Chapter 2
An Epistemology for Phenomenology?

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2.1 Introduction

There is a tendency to assimilate so called "consciousness studies" to studies of the phenomenology of experience, and it seems to me that this is a shame. It is a shame, I think, because there is no such thing as a legitimate phenomenology of experience whereas there certainly is such a thing as consciousness. So long as people assimilate studies of consciousness to studies of phenomenal experience, they are side stepping the real issues – the ones for another lifetime.

What then are the problems I see with phenomenology? In outline, they are as follows.

First, if one holds a Sellarsian view of cognition, ideas are not given in perception. If you can describe or know in some way about your phenomenal experience, you must have ideas that apply to it, say, applicable empirical concepts. But on a Sellarsian view, the origins and certifications for such ideas are not Humean or Russellian. Concepts are not obtained merely by copying or by naming or abstracting from sensory data, by giving names to directly experienced properties. A theory of what concepts are – or, in classical idiom, preferred for reasons to be explained later, a theory about the nature and origin of ideas – is needed before one can begin to discuss phenomenology. Only with such a theory in hand can it be legitimate to ask how ideas pertaining to phenomenal experience might be obtained, and whether there is reason to think we have or could have any adequate ones.

Second, the theory of the nature and origin of ideas I would advocate implies that adequate empirically-based ideas can be developed and validated only through ongoing experience both over time and over a variety of perspectives. But the phenomena that phenomenology purports to investigate *cannot* be studied over time

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and over a variety of different perspectives. This makes phenomenology inherently wide open to the breeding and feeding of chimaeras.

Third, I think a coherent and empirically respectable theory can probably already be sketched to explain what really is going on when people *think* they are describing their phenomenal experience, a theory that explains away the chimaeras. I will describe such a candidate theory, and although I am not committed to arguing for any of its neurological details. If I should be right about empirical ideas more generally, then that some theory of this general kind is right about phenomenology becomes highly plausible.

The upshot of the whole would be, of course, that Dan Dennett is right – that the closest we can get to a legitimate phenomenology of experience is what he calls "heterophenomenology" (1991, 2003).

2.2 Introducing Unicepts

I'll start by jumping right in to explain the picture of empirically-based "ideas" that underlies my skepticism about phenomenology.[1]

Consider an extraordinary ability that you have, the ability to recognize, for example, your mother, or a sibling, your spouse, your best friend. You can do this by seeing that person across the room, 20 m up the street, perhaps at 1,000 m by his or her walk, certainly at 30 cm, from the front, from the back, from the left side or the right or most any other angle, half hidden behind another person or a chair or a table or a book, sitting, standing, lying down, yawning, stretching, running, eating, holding still or moving in any of various ways, in daylight, candlelight or moonlight, under a street lamp, through a fog, in a photograph, on TV, through binoculars, by hearing their voice from any of many distances or as it passes through a variety of media such as lightweight walls, under water, over the phone, over many kinds of masking sounds such as wind, or rain, or other people talking, and so forth.

Now generalize the ordinary notion of recognizing a person just a bit so that it encompasses your wider ability to keep track of when information is arriving at any of your various senses about this same person. You might recognize them, or signs of them that enabled you to gather information about them, by recognizing their signature or handwriting, their style of prose or humor or, perhaps, of musical interpretation or of some other activity, by the sound of the instrument they play coming from the next room or the hammering that accompanies their current home project, also by recognizing their name when someone talks about them or when it is written, by hand or in any of a 100 fonts, and so forth.[2] You could recognize that

[1]The next few paragraphs are adapted from "Accidents," *Proceedings of the American Philosophical Association* November 2012.

[2]In Millikan (2012a, b) I have argued that the sense of "information" involved these various cases is univocal.

the information arriving is about them through many hundreds of descriptions: the person who was or did this or that, about whom this or that is true. Or you might recognize whom the information is about using various kinds of inference, induction or abduction. If these latter ways of recognizing a person seem to you to divide off rather sharply from recognizing them "in the flesh," recall that recognizing a person by their looks or voice is also gathering in information about them *through signs*. The light that strikes your eyes, the vibrations that strike your ears, are merely signs of what you see or hear. It may also help to consider intermediate cases, such as seeing the mirror, hearing over the telephone, recognizing in a video or through a telescope.

