Hearing it rain
Millikan on Language Learning

Abstract

In her 'Spracherwerb'(2012) Ruth Millikan gives a compelling account of
language acquisition based on our ability to track objects. I argue that, and how,
it is undermined by her insistence on equating understanding language
utterances and sense perception, point to idealist hazards, and plead against
propositionality and for imagism in order to safeguard the account's important
potential for giving a comprehensive explication of meaning.

1. Introduction

In her 'Spracherwerb'/'Learning Language' (2012), Ruth Millikan expands on a theme raised
already in her *Varieties of Meaning* (2004). There, she argues that "understanding language is
simply another form of sensory perception *of the world*." (p.113) This is not a metaphorical
statement but meant quite literally. She is telling us that when we hear (and understand) a
report about the world, this is simply another form of perceiving what is being reported. Later
in the same chapter this becomes quite unequivocal when she famously says:

> Rain does not sound the same when heard falling on the roof, on earth, on snow, and
> on water, even though it may be directly perceived as rain through any of these media.
> Exactly similarly, rain has a different sound when the medium of transmission is the
> English language ("It's raining!"). And it sounds different again when the medium of
> transmission is French or German. What world affairs sound like when transmitted
> through language depends on where we focus our minds. (p.122)

So Millikan is telling us that there are various forms of audible perception of rain: we can hear
the sound the rain drops make when they fall on the roof or on any other surface, or hear a
person say "It's raining!" or "Il pleut!". "It's raining!" is simply another sound rain makes.
All of these sounds "exactly similarly" transmit the falling of rain to us, what varies is only
the medium of transmission. Out of context, this claim appears nothing less than preposterous.
In the framework of Millikan's larger philosophy, however, it follows neatly from her views
on signs and purposes. It is also the culmination to which her account of language acquisition
leads. In it she argues that children learn words in much the same way as they learn about
their surroundings through sense perception.

In this paper, I will show that her account does not do justice to perception; nevertheless, it
contains compelling ideas concerning language acquisition. I shall begin by outlining her
account of language learning. I will then argue that Millikan's focus on information makes her
overlook the difference between present particulars and memories or abstract concepts; that
sense perception differs from understanding verbal reports not only in spatiotemporal aspects

and richness, but in terms of epistemic access. I will end with a plea against propositionality and for imagism in the interest of knowledge as well as language.

2. Millikan's account of language acquisition

In order to understand Ruth Millikan's account of language learning, I think it may be useful to think what role it plays in her philosophy. Millikan's main question, I believe, is this:

Given that we have beliefs, what chain of purpose-serving processes brought them about?

Answers, as we could see from her rain example, involve perception as well as understanding language, and hence also language acquisition. A follow-up question is therefore:

Given that we understand what other people say, what chain of purpose-serving processes brought about this ability?

These questions take for granted what I want to explain and vice-versa, an opposition presenting pitfalls in grappling with her views, but maybe also helpful in seeing tensions. With this caveat, let me try and sum up her account of language learning:

Millikan explains language acquisition from our ability to track objects. Even very young infants can track objects – visually, for instance. Once they can track an object through perception by more than one sense, they can acquire more information about it. They learn to understand what they are seeing by finding out how the object sounds, feels, tastes and smells. (2012, p.31/114) Moreover, children possess the ability to recognise directedness and purpose. They can therefore observe their parents do things and speak about what they are doing. In this way, they learn how their parents refer to objects and processes and can track referents through language. (p.24/108)

This account therefore compellingly ties the meaning of words for the learner to experiences involving what they describe. An obvious question is how children learn to understand words about what is not physically present. This is explained by 'filling in'. Just as children learn to fill in gappy sensory information, for instance perceiving a dog, although only its head and tail are visible, they also learn the meaning of new words which don't have perceptible referents by 'filling in' the holes in the context of words they know.

If this were to explain merely how we learn words from context, it would have much going for it. But Millikan's aim is to explain *belief* generation. This makes her claim that 'filling in' occurs by interpretation, as indeed does all perception: You 'interpret what you see through the medium of the structured light that strikes your eyes', she says. (p.4/87) In fact, *all* contact with the world only yields signs which our brains then have to interpret. (p.27/111) It is this psychological processing or 'filling in' which turns signs into beliefs/information.

