fb) is *G*.
(c) The utterer of (Fc) is *F* and *G*.

(F) and (G) contain utterances of the same sentences, which express the same concepts. Yet (F), and not (G), is valid simply by virtue of the fact that it is entertained by one and the same subject. Hence, the mere fact that fulfilment of the single orchestration requirement suffices to guarantee the validity of an inference does not imply the identity of the concepts. Campbell may certainly object that neither the utterances in (F), nor those in (G), satisfy the "I"-rule. His claim, remember, is that fulfilment of the orchestration requirement, *together* with the application of the "I"-rule, is all one needs to make (E) both logically valid and epistemologically sound. But this does not really advance the argument, unless it is *assumed* that the concept associated to any utterance of "I" is exhaustively determined by the "I"-rule. But this, as we shall now see, cannot be assumed.

II. Compare (E) with the following inference:

(S) (a) Here it is *F*.
(b) Here it is *G*.
(c) So here it is *F* and *G*.

This inference is valid only if "here" always refers to the same place. The expression "here", it may now be argued, is governed by the *"Here"-rule*, which states that any token of "here" refers to the place where its utterer is. Given the "Here"-rule, the inference is both valid and non-enthymematic if premises and conclusion are uttered by one and the same person – *so long as that person does not move*[5]. We may call this the *immobility requirement*. Contrary to the single orchestration requirement, the immobility requirement can hardly be considered a background assumption for *all* inferences. Inferences do not generally involve any restriction as far as the mobility of the subject uttering or entertaining them is concerned. The restriction should have something to do with the specific nature of egocentric spatial concepts such as <here>, <there>, <up>, <down>, etc.
Similar considerations apply to inferences involving temporal indexicals. Consider:

(T) (a) It is F now [uttered in t_1]
(b) It is G now [uttered in t_2]
(c) It is F and G now [uttered in t_3]

Occurrences of "now" obey the "now"-rule, which says that any occurrence of "now" refers to the time at which it was uttered. In order for T to be valid, however, the different occurrences of "now" in (T) need also to refer to the same moment, or to a singular temporal interval going at least from t_1 to t_3[6]. Parallel to the orchestration requirement and to the immobility requirement, a *simultaneity requirement* would be required. Again, this requirement does not constitute a background assumption for all cases of inferential knowledge. The restriction has something to do with egocentric temporal concepts such as <now>, <yesterday> and <in five minutes>.
The immobility requirement and the simultaneity requirement are related, I shall now argue, to the *experiential* nature of the concepts involved in inferences such as (S) and (T). Concepts are experiential in the sense I am considering, when they refer to properties whose nature is such that there are conditions under which they cannot fail to be given in experience. This yields a twofold constraint. One constraint concerns the nature of the properties under consideration. The other constraint concerns the possession conditions of the concepts themselves. Consider for instance perceptual concepts such as <red>, <hot> and <sweet>. Such concepts refer to properties a subject cannot fail to perceive under normal conditions. It cannot be the case that an apple is red, that the conditions are normal, that a subject is appropriately related to the apple, and that the apple fails to appear red to the subject. In this sense, the property of being red is constitutively experiential: it cannot be instantiated under normal conditions in a way that would prevent it from being given in experience. But the concept <red> is also such that for a subject to possess it, she must have the capacity to apply it on the basis of something appearing red to her. If something appears red to her under normal

5 There is room for some vagueness: the portion of space referred to by "here" depends in part on the predicates involved. In "there is an insect here" and "it is summer here" different portions of space are meant by "here".
6 There arguably is vagueness with respect to our common usage of "now" just as much as with respect to "here". In "it is cold now" and "now it is twelve o'clock" different lapses of time are meant by "now".

conditions and she still does not know which concept she ought to apply, then she lacks full mastery of the concept[7].

The concepts "now" and "here" are experiential in so far as they refer to properties that are normally given in one's experience of time and space, and that one needs to be able to apply them on the basis of such experiences in order to possess them. A number of considerations speak in favour of this claim. Suppose a subject knows that by using the expression "now" she refers to the moment of her utterance, but that she lacks any sense for the passage of time. She may have the concepts of earlier and later as ordering moments in time, but she has no sense of past, present and future. She may know that now is later than yesterday and earlier than tomorrow, but she does not experience time as having passed since yesterday. Nor does she ever experience time as passing. She cannot, on the basis of the simple fact that time passes, order two instances of "now" in earlier in later. She would need to rely on some measuring instrument giving her access to the ordering of all the moments she refers to by using "now". Similarly, she does not experience two lapses of time as involving different durations, one longer than the other. She would again have to rely on some instrument in order to assess the difference between the length of the two durations. Such a person would not have access to experiential temporal properties, and she would not be in a position to apply concepts such as <now>, <past>, <future> and <lasts longer than> on the basis of her experience. She would not have full mastery of those concepts.

In order to acquire the appropriate entitlement to the conclusion of an argument that is subject to the simultaneity requirement, one needs more than simple mastery of the "now"-rule and accidental satisfaction of the simultaneity requirement. One further needs to experience time as passing and events as having a duration. Suppose, for instance, that the subject intends to engage in an inference like the following:

(T*)	(a)	It is the 1st of August 2004 now;	[uttered in t_1]
	(b)	John sings now;	[uttered in t_2]
	(c)	John sings on the 1st of August 2004.	[uttered in t_3]

(T*c) not containing any token of "now", only the interval between t_1 and t_2 is relevant. The subject needs to be able to set the interval under consideration in a way such that it does not extend from one day to the following. This surely involves more than simply applying the "now-rule". It involves, for instance, a sense for the length of a temporal duration. Under normal conditions, the time passed from the first to the second premise is not extended enough to involve a passage from one day to the following. This would ground a normal capacity to satisfy the simultaneity requirement. A subject with no sense for the passage of time, however, could not be credited with any such ground. Unless she collects further information, she would satisfy the requirement out of sheer luck.

Similar considerations apply to the capacity to experience oneself as located in space. It is not enough to master the "here"-rule and to accidentally satisfy the immobility requirement in order to earn a proper entitlement to the conclusion of an argument of the form (S). One further needs to be able to experience oneself as moving in space in a way that is relevant for the validity of the inference. Walking on *Unter den Linden* one may safely move from "here it is Berlin" and "here people speak German" to the conclusion "people speak German in Berlin"

7 More about the nature of such experiential concepts in (Soldati *forthcoming*). For recent work on the matter see (Eilan 2011) and (Eilan 2014), where it is pointed out that the properties under consideration might very well be objective in spite of them being experiential.

– if one has a sense of how one's changing position locates oneself in objective space. With no such experiential capacity, the conclusion, even if valid, would be unwarranted.
Analogous considerations, I should now wish to argue, apply to the concept <I>. The connection between the single orchestration requirement and the possession conditions of the concept <I> appear less evident than the connection between the immobility requirement and the possession conditions of the concept <here>, or between the simultaneity requirement and the concept <now>, as the former is more general: it applies to all inferences, not just to inferences in the first person. However, this can also be understood as a symptom of the fact that *every* inference presupposes possession of the concept <I> and thus some sort of self-knowledge. For a subject to engage in deductive reasoning, she must be sensitive to the fact that it is her, in the first person, who entertains the premises as well as the conclusion. She must be able to realise that the different premises and the conclusion are not distributed among different persons. She must be sensitive to the fact that she satisfies the single orchestration requirement, if such is the case. This is indeed one of the many perspectives that illustrates the intimate connection between rationality and self-knowledge.

III. One might be tempted to compare inferences in the first person to demonstrative inferences, assuming that one experiences oneself in thought in a way that bears relevant similarities with the way one experiences an abiding object in inferences involving perceptual demonstratives. There are indeed similarities, but there are also important differences, that finally boil down to the fact that the demonstrative relation to oneself is not the fundamental capacity that is required for inferences in the first person. Let us look at some details.
Consider:

(D) (a) This building is *F*.
(b) This building is *G*.
(c) This building is *F* and *G*.

One might suggest that usage of demonstratives has to satisfy a rule (the "that"-rule), which establishes that they refer to the entity the perceptual state governing their usage is about. Suppose one and the same subject entertains (D). It is obviously possible that the entity to which the subject is demonstratively referring has been exchanged between (Da) and (Db) without the subject being aware of it. So, one might argue, neither application of the "that"-rule nor satisfaction of the orchestration requirement, prevent (D) from being enthymematic. (D), it might be held, requires the added premise that the referent of the demonstrative in (Da) is identical to the referent of the demonstrative in (Db).
This would be misleading. As Campbell himself points out[8], demonstrative inferences such as (D) are not enthymematic, because the perceptual representations governing the demonstrative thoughts expressed by the different utterances occurring in (D) are directly related to each other, without the mediation of any judgement. When one perceives an object, one does not keep on *judging* that the object remains the same, even if the object could have been exchanged without the subject noticing it. Rather, the subsequent perceptual states are intimately related to each other by a net of expectations and fulfilments. Singular, static perceptions are abstractions from this dynamic process rather than perceptual atoms that would need to be related with each other by an act of judging. Demonstrative inferences such as (D) are not enthymematic because the perceptions governing the demonstratives occurring

8 Campbell 1994, p. 86.

in them are not punctual and static, but complex and dynamic. Demonstrative inferences are not enthymematic because of the nature of the perceptual experience they are based on. Naturally, it is possible that a shift of reference occurs between the first and the second demonstrative premise without the subject noticing it. The issue here is not that this is not possible. The point is that as our perception is dynamic, if something like the above occurs, the subject cannot be said to have based her argument on a wrong assumption. The subject would have to make an assumption concerning the identity of the referents if the perceptions were punctual and static: the assumption would turn out to be false, if an unnoticed reference shift had occurred. Since the subject is not making that sort of assumption, the possibility for her making such a mistake does not arise. It is by virtue of the nature of the perceptual experience grounding the demonstrative inference that the subject can acquire inferential knowledge without any entitlement concerning the identity of the referents.

It is often argued that there is no specific perceptual access, be it internal (proprioceptive or introspective) or external (perceptual), to the self. More specifically, it is suggested that contrary to perceptual tracking, which provides the basis for demonstrative inferences, there is no tracking of the self in inferences in the first person. Yet it appears that one can construct cases of reference shift in inferences in the first person that are not unlike the sort of reference shift described above with respect to demonstrative inferences. If not some sort of tracking, what, then, would prevent us from claiming that those inferences are enthymematic?

The cases I have in mind are artificial but logically possible cases of memory transplantation. In order to describe such a case, we have to add to our inference (E) some temporal indexes, thus:

(E)	(a)	I am *F*.	[in *t1*]
	(b)	I am *G*.	[in *t2*]
	(c)	I am *F* & *G*.	[in *t3*]

Notice that these indexes are not part of the truth-conditions associated with the beliefs expressed by those utterances. They index episodic beliefs (acts of judging), or utterances used in order to express them, and not what those beliefs are about, not the propositions they are associated with. It might be useful for this purpose to assume *F* and *G* to be a-temporal properties, such as *being the first son of X and Y* or *having been born on the 14th of July*, rather than *being hungry* or *just having fallen asleep*. Suppose now that A has a belief she would express by (Ea) in *t1*, that B has a belief she would express by (Eb) in *t2* and suppose further that A's memory has been transplanted into B's brain at a moment *tj* between *t1* and *t2*. B will thus feel compelled to accept (Ec) in *t3*. *If* memory transplantation is possible, it appears that this is a coherent description of the situation.

Let us further suppose that B is not *F*. The conclusion would thus be false. Is it false because in the first premise B attributes to herself a property she does not have, or is it false because the referent of the first premise is not the same as the referent of the second? In the first case, there is nothing wrong with the inference itself, it simply contains a false premise that leads to a false conclusion. In the second case, on the other hand, there is something wrong with the inference itself, it contains a shift of reference. One could repair the inference by adding the further premise that the referent of "I" in (Ea) is identical to the referent of "I" in (Eb). The inference would then be in order and the conclusion would be false simply because the supplementary premise is false, even though (Ea) is true.

Campbell opts for the first solution. He writes: "When the second person acquires the seeming memory, he simply acquires a false belief about what he himself did. At no point does he

have to keep track of who is in question; at no point does he lose track of who is in question" (Campbell 1994, p. 99). Campbell imagines that when she draws the conclusion (Ec), B does not rely on A's belief expressed by (Ea), but on some belief acquired via the seeming memory at the time *tj* between *t1* and *t2*. Suppose, then, that *B* has a belief in *tj* she would express by:

(Ea*) I am *F*. [in *tj*]

(Ea) and (Ea*) are different tokens used to express different judgements that occur in different minds. The false premise (Ea*) leads, together with (Eb), to the false conclusion (Ec) without any shift of reference. The inference leads to a false conclusion because it contains a false premise, not because it contains an unnoticed reference shift.
Surely the inference with (Ea*) as a premise instead of (Ea) is *not* the inference we started out from. At no time did we assume that *B* had the false belief expressed by (Ea*). What reason is there to say that what motivates *B* in her conclusion must be the belief expressed by (Ea*) and not the belief expressed by (Ea)? Does one always need to introduce a new belief based on the memory of one's premises before moving to the conclusion? If inferences in this sense have a temporal structure, if there is a temporal succession between the different beliefs expressed in the premises and, in turn, between the premises and the conclusion, we would end up in a regress. We would need to recollect the memories, and the memories of the memories, and so on, without ever being entitled to move on to the conclusion. So, together with (Eb), if the belief expressed by (Ea*) is sufficient to motivate *B*'s conclusion, it is hard to see why the belief expressed in (Ea) would be insufficient.