You possess then a complex, extraordinarily versatile, skill – the ability to bring to one focus innumerable small bits of natural information arriving in the form of a hugely diverse set of proximal stimulations impinging on your various sensory surfaces, all of which happen to carry natural information about just one thing, the same person. This allows you to bring these scattered bits of information to bear one on another, via mediate inference and practical learning over time, and to use the results during later encounters when you again recognize this person or come across new information about them. And so, of course, with many of your other friends or with individual objects of your acquaintance. You are enabled to bring to a single focus information about the same thing that has been widely dispersed over time and space through diverse media and that has affected your senses in widely diverse ways.

Our remarkable abilities to reidentify – more generally, to "coidentify," since various methods of recognition may be employed simultaneously, supplementing and reinforcing one another – are not, of course, restricted to individual objects. We also have abilities to recognize various properties, say, shapes or colors or distances, under a wide variety of external conditions. Think of the variety of proximal visual stimulations – what actually hits the eye – to which a given shape may give rise when viewed from various angles, from different distances, under different lighting conditions, through various media such as mist or water, when colored different ways, when partially occluded. How shape constancy is achieved by the visual system, the capacity to recognize the same shape as the same under a wide range of proximal stimulation conditions, is a problem of enormous complexity on which psychologists of perception are still hard at work. And shape is coidentified by the haptic systems, feeling the shape of a small object your hand a variety of ways, with these fingers or those, when the object is turned this way or that way, perhaps by using two hands, by merely holding the object or by actively feeling or stroking it, by exploring with larger motions that involve your arms, body and perhaps legs, employing the touching surfaces of any of a wide variety of your body parts. This kind of perception of shape, which involves the coordination of information about the exact positions of one's body parts with information about what touches these parts, is of such a complex nature that, psychologists have hardly begun to study it. Similarly, the variety of ways which color constancy, texture constancy, size constancy, place constancy, distance constancy, sound constancy, phoneme constancy are achieved are enormously complicated matters. Recalling

again that even the most direct perception is perception through signs, we can include also information received about various properties through the use of all kinds of measuring instruments and scopes, and through the use of different kinds of inference. All of these are ways of bringing back to one focus the scattered bits and pieces of information about the properties of a thing that have been dispersed over space and time through diverse media, finally to impinge on our outer sensory organs.

I have recently coined the term "unicept" for the mental/neural vehicle that holds this information in focus, taken along with the repertoire of input methods that the person harboring the unicept knows to employ.[3] "Uni" is for one, of course, and "cept" is from Latin *capera*, to take or to hold. One's unicept for an object, or property, or kind, or relation etc., takes in many proximal stimulations and holds them as one distal entity. A developed unicept reaches through a radical diversity of sensory impressions to find the same distal thing again. It may also have to sort through similar or identical sensory impressions that have diverse distal things behind them. It funnels information collected by many coidentification methods into storage such that it is marked to interact in inference and action guidance an appropriate way, a way that "takes" it all to concern a single thing. A unicept is a specific individual *faculty* developed for a very specific purpose, the purpose of collecting and integrating information about some particular thing.

Unicepts, I believe, are the fundamental units of cognition. They form the fundamental components of empirical beliefs. They are *not* "concepts," *at least not concepts of a kind recognized by any familiar tradition* – this for several important reasons. Unicepts are what we have instead of empirical concepts as traditionally understood.

First, unicepts are not things that people share. Each of us has our own private stock of unicepts. Many of your and my unicepts do, of course, succeed in gathering up information about exactly the same things in the world, but they do this, pretty unexceptionally, in somewhat different ways, often utilizing many overlapping input methods but also many that are distinct. (Hellen Keller's unicepts succeeded in gathering information about many of the same things yours do, but in ways most of which were very distinct from your ways.)

Second, many of our unicepts involve abilities to coidentify through prior recognition of words that, with context, carry information about these things, these words, in context, indicating to us what we are receiving information about. But the fact that you and I may have unicepts for the same thing, and that these unicepts may include our abilities to recognize that thing when manifested through the same word, does not strictly imply any further similarities between our two unicepts. (Helen Keller spoke English too.) There is no reason to suppose that extensional words need to correspond across people who use them competently to psychological similarities, to similar or even to overlapping input methods, or to similar or even

[3]The predecessors of unicepts in my writings were called "empirical concepts." The next paragraphs make clear why I have withdrawn that term favor of "unicepts."

to overlapping inferential patterns.[4] The meaning of an extensional term is often purely referential or extensional. (Here I depart from Sellars, of course, opening some pretty wide disagreements.)