Importantly, psychological processing is equally direct for light reflected on the retina, sound waves hitting the eardrum, or words: it involves no theory of mind for language (2012) and no inferences in sense perception (2004), as *indirect* perceptual beliefs would. Instead, direct perceptual beliefs involve at most translations of signs, possibly through various stages, into representations, such as when a certain sound from the kitchen is a sign that the fridge is working and thereby also a sign that the power cut is over. Likewise, mediation, for instance when we perceive an object in a mirror, on television, photographs or through language (p.7/90), makes no difference in terms of the directness of psychological processing. In all cases, Millikan thinks, we are processing signs into representations. The idea seems to be that, one way or another, we only perceive bits and pieces and have to complement them to obtain information.

This is why she concludes that rain just sounds different depending on whether it falls on the ground, on a roof, or on an English-speaker, prompting her to say "It's raining!". (p.5/88) In each case, our hearing the sound is a sign of rain falling and serves the same purpose – to inform us that it is raining.

This doesn't seem right on two accounts. First, it regards perception as delivering signs, thereby losing the distinction between particular and concept, and second, Millikan has to restrict her account to propositions, thereby losing most of perception. Let us look at this in detail.

3. Issues

Millikan thinks, not unreasonably, that we complement everything we perceive. Just as in her example of the dog's head and tail, I also perceive *a chair* here, even if part of it is covered from view. But there is a problem with her account: Instead of explaining what I perceive as what a chair with a person sitting on it and other objects between it and me simply looks like, she explicates it as my perceiving image fragments of the chair which are signs I interpret into information about a complete chair being in front of me.

The trouble with this account is that whatever we thus fill in must clearly be taken from memory or our stock of concepts. So the difference between hearing Fido bark and hearing someone say "A dog is barking" is that Fido is a particular, as is the sound he now produces; hearing Fido, by Millikan's own explanation of learning, *adds* to my understanding of barks, while the statement only evokes barking dog memories (this is what understanding consists in). Perceiving Fido bark *adds* to my stock of memories, concepts, or whatever we call it, of barking dogs and dog barks, while the sentence *draws* from it.

But Millikan considers herself an imagist. She might object that both Fido and the sentence create an image of a barking dog in my mind. I agree, but Fido's present barking creates a *new* image as part of our interaction with Fido, while the image the statement evokes is abstracted from multiple barking dog memories. Disregarding the difference is, metaphysically, pure idealism.

Epistemologically, it obstructs Millikan's account of information, which is her main concern. From the observation that we cannot perceive the essence/'real nature' of Fido anyway, she concludes that what carries the information is irrelevant. (p.7/92) It seems to me that it is the way she poses her question that gets in the way here. If the question is what generated our belief that a dog is barking, hearing someone truthfully say so is indeed as conducive as hearing a dog bark. But if what counts is the information we have, the richness of my perception of Fido compared to the poverty of the statement makes an important difference. Hearing Fido bark means that I can form plenty of beliefs – that Fido is agitated, hoarse, has sneaked into the kitchen, etc. – not just that a dog is barking.

But there is not only an issue concerning richness but also of the kind of epistemic access we have in experience. Millikan herself points to the fact that we can shift our attention from the message to the words or phonemes carrying it, or from the news we watch to the dots on the TV screen. The same applies to rain and Fido. This is a classical shift from object to form, and even if the object were the same (which I disputed above), the form would be radically different. Hearing someone say "It's raining!" or "A dog is barking!", I can shift my attention to words or phonemes, but hearing the rain or Fido the attention shift to form takes me to the quality of the sound.