IV. Under certain conditions a subject can entertain an inference in the first person that involves a reference shift. This is one possible reason why an inference in the first person might lead to a false conclusion. In this sense there is no asymmetry between inferences in the first person and demonstrative inferences. It is often argued, as I said above, that there is a clear difference in so far as inferences in the first person are not based on the sort of dynamic perception on which demonstrative inferences rely. There is no way the subject is given to himself which could be compared to the way the objects of his demonstrative beliefs are given to him in perception. If the sort of reference shift mentioned above were really possible, it is said, inferences in the first person would necessarily be enthymematic: they would need a further premise which establishes the identity of the referents throughout the inference.
One may be tempted to reply to this objection by pointing out that we can make demonstrative reference to ourselves, from outside, as it were, on the basis of our external senses. This would be a non-starter, however. In external perception one perceives oneself as an object and not, as it is sometimes said, *qua* subject. In our specific case this difference would manifest itself by the fact that one would need a further premise in order to establish the identity of the subject the inference in the first person refers to with the person one's perception is about. This would also make inferences in the first person enthymematic. What we need is that the subject be aware of herself as the subject of different beliefs involved in an inference in the first person without having to *judge* that those beliefs, or the utterances expressing them, refer to one and the same subject.
Quassim Cassam has suggested that in bodily awareness we experience our body as being at the centre of egocentric space and that to experience an entity in such a position is, given the spatial content of some of our mental properties, to experience it *qua* subject: "[T]he physical entity that is the zero point of spatial perception presents itself as being a point of occupancy for psychological properties. For example, the physical entity that is at the point of origin of egocentric space is also one in which sensations such as pain present themselves as located;

in this sense, it presents itself as 'a bearer of sensations'" (Cassam 1997, p. 57). Cassam's idea is that we not only experience our body as being located at the centre of the egocentric space which characterises the spatial content of perceptual as well as proprioceptive representations, but that we also experience it as the entity in which experiences such as pain are located. Now, we do not normally experience mental states such as pains as being located in some alien entity we would have to identify with ourselves. Pain is here, where *we* are, at the centre of *our* egocentric space. This is where our body is. So, when we experience our pain both as being located in our body and at the place where we are, we experience our body as the bearer of that pain. In so far as we are aware of our body as the bearer of mental properties, we are aware of it *qua* subject. Pain, it might now be added, no less than external perception, is not punctual and static, but complex and dynamic. When one experiences a worsening pain, a pain moving along one's limb, one does not keep on *judging* that the subject of the pain remains the same. Rather, the subsequent sensations are intimately related to each other by a net of expectations and fulfilments. Singular, static pains are abstractions from this dynamic process rather than sensational atoms needing to be related to each other by an act of judging.

If inferences were a succession of pains, this argument would suffice to dismiss the charge that they are enthymematic. For different pains to be experienced as belonging to the same subject one would not need to judge that their bearer is one and the same. The sort of reference shift imagined above would still be possible. If the subject where somehow connected to somebody else's body, the pain could migrate, as it were, from one body to the other. However, since the subject undergoing the pain would not be required to *judge* that the bearer of the pains remains the same, there would be no premise in the argument to be falsified.

Inferences in the psychological sense, however, are a succession of beliefs, not of pains. We do not experience beliefs as located in our body. Unlike pain, we do not experience belief as being located in a particular place. Although it makes sense to ask where a pain is, it hardly makes sense to ask where a belief is. It thus appears that we cannot move from the fact that one experiences certain beliefs to the claim that one is thereby aware of oneself as the abiding bearer of those beliefs. As Cassam points out, however, "... in ordinary self-awareness, one is aware of one's thoughts, sensations, and perceptions as belonging to one and the same self" (ibid., p. 76). Although one is not aware of oneself as the abiding bearer of one's beliefs by just experiencing them, one does experience one's beliefs as belonging to the very subject to which one's pains, perceptions and hopes belong. This appears to be the phenomenological basis for the fact that we experience the beliefs involved in an inference as belonging to one and the same person, the person we think about under the concept <self>. We do not *judge* that it is one and the same person, we experience it, just as much as we experience the fact that we satisfy the immobility requirement without having to judge that we did not move and that we can make a demonstrative inference without having to judge that we keep referring to the same thing. Since they do not presuppose that the subject judges that she remains the same, inferences in the first person are not enthymematic. The entitlement to the conclusion, however, depends on her experience of herself as an abiding subject of a net of experience.

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UNCONSCIOUS CONTENT: WHAT IS IT LIKE TO THINK THAT P WHEN THERE IS NOTHING IT IS LIKE?[1]

abstract

Many have come to argue recently for the Phenomenal Intentionality Thesis (PIT). PIT can be best defined as a reduction of intentional properties to phenomenal properties. One of the challenges in construing intentionality in PIT terms is explaining unconscious thoughts. The issue comes down to the incompatibility of PIT with the claim of Unconscious Intentionality (UI), or more precisely, the claim that there are genuinely intentional unconscious states. There are two ways in which the proponents of PIT proceed. Most philosophers argue for some relation of derivation of unconscious intentional states from conscious phenomenally intentional states. Firstly, I argue that this option is abandoning the program. Thus, the only way one can proceed, if one wishes to remain within the PIT framework, is to argue for genuine unconscious phenomenal intentionality. Secondly, I consider Pitt's proposal for unconscious phenomenal intentionality. I argue that, while Pitt stays within the PIT framework, his model does not take into account the necessity of the self for phenomenal (un)consciousness. Lastly, I suggest an outline of a third approach, based on Pitt's proposal, that takes into account the necessity of subject for intentionality or what-is-it-like-for-me-ness.

keywords

intentionality, phenomenology, unconscious, for-me-ness

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1. Introduction

Many have come to argue recently for the *Phenomenal Intentionality Thesis* (PIT)[2]. PIT can be best defined as the thesis according to which intentionality is constituted by phenomenal character, or more precisely, a reduction of intentional properties to phenomenal properties. Different proponents argue differently for the nature of this reduction. Some (Pitt 2004; Strawson 2008) argue for an *identity relation*; phenomenal and intentional properties are just the same kind of properties. Others maintain that the connection is of *asymmetric metaphysical dependence*. Namely, intentional properties at the very least supervene on phenomenal properties – but not *vice versa*[3] (Horgan & Tienson 2002; Horgan & Graham 2012). The third option is a sort of stronger *anti-symmetric relation*, in which the phenomenal properties ground the intentional, or the latter obtain in virtue of the former (Kriegel 2011; 2013)[4].

One of the main intuitions for PIT is content determinacy that phenomenal properties secure; "...there is a determinate fact of the matter about what you are thinking and what you mean by your utterance, because *there is something it is like* to think a determinate thought and to make an utterance that expresses that thought" (Horgan & Graham 2012, p. 339)[5]. If PIT is true, then the phenomenal properties guarantee content determination. On the other hand, externalist theories are understood in terms of tracking intentionality to the features of the subject's environment (Mendelovici & Bourget, 2014). There is a mapping relation between the subject's mental state S and an object in the environment O, which serves as a stimulus that reliably causes S. However, there may be numerous stimuli that can cause S, beside O. For example, my representation of a lime can be caused by a lime or by an immature lemon. This inability to distinguish representations from misrepresentations in the subject's inner mental state is the *disjunction problem*. However, the challenge is not just to explain why the representation is the representation

1 The title of this paper refers to David Pitt's (2004) most significant article, "The Phenomenology of Cognition: What Is It Like to Think That P".

2 Among others: Horgan & Tienson (2002); Horgan, Tienson & Graham (2004); Horgan & Graham (2012); Kriegel (2007, 2011a, 2011b, 2013); Loar (1987, 2003) ; Siewert (2011); Strawson (1994, 2008, 2011); Pitt (2004, 2011).

3 The same holds for the opposite claim, i.e. it is the phenomenal properties that are dependent on the intentional. Indeed, representationalists, for the most part, defend such a position (Dretske (1995); Fodor (1990); Lycan (1996); Tye (1995)).

4 Explanatory relations are generally considered to be anti-symmetrical, and I abide with this in what follows. Thanks to Giuliano Torrengo for pointing this out.

5 This presupposes that the phenomenal properties in question are distinctive, that is, it is different to have a conscious occurent thought that P from conscious occurent thought that Q. While I am aware that this presupposition can be disputed, for the purposes of this paper I am taking it for granted.

of a lime, as opposed to immature lemon, but also why that particular representation has any determinate content. Thereby, if one accepts PIT, one avoids these externalist worries of tracking intentionality to something external to the mental state. Phenomenal properties are the decisive set of properties for content determination; what representations represent is determined by the what-it-is-like character when we experience them.

Regardless of the different stances on the specific nature of PIT, its proponents agree that phenomenal intentionality is the fundamental kind of intentionality in a twofold sense. First, it is fundamental because it is the intrinsic intentionality as opposed to the extrinsic, non-phenomenal construal of intentionality. Second, it is fundamental because it is the only genuine form of intentionality and other non-phenomenal kinds of intentionality derive their content from it.

Some terminological remarks are due. By "intrinsic" I simply mean non-relational. On the same note, being extrinsic implies relational properties. That does not imply that all mental states that are relational are fully and only extrinsic. For example, thinking that the Eiffel tower is in Paris is a relational property since it entails a relation to the Eiffel tower which is itself an external entity. However, the content of the thought itself is an intrinsic property as it never extends beyond your mind[6]. Similarly, a state has derivative intentionality if its intentionality depends on the intentionality of some other state; otherwise it has original intentionality. Thus, a genuinely intentional state, as I define it, is the one that has original and intrinsic intentionality, or, a genuinely intentional state has intentionality that does not depend on something external to the state and its intentionality is not a result of a relation to some other state, e.g. second-order thought, ascription of content, and similar.

One of the challenges in construing intentionality in PIT terms is explaining the content determination of unconscious thoughts. If intentional mental states are constituted by their phenomenal character, then explaining unconscious mental states is *prima facie* a serious issue for the view. The issue comes down to the incompatibility of PIT with the claim of Unconscious Intentionality (UI):

(PIT) – Intentional contents are reducible to phenomenal character.
(UI) - There are genuinely intentional unconscious states.

Thus, if one wants to preserve PIT, there are two ways, in which she can proceed when considering **UI**: (1) deny genuine intentionality to unconscious states, or (2) argue that PIT and UI are compatible.

(1) seems plausible. One can argue that unconscious states do not exhibit genuinely intentional content since they suffer from content indeterminacy which is fixed by phenomenal properties[7]. By accepting this view, one also accepts that:

(i) Phenomenology is necessarily conscious; hence
(ii) Intentionality is necessarily conscious.

While (1) is a tenable view, my primary goal in this paper is to bite the bullet and argue for (2), i.e. the compatibility of PIT and UI. Again, there are two ways one can proceed. Most biters

6 In that sense my phenomenal duplicate and me, when we think that the Eiffel tower is in Paris, are thinking the same thought. This corresponds to the distinction between broad and narrow content (see Horgan & Tienson, 2002). However, I will not go further in this matter.

7 Strawson (2011) holds this view for all mental states.

agree on (i), though they do not agree on (ii). More precisely, they argue for some relation of derivation of the intentionality of unconscious intentional states from that of conscious phenomenally intentional states. This is the claim of *derivative unconscious intentionality* ***(DUI)*** – unconscious states do not exhibit original phenomenally intentional content, but get their content determinacy from other phenomenally intentional states, hence they are intentional in the derived manner. Since phenomenal intentionality is the fundamental kind of intentionality and every other kind derives from it, they argue that this is sufficient for a state to be regarded as genuinely intentional within the PIT framework.
The other option is to deny both (i) and (ii). Phenomenology is not necessarily conscious; hence unconscious states are genuinely phenomenally intentional. The concept of unconscious phenomenology is not a contradiction. Denying (i) and (ii), on the other hand, would be the claim of *un-derivative unconscious intentionality* (***Un-DUI***) – unconscious states exhibit genuine phenomenal intentionality; hence they get their content determinacy directly from phenomenally intentional character un-derivatively.
I argue (§2.) that denying the Un-DUI, as the first option does, would amount to abandoning the phenomenal intentionality program; hence, I argue that the only way one can proceed, if one wishes to remain within the PIT framework, is to argue for unconscious phenomenal intentionality. In §3 I consider Pitt's proposal for Un-DUI; I call it the *awareness dualism* model, which rests on Dretske's distinction between object-awareness and fact-awareness. I argue that, though Pitt stays within the PIT framework, his model does not take into account the necessity of the self for phenomenal (un)consciousness. In section §4, I outline a third approach, based on Pitt's proposal, that takes into account the necessity of subject for intentionality or *what-is-it-like-for-me-ness*.

2. Compatibility of PIT and UI: *DUI*

If one believes in UI and wants to preserve PIT, then she has to explain the relation between phenomenology and intentionality of unconscious states. There are two courses of action she can take: either derive unconscious non-phenomenal intentionality from conscious phenomenal intentionality in some sense, or argue for unconscious phenomenal intentionality. I start with discussing Searle's *potentialism* (§2.1.) and Kriegel's *interpretativism* (§2.2.), two proposals for deriving unconscious non-phenomenal intentionality from conscious phenomenal intentionality[8]. In §2.3., I argue that any proposal of DUI is inconsistent with PIT.

2.1. Potentialism

Searle's (1991) central phrase, in discussing intentional states, is *aspectual shape*. "The link, then, between intentionality and consciousness lies in the notion of aspectual shape" (p.51). While he does not provide a clear-cut definition of aspectual shape, I read it as equivalent to

8 Pitt (*forthcoming*) clarifies the debate in more detail. He considers, in addition, Graham & Horgan and Smithies' position. Smithies (2012) develops a variation of Searle's proposal. However, Graham & Horgan (2012) offer three positions. Their first position is that the unconscious mental states do not have a determinate content since they lack PI (a position that they reject as incompatible with realism about the unconscious); the second one purports to potentially conscious states, which is essentially Searle's suggestion; and the third one: unconscious states get their content determinacy by being integrated in the cognitive system and, since some states of the system are phenomenally conscious, they provide "anchor points" from which non-phenomenal states get their content determinacy such that the system exhibits "high degree of internal rational coherence" (p. 341). Although Graham & Horgan opt for the third position, they do not expand on it nor provide arguments for it. In addition, while this proposal is interesting in its own right, it purports to derived forms of intentionality once again, so it shares similarities with the proposals I consider. Strawson (1994, 2008), on the other hand, offers a fourth position which does not hinge on conscious states in themselves, but rather on creatures capable of consciousness. In that manner, he derives intentionality of unconscious states from capacity of consciousness. Strawson's proposal is again a case of derived intentionality. It is also problematic, in my opinion, since it contends to dispositional properties, a point I will address later on. However, in the 2011 paper Strawson denies intentionality to non-experiential states altogether.

the notion of mode of presentation[9]. "Thought and experience and hence intrinsic intentional states generally, have a certain sort of aspectual shape. They represent their conditions of satisfaction under aspects" (p. 53). Different modes of presentation constitute different ways an agent might think about an object or state of affairs. As such, their referent and thus, conditions of satisfaction, remain the same. For example, it is not the same for me to think that the morning star is Venus and that the evening star is Venus, though the conditions of satisfaction are the same.