Third, and most relevant for us, is that having a unicept is *a practical achievement*; it involves having a certain kind of ability or *capacity* to deal, *successfully*, with an aspect of the natural world. Prior to adequacy in beliefs is adequacy in unicepts relied on forming beliefs. A unicept is no good – perhaps we would want to say it is no unicept at all – unless what it pulls in information about is indeed one and only one thing. If it pulls together information about many things, using this as though it were about one thing, then, *if it can be called a real unicept at all,* it is an *empty* unicept (a "vacucept") or at best an *equivocal* unicept (an "equivocept").

2.3 The General Epistemological Question

The huge question that immediately arises is what evidence we ever have that a certain unicept is really a unicept, a genuine capacity to tag only information that really is about the same as information about the same, rather than being a vacucept or an equivocept. What evidence do I have that it is indeed the same person, day after day, that I think of and call "Don" (my husband) or the same property that I think of and call "red," or the same real kind that I differentiate, reidentify, think of and call "dog" or "cat."[5] These are not things that I know a priori. That should be apparent. It is not a matter of logic, say, but of natural law that distal objects and properties cause just the variety of proximal stimulations that they do, under these or those conditions. It is a highly empirical matter, for example, what visual stimulations hound dogs send back to me from a distance when running through dappled shade crossways in my visual field. It is a highly empirical matter what Don's voice does to my auditory nerves and how that changes through the medium of the telephone or through a wall. Clearly it has to be learned, somehow, which proximal stimulations go with which, which are caused by the same distal things. It has either to be learned by the individual or some of it has, perhaps, to have been learned by the species. But how?

Learning how to reidentify various perceptual objects, properties and relations under a variety of different conditions probably begins with the ability to track objects for short times with the eyes and head, also ears and hands, as these objects

[4] In Millikan (2010) I explain why this remark applies not only to proper names and names of empirical properties and relations but to most kind terms as well.

[5] When this question concerns reidentification of kinds, its relevance and importance is not obvious unless the right sort of realism about kinds has been introduced. I have argued for an ontology of "real kinds" that separates them sharply from classes and makes clear why there both are and must be many alternative ways to recognize the members of any real kind, making the question of correct reidentification central (Millikan 1984, 1998, 2005, 2009, and especially 2010).

rotate, become displaced in relation to oneself, and move through a variety of perceptual conditions such as different lighting conditions, occlusions. masking sounds and so forth. For it seems that the very first project, at least of the visual system, is to notice and keep track of various objects as we and they move about, not by noting and then reidentifying their properties as such, but by tracing continuities in path over short periods of time (Pylyshyn 2007). Reidentification of objects and kinds after breaks in tracking is probably accomplished in large part by attending to patterns of stimulus correlation. But the epistemological question we have raised is not directly addressed by these mechanisms, which might be viewed, strictly speaking, as methods of hypothesis formation rather than methods of confirmation. The epistemological problem concerns evidence that these methods of attempting to learn reidentification techniques result in reidentifications that are truly objective, distal objects, properties and kinds that really are the same again being correctly identified as such.

There are at least two different methods that seem to be used to address this basic epistemological issue. We might call these the "practical" method and the "theoretical" method. The practical method explains why it is possible for many non-human animals to acquire a modest collection of unicepts, indeed, how evolution through natural selection may even build some unicept skeletons into animals, perhaps also into humans. The theoretical method, on the other hand, is probably peculiar to humans, helping to explain why humans have concepts in numbers several orders of magnitude beyond those of any nonhuman animals.

The practical test is merely that one can learn, over time and repeated identifications, how, productively, to be guided by the identified object or kind during practical activity. Evidence for a dog that it can indeed recognize its master is that it is able to learn, over time, how to behave in rewarding ways in its master's presence; evidence that it is indeed able to distinguish squirrels from rabbits is that it has learned successfully how to fit the chase to the quarry, heading squirrels away from trees, heading rabbits away from hedgerows and so forth.