But there is another important difference. We mustn't overlook that hearing the rain on the roof need not evoke any belief at all; it may simply be part of our diffuse perception of our surroundings. But even if the rain becomes salient for whatever reason, we need not form propositional beliefs about it. Typically, belief formation occurs when something prompts us to describe specific aspects of our experience. Interestingly, we can do so not only *during* exposure. The rain may leave traces in our memory such that when asked later, for instance whether it was heavy or not, we would be able to tell. We do this by bringing particular aspects of our experience into focus. But this is not a simple shift of attention as between object and form. Here, our focus carves out what we attend to, it singles out an aspect. We might focus on everything we hear (as opposed to what we see or smell, for instance); or we might focus on the rain (in all its perceptible aspects); or on the rain on the roof; and transitions between these focuses are smooth. This continuous variability does not exist in object/form shifts of attention. There is a neat division between the object (e.g. message) and the form (words/phonemes), and attention shifting from one to the other requires a mental switch: we can only attend to one, not to both at the same time.

Millikan pre-empts objections both about variations in reliability between perception through sensation and language, and about the richness of experience, in particular concerning spatiotemporal relations to the perceiver. But, she insists, "There is no shift in directness of perception, but only a lessening of content in what is perceived. Information about relations to self have dropped out." (2004, p.124) I hope to have shown that by taking perception to deliver only signs, a lot more has dropped out.

But there is another issue to do with propositionality. Millikan grants an important difference between obtaining information from language or perception. When we see a dog, the "structure of the light impinging on the retina […] would vary […] according to variations in a good number of different properties of the perceived object. The word 'dog' has no such significant structure." (2012, p.9/92) Consequently, she restricts her account to sentences, and these correspond to propositional beliefs. But this means that she loses most of perception and also the connection to her account of language learning. Let me explain.

I have pointed out that perception is diffuse while we don't attend to particular aspects of it. Even the salience of an object does not give us propositional thought. Propositionality requires attending to an aspect of that object. Perception as such does not yield propositions.

But, it may be objected, Millikan has every right to give an account of propositional beliefs only. Correct, but I suspect that her account was meant to be one of our knowledge of the world, and there such a restriction is highly undesirable. Moreover, imagism takes perception to yield images of the world which would of course not be translatable into beliefs if one takes beliefs to be inherently propositional (Millikan subscribes to this). Those who take beliefs, and beliefs only, to be the ingredients of knowledge can only accept as knowledge what is propositional in structure: an object of which something is predicated. But this rules out important things we usually also consider 'knowledge'. It may, of course, be said that the English word "knowledge" is notoriously polysemous and covers what at least two, if not three words convey in other languages (*connaître/savoir* in French, *kennen/wissen/können* in German, etc.) – hence the standard distinction between 'knowing by acquaintance', 'knowing that' and 'knowing how' in Anglophone philosophy. But even a restriction to *savoir/wissen* would still include knowledge of what things are like, for instance. *Je sais/Ich weiss*, what strawberries taste like. I cannot describe their taste, I cannot form a propositional thought about it, but I certainly know it in the same way in which I don't know the taste – or smell – of durians (although I am visually acquainted with them).

But even if one squeezed 'knowledge of what something is like' into 'knowledge by acquaintance' for the sake of a neat tripartite division, it will have to be conceded that prior to 'knowing that' we must have knowledge by acquaintance of very many (some say all) things we know. And it seems to me that Millikan's account of language learning corroborates this, starting, as it does, from tracking objects. Also her 'signs' are surely best understood as fragments of images.

Disregarding this and restricting knowledge and perception to what is propositional therefore means losing most of perception and makes it possible to ignore the connection to what we perceive. Where all that counts is the belief, it is indeed of little importance what brought it about – whether it results from our 'hard-wiring', divine inspiration, direct contact with an object, or a statement we hear. But if its origins are unimportant and all methods of bringing it about are fallible anyway, the tie to reality has been severed and we have taken another step into idealism. So perceptual knowledge of the world is my first reason for pleading against propositionality.

The second, more important one here, is that propositionality undermines the compelling account of how words obtain meaning for us in language learning. We can only track an object through space, time *and* language, if its name suffices to evoke an image just as seeing or hearing it would evoke the name. This is an excellent foundation for an account of meaning comprising much more than reference relations. But it requires giving up beliefs as the output of sense perception and understanding language alike. Rather than interpreting signs to yield propositions, psychological processing would work with images instead.

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