The aspectual shape makes a difference in my representations in terms of the subjective character regularly associated with it, i.e. "...the way that the aspectual shape matters is that it is constitutive of the way the agent thinks about the subject matter..." (ibidem). For Searle an aspectual shape is necessarily subjective, e.g. I love the taste water, but I do not have any feelings associated with the taste of H2O. Thus, in Searle's terms, the subjective nature of intentional states is crucial, since no third personal perspective can convene the aspectual shape. For Searle, content determinacy stems from first person perspective (Searle 1987).

While I agree with Searle on the crucial relevance of subjective consciousness, the problem arises when one tries to ascribe aspectual shape to unconscious states. Since intentionality necessarily involves an aspectual shape, and aspectual shape necessarily involves the first person perspective, it is not clear how to account for the intentionality of unconscious states on Searle's account, since it is evident that unconscious states have no subjective, first personal perspective to them. Searle seems to ends up in contradiction, for he states that the ontology of unconscious states, while unconscious, is a "purely neurophysiological phenomena" (p. 57). And, since neurophysiological phenomena can be described just from the third person perspective, as one does not undergo first person experience of them, one cannot ascribe aspectual shapes to them which are central in regarding a state as intentional (and thus mental).

Searle's solution to the contradiction is positing *potentially* conscious contents as the basis for genuinely intentional unconscious contents. "...any intentional state is either actually or potentially a conscious intentional state..." (p. 47). If unconscious states are to be regarded as "genuinely mental they must in some sense preserve their aspectual shape...but the only sense that we can give to the notion that they preserve their aspectual shape when unconscious is that they are possible contents of consciousness" (p. 57). The potentiality Searle has in mind is cashed out in terms of *causal capacity* of the unconscious intentional state to produce a subjectively intentional conscious state. The underlying brain state preserves its aspectual shape by having a causal capacity to produce a conscious state[10]. In effect, unconscious mental states derive their intentional content from conscious states, since, in principle, they are potentially conscious in virtue of their causal capacity to produce consciousness.

However, positing potentially conscious states as ground for intentionality does not solve the contradiction[11]. The relation between potentially conscious states and actually conscious states rests on two conditions: (i) the underlying neurophysiological processes must have a capacity

9 In this I agree with Coleman (*manuscript*, p. 5). Pitt, while puzzled as well on the notion of aspectual shape suggests that cognitive phenomenology "plays the role Searle assigns to aspectual shape" (*forthcoming* p. 3).

10 Note that Searle holds that, while unconscious, there is no difference between my unconscious belief that e.g. water is H2O and my underlying neuronal activity of that belief. He makes no difference between purely informational states and simply subconscious states, which seems inconsistent with empirical findings (Kihlstom 1987). The question how strictly unconscious states, e.g. dorsal processes, can be potentially conscious remains unclear in Searle's writing.

11 See Pitt (*forthcoming*) who acknowledges same problems in Searle. Similar points were raised by Sam Coleman at "Yet Another Workshop on Phenomenal Intentionality" in his talk at CEU, Budapest and in his paper "Unconscious Qualitative Character as the Basis for Content" (*manuscript,* p. 7).

to produce the relevant conscious experience, and (ii) this relation is causal. Both of these conditions evoke talk of dispositions, and the problem with dispositions, as Coleman and Pitt point out, is that they are not identical to the properties they cause. If the neurophysiological state R has the causal capacity to produce a vivid experience of red and it is causally relevant for the conscious phenomenology of redness that is subsequently experienced, one would still not attribute the redness to the underlying disposition of the neurophysiological state (Coleman *manuscript*, p. 7; Pitt *forthcoming*, p. 5).

While Coleman and Pitt stress the fact that the properties and the dispositions causing them are not identical, which makes it either the case that the unconscious states lack intentionality altogether, or that there is no bridge between unconscious and conscious intentionality anymore, I would add that they are also not contentful in the appropriate manner. Certainly, the unconscious state can cause the conscious one, however the former cannot, by doing so, derive its content from the latter. The gap still remains. For example, if I throw an ill-proportioned stone in the pond and by doing so cause the waves to spread in even circles, that does not make the stone itself circular[12]. In that sense, unconscious states do not have aspectual shapes that are in any way relevant to the aspectual shapes of the conscious states. At best, they have a different aspectual shape, which constitutes them as two distinct states with two distinct contents; one unconscious, the other conscious.

If these two aspectual shapes are different, then there is no bridge between them and, thus, no manner in which Searle can derive any content determinacy of unconscious states. In addition, it is not sufficient simply to have a theoretical notion of an aspectual shape without subjectively determined intentional content. And if qualitative character is to fix the content of a state, and by doing so, it fixes the intentionality as well, then the aspectual shape of the unconscious state that Searle has in mind, does no actual work. Either it is a different aspectual shape, in which case a bridge that narrows the gap between the two contents is missing, or unconscious states lack aspectual shape altogether since they do not have an inherently experiential, first personal mode of presentation that fixes the content directly. If it is a different aspectual shape that constitutes contents of unconscious states, then those states are fully intentional on their own and there is no need to derive contents anymore. On the second option, Searle ends up denying intentionality altogether[13]. The unconscious states are no longer genuinely intentional.

Phenomenal intentionality is intrinsic and narrow, meaning it does not depend on some other properties or states of the subject, and simply suggesting a systemic causal correlation between a neural state and a mental state does not give the former the inherently mental character of the latter, even if the neural state could possibly be a mental state with similar content[14].

2.2. Interpretativism

Kriegel (2011a) adopts a proposal somewhat similar to Dennett's. Dennett's Intentional Systems Theory (IST) (Dennett 1971) states that everything is intentional in virtue of a subject taking an intentional stance towards it. An intuitive objection to Dennett, which, in addition, holds for all cases of dualism of original/derivative intentionality, is that deriving intentionality necessarily ends up in infinite regress (Dennett 1987). Hence, one needs to postulate some privileged entities or processes that stop the regress. Dennett's solution is that, since regress cannot be negated, it should simply be stopped by dividing the "intentional

12 Coleman (*manuscript*, p. 7) makes a similar point.

13 See Pitt (*forthcoming*) and Coleman (*manuscript*) who acknowledge the same problem.

14 Similar, however not identical; since the states are numerically distinct.

system" into its constitutive subsystems that are slightly less intelligent, thus less intentional, and continuously repeat the process until we reach the level of individual neurons. The end result is a "finite regress" that denies that a property such as intrinsic intentionality exists, since one cannot account for it at the level of individual neurons. All intentionality is ascribed; thus, there is no mystery involved in giving a naturalistic definition of it, as well as no controversy in regarding intentionality as an extrinsic, relational property. Every intentional state gets its intentional character by ascription; the way the system has intentional states is grounded in the way the observer interprets it as being such-and-such.

Kriegel (2011a) adopts Dennett's interpretivism, although with a substantial difference. He maintains, following Loar (2003), the actuality of original, un-derived intentionality; however it is reserved for conscious phenomenal states from which phenomenally unconscious states derive their intentional character. That is, "unconscious intentionality is grounded ultimately in a certain type of cognitive phenomenology, namely, the cognitive phenomenology of conscious interpretation" (Kriegel 2011a, p. 94).

"Interpretivism" appeals to the so called "web of intentional concepts" which we employ in order to produce the best possible explanations of behaviors of "intentional systems". The idea is, the "intentional stance" of the interpreter, composed of his "web of intentional concepts", ascribes a content based on the inference to the best possible explanation. This suggests that every intentional state derives its content from some other intentional state; hence infinite regress, an already familiar outcome.

Kriegel, to avoid this outcome, posits a class of "privileged intentional states", in order to preserve original intentionality. These "privileged intentional states", correspondingly, are conscious intentional states that are phenomenally constituted. What gives an unconscious intentional state the content it has is conscious intentionality, that is, the unconscious state is consciously cognitively interpreted in some manner. In other words, infinite regress ends in conscious cognitive intentional acts of interpretation which have their content underivatively or "for any unconscious intentional state, there is some possible ideal interpreter who, under some conditions, produces an intentional interpretation of that state, and moreover does so consciously" (Kriegel 2011a, p. 84).

However, as Pitt (*forthcoming*) points out, the problem is that a state can have many, if not an infinite number of interpretations, meaning just "as many intentional contents". Similarly and somewhat interconnected, this proposal, in my opinion, invokes the notions of an ideal interpreter and of indeterminacy. Since we are dealing with the ideal interpreters or "'subjects who exercise the intentional stance perfectly under all conditions" (Kriegel 2011a, p. 84), he will not assign the interpretation if there are two equally applicable stances. Kriegel addresses this point, though he states that "this kind of content indeterminacy should be extremely infrequent, and to that extent harmless" (Kriegel 2011a, p. 88). Kriegel expects that in "standard cases" the best interpretation is always available, and the ideal interpreter should recognize it. However, I want to emphasize that there still is some room for indeterminacy, while in the case of original intentionality, if phenomenally constituted, one cannot be erroneous, since how something appears is how something is[15]. There is no stable interpretation and no limit to the variety of contents that the interpreter can yield, making those unconscious states, by definition, states with undetermined content, which, in return, makes them not genuinely intentional states. And if phenomenal intentionality is the

15 However, note that this does not imply that one possesses "infallible knowledge about what one's first-order intentional states are" (Horgan & Tienson 2002, p. 528). As Horgan & Tienson point out further "Beliefs about one's own intentional states are second-order intentional states..." and "...such beliefs are sometimes mistaken"' (2002, p. 528).

sort of intentionality that is fundamental and grounds content on the basis of its determinacy through phenomenology, then one cannot accommodate *semi* determinate content.
Pitt (*forthcoming*) points out, in addition, the fact that the interpretation does not, in any manner whatsoever, change "the intrinsic nature of the interpreted state". Kriegel does not, by any means, disguise this fact as he states that, when examining unconscious states, a state x has content C because the interpreter *assigns* to the state x the content C (Kriegel 2011a). However, the third person, extrinsic perspective on an intentional state does not reveal anything of its nature. On this picture, unconscious intentionality is, as Kriegel names it, a kind of "response-dependent property", which is characterized in terms of dispositions (Kriegel 2011a, p. 84). "...the unconscious item must have the disposition to elicit the right interpretation in the right interpreter, but not that the disposition must be manifested" (Kriegel 2011a, p. 88). The content-free unconscious states have a disposition to cause, under the right conditions for the ideal interpreter, determinate content by eliciting the best explanation in the interpreter. Strawson notes "...a disposition...is just not the kind of thing that can possibly be contentful in the way that it needs to be if it is to be an intentional thing – even if it can be identified as the particular disposition it is only by reference to the proposition (the content)..., which is itself an (abstract) intentional entity" (Strawson 2008, p. 303). The unconscious states themselves do not constitutively determine content, since they are content free. It is the interpreter's conscious tracking of intentionality and ascription of content that gives these states the determinate content they have. This tracking is external to the state in question, however, and in that sense analogue to the naturalized, externalist intentionality theories.
By defending such a view, Kriegel truly does accommodate unconscious content, however not fully within the PIT framework. And if one is in the business of deriving intentionality, why stop there? Perhaps there are more kinds of intentionality. Perhaps there are even numerous kinds, hundreds or thousands. The fact remains, only the intrinsic, narrow kind is the genuine kind of intentionality, and other kinds are simply not intentionality.

2.3. The issue of DUI

Any framework of ascription of content to intentional states, whether it is in Searle's or Kriegel's terms, is equally extrinsic as Dennett's proposal; it presupposes that the derived intentional state gets its intentionality externally from the intrinsically intentional state of a genuinely intentional agent. The only genuine intentionality is that of the intrinsic kind and any form of derivation is simply not adequate to capture the intentional content of the state in the PIT sense.
One might argue that, since I am interested in the intentionality of our mental states, deriving unconscious from conscious is really a trivial issue. Phenomenal intentionality is the fundamental kind of intentionality and every other kind is reducible to it, including unconscious one. Granted, one could not leave any room for indeterminacy in the fundamental kind of intentionality. However, states that are derivatively intentional do not have intentionality as their intrinsic property: they receive it from somewhere else – i.e., genuinely intentional (phenomenal) states[16].
On this reading, Kriegel accepts that the intentionality of unconscious states is quite different from the intentionality of conscious ones. His claim is precisely that derived intentionality is not genuine intentionality. He assumes that there is a difference between conscious and unconscious states, and hence between conscious and unconscious intentionality, and accounts for this difference in terms of phenomenal intentionality. Yet, he does not attribute phenomenal intentionality to unconscious states.

16 Thanks to Davide Bordini for pointing this out.

However, if we invoke such dualist notions, we are simply not talking about intentionality anymore. Why should we accept two kinds of intentionality in the PIT framework considering the emphasis on the importance of the phenomenally constituted kind? Especially, why should we accept a derived kind of intentionality that rests on third personal, external ascriptions of content? This solution seems inconsistent with the program. The state has the content that it has precisely because of the what-it-is-like character to have that particular content. An extrinsic ascription of any kind does not make the state causally or informationally different in any relevant sense. And by relevant sense, I simply mean the intrinsic nature of the state. If one derives intentional content from other phenomenally constituted contents, there is a gap in individuating the former in terms of the latter, since the latter is inefficacious in the two aforementioned senses. It is inefficacious causally since the interpretation is extrinsic to the relevant state[17]; it is inefficacious informationally because what is represented on a conscious level and ascribed as content to the unconscious state need not be consistent with the intrinsic nature of the state[18].