The theoretical method involves the capacity to make propositional judgments, to entertain thoughts having subject-predicate structure, the predicate being subject to negation, or that can at least be expressed this medium. It requires a sensitivity to contradiction, and a disposition to alter unicept input methods when contradictions begin to arise. Obvious examples come from the development of empirical science, discovering the objectivity of the temperature scale, for example, by successfully devising diverse kinds of instruments that agree in measuring it, as well as many ways of predicting it – identifying it ahead of time – by inference using theory. But a more universal and fundamental way of testing the adequacy of ones unicepts is the home method, the use and understanding of language, finding that one agrees with other people who have come to recognize the same facts but from different perspectives, perhaps using different unicept input means from those one commands oneself. Arguably it is exactly the use of this latter method that sets our cognitive capacities so far apart from other animals.

Very much more needs to be said about the use of propositional judgment – of thought and/or language that has subject-predicate structure and is sensitive to a

negation transformation (e.g., Millikan 1984, 2000, 2004, Chs. 18–19). But for our purposes, the main lesson to be remembered is merely that in both the practical and the propositional judgment cases, unicept adequacy is something that is learned and tested over time and over a variety of perspectives. Adequate unicepts are earned. If there are any unicepts, or perhaps skeletons for them, or dispositions to pick them up on quick exposure that are supplied to us natively, they will surely have been earned through a history of natural selection, and can be presumed not to be idle but to have significant functions.

2.4 The Epistemological Question for Phenomenology

Uniceptual capacities are *representational* capacities. I am working here with a representational theory of mind. "Phenomenal experience" is something many philosophers have beliefs about. These beliefs purport to be representations in *thought* of real properties of another real thing called "experience". We need to understand then, *in a way that is consistent with our more general views on epistemology*, how a person can develop the necessary ideas/unicepts with which to think about and have knowledge of these properties and of this experience. I am posing the epistemological question for phenomenology as a question how the unicepts applied during the description of phenomenological experience acquire their credentials. What is the origin of these ideas? What evidence is there that they are unicepts, rather than vacucepts (caloric, pholgiston) or equivocepts ("heaviness," before mass and weight were distinguished)?

Important to keep in mind here is the Sellarsian warning that the fact that an idea is directly applied in observation judgments does not guarantee its nonemptiness. That caloric could be directly felt, for example, is no argument for its existence. An excellent and totally convincing argument to this effect that does not, incidentally, presuppose anything in Sellars, may be found in Churchland (1986, Ch. 2).

A second thing to notice is that it would be really weird to suppose that we have some special innate capacities to form the ideas of phenomenal properties and phenomenal experience, capacities to form adequate unicepts for these things on demand. What would be the evolutionary point of such an ability? What life- or society-preserving activities would our ancestors have been using these abilities and the resulting unicepts for? It seems clear that we must be using just our ordinary unicept forming capacities in the generation of our ideas that concern the phenomenology of experience, thus leaving it open, and appropriate, to ask whether and how these ideas are or have been validated.

An important epistemological principle in the case of ordinary empirical ideas, ordinary unicepts, is that the likelihood that one's unicept for a thing is nonempty and univocal goes up with the variety of ways one knows to reidentify that thing so as to confirm one's judgments. It goes up with the variety of perspectives from which one is able to identify that thing. And it goes up with the number of occasions on which one finds opportunity to test a unicept's input methods against one another.

How are we to gain such perspectives and opportunities in the case of unicepts for phenomenal properties and objects? How do we know we are thinking of anything real when we appear to ourselves to be thinking of such things?

That's the epistemological problem. I will not press it further. What I will do instead is to begin to construct a candidate theory, consistent with the description of unicepts outlined above, about what "phenomenological description" really is. This will require a little background, however. First I must introduce a proposal about the development of our ideas/unicepts for various ordinary perceptual properties, such as red and sour.

2.5 Our Ideas of Some Ordinary Perceptual Properties

Begin by considering for what our perceptual capacities were designed. Like the rest of us, our minds evolved. They were built up by tinkering, building newer capacities out of older ones, by using these older capacities in new ways. Newer mechanisms often control the activities of older ones more sensitively, or redeploy them for new purposes. Our own minds were built on top of animal minds, almost literally, the upper and more frontal parts of our brains having evolved last. We still have animal minds, though we have remodeled a bit and built on some fairly spacious additions.

The function of perception in the higher animal species prior to man appears to be quite exclusively guidance of immediate practical activity – navigation among objects in the immediate environment, initiation of action towards or away from objects, the manipulation of objects for practical purposes. That is, its fundamental use is in the perception of, as J.J. Gibson put it, *affordances* of various kinds, perception for action. That, likely, is the first function of perception for humans as well. It is interesting, however, that many of the most obvious perceptual properties, taken one by one, are of no immediate use at all in guiding action. The colors, the sounds, the tastes, and the smells of things, and the internal relations among these properties – roughly, the classical "secondary qualities" and their internal relations – are none of them of much help in guiding immediate practical activity. There is nothing that being red is good for as such, nor having emitted a certain sound or odor. There is nothing about the internal relations among wave lengths for colors, or the internal relations among physical sounds, that carries direct significance for guiding action. Contrast these properties and relations with the classical "primary" properties and relations, for example, with shape, size, and weight. The values of and relations among of these latter properties, taken in relation to the animal's own physical properties and capacities, *do* very much matter to an animal who would manipulate objects or navigate among them.

It has been thought, though the matter remains under dispute, that there is a division within the visual and perhaps also the auditory systems of higher animals (even hamsters) into a dorsal system, which achieves perception of the relations of objects to the animal's body as needed to guide approach, retreat, object-manipulation and so forth, and a ventral system, which allows an animal to identify

objects and object kinds, so as to decide which actions are appropriate to which objects. Whether or not these two functions are actually divided into separate neural processing streams, it remains clear that they are of somewhat separate kinds, and that they require the registration of different though overlapping sets of properties. Given this, it seems reasonable to speculate that capacities to discriminate among colors, sounds, odors and so forth were originally developed for use merely in identifying objects and object kinds. For it was the identities and differences among *objects*, not among these secondary perceptual properties themselves, that were important for deciding what needed to be attended to in the environment. The original things recognized in completed perception for action would be contrarily affording things and stuffs, things that would need to be treated or responded to incompatibly. Notice that the existence of color metamers and their analogues, for example, for taste would not interfere with mere object identification purposes in any more significant way than does the fact that different objects and kinds can have the same reflectances. Natural selection yields mechanisms that suffice for their purposes, and the purposes here are not precise.

Just as the edge detectors, vertical line detectors, motion detectors and so forth in early visual cortex are not used in the direct guidance of action but only in guiding construction of more meaningful representations of objects and properties, the original use of color discrimination, taste discrimination and so forth must have been merely in implementing the reidentification of objects. Although they have no practical significance themselves, the reflectance properties of an object and the odors and sounds it emits, when put together with other bits of information, may be crucial for reidentifying the object or the kind of object being encountered. Obviously the properties of things are causally involved in any perceiver's abilities to differentiate among affording things, but this does not imply that they are represented in perception-for-doing *as* attributes of substances. Similarly, no one has supposed that the gradients and edges of early visual perception are represented as such in the final products of visual perception. That secondary properties are not the first things evident in perception is suggested, for example, by the fact that there are languages that have few or no words for colors and that children learn color words quite late. Similarly, we do not have words for sounds or odors but describe them by reference to what they are of – the smell of bacon, a rasping sound, a bell-like sound. When merely smoothly acting and not reporting or reflecting – when not using propositional tools – I suspect that we do not represent sounds, or sound qualities, but rather doors closing, people shouting, or perhaps a *something* over there (not a *sound* over there) that we hear but can't make out. We do not, in the first instance, smell odors, but rather pine trees or bacon cooking. We do of course feel and see shapes, but not as attributes of things but merely as guides to identifying them or handling them. We see how to move or to pick up a thing given its position and shape, how to walk on it if it is rough or slippery, and so forth.

In sum, there is no propositional structure in mere perception for action. Compatibly, negations do not occur there. Perception for action does not involve perception of colors, sounds, odors and tastes *as such*, but only perception of the objects and kinds they help to signify. I offer this suggestion not as a bit of

phenomenology but as speculation on what the end products in perceptual neural representation actually amount to for animals and also for humans during absorbing action.

What might we say then about the underlying systems, noted above, that account for perceptual constancies, shape constancy, size constancy, color constancy, sound-at-source constancy and so forth? What seems reasonable is that during the process of development of our perceptual systems through evolution or learning, distilled out in the background, taking their various places upstream in addition to such things as gradient, edge and motion detectors, were more sophisticated detectors of various simple object properties, recognition of which could be recombined for use in helping to identify a great variety of different useful things. I am thinking here, for example, of the way NETtalk, in learning to turn written text into phonological sequences, managed to distill out underneath in its operations something like individual vowels and consonants (Sejnowski and Rosenberg 1988). We might think of these underlying property-constancy mechanisms as like proto unicepts, abilities to reidentify the same distal properties through multivarious proximal stimulation, but without involvement yet in information storage regarding these properties. They are originally involved at a level of information processing well below the level either of perception for action or propositional judgment.