This issue is especially intuitive when we consider that most would agree that there is no such thing as derivative phenomenology. Simply, how something is like is how something is experienced. If phenomenology constitutes intentionality, then accepting two kinds of intentionality seems inconsistent. One kind, on this view, is the phenomenal one grounded in the what-is-it-like character, while the other is grounded in the conscious interpretations of what-is-it-like character. This does not amount to genuine intentionality but is simply treated as-if it is genuine intentionality. We would not allow as-if phenomenally conscious character of a mental state; either I experience the bitterness of my coffee or I do not. There is no experience as-if of bitterness. By accepting as-if intentionality, we are accepting as-if intentional contents; which are again indeterminate under the PIT framework[19].

In other words, on this reading of Kriegel, one can accommodate unconscious intentional contents by deriving them from conscious phenomenally intentional contents, but one does not intuitively call such derived contents intentionality. Certainly, one can always define intentionality* or intentionality1 that pick up the relevant properties of unconscious states, however these do not amount to intentionality and there is a tension in such dualist approach that seems counterintuitive to the PIT framework.

There is another possible course of action left for a proponent of PIT: to argue, in some manner, for Un-DUI, or, genuine unconscious intentionality. One possible path is to argue for intrinsic phenomenal properties of unconscious states; argue that the concept of unconscious phenomenology is not a contradiction. Cases of e.g. blindsight, dorsal visual stream, achromatopsia, and priming, can be regarded as such cases. If there is such a thing as unconscious perceptual phenomenology, then there is no *prima facie* problem for unconscious phenomenal thought as well. While there is no apparent contradiction in regarding them as genuinely phenomenally intentional unconscious states, these cases are highly debatable and most cognitive scientists would not interpret them as cases of unconscious phenomenology in the manner that proponents of PIT have in mind.

A second option is to explore the notion of un/consciousness being an intrinsic property of mental states. On this view, a state can be conscious in itself but not for the cognizer[20]. Thus, a

17 Coleman (*manuscript*, pp. 9-10) also recognizes this problem.

18 Pitt (*forthcoming*, pp. 11-12) presents an argument of this sort.

19 Although Kriegel does not use this term, I am not alone in thinking that unconscious states end up having *as-if intentional contents* under his view. Pitt and Coleman come to the same conclusion.

20 Whether the opposite holds - a state unconscious in itself but conscious for the cognizer - is a more complicated issue. One cannot ever be conscious of some mental states, e.g. the processes of the dorsal stream, no matter how

state has an intrinsic property of being conscious; however it is unconscious for the cognizer[21]. This is the course of action that Pitt takes, hence I will consider his view next.

3. Compatibility of PIT and UI: *Un-DUI* or Awareness Dualism Model

Pitt (*forthcoming*), defends Un-DUI. His proposal rests on Dretske's model of awareness of things and awareness of facts (1993). Roughly, the idea is that a mental state M can be conscious *in* itself, without being conscious *for* the cognizer, where this means that M is conscious but below the cognizer's awareness threshold. The intuition can be best illustrated by using Armstrong's famous driver example (Dretske 1993). The driver, after a long and tiresome drive realizes, at some point, that he has been driving for quite some time without being aware of the actions he was performing. It is safe to say that the driver did indeed perceive the road and was, in some sense, conscious of his actions as he would have otherwise crashed. However, he has no recollection of the actions performed or the perceptual stimuli from the road[22].

Dretske (1993) distinguishes between "consciousness of things" and "consciousness of facts", and since he takes consciousness and awareness as synonyms, the same distinction can be made between awareness of things and awareness of facts. By this he aims to distinguish "particular (spatial) objects and temporal (events) on the one hand from facts involving these things on the other" (Dretske 1993, p. 264). In that sense Dretske talks about "creature consciousness" which can be both "intrasensitive (of me)" and "transitive (of you)". Secondly, a creature has "state consciousness" if it is conscious of other things. "State consciousness" is relation of subject S towards some x. Although about external things, "state consciousness" is always intrasensitive as that is the sense in which "internal states... are said to be conscious", since it always involves some ground for consciousness (Dretske 1993, pp. 269-270). To be conscious intransitively is to simply be capable of conscious experience (as opposed to being in a state of coma, for example). But to be conscious transitively is to be aware of something in some way. Although one can be conscious of M transitively, e.g. one is aware of the stop sign in front of him , the mental state in virtue of which it is so conscious is not itself a kind of representation that suffices for it to be a conscious state. According to Dretske, being conscious of X is representing X, which makes being conscious a relational, non-intrinsic property of a subject.

Recall Armstrong's driver. Dretske's proposal is that the driver has "transitive creature consciousness of both things (the roads, the stop signs) and facts (that the road curves left, that the stop sign is red, etc.)" (Dretske 1993, p. 271). However the driver is not aware that he is aware of them. The driver lacks both thing-awareness and fact-awareness; or, more precisely, he lacks awareness of his occurring mental states, he is not aware that he is having the experience. For Dretske, that does not imply that the state itself is not conscious, it can be, but just not for the driver as it occurs. Dretske denies that consciousness is an intrinsic property of states. Conscious states are states that make us conscious (aware) of things (or states). But such states need not be themselves objects of consciousness. For Dretske, to be conscious

much one is attentive to them. Perhaps only some mental states and not others can have such detachable un/conscious properties.

21 Note that this is different from aforementioned states that have intrinsic phenomenal properties. In that sense we are talking about intrinsic unconscious phenomenology; a qualitative state that also has an intrinsic property of being unconscious (see Pitt (*forthcoming*) for some deliberations on this). While I regard the idea of this kind of unconscious phenomenology a coherent idea, I will not argue for it further in this paper.

22 An alternative way to explain this is by appealing to Block's distinction between phenomenal and access consciousness (Block 1995). While I acknowledge that this explanation is an option to be considered, Pitt rejects that distinction. Since I am considering Pitt's theory here, I will not address this point further. Moreover, my criticism to Pitt focuses on different problems of his account.

of something is to represent it in a particular sort of way. This does not imply that one is conscious of the representation, however. In order to be conscious of the representation, one must form a representation of *it*. It is not the awareness of the mental state that makes it conscious, but rather "what makes an internal state or process conscious is the role it plays in making one (intransitively) conscious – normally, the role it plays in making one (transitively) conscious of some thing or a fact" (Dretske 1993, p. 280).
Pitt (*forthcoming*), relies on Dretske's model, yet unlike Dretske, he takes consciousness to be an intrinsic property of mental states. He construes his proposal as a thought experiment. The aim of the thought experiment is to consider whether a state that is conscious in itself, without me being aware of it, can be considered mine. Thus, he proceeds along these lines. Penelope is a distinct individual whose thoughts originate in her brain. However, future advancements in technology allow us to somehow interconnect our nervous and cognitive systems. Penelope and I are not consciously aware of each other's occurring thoughts nor does the connection affect the point of origin of the thoughts. They remain divided as our bodies and brains remain divided; her thoughts originate in her brain, my thoughts in mine. However, we are interconnected in such a way that I am "directly aware" of Penelope's conscious thoughts as they occur. In other words, I am aware of someone else's internal mental states. And in that sense Pitt asks: Can Penelope's thoughts be mine? In addition, let us assume that from time to time those thoughts affect my behavior. Thus, the best explanation of my subsequent behavior is by reference to Penelope's thoughts and not mine.
It is easy to translate this case to unconscious states: imagine I am no longer aware of Penelope's occurring thoughts; still they continue to affect my behavior. One can even, as Pitt notes, connect our brains in a fusionlike manner , so one can even more easily attribute the behavior to the same individual. So, Pitt argues, it is not conceptually incoherent that there can be similar cases in my mind as well, that is, thoughts that are "...simultaneously conscious and unconscious. They are conscious in the sense that they have phenomenal character (where this is thought of as entailing consciousness); but they are unconscious in the sense that I am not directly aware of them" (Pitt *forthcoming*, p. 38).
Pitt's main question is whether these thoughts can be considered to be mine, or, more precisely, 'Is a state of mine conscious if and only if it is conscious for me?' (Pitt *forthcoming*, p. 34). Firstly, his proposal is problematic, because it does not involve any notion of the self as a ground for the thoughts in question. His proposal detaches the subject from the experience, making experiences linger in my mental life. Pitt acknowledges this, as he notes that perhaps the self and consciousness "are not intrinsically connected" (Pitt *forthcoming*, p. 39). The same holds for unconscious thoughts. I do not necessarily have to be aware of the occurring unconscious thought; however that thought must have some subjective relation to me in my overall cognitive life. Its affecting my behavior in the aforementioned detached sense does not make it causally or informationally connected to *myself* in any relevant way; it is inefficacious. Penelope's thoughts have no narrow subjective relation to my overall cognitive life, narrow meaning here intrinsic. Moreover, it is not causally or informationally even relevant for my mental life since these thoughts are neither integrated in my neurophysiology nor my mental, conscious processing. For example, imagine that future advancements in science make it possible that my friend's well-intended, however not taken, advice can be surgically implanted in my brain without me being aware of it. Is that thought mine? It is not, regardless of the origin of the thought[23].

23 An argument can be made from Personal Identity theory as well; however space does not allow investigating this issue further.

As a result, I do not have any immediate involvement in the mental state. Naturally, those thoughts can affect my behavior, but not my further conscious processing, as they remain detached. One can argue that they do affect my cognitive life in an indirect way: what I do, my behavior, based on Penelope's thoughts, has further consequences on my mental life. However, these consequences are external to my mental life. Me moving my arm based on Penelope's thought and, for example, by doing so spilling the coffee, makes me think of how I should act, and in that sense, Penelope's thought affects my further cognitive life. But that implies an explanation of my behavior in which I have no involvement whatsoever. And in that sense Pitt's proposal is subject to the very same worry he acknowledged against Kriegel: the extrinsic, third personal ascription does not change the intrinsic nature of the thought itself, even if that ascription explains my behavior in the best possible manner. And attributing interpretations to the states we are not directly aware of or have no immediate involvement in, is equally extrinsic to DUI and tracks intentionality to external factors outside our mental life.Simply, for a state to be conscious for me is *for me* to be aware of it, for a state to be phenomenal for me is *for me* to have a what-it-is-like experience of it, and for a state to be intentional for me is for it to represent some state of affairs *for me*. Penelope's thoughts are none of this.

The point comes down to this. In accepting Pitt's proposal we have a solution, but at a price. By accepting his solution, we give up on a clear notion of the self, which seems to be indispensable for phenomenal consciousness. We do accommodate unconscious states, but by postulating either multiplicity of the selves all of them grounds for mental states and exerting some influence over our behavior; or by postulating an un-unified notion of a single self. Either way, the reasoning requires additional premises for one to make the trade as Pitt proposes.

4. Intentionality and *what-is-it-like-for-me-ness*

I propose to take into consideration Pitt's proposal. I also propose that we further investigate un/consciousness as being an intrinsic property of mental states. However, I also propose to emphasize the notion of the self.

What I am interested in particular is intentionality of mental states or, more precisely, intentionality as a property of mental states and events that have the essential feature of being directed at something. What are the necessary conditions to regard a state genuinely intentional? Certainly, that there is an object towards which the state is directed to, seems to be a necessary condition. However, one can think of an object that does not correspond to anything in reality, hence I take object *qua* object of thought here simply as being identical with a representation, or more precisely, an object is a mental content with certain semantic properties, regardless of its causal history[24]. What the proponents of PIT propose is to stop the chain of attribution of intentionality in phenomenology. In that sense, only when a state is phenomenal it is intentional, and phenomenology provides content determinacy. What I am proposing is that minimal *subjective* experience is taken as a necessary condition nas well. Thus, the self seems indispensable for phenomenology, since it is quite inconceivable to imagine an entity experiencing without the *experiential entity* having that what-is-it-like of experience. Subjectivity is simply defined as *for-me-ness*[25]. It is not just phenomenology but

24 I acknowledge that the question of reference and conditions of satisfaction of phenomenally intentional states is a serious issue. Nevertheless, I will not go into that issue at this point, since I believe I can make my claim without such considerations.

25 Zahavi & Kriegel (2015) have recently argued for a notion of for-me-ness that rests on conscious, 1st personal perspective, as a "universal feature of experience". My proposal is somewhat different, since I do not believe for-me-ness has a such a strong connection to consciousness.

rather what-is-it-like-for-me, hence it is not just directedness, but rather directedness of the subject to some object x, making the *what-is-it-like-for-me-ness* a rather important condition for intentionality. In that sense, phenomenology and *for-me-ness* seem jointly both necessary and sufficient for intentionality.
It is important to note that intentionality is a property of mental *states*, not mental *acts* (Searle 1983); this means that the subject acting on those states is not necessary for a state to be intentional. In the latter case we are rather talking about intention (directedness to act upon some underlying belief or desire). Therefore, I distinguish a wider notion of intentionality, which presupposes some form of agency, from a narrower notion that rests on Brentano's definition of intentionality that can be best illustrated by a quotation from Brentano himself:

> Every mental phenomenon is characterized by what the Scholastics of the Middle Ages called the intentional (or mental) inexistence of an object, and what we might call, though not wholly unambiguously, reference to a content, direction toward an object (which is not to be understood here as meaning a thing), or immanent objectivity. Every mental phenomenon includes something as object within itself... (Brentano 1973, p. 88).

As I read Brentano, intentionality is directedness towards some content in a psychological or mental act. Therefore, while this directedness of *a subject* X towards an object Y is a necessary condition of intentionality, this relation merely consists in the directedness *to* the object of intention in some degree, not action *upon* the directedness to the object of intention. This directedness can be of passive nature, e.g. perceptual inputs towards which we are not attending.
Considering that the objects of my interest are mental states, a question immediately arises: is there a difference between the intentionality of my occurrent mental state while tasting an apple and that of my Facebook status stating "The apple I am currently eating is very tasty"? And, if there is, what constitutes that difference?
The majority of philosophers are consistent in insisting that some difference has to be made between "derived" and "un-derived" forms of intentionality and "intentionality" and "as-if intentionality". For example, a logic proof is a formal illustration of an ordered sequence of statements. It represents arguments made of semantic structures, i.e. sentences, as mathematical objects without regard to their meanings. Those sentences are represented in a formal character with various symbols, e.g. P and Q. Proofs are syntactic in nature and involve only rules of inference between the statements. The rules of inference or behavior of statements in a proof is, also, represented in a formal character, e.g. we symbolize the conditional with →. The main point is that none of these symbols have the meaning of the sentence in them intrinsically[26]. We, as a competent category of users of those symbols, agree that the symbols represent what they represent. If I write P → Q, you immediately know that I mean "if P then Q" and if you know what P and Q stand for, you know that, e.g. if it rains, then the weather forecast was wrong. Some things, like logic symbols, get their meaning and reference from other things, i.e. us, as competent users. Since the symbols get their directedness towards the object of reference in a derived manner, those are cases of *derived intentionality*. On the contrary, *original or underived intentional* states and events get their meaning and reference narrowly *via* the mental state itself. They have the intentional content intrinsically.

26 One could also question whether the sentences themselves have meaning intrinsically, but let us not complicate things further.

Nevertheless, intentionality is dependent on the subject of those states, because the directedness of the subject towards the object of intention is a necessary condition for any kind of intentionality. If intentionality is defined as directedness, then it is an asymmetric relation. In the PIT framework, that condition comes down to some minimal kind of subjective experience of a mental state. Hence, my proposal, in order to preserve PIT, is to ground both phenomenology and intentionality in *for-me-ness*. Certainly, phenomenal intentionality is the fundamental kind of intentionality, yet there is no phenomenal experience without someone experiencing it. *For-me-ness* is a notion with its own distinctive phenomenology, but not of a detachable qualitative sort, i.e. it is not a *quale per se*[27]. In that sense, *for-me-ness* is a *sui generis* ground on which all mental life depends. The proposal is not just that the experience is *in* me as in Pitt's thought experiment, but something more, the experience is *for* me. Only the subjective kind is the source of intentionality, as the subjective kind, on this proposed account, implies the necessity, of either a stronger form of experience of the object of intention through awareness or consciousness; or a weaker form of experience of an overall change in the cognitive life as giving rise to a representation through cognitive integration of the state in the subject's overall mental life.

The same can be applied to unconscious states. Nevertheless, there is a substantial difference. One is an observer in relation to his unconscious, but one has the experience of the effect as giving rise to a representation in a subjective manner through a change in the subject's overall cognitive life. *For-me-ness* is by no means a robust notion, but rather a gradient one, and in that sense it can be attributed to unconscious states; nevertheless it is a necessary part of all our phenomenal and intentional representations. If a state is conscious in itself and has phenomenal character in itself, then it has some minimal subjective for-me-ness as well, even though I do not have to be aware of it. What does this proposal come down to? What is the necessary condition for a state to be genuinely intentional under this thesis? Simply, that the state is intentional *for me*[28,29].

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27 On this I agree with Zahavi & Kriegel (2015).

28 I acknowledge further arguments need to be made to clarify how the notion of *for-me-ness* fits in PIT, especially in relation to unconscious mental states (I plan to do so elsewhere). Some of the immediate challenges are to give a clear notion of for-me-ness that is applicable not just to conscious states, as well as how to account for the variety of phenomenology and intentionality in different mental states (thanks to Uriah Kriegel for pointing this out). Herein, I simply pointed towards it as a possible answer to the problems proponents of PIT seem to come by in trying to accommodate unconscious thought within the phenomenal intentionality program.

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JAMES' "FRINGE" AND "QUALIA OF MEANING": A PROPOSAL

abstract

Many philosophers have made the distinction between two phenomenological aspects of consciousness, namely, the partition between clear and distinct contents/vague and peripheral feeling. Such a distinction is relevant for Husserl, while James (1890) provides the most comprehensive account of nucleus and fringe. A concept close to that of fringe, and in particular to the more recently proposed concept of non-sensory fringe, is that of qualia of meaning which I am here proposing. Qualia of meaning are experiences that relate to the holistic understanding of a certain set of elements of knowledge available to an individual and which as such can guide their thinking processes. These qualia have an intentional cognitive aspect connected to the phenomenal aspect. On the ground of these considerations, my main aim in this paper is to describe what qualia of meaning are and highlights differences and similarities with the non-sensory fringe.

keywords

two aspects of consciousness, non-sensory fringe, holistic understanding, Husserl

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1. A new kind of qualia

Despite being fairly recent, the debate on qualia has quickly become a central theme to the philosophy of mind and to the related contemporary debate on the phenomenology of thought. Regardless of whether qualia exist or not, most philosophers share an intuitive understanding of the notion (even though they may claim they do not experience qualia or that there are not qualia at all): "Qualia are simply those features, whatever they may be, which comprise the phenomenal or subjective aspects of bodily sensations and perceptual experiences" (Tye 1994, p. 160). "Qualia, if there are such, are properties of sensations and perceptual states, namely the properties that give them their qualitative or phenomenal character – those that determine 'what it is like' to have them" (Shoemaker 1991, p. 121).
One has to provisionally speak of shared intuitive external understanding because, according to those who think qualia exist, their very definition as subjective sensations to which we have inner access would make them totally impossible to describe for anyone other than the subject of *that* particular experience. However, even though the *token* is ineffable, intersubjective description and knowledge of the *type* seem possible, at least in the above-mentioned terms of an analogical and intuitive extension of sensations experienced first-hand. Consequently, one can distinguish between a metaphysical dimension of (the notion of) quale and an epistemic one: the first is related to the existence, the second to the ways in which qualia are known (Kind 2001).
One of the most debated issues is whether qualia can be also characterized in cognitive terms and not only in phenomenal ones, as Ned Block put it: "Qualia are experiential properties of sensations, feelings, perceptions and, in my view, thoughts and desires as well (...) Here is what is controversial: whether qualia, so defined, can be characterized in intentional, functional or purely cognitive terms" (1994, p. 514).
In this paper I focus on the proposal that *qualia of meaning* also exist in the furniture of the world. Qualia of meaning are sensations related to the holistic understanding of a certain set of elements of knowledge available to an individual that, as such, can accompany and also guide her thought processes and (consequently) her behaviour. Such feelings seem to be at the origin of linguistic expressions like: "I see", "Now it's all clear", "I know what to do", "I feel like I'm on the right track", "I see your point", *et similia*.
Such a feeling, in some respects, is similar to the *Aha experience* (Mulligan 1988), but broader in its scope, since the Aha experience has mainly been related to the so called "insight" – the essentially cognitive mental process leading to the discovery of a solution to a problem that had appeared unsolvable thus far. This is how Thagard and Stewart describe the Aha experience:

> the AHA! experience requires a triple convolution, binding: (a) two representations into an original one; (b) cognitive appraisal and physiological perception into a combined assessment of significance; and (c) the combined representation and the integrated cognitive / physiological emotional response into a unified representation (pattern of neural activity) of the creative representation and its emotional value (Thagard and Stewart 2001, p. 11).

As emerges from this description, the Aha experience is a brain process with a physiological correlate. However, it lacks phenomenology: the aspect of what it is like to have an insight or an Aha experience. The latter has been recently characterized as having four defining features. First, the Aha moment appears suddenly; second, the solution to a given problem can be processed fluently; third, the Aha experience triggers positive affect; fourth, the subject who experiences the Aha moment tends to think that the found solution is true (Topolinski and Reber 2010).
On the contrary, something that presents an interesting convergence with my proposed notion of qualia of meaning is the fringe as it was described by James and, mainly, as it has developed in the past three decades.

2. Nucleus and fringe

The distinction between the two phenomenological aspects of consciousness was made about 2,500 years ago[1]. In particular, the dualistic structure constituted by clear and distinct contents/vague and peripheral experiences or feeling (Mangan 1991) dates back to Anaximandros, is mentioned by Plato and Plotinus, is accepted by Leibniz and Kant, is significant for Baumgarten, and reverberates in the thought of Husserl, Heidegger and Wittgenstein.
However, in the *Principles of Psychology* James (1890) provides the most comprehensive account of it. In the chapter on the "stream of thought", he claims that consciousness is dynamic; shifting constantly from idea to idea, from thought to thought; James also states that its structure is complex: every explicit thought is related to a fringe or shade of content which is intuited. The fringe plays an important role in controlling the orderly progress of consciousness from one substantive thought to another. This process is expressed by the well-known metaphor: as we take, in fact, a general view of the stream of our consciousness, what strikes us first is this different pace of its parts. Like a bird's life, it seems to be made of an alternation of flights and perchings.
The resting-places are usually occupied by sensorial imaginations of some sort, whose peculiarity is that they can be held before the mind for an indefinite time, and contemplated without changing; the places of flight are filled with thoughts of relations, static or dynamic, that for the most part obtain between the matters contemplated in the periods of comparative rest. Let us call the resting-places the "substantive parts", and the places of flight the "transitive parts" of the stream of thought. It then appears that the main end of our thinking is at all times the attainment of some other substantive part than the one from which we have just been dislodged. And we may say that the main use of the transitive parts is to lead us from one substantive conclusion to another (James 1890, p. 243). James also calls the substantive parts *nucleus*, as synonymous of the focus of attention.
In addition, each substantive thought includes a nucleus of aspects one is clearly aware of, and a fringe that surrounds it (Epstein 2000). The main feature of the nucleus is stability (kinds of sensorial images, which are special insofar as that they can be "held before the

1 I am here partly taking up an argument from Lavazza 2009.

mind for an indefinite time" and can "be contemplated without changing"). The kaleidoscope is the other figure of speech used to illustrate a constantly shifting stream of thought and its most important components: essentially stable substantive thoughts (James 1890, p. 246). The ability to remember is the second crucial feature: one's memory is considerably clearer and precise when referring to the bird's perching rather than its flying. The third distinctive element is multimodality: the nucleus includes a wide range of representational means: "a word, a sentence, a particular picture, a practical attitude or a decision" can be the conclusion of a stream of thought (Husserl himself recognizes that "James was alone, as far as I know, in becoming aware of the phenomenon of horizon – under the title of 'fringes'" [1936/1970, p. 264]).

In any case, James admits that substantive thought includes several images. Mangan (1993a; 1991) believes that the sequentiality of substantive thought should be added to the characterization detailed in *Principles of Psychology*; indeed, substantive thoughts appear one at a time and are replaced in series; as should limited capability: only a small portion of the information processed in each moment can be "contained" in a single substantive thought.

In the system devised by James, the fringe helps solve the contradiction between his conviction that thought is temporally continuous and the idea that experience is constituted by a series of temporally discreet elements – a chain rather than a flow; James' conviction stems from the perceived passage between a thought and the next. Not only are we aware of substantive thoughts, but also of transitive ones, which provide a feeling of context and cement the temporal fractures between substantive thoughts. This feeling of context has three parts: a faded memory of previous thoughts, a "feeling of relation" between the current thought and other potentially relevant ones, and a "feeling of tendency" of the train of thought.

Epstein (2000, pp. 553-554) lists several fringe experiences taken from James in the attempt to pinpoint our shades of thought. They include: 1. the feeling of expectation we get when our attention has been drawn to something and we have some sense of what it might be, but have not yet determined exactly what it is; 2. the feeling of having a word "on the tip of our tongue"; 3. the feeling we have when we know that something is familiar; 4. the sense of connection provided by words that express the logical structure of thought, such as "but" or "nevertheless"; 5. the feeling of meaning to say something, when we have a perspective but not yet an articulate scheme of thought; 6. the sense we have for the overall scheme or form of a book, a work of art or a scientific system; 7. the sense we have that there is more to a thought, even when we do not have the words to complete it; 8. the sense of anticipation which occasionally causes us to mistakenly use an anticipated word instead of the correct one; and 9. the sense of being "on the right track" to a conclusion.

Obviously, this is a rather heterogeneous set of experiences. However, one common feature is that many of them involve feelings that guide consciousness from one substantive thought to another. These features of fringe are consistent with the concept and the role of Husserl's horizon: the process taking place in an original intuition is always already saturated with anticipation; there is always more cointended apperceptively than actually is given by intuition – precisely because every object is not a thing isolated in itself but is always already an object on its horizon of typical familiarity and precognizance. But this horizon is constantly in motion; with every new step of intuitive apprehension, new delineations of the object result (Husserl 1939/1973, section 25).

A case in point is provided by the TOT (tip-of-the tongue) state. This happens when we attempt to remember a word or a name and we are unable to deliver it, even though we experience the feeling that it is "on the tip of our tongue". In James' words, we have an intensely active void, a sort of ghost-name which compels us to move in a certain direction. Notwithstanding the

temporal impossibility of recalling it, we have an idea of the sound of the word, of the rhythm of its syllables as well as an intuition of its meaning. If we are trying to recall the name of a person, we picture his face and remember events about him. Occasionally we "get stuck" on a word or name which is similar even though we know it is not the right one, that it does not "fit the mould" as James said. Indeed, we know everything except the word itself. Yet we have the vivid feeling of being just about to grasp it. And this feeling confirms that we are pointing in the right direction although we have not reached our goal yet.
The fringe also lets us know when the mnemonic structures are activated. At the very time we are trying to remember the name of an actor, we might recall the roles he played in a film and the other actors he worked with, i.e. the network of memories linked to the name in question. As a rule, this context immediately leads us to the sought-after word and, by doing so, makes the relating information unnecessary, sweeping it out of our consciousness. A word on the tip of our tongue provides a strong feeling of a guiding context, partially made up of associated memories. Their role is always important but we are only aware of them in the case of TOT. Epstein believes that thought progresses by creating diverse instances (in the shape of images or sentences) in the mnemonic network nodes which are active at that moment in the nucleus. The fringe guides the process towards the goal.
This also occurs when a train of thought has no specific destination: in such cases it is exclusively governed by the associative network[2]. From this standpoint, the associative network can be viewed as relating to two distinct components which are functional to information processing: on the one hand, the mnemonic network determines the potential relations between thoughts that have possible instances in the nucleus; on the other, there is a mechanism able to monitor and guide the activation state of the network according to its current objectives.