We suppose then that *much later* these underlying proto-unicepts are *redeployed*, probably by humans only, in processes leading to perceptual propositional judgments about properties of objects. They are taken up in the formation of thoughts with subject-predicate structure thus becoming involved, for the first time, in the operation of true unicepts for properties and relations. These emerging unicepts, we further speculate, were (and still are in children) developed along with *linguistic skills* that allow communication about objects having as yet no names but that need to be identified to hearers. That is, we assume that they do not develop until there is a use for them, and that this use involves judgment and communication. Indeed, quite generally the development of unicepts for propositional judgment would seem to ride piggyback on the earlier development of practical unicepts, unicepts of the kind, say, that dogs employ when they recognize their masters or recognize a rabbit. That these unicepts would sometimes redeploy representations from earlier stages of neural processing that had supported perception-for-action seems natural. They may involve redeployment of chemical property detectors (taste, smell) or distal color and shape detectors (color and shape constancy) or sound-at-source detectors and so forth. In the case of taste and smell there are no constancy mechanisms. So in developing propositional unicepts of tastes and smells, more direct neural mechanisms prior to object detection would have been reused.

These mechanisms were redeployed in the attempt to develop ideas that could serve as predicate unicepts for propositional judgment about distal objects. The general purpose of such unicepts would be identification and reidentification of objective distal properties, as evidenced through stability in judgment. The identities of such things as the objective colors and shapes of things are highly confirmed this way, and not merely by one's individual reexamination over times and perspectives but, importantly and powerfully, through agreement in judgments with other people.

In the case of tastes and smells, however, agreement in judgments with other people was the only way that more than one perspective (other than temporal) could be obtained. Coordinately, I think that the apparent objectivity of tastes and smells has had a fairly slender hold even on the common mind. Tastes and smells are not so insistently thought as really "in" the objects tasted and smelled. When people are being careful, these properties are often thought of as objective but relational.

Then modern science arrived, sporting a variety of new ways to input many of our unicepts through theory (inferential ways of observing) and sophisticated apparatuses designed for the study of light, of sound, of chemical composition and so forth. It became apparent that many of our well-established, simple observation unicepts were, in fact, equivocal. There were some color metamers, hard to illustrate in nature, of no practical significance for reidentification of objects, but none the less real. In this way, our unicepts for colors were discovered to be a bit blurred, equivocal on certain edges – a bit like having, mixed in with our information about Aristotle, a tiny bit of information about a previously unknown brother of his. For taste, however, there emerged the analogue of dozens of metamers. And just what should be said about smell remains rather a mystery.

In the case of color, a particularly instructive case emerged. Relying on our color constancy mechanisms, unicepts for certain relations among colors had been developed and, apparently, highly confirmed through agreement in judgments. Objective colors had been thought to lie next to one another in similarity in such a way as to form a circle, or taking into account saturation and lightness, within a three dimensional space, with some being at opposite poles from others, and so forth. It turns out, however, that there are in fact no such uniform continuity relations or polar relations among the distal colors. Ignoring metamers (count them just as illusions), reidentification of the same color again is reidentification of a real thing, namely, of the same or a similar reflectance property. But the apparently observed relations among the colors are not real. That is, the reidentifications we make of same-color-again are pretty good. Mostly we get it right. But our thoughts that these distal properties have certain objective relations to one another are confused. The relations that we seem to be observing and reidentifying – red "opposite" green, blue "opposite" yellow, purple "closer to" blue than to orange – are not out there. Like caloric, they may indeed be "observed," but they are chimerical. Given the above reflections on the possible redeployment of early perceptual processes in the development of propositional unicepts, we could tell a general story about how this kind of thing might (indeed, roughly how it actually did) come about.