3. Non-sensory fringe

This model of the fringe conceptualized by James has been taken up in the last 30 years. Mangan (1991) highlighted the implications of this intuition with regards to psychology and aesthetics. Later on, Mangan (1993a; 1993b; 2000; 2001) developed the idea of the "non-sensory fringe" of consciousness, which stems from the original concept and divides it in two parts. Galin (1994) continued along the same path and Epstein (2000) and Chafe (1994; 2000) also moved along similar lines.
The "classical" fringe, described by James, has a sensory content, albeit vague, blurred and indistinct. The non-sensory fringe is literally experience without a sensory content. Phenomenologically and functionally, the sensory and the non-sensory aspects are closely related: both channel context information to our consciousness and, by virtue of such capacity, contribute to the voluntary recovery of new information within our consciousness. The "non-sensory fringe" is not peripheral; on the contrary, it pervades the entire realm of our consciousness.
In terms of Gestalt, Mangan (1991) states that, given the picture/background distinction, the central sensory content (the nucleus) is located in the picture while the peripheral sensory content is located in the background. Non-sensory content is located both in the picture and in the background. Even the context of the two fringes differs (here, by context it is meant a specific domain)[3]. Peripheral sensory experience concerns the surrounding environment,

2 The comprehensive description of the tip-of-the-tongue state occurs on a phenomenal/subjective level: it is what we feel when we have a word on the tip of our tongue; the feeling has been analyzed thanks to introspection and knowledge of psychology. However, it does not descend to the level of the physiologic aetiology of "disruption" or to that linked to neurobiological causes.
3 As fringes are contextual rather than substantial, it seems that there can be overlapping levels in a phenomenological space.

while non-sensory experience concerns just about everything that is cognitively significant for our consciousness.

> Non-sensory experiences constitute, among other things, those aspects of consciousness that turn a naked focal-sensory content into an interpreted, meaningful perception. In the ground, among many other things, non-sensory experiences constitute the feeling of imminence – i.e., the feeling that much more detailed information is available on the periphery for retrieval if needed (Mangan 2001, p. 2).

A typical non-sensory experience relates to the feeling of familiarity[4].
However, it is difficult to give a precise definition of it in phenomenological terms (we know we are experiencing something but do not know how); it is a lot easier to describe its cognitive function. The feeling of familiarity, of knowing something, is a special type of contextual information signalling we have already met an element in our consciousness and redirecting us to the same cognitive relation. The process is most probably extremely complex and performed almost entirely on a non-conscious level. Mangan thinks that one of the most important non-sensory experiences is rightness, which is often confused with familiarity. Rightness shows how the content of consciousness adapts to its context. The detailed information that makes up the complete representation and assessment of a context is almost entirely unconscious. Accordingly, the purpose of rightness is to show to what extent the conscious and non-conscious cognitive domains are invariably integrated. Setting habit aside, a change in the feeling of rightness indicates the reciprocal adjustment of the contents flowing in our consciousness. The best example is provided by the discovery of a new solution in which, functionally speaking, an answer adapts to a previously created context in order to denote what would constitute a solution[5].
So, what underpins this functional mechanism we are also able to intuit phenomenologically? Mangan believes that consciousness must come to terms with a kind of conservation principle on account of a physical limitation with regards to processing information (using an analogy based on computers, one might say that the working memory has been reduced). Also on account of the aforementioned attributes of thought, this means that when some aspects of experience become more detailed, others will become less so; or that focus will shift from one figure to the next, relegating the previous to the background[6]. Non-sensory experience has little "impact" on our consciousness; peripheral sensory experiences weigh slightly more, while nucleus experiences are the most relevant. The resulting balance we come into contact with is the result of a lengthy cognitive-biological evolution. As the ability to switch between multiple tasks is central to flexible behaviour and is readily accomplished, a well-established consequence of task switching is behavioural slowing (Badre and Wagner 2006).
The fringe is the equivalent of condensed information, i.e. not fully conscious sensorial

4 The concept of familiarity also emerges in James: this seems to indicate that his idea of fringe includes the two meanings identified by Mangan, albeit superimposed and indistinct.
5 The definition evidently runs the risk of being circular. One should say that nothing is really "new" if not as a recombination of known elements; also note the assonance with James' "fitting the mould" in the tip-of-the-tongue, case, i.e. the mere recovery of a thought or a memory. A more detailed discussion follows.
6 The relatively reduced dimensions of conscious space, with the ensuing "shifting" of attention, are highlighted by other cognitive psychologists, such as and Baars (1988). "Without our perceptual constraints (to use a few examples that come to mind), movies would look like a series of still photographs, television screens and computer monitors would exhibit scannings and refreshings, not moving pictures, and the music on compact disks would suffer 44,000 audible interruptions per second between the digital samplings. Or as Alexander Pope put it, we'd die of a rose in aromatic pain" (Fromm 2003, p. 92).

and conceptual contents: it implies (by way of "imminence" phenomenology or potential access) the presence of a large quantity of information that does not encumber the focal working space. Its intrinsic "fleetingness" is explained by the role it plays: when recalled, the information goes to the nucleus and is altered, becoming clear-cut and distinct. Accordingly, phenomenology follows the function (in adaptive terms, i.e. what we feel is an effect of our basic mind/brain activity) and the contents of consciousness are much more far-reaching than what lies in the focus of attention.
Mangan argues that the non-sensory fringe is transparent (sensations are allowed through without leaving any trace), has low resolution (compared to the fine grain of the nucleus, its consistency is that of a cloud), is elusive (it escapes direct introspection but can be grasped indirectly), is more evident in the periphery of consciousness and varies in intensity. Above all, it is fully conscious in so far as it is an experience representing the currently non-conscious states of consciousness. If the resolution (like the pixels in an image) of the conscious field is both given and limited, a sensory experience – albeit vague and indistinct – can be extremely intense: the very case of art.
Rightness (or its exact opposite – wrongness) is the most important non-sensory experience, constantly monitoring every cognitive domain. Rightness

> works as a feedback device, guiding the local and specific activity of focal attention towards increasing conformity with antecedent and unconsciously encoded contextual demands. This process leads to a reciprocal interaction between conscious and unconscious processing: the process of detailed conscious analysis will usually change the context, and this, in turn, will change the evaluative signal that rightness manifests, and so on (Mangan 2001, p. 26).

Rightness (or meaningfulness)/wrongness signals penetrate the emotive aspects of experience and their distortion might cause losses or disorders. Generally speaking, emotions occur in an evaluative context so that the emotional tone of the fringe is phenomenologically blended with the feeling of rightness or wrongness. For instance, hate may be accompanied by an unpleasant feeling of wrongness, so we perceive it as an intrusion into our consciousness linked to guilt and shame, or by a feeling of rightness which sustains and fuels it.

4. The Qualia of Meaning

The distinction between nucleus and fringe and the following partition between sensory and non-sensory fringe paves the way to identifying a specific kind of qualia: the qualia of meaning. As I have already mentioned, they are sensations related to the holistic understanding of a certain set of elements of knowledge available to an individual that, as such, can accompany and also guide her thought processes and (consequently) her behaviour. Holistic understanding must be provisionally taken as the ability to master a series of elements of knowledge in a unitary way with respect to a specific goal, without yet having a precise analysis of each of them or of their role in the line of reasoning they belong to. In fact, as we shall see, part of those elements of knowledge might not yet have come to consciousness (or to the global workspace, to put it with Baars 1988; 1997). In more strictly phenomenological terms, "holistic" refers to "world": that is, the fact that a meaning can phenomenize itself (mean something) only within a chain of references that, for Husserl, are associations. As Husserl asserts:

> For consciousness the individual thing is not alone; the perception of a thing is perception of it within a *perceptual field*. And just as the individual thing in perception has meaning only through an open horizon of "possible perceptions," insofar as what

> is actually perceived "points" to a systematic multiplicity of all possible perceptual exhibitings belonging to it harmoniously, so the thing has yet another horizon: besides this "internal horizon" it has a "external horizon" precisely a thing within a *field of things*; and this points finally to the whole "world as perceptual world" (Husserl 1970, p. 162).

Qualia of meaning have an intentional cognitive aspect that starts from the phenomenal aspect and, as we will see, they allow explaining part of our mental phenomenology and the related behaviours.
A first objection that could be made against this is that some mental states do not have a special phenomenal character:

> A itch feels different from ache. A stabbing pain feels different from a burning one. But the belief that two is the smallest prime does not feel different from the belief that the Earth is oblate. Beliefs don't have 'feels'(...)we distinguish those psychological states for which there is something it is like to be in them from those for which the notion seems to make no sense (Braddon-Mitchell and Jackson 2007, p. 129).

However, in my proposal, qualia of meaning are indeed the feelings that sometimes go together with beliefs, when the latter are related in new or significant ways for us. The point is that the importance of feeling is related to the subjective degree of novelty or relevance to the subject. It is therefore not possible to establish a preventive criterion that can predict the onset of qualia of meaning. Therefore, qualia of meaning are connected – unavoidably, being qualia – to an existential sense, to something that is relevant to us, here and now. So it is true that "the belief that two is the smallest prime does not feel different from the belief that the Earth is oblate". However, Copernicus might have experienced a decisive quale of meaning when he first conceived the idea that the Ptolemaic system was wrong and he could propose a new view of astronomy.
Qualia of meaning are not necessarily the same as Archimedes' legendary "eureka", but they are certainly similar in many ways. However, the point is not just the relevance of the object of holistic understanding in an intersubjective way. In fact, the subjective relevance of the understanding, manifested in the strong subjective feeling, is fundamental. In other words, it does not take a great scientific discovery to experience qualia of meaning: a little advancement in knowledge is enough (think of a student who finally learns calculus). In other words, the relevance of the object can be very significant for most people but not for a specific individual, while the subjective relevance of a given understanding can have high significance for that individual in the light of her personal history and her world horizon, to use Husserlian terms. What makes the relevance of the understanding wholly peculiar is the existential situation in which the "discovery" is valuable. Everyone has a different life and is immersed in a different situation, so every single holistic understanding will be different, even if it seems that we are unable to discriminate subjectively all the nuances of qualia of meaning or to judge to what extent qualia of meaning of other individuals are motivationally relevant.
Another key element of qualia of meaning as I am conceiving of them here is the abovementioned element of "unification" of mental contents, which seems too often have an evident phenomenal correlate. And, in this sense, an important role is surely played by the part/whole relations. Part/whole relations are not ordinary, objective features of things, but they are made relevant in the subject/object relation. Although it is not possible to rule out that neuroscience may address the problem in terms of brain functions, part/whole relations rely essentially on phenomenological analysis. Following Husserl, it can be said that "all real

unities are 'unities of sense'. Unities of sense presuppose (...) a sense-bestowing consciousness which, for its part, exists absolutely and not by virtue of another sense-bestowal" and "that interpretation stems from a philosophical absolutizing of the world completely alien to the natural way of considering the world" (Husserl 1913/1983, pp. 128-129).

In the recent philosophical landscape, something similar has been proposed by Galen Strawson with his idea of non-sensory or cognitive experiential qualitative (EQ) character: "It is the meaning of the sentences (...) that is playing the dominant part in determining the overall EQ character of this particular stretch of the course of your experience" (2005, p. 262). It is an understanding-experience, a cognitive-experience, entirely independent from its causes. It is involved in the mere comprehending of words – read, thought, or heard right now – where the comprehending is considered quite independently of any imaginistic or emotional accompaniments. "Cognitive experience, we may say, is a matter of whatever EQ content is involved in such episodes after one has subtracted any non-cognitive EQ content trappings or accompaniments that such episodes may have" (Strawson 2005, p. 264).

Qualia of meaning, though, are not generically associated to any experience of comprehending, but rather to special occurrences of experience that are *relevant* to the subject given her condition in a specific moment. This does not mean that qualia of meaning are posited *ad hoc*, as we shall see later. Rather, they are a component of the subject's mental states that may be important in brief particular periods of time. In such moments, the qualia of meaning have a relevant role related to their cognitive-phenomenic character which can connect – perhaps also causally – to intentional mental states oriented to action.

As Strawson (2008) underlines in a similar context, the difference between qualia of meaning and cognitive content lies in the fact that the latter is a thought-episode (since it is included in a mental state) that can be evaluated semantically, judged as true or false, accurate or inaccurate. But the experiential qualitative experience is still fully part of the mental episode/state. According to Strawson, in fact, "there are no truly mentally contentful phenomena to be found when there is no experience. Nor, therefore, are there any truly intentional phenomena" (2005, p. 274). Ultimately, for Strawson, it is the conceptual content of the sentence that plays the main role in determining the overall character of the qualitative part of our experience. And the experiential qualitative character is always present – claims Strawson – since the qualitative part is always present. It is a cognitive phenomenology: understanding-experience, or meaning-experience (Strawson 1994, pp. 5-13).

If Strawson's position, albeit with the notable differences I have underlined, is the closest philosophical view to the idea of qualia of meaning, there is a strand of psychological and phenomenological investigation related to the hypothesized cognitive-qualitative experience oriented towards a holistic understanding. Before looking at it, though, I wish to restate what the idea of holistic comprehending entails for qualia of meaning. As mentioned, it is something similar to what we may call intuition of a complex description or explanation, without grasping the single elements that make it up.

What gives rise to qualia of meaning is the unity of the content, with respect to which there may be a concomitant feeling of "rightness", of "right direction". Such a feeling is linked to the cognitive element and pertains to one's existential condition and the related choices. "Rightness" and "the right direction", as is clear, can have no objective value, both because qualia of meaning are by definition subjective feelings, experienced in a privileged way by the individual, and because they refer to the overall mental condition of the bearer of those states. "Rightness" can therefore even be a misleading element that makes the subject objectively mistaken and leads them in the wrong direction. At the anecdotal level, however, "positive" outcomes are the best known: that is, those where qualia of meaning have actually gone along with an intellectual achievement.

An example may help here: think of a scientist who has long faced two complex experimental protocols to deal with a difficult problem and already has some evidence in favor of both. One day he reads some new papers and gathers further evidence; at that point, not so much for the new content, but for the whole of the cognitive data now present in his mind, he experiences a stronger, persistent feeling that is different from the past. He has the feeling that protocol B is more promising than A – that B is the right direction to follow. Protocol B is not necessarily the best, and the scientist might turn out to be wrong. But this will not happen because of his feeling, but because he did not have all the evidence necessary to choose well, or because he has not fully evaluated it. If the scientist chooses B and is successful, he will be more likely to attribute his success to his "sixth sense" and therefore he will have a more vivid memory of it compared to that of his failures.

In this sense, the qualia of meaning are the qualitative, experiential component of the content processing at the edge of consciousness that occurs in James' fringe. Intellectual intuitions that suddenly emerge to full consciousness are accompanied by a specific phenomenology, but may also be partly guided by it. In fact, qualia of meaning are precisely defined as feelings related to a holistic apprehension that is neither unconscious nor clear and distinct. As said, the qualitative experience that accompanies cognition can very well be misleading, but there can also be a feeling of "going in the wrong direction" that helps one change one's choices. This feeling is characterized as positive because it allows one to correct one's mistakes; however, as with the feeling of being on the right track, there is no guarantee of it being an objectively correct feeling. This consideration is totally speculative, but one could argue that single individuals can refine their sensitivity to feelings of this kind both by improving their cognitive style and by increasing their cognitive contents with regard to the topic considered. In this way, the processing at the edge of consciousness would be more precise and rich, and the feeling of being on the right track would be stronger.

5. Qualia of meaning and non-sensory fringe

As one can see, the non-sensory fringe cannot be properly assimilated to qualia of meaning, but it may be a converging description of a phenomenological space that encompasses important cognitive aspects. The features that Mangan associates with the non-sensory fringe are: transparency, low resolution, elusiveness, variation in intensity and the fact that it is more evident in the periphery of consciousness. Thus it is possible to compare the phenomenal features of the non-sensory fringe and those of qualia of meaning.

First of all, transparency. As to the non-sensory fringe, sensations are allowed through without leaving any trace. Qualia of meaning are properly the feeling of having some holistic comprehending and, given that they associate the phenomenal character to a mental content and can help guide the approval of a mental content in the form of a judgment, or the transition from one mental content to another, one cannot say that they do not leave traces. Indeed, they are feelings of particular importance for the subject, as I have tried to explain earlier.

The low resolution of the non-sensory fringe emerges compared to the fine grain of the nucleus of consciousness. In general, qualia are characterized by having blurred edges and by being hard to classify, but they may be of extreme power and significance for the person who experiences them; in particular, qualia of meaning are here assumed to be a class of qualia of significant existential relevance. Regarding their elusiveness, this is the biggest difference between non-sensory fringe and qualia of meaning. While non-sensory fringe "escapes direct introspection but can be grasped indirectly", qualia of meaning are the core of direct introspection – what the subject has privileged access to.

The variation in intensity seems a common feature of both non-sensory fringe and qualia of meaning, since they can show different degrees of subjective power and relevance. Finally, the fact of being more evident in the periphery of consciousness is partially also shared by

qualia of meaning, if one clarifies what is meant by periphery of consciousness. On the one hand, as many philosophers (but not all of them) maintain qualia *are*, constitute, phenomenal consciousness or, at least, so one can state by stipulation. And so they are also a central part of a broader conception of consciousness that includes the cognitive aspects. On the other hand, however, qualia of meaning, as I have proposed to conceptualize them, are connected to a holistic understanding which refers to the idea of fringe: the cognitive aspects that the holistic understanding accompanies are indeed placed at the periphery of consciousness, that is, they are not yet fully embedded in conscious thought processes. This last feature thus constitutes an important, even functional, connection between James' fringe and its contemporary developments and the idea proposed here of qualia of meaning.

In conclusion, an interpretation of qualia of meaning more in line with the phenomenological tradition implies a non-sensist and non-introspective conception of them. As has often been done, it can be said that James adopted a sensist conception of consciousness in which there is a risk of confusing the feeling subject (the sentient being) with what is felt (what consciousness is directed to and which is found in the world "outside" consciousness, where "world" can be the cultural, mathematical, logical world etc.).

In this sense, qualia of meaning can be a hub on which to work to integrate the cognitive aspect that accompanies the phenomenal datum, in a perspective that re-actualizes the intentional distinction between understanding and the understood content, as this gives rise to different laws of unification: on the one hand, immanent laws to mental acts, on the other, laws of unification relating to the content manifested in mental acts. The problem of intentionality for phenomenology consists precisely in how the objective and structural laws of the content determine the laws of unification of the acts of consciousness, so that the laws of the mental change according to the type of world that a person comes to live in.

In fact, one could argue that for Husserl the adaptation relationship is not (as will be for Searle, for example) between mind and world, but between references in the world: the fact that with an 18 key one cannot tighten a 35 bolt is an inherent structure of the contents that appear, of the intentioned datum, and it is in this sense that one must understand the horizon structure and the holism I have referred to. These are qualia, but with a structure that does not depend on the subject who is targeting them. It would therefore be the mind that is structured by adapting to these phenomenal references (qualia).

Regarding non-sensory fringe and qualia of meaning, this is a reflection that certainly needs further study, but it seems to fruitfully intercept a long tradition as well as recent insights, for a better and more detailed understanding of mental phenomena understood in their broadest articulation[7].

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THE DYNAMIC PHENOMENOLOGY OF OCCURRENT THINKING

abstract

In this paper I argue that there is something missing from the account of occurrent thinking as typically presented in the cognitive phenomenology debate. The missing element is what I call the "dynamic" phenomenology of thought. Cognitive states are not just static states, they are also dynamic states that unfold in time. My main thesis is that this is an important aspect of the phenomenology of thought that has a significant bearing on the question of what it is like to think. The evidence I offer in support of this claim is drawn from descriptions of two instances of occurrent thinking. Using the descriptions as a reference point, I propose that thinking experiences possess a three stage dynamic structure that begins with a "productive" stage, progresses to a "receptive" stage and ends in a "reflective" stage. I offer a tentative analysis of this structure and I briefly consider some of the implications and objections.

keywords

cognitive phenomenology, phenomenology, mental agency, introspection

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1. Introduction

This paper is prompted by the observation that there is something missing from the experience of occurrent thinking as this is typically presented in the cognitive phenomenology debate. The missing element I am referring to has to do with the way that thinking experiences *occur*. While thinking experiences can be analysed and understood in terms of what they consist of[1], they can also be analysed in terms of how they unfold dynamically in time. I will call this the "dynamic" phenomenology of thought, and my aim in this paper is to consider thinking from this perspective.

My approach is as follows: I start with a consideration of what cognitive phenomenology in its "inclusivist" form means in terms of actual experience, and I propose an answer to this. I then describe two cases of conscious occurrent thought from the "dynamic" perspective. My aim in describing these cases is that readers will be able to understand in concrete terms what I mean by the dynamic phenomenology of thought, and will also be able to evaluate the observations I make with reference to their own experience. Having presented the two cases and my thesis, I then consider in a provisional way some of the implications within the context of the cognitive phenomenology debate, and I also briefly consider some objections.

1.1. Cognitive phenomenology and the experience of occurrent conscious thought

Cognitive phenomenology can be understood as the claim that there is something it is like to think just as there is something it is like to see, hear or touch. In its more "liberal", "strong" or "inclusivist" forms, it can also be understood as the claim that what it is like to think is a constitutive element of what thought essentially is[2]. But what does the cognitive phenomenology thesis mean in terms of actual concrete experience? This might seem like an odd question but the answer is not necessarily obvious. Might it mean, for example, that there is some kind of additional cognitive phenomenal "something" going on when we think? Something that might perhaps normally escape our attention but that we can become conscious of if we attend in the right way?

When one considers the cognitive phenomenology thesis then it is clear that this is generally not what is meant. Cognitive phenomenology is not something that one needs to notice *in addition* to what one already notices about thought. Rather, it is a kind of re-interpretation of

1 This might be, for example, an analysis in terms of intentional content and intentional attitude.

2 For overviews of the cognitive phenomenology debate see Bayne & Montague (2011b); Smithies (2013). Recent collections of papers include Bayne & Montague (2011a) and Breyer & Gutland (2016).

something that is already fully noticed and taken into account. When I think, I am occurrently aware of the meaning of the thought, which means that I am aware of the thought's content (i.e., I am aware of what the thought is *about*). This capacity to be aware of thought content is uncontroversial, but it would traditionally be accounted for in non-phenomenal terms. What the cognitive phenomenology thesis proposes is that this awareness of thought content is *itself* phenomenal. In other words, to the extent that one is occurrently aware of the meaning of a thought, one is also consciously experiencing cognitive phenomenology.

Pitt appears to be making this point when he says that by "immediate" and non-inferential conscious introspection "one is able to identify each of one's occurrent conscious thoughts as the thought it is (i.e., as having the content it does)" (Pitt 2004, p. 7). I also take him to be articulating the same point when he says "the cognitive phenomenal character of an occurrent conscious thought *is* its intentional content" (Pitt 2011, p. 141, original emphasis). Charles Siewert also seems to be saying something similar when he says:

> [...] the inclusivist does *not* require that, *in addition* to the on-going differences in ways of thinking and understanding that you already discriminate in first-person reflection, there is phenomenally *something more* we should look for. Rather what we are asked to consider is that some such reflectively recognised variations in one's manner of thought and understanding *are themselves phenomenal differences,* whether or not you think of them *as such* (Siewert 2011, p. 249, original emphasis).

To summarise, we could say that occurrent awareness of thought content is *itself* the cognitive phenomenal character of thought, and cognitive phenomenology *is* that, it is not something in addition to that. There are clearly other ways that cognitive phenomenology could be interpreted, but this is how I will understand it for the purposes of this paper. It is a kind of "immediate" experience where phenomenal character and intentional content are one and the same. Note that this is different to sensory phenomenal experience, in that with sensory experience, phenomenal character and intentional content are clearly distinct (e.g., the phenomenal character of redness is not the same as the red tomato). Chudnoff refers to the kind of awareness where phenomenal character and intentional content are combined as *self-presentational* (Chudnoff 2015, p. 40), and I will adopt the same term here. Self-presentational awareness, then, is what characterises the experience of occurrent conscious thought[3].

With this brief preamble in place, I am now ready to turn to the main topic of this paper, which, as already stated, is the dynamic phenomenology of thought. I have said what I take cognitive phenomenology to mean in terms of actual experience, however, this still says nothing about how cognitive phenomenal experiences occur. It is interesting that although cognitive phenomenology is exclusively a thesis about *occurrent* thought, there is almost nothing said in the literature about how it occurs. In the next section I will address this aspect of cognitive phenomenology by considering two cases of occurrent thinking. My aim is to describe the cases as accurately as possible as I experience them, and then to use this to throw light on the question of how cognitive phenomenology occurs.

3 Please note that by "self-presentational" I do not necessarily mean "self-representational" (e.g., Kriegel & Williford, 2006). Self-representational means that a state represents itself in some way, but with self-presentational I mean that a state is fully and immediately presented as what it is.

2. Two cases of conscious occurrent thinking

The first case I will consider is that of thinking the meaning of a single abstract word, and the second case is that of relating two abstract concepts[4]. The aim in both cases is not a description of what the word or concepts mean, but a description of how conscious awareness of meaning occurs or arises. As I have said, readers are invited to carry out these exercises and compare their own experience against my descriptions. Readers can also experiment with other exercises of their own that perhaps achieve the same result more effectively. The aim is to find simple thought tasks that begin with an experience of not understanding and then lead to an experience of understanding. It is particularly this transition that I am interested in.

2.1. Case 1. Understanding the meaning of a single abstract word

In this exercise the task is to think the meaning of single abstract word. The word is "although".

1. I begin by bringing thinking to a stop for a few moments. I then say the word "although" to myself silently, while maintaining a state of not thinking. As I hear (or feel?) the word being spoken, I do not know what it means. I say it to myself a few times but all I am aware of is the more or less meaningless saying of the word.
2. I also have a sense that if I am to understand the word, then I have to become active, i.e., I have to activate myself in a way that is over and above the mere saying. I do not know what it is I have to do in order to do this, but it seems to involve bringing "myself" into movement at some level.
3. When I try to carry out this movement, it is initially experienced as a kind of resistance. It is as if I have to push through to an experience of the meaning, i.e., as if there is a kind of barrier or veil between myself and the meaning. To overcome this resistance I feel as if have to move or refocus myself, perhaps as if I am moving or refocusing my attention.
4. As I do this, I discover that the movement is experienced as a kind of "imagining" of what the word means, i.e., it is a kind of "inventing" or "making-up" activity. This is also experienced as momentarily immersive, as if I have to let go of what I am trying to do in order to do it. For a moment it is as if I disappear into the doing of it.
5. Within (and perhaps as a result of) this "imagining" activity, I am for a moment directly aware of some aspect of the meaning of the word. It is as if something that was obscuring my view is momentarily lifted and I now directly "see" or "behold" something of what the word means. However, it is just a fleeting glimpse. There is also no image or picture associated with this. I.e., there is nothing in addition to what I behold other than the meaning I momentarily behold.
6. This moment of "beholding" is qualitatively different to the "imaginative" activity that preceded it, in that it is experienced as a kind of "receptivity" or "receiving" whereas the previous experience was one of active "producing" or "doing".
7. This moment of direct awareness of meaning shifts quickly into a kind of reflective judgement that forms almost simultaneously into words. I say to myself: "*although prepares the way for an approaching statement by acknowledging the existence of a previous statement that is in some sense contradictory*". On reflection I find this formulation in some way lacking, and I try again to access a direct experience of what the word means so that I can adjust my formulation.

4 The reason for choosing relatively abstract thinking is that in my view it better exposes the particular phenomenology I am interested in. However, the same phenomenology is observable in a much wider range of thinking experiences.

2.2. Case 2. Relating two abstract concepts

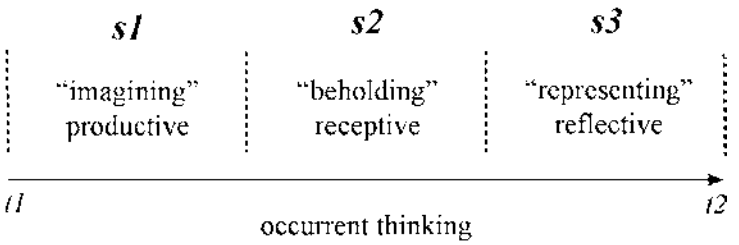
In this exercise the task is to think the relation between two abstract concepts. The two concepts are "continuity" and "permanence".