Suppose that though some accidental quirk in my computer's design, every other word that I typed came out red, the in-between words in blue. The relations of identity and difference in word color would be obvious to you, but you should not take them to indicate differences in the ideas I was expressing with the words. Similarly, relations of kind and degree of similarity between the neural vehicles of different representation do not necessarily, simply as such, *represent* these relations as holding between their corresponding representeds. They will represent these relations only if *used*, downstream, in a manner that requires it. They will represent these relations only if they are interpreted that way. Neural representations that are

used merely as tags for simple reidentification of objects and kinds might be a lot like one another in some ways and different in others without these representing similarities or differences in content. Certain relations, say, among the neural representations of colors, among the neural representations of odors, and so forth – the dimensions and distances in this or that neural similarity space – though they might *in some cases* carry a certain amount of *natural* information about relations among the real distal properties represented, might carry no intentional information at all, no information that the brain had been designed to *use*. They would not then *represent* any relations among the things represented, just as the relations among "cat" and "bat" and "rat" and "sat" do not represent relations. But we can imagine that in later reuse of these vehicles, in the attempt to use them in the development of propositional unicepts, the relations among them might be erroneously interpreted as naturally indicating relations among their representeds. Agreement with other people on the occurrences of these relations would apparently seal the matter.

2.6 Phenomenological Description

That was a very lengthy introduction to what will now be a very short discussion of phenomenology. I have suggested a mechanism by which our unicepts even of so-called perceptual properties such as tastes and the relations among colors may have come to be equivocal, confusing together a diversity of distinct actual properties or inventing chimerical relations. Thus we can understand how what is apparently known by the most direct possible observation may be worse than false. It may be senseless. Let me now tell a story that, as I understand it, was once roughly J.J. Gibson's story on the status of "the visual field" (in which he did not believe).[6] The story makes out apparent facts about phenomenal experience as erroneously represented – as fictions.

Suppose that you are looking through a window at the scene outside, but a friend (perhaps a British empiricist) has convinced you that the scene you see is really inside, projected onto the flat real two dimensional surface you had mistakenly thought before was a transparent window pane. You and your friend each proceed, with great care, to try to describe the shapes and colors of the patterns on the window pane. Both of you find this exercise quite difficult, but considerable agreement between you emerges on bold features. (I imagine that people who are good painters find this kind of thing easier than I do.) That's the original exercise that was called "phenomenological description" for vision, description of "the visual field." It would seem to involve the redeployment of certain normally far-upstream

[6] "The visual field, I think, is simply the pictorial mode of visual perception, and it depends in the last analysis not on conditions of stimulation but on conditions of attitude. The visual field is a product of the chronic habit of civilized men of seeing the world as a picture." Gibson (1952), p. 148.

sensory detectors, further upstream even than the output of the perceptual constancy mechanisms – possibly the same that are employed in a painter's re-envisionment of a scene order to paint it? – the attempt to identify objects and properties in a hypothesized inner realm posited by philosophers convinced of a certain queer theory of knowledge. One symptom of what's strange about this, incidentally, is that the description is done with everyday words, not special ones developed for the purpose, as one might have thought necessary for describing some totally new kind of stuff or entities in some totally new ontological realm.

How one is supposed to produce phenomenological descriptions of *heard* scenes or *felt* scenes or *tasted* or *smelled* scenes is less clear. (Similarly, I imagine it would be very unclear just how phenomenological description for visual experience is supposed to be done if you were an adult who had had no experience with paintings.) What is a description of the phenomenology of smell, for example, besides just a naming according to what one would normally take the smells to be of? Perhaps it involves an application of one's ordinary unicepts for odors while pretending to oneself not to know anything about present conditions, such as what's really in front of one's nose or whether one has a cold? One uses terms that would describe what one *supposes one would suppose* one was smelling given no outside information, pretending to withhold, as well, any, ontological commitment (Husserl's epoche)? In the case of touch, perhaps one concentrates on what one would take the apparently touched item to be doing to oneself, pressing on one, pricking one, rather than what properties one would take the touched items themselves to have. We may tend to ask, "How do I feel when I touch it?" not "What properties can I feel it to have?" When you feel how rough or smooth the road is under your tires as you drive (compare Fulkerson 2012) and then turn to think instead about what is happening to your bottom, does the phenomenology change? Are you sure? How do you know?

However one does it, the descriptions one comes up with are likely to express representations, unicepts for the same sort associated with any other deeply mistaken scientific or lay theory. For nothing whatever helps to certify that the apparent unicepts one is using are not empty.

The alternative to these skeptical reflections, I believe, is to embrace Russell's 1912 sense data as the foundation for your epistemology.

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