1. I begin by bringing thinking to a standstill for a few moments. I then say both words silently to myself while maintaining a state of relative inner stillness (i.e., I try not to "think"). As I say the words to myself, I am not aware of what the concepts mean or how they are related.
2. I then begin to try to think the meaning of one of the concepts. I say "continuity" and try to think what this means. This is first experienced as a kind of resistance or barrier, but as I begin to think, I carry out what I can best describe as a kind of creative activity. I.e., It is as if I am "inventing" or "making up" what the word means. This is also experienced as becoming inwardly active or mobile at some level.
3. Out of this I experience moments of direct awareness of the meaning of "continuity", or some aspect of it. What I experience when I experience these moments is a direct and immediate "knowing", but there is no image or picture associated with this. The meaning I momentarily behold is fully presented as what it is in the moment of beholding it. This experience also has a certain "receptive" or "sensitive" quality in contrast to the "productive" activity that preceded it.
4. With this awareness of meaning still present, I think the second concept in the same way as the first, and try to relate the two. In doing this I realise that thinking the relation between the concepts is quite different from thinking the individual concepts. For when thinking the individual concepts, I start from the saying of the word ("continuity", "permanence") but in thinking the relation between them there is no word from which to start. The task is therefore perhaps harder.
5. In "imagining" the connection between the two concepts, it is as if I am already in some sense guided by the relation that I am not yet aware of. In other words, in my activity of "imagining" I am already sensitive or receptive to the meaning that will come, and it is this that in some sense already guides my "imagining".
6. Out of this creative activity emerge moments of directly or immediately experiencing some aspect of the relation between the two concepts. This is experienced as if a barrier or veil is momentarily lifted, revealing a "scene". But there is no image-like content connected with this, i.e., nothing that I "see", only an immediate awareness of meaning that quickly disappears again.
7. Each moment of awareness of meaning forms almost immediately and more or less spontaneously into a verbal formulation. I experience this also as a loss of the immediate "beholding" of meaning. I now have a specific and defined verbal content that more or less represents the meaning.
8. There is also a kind of residue of the direct awareness of meaning that seems to remain for a short while (perhaps one or two seconds) after the direct awareness itself has ended. This residual awareness helps in arriving at an accurate verbal formulation in that I can check my formulation against it, at least for as long as it lasts.
9. The following formulations arise in this way. Each one is formulated out of a different moment of "beholding" and the sequence is given in the same order in which it arose. (Note to reader: As you read these formulations, try to observe what you inwardly do in order to grasp and understand them. The point is not whether or not the formulations are right, the point is what you do in order to "think" them.)
    a. Whereas permanence emphasises the unchanging, continuity emphasises something maintained and carried over within a context of change.
    b. Permanence does not necessarily have continuity because continuity implies change, and permanence has little (or no?) room for change.

c. Permanence can be an aspect of continuity, though it does not have to be. Something could still have continuity with nothing in it being permanent.
d. If something had the attribute of permanence, this attribute would not be that which gives it continuity.
e. Continuity is not given by the presence of an element within it that remains unchanging. Rather, continuity is given by the presence of a particular kind of change.

3. Discussion

The two thinking experiences described above show a similar structure. The descriptions begin with the saying of a word but the saying itself is not enough to "understand" what the word means. The additional something that is required is a kind of productive or imaginative activity, out of which arise moments where some aspect of what the word means is immediately and momentarily "beheld". This is a receptive kind of experience in that it is as if something is "sensed" or "felt". This turns almost immediately into a kind of evaluating or judging of what is beheld. There is now a new content of some sort that can be doubted, believed, etc. The shift from a direct "beholding" experience to a more reflective "evaluating" experience can be characterised by saying that in the first instance there is an immediate experience of something actually being a certain way, whereas in the second instance something is represented as being (or understood to be) a certain way.
Summarising this, the three stages (abbreviated to *s1*, *s2*, *s3*) can be schematically represented as follows:



Note that the three stages extend in the temporal sense (*t1* to *t2*)[5], but the duration is typically very brief (perhaps a couple of seconds in total from *t1* to *t2*)[6]. Also, the three stages do not necessarily have to occur in just this order. For example, it seems possible for *s1* and *s2* to alternate rapidly before leading to *s3*. (e.g.: *s1* | *s2* | *s1* | *s2* | *s3*). It also seems possible that *s1* can occur without leading to *s2* or *s3* at all[7]. However, according to my experience, *s2* can only occur if it is preceded by *s1,* and *s3* can only occur if it is preceded by *s2,* though in the latter case there is an important qualification that I will return to below.
Let us assume for the moment that there is such a dynamic phenomenology of occurrent thought, and that it is broadly along the lines I have articulated. I will call this the dynamic phenomenology of thought thesis, or DPT. Put simply, DPT is the claim that instances of occurrent thinking have a certain dynamic structure in time. Thought begins with a *productive*

5 I do not necessarily mean by this that each stage has temporal extension. One or other of the stages may not have temporal extension and have more the character of an instantaneous event. However, the whole sequence taken together (t1 to t2) clearly seems to have temporal extension.
6 Some occurrent thinking experiences can also be much longer and some perhaps also much shorter.
7 An example of this might be trying to think the meaning of a word in an unfamiliar language. The activity of "imagining" can still be carried out but it does not progress to an actual awareness of meaning, i.e., it does not progress to *s2*.

activity, shifts to a moment of *receptivity* and ends with a state of *reflective representation*. In what follows I will try to explore this thesis in a very provisional way with reference to some familiar theory. My aim is not to try to prove DPT, but simply to open up some of the possible lines of inquiry that follow from it, particularly in relation to the cognitive phenomenology debate.

In section 1.1., I made the claim that cognitive phenomenology can be understood as a kind of "self-presentational" experience in which phenomenal character and intentional content are one and the same. However, from the above description, this only characterises one aspect of occurrent thought, namely, the second stage (*s2*). The second stage is described as a moment of immediate awareness or "beholding", and this fits well with the idea of self-presentational awareness. However, *s2* arises out of *s1,* which is quite different. Here there is an immersive "imagining" or "creative" activity that is not necessarily self-presentational, seeing as an awareness of the content of thought has not yet arisen. This suggests that *s1* may not involve cognitive phenomenology at all, but may involve some other kind of phenomenology, such as agentive phenomenology[8].

S3 is a different state again, and perhaps best understood as a propositional state analysable in content/attitude terms. Here the meaning of what has been grasped is accessible but is not directly and immediately experienced. So perhaps *s3* is best understood as a kind of access conscious state (Block 1997) or perhaps as a kind of higher-order state (Rosenthal 1986) rather than a kind of cognitive phenomenal state. I will not try to decide these details here. The general point I would like to make is that occurrent thinking is not just one kind of state with one kind of phenomenology, rather, it is a dynamic movement that involves internal shifts and transitions of a structured kind[9].

One obvious objection to the DPT thesis is that if there really is a dynamic phenomenology of thought as described then why is it not more commonly recognised? One response to this is that not all cognitive states are dynamic states in the DPT sense. For example, it seems quite possible to enter into an *s3* type state but where the corresponding *s1* and *s2* stages have occurred at some time in the past. Or, put another way: it is possible to recall the result (i.e., *s3*) of a past thinking experience that originally included *s1*, *s2* and *s3*, but without actually again re-experiencing *s1* and *s2* in the occurrent sense. I suggested earlier that the *s2* stage of "beholding" can only occur if preceded by *s1*, and also that the *s3* stage can only occur if preceded by *s2*. The qualification I mentioned is that once an *s3* stage has arisen (as a result of *s1* and *s2*), it can be recalled without a new occurrent instance of *s1* and *s2*. The upshot of this is that many broadly "cognitive" states that arise in day-to-day experience do not involve *s1* and *s2* in the occurrent sense. This makes the possibility of overlooking the role of *s1* and *s2* that much easier. What is needed, I would suggest, is that occurrent intentional states of the *s3* kind need to be clearly distinguished from thinking experiences of the full "dynamic" kind (i.e., involving *s1*, *s2* and *s3*). If this distinction is not made, then it is much easier to take the end result of an occurrent thinking experience (i.e. *s3*) as the complete experience. It is also much easier to overlook the existence of *s1* and *s2* by attending to *s3* type states that genuinely lack *s1* and *s2* in the occurrent sense.

However, this still does not explain why occurrent instances of thinking where all three stages are involved (*s1, s2 ,s3*) are not commonly recognised as such. Here I would point to the fact that *s1* and *s2* are *active* in a way that *s3* is not. Because *s1* involves an "imaginative" and

8 The notion of agentive phenomenology is controversial, and I won't go into a discussion of it here. For overviews see Bayne (2008) and Soteriou (2009a). For a discussion specifically in the context of mental agency see Soteriou (2009b).

9 It is possible that by differentiating the dynamic structure of thought some of the competing theories about the nature of occurrent thought could be found to be complementary parts of the same dynamic picture.

"creative" activity of the subject, and because *s2* is closely connected to this, it means that both stages are experienced in a much more pre-reflective way than *s3*. In other words, *s1* and *s2* are conscious states but not *reflectively* conscious states[10], and therefore they are overlooked. Only with *s3* does a fully reflective awareness of content emerge and therefore this state is what is primarily noticed. One could therefore say that much of what is commonly taken to be occurrent thought in the literature (for example propositional attitudes involving that-clauses) is actually only one aspect of occurrent thought, namely, the final "representational" stage *s3*.

There is a further factor connected with this. One of the reasons why sensory states and cognitive states have traditionally been seen as radically separate[11] is that there is an obvious qualitative difference between them. Whereas sensory states clearly have phenomenal character, cognitive states do not, or at least not in the same obvious way. The question that this raises for the cognitive phenomenology thesis is why there is such a qualitative difference, given that both kinds of states are phenomenal[12]? The DPT thesis can answer this as follows: Cognitive phenomenology has the phenomenal character it does (i.e., of seeming to entirely lack phenomenal character) because the subject is intimately involved in *producing* the content of the state. In other words, what is "created" in *s1* is intimately linked to what is "beheld" in *s2*. One might say that thinking must first create something in order for a cognitive state to arise at all. The reason why sensory phenomenology is so concretely present and substantial for our awareness is that we play a less intimate role in bringing about our awareness of it. For this reason also, thought is almost entirely insubstantial and as having almost no phenomenal character at all, while at the same time being intimately and immediately meaningful. This qualitative difference between cognitive phenomenology and sensory phenomenology perhaps becomes more understandable when the dynamic stages of thought (*s1, s2, s3*) are taken into account.

Another objection that could be brought against DPT is that it mistakenly takes thought to involve a creative act. For example, Galen Strawson (2003) claims that:

> No actual natural thinking of a thought, no actual having of a particular thought-content, is ever itself an action. Mental action in thinking is restricted to the fostering of conditions hospitable to contents' coming to mind. The coming to mind itself – the actual occurrence of thoughts, conscious or non-conscious – is not a matter of action (Strawson 2003, p. 234).

I will not go into the details of Strawson's argument here, or some of the counter arguments[13]. I will only briefly make the point that Strawson's position is not necessarily at odds with the one I have presented. Strawson argues that thoughts "just happen", i.e., there is no agency involved in the conscious occurring of thought content. However, he acknowledges that there may well be agency involved in the "prefatory" or "catalytic" actions that foster this occurring (Strawson 2003, p. 231). But why should these "prefatory" or "catalytic" actions be considered

10 See Gallagher & Zahavi for a discussion of pre-reflectivity.

11 See Horgan & Tiensen (2002) for an overview of the traditional tendency to "separatism" in philosophy of mind.

12 The answer that is often given to this is that cognitive phenomenal states are as different to sensory phenomenal states as the different sensory modalities are different to each other. In other words, there's nothing special about cognitive phenomenology in this regard. However, this still does not explain why cognitive phenomenology has the unique characteristic of appearing to lack phenomenal character. In this it is different to all kinds of sensory phenomenology.

13 For example: Peakocke (2007); Proust (2001).

as not also integral to thought? It seems strange that there are actions that are necessary in order for thoughts to occur, but that these actions have absolutely nothing to do with thought itself. Put in terms of the DPT thesis, *s1* can be considered as just such a prefatory or catalytic agentive aspect of thought, whereas *s2* can be seen as a non-agentive or "receptive" aspect. There is therefore not necessarily a contradiction with Strawon's argument on this point, as long as one extends the notion of what can properly belong to thought.
A further objection to the DPT thesis might be the following: *S1* has been described as a creative act that produces something that is then immediately "beheld" in *s2*. This raises the problem of how thought can be about something beyond itself. If thought "produces" what it "beholds", then it is entirely solipsistic, i.e., it never gets outside its own closed circle. However, to make this objection misinterprets the relationship between *s1* and *s2,* as I understand it. What is produced in *s1* through a creative act is not then what becomes the content of "beholding" in *s2*. Rather, what is produced in *s1* is what makes the beholding possible. To put this another way, one could say that what is produced in *s1* is comparable in its function to a sense organ. I.e., there is a productive or creative act that produces something to see *with*. Though here of course what is "beheld" is not some sensory phenomenal something but the content of the thought, and this "content" needs to be understood in the self-presentational sense. The point is that even though the "creative" act in *s1* does enable the beholding of *s2*, the relationship is not one where the former creates the content for the latter.

4. Conclusion

In this paper I have presented a tentative thesis regarding the dynamic phenomenology of occurrent thought, and I have done this primarily by using two examples of occurent thinking. I have also offered some provisional analysis of how the dynamic phenomenology of thought might be understood. Admittedly there is much that would need to be addressed in order to give the DPT thesis more substance, and what I have presented is only a very first step towards this. No doubt some will see my reliance on first-person "introspective" evidence as a serious weakness, and I have not tried to address these concerns. There are legitimate worries about the validity of introspection within the cognitive phenomenology debate[14], however, I think it also has its place, particularly when combined with other methods[15]. Obviously more than introspective observations would be needed in order to substantiate the DPT thesis, but this does not mean that introspective reports are not a valid starting point. I take what I have presented here as just such a starting point[16].

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14 See for example: Bayne & Spener (2010); Spener (2011); Chudnoff (2015).
15 Here I agree with Chudnoff (2015, p. 42).
16 I would like to thank Marcelo da Veiga, Charlotte von Bülow and the two anonymous reviewers for very helpful suggestions in the writing of this paper.

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