

## WITTGENSTEIN ON EPISTEMIC INTERMEDIARIES AND CATEGORISATION

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Wittgenstein has anticipated important recent developments in the philosophy of psychology in psychology and in cognitive science itself. His rejection of epistemic intermediaries makes him a precursor of Gibsonian theory. His model of concept formation has important links with contemporary work on categorisation and stereotypes.

In this paper, I shall argue that Wittgenstein is the precursor of two views that are gaining in importance in philosophy: he rejected epistemic intermediaries and he anticipated the actual development in the area of perceptual categorisation. I shall try to show how these issues may be connected. Their connection leads to a sophisticated externalist model in category interpretation. Such a Wittgensteinian model, I shall claim, might be defended against antirealist interpretations, and could be used to solve some problems in the explanation of content.

### I. WITTGENSTEIN ON EPISTEMIC INTERMEDIARIES

By epistemic intermediaries, I mean such things as sense data, representations, percepts and contents.

Sense datum of cat is sometimes supposed to appear in my visual perception of a cat. Representation involving a cat is sometimes supposed to appear in my thought concerning a cat. And similarly for percepts and contents.

The usefulness of such suppositions comes from the fact that the gap between an individual's perceiving, thinking or entertaining contents, and the items in his environment his perceptions, thoughts and contents are about, should be bridged.

It is further supposed that, in order to bridge this gap, one should introduce something that is inserted between the individual and environmental items he is interested in. Epistemic intermediaries, such as those mentioned above, would be very useful in accomplishing this task.

They are called epistemic intermediaries because they are designed substantially to serve the individual's cognitive tasks. They help the individual gain knowledge of the external world. From the point of view of defenders of those entities, it is hard to see how an individual's knowledge might be accomplished at all without such intermediaries. Moreover, they might be the very things which distinguish man (and animals) from other entities in the environment. In this sense, they might as well serve for an explanation of intentionality.

Although Wittgenstein's views on many issues are not advanced in a systematic manner, one is able to say with assurance that his views about the need for epistemic intermediaries were negative. First, he disagreed with any individualistic starting point, with the view that explanation should start from particular persons. Concurrently, he disagreed about the usefulness of epistemic intermediaries. He was convinced that there was no private language, and that exactly because of this, it was wrong to start explanations on the basis of a particular individual's mind, including such things as epistemic intermediaries. He further thought that the supposition of epistemic intermediaries is misguided by the very fact of being the result of the previously introduced gap separating the individual from his experience of the external world. Once this gap is mistakenly introduced, there appears a need for it to be bridged. And this can be done by epistemological tools, such as epistemic intermediaries.

## II. WITTGENSTEIN ON BUNDLES OF PROPERTIES

There is a story about concepts, telling us they dispose of necessary and sufficient conditions and that their definition might be given in such a manner that it delineates exactly a particular set, with sharp boundaries.

In order to determine the concept of cat, the necessary conditions for some X to be a cat — such as being an animal, or being alive—should be given. Sufficient conditions for X to be a cat should be enlisted as well, such as its disposing of the genetic structure characteristic for cats. In this way, one is able to distinguish cats from martian robot cats.

Once a concept, such as the concept of a cat, is determined, it is further supposed that, given its definition, it should dispose of sharp boundaries. It covers cats, exactly and only cats, and its boundaries delimit clearly which individuals enter in its domain.

Here again, Wittgenstein's intuitions have been quite to the contrary. One of the consequences of the traditional view already explained has been that individuals are determined with a set of properties. This is itself a consequence of the presupposition that one is able to enumerate the exact conditions for some entity to fall under a concept. And this, again, comes from the claim that concepts dispose with sharp boundaries. Wittgenstein thought that one is not able to determine concepts in such a way. It is enough for individuals to share some properties, in order to fall under a concept. Take the individuals in a family. They might be counted as members of a family because of the fact that they share some properties. But they definitely do not need to share all the properties, in order to be considered members of a family. They certainly do not all need to share accidental properties, such as having a beard, or having a specific colour of eyes, or of hair. Moreover, they do not need to share some properties which are more substantial for them as individuals, such as being of a certain sex. And their sharing of the property of being human does not really help us in determining them as members of a certain family. Moreover, it might even happen that two members of a family do not share any properties and that they are still counted as family members. Consider the set of properties (A, B, C, D, E, F). Take now individuals I, II, III, IV, such that I and IV do not share any properties, but are still members of a certain family (they may be counted as such by sharing the family's properties):

I	II	III	IV
A	B	C	D
B	C	D	E
E	D	E	F

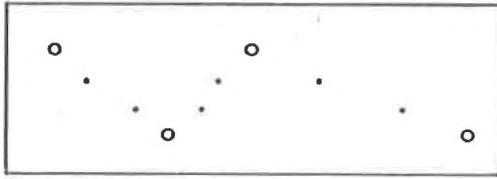
According to Wittgenstein's views about individuals, there are no necessary and sufficient conditions, determining them as members of a concept.

### III. REALISATION OF A PROGRAM IN A FIELD

Till this moment, I tried to show two of Wittgenstein's negative views. The first one concerned the implausibility of presupposing epistemic intermediaries. And the second one concerned the rejection of the classical definition of concepts, and preferring the view about bundles of properties as determining concepts.

It is now time to deliver Wittgenstein's positive story. The story is about the realisation of a program in a field. I owe the gratitude for having awoken my interest in this story, as well as in the story about the bundle of properties, to Wilhelm Vossenkuhl. Moreover, the model that I shall present has been introduced to me by Willy. Actually, it shows what I have understood on the basis of our discussion. As homage to Wittgenstein, I shall nevertheless call it a Wittgensteinian model. With this disclosure I shall, from now on, take this model to be realistically Wittgenstein's. This story seems to be particularly interesting, because it shows that Wittgenstein was concerned not only in criticism, but in the construction of his own positive models as well.

Take an observed event. It is not important that we are observing it. It is important that it is realised in a field. Let us say that there are movements of a person in a garden. Or again, it might be the route of a plane over some part of the USA. It might be a way of exposing some linguistic constraints that someone follows. In short, this is what is going on in the field:



Graphic presentations might serve as description of events in the field. It might be interpreted functionally, because it can cover various kind of events.

But, this does not interest Wittgenstein. It just interests him that the pattern in the field is simply a realisation, and nothing more. Let us say that this realisation is actually a program. Wittgenstein is trying to show that the realisation is no realisation of a hidden program. The point is that the program is simply there, in its realisation. All that can be said is already shown in the schema. There is no need to suppose that, besides what might be already observed in this schema, somewhere there is still a kind of program, a program in the head of a person, which guides this person's movements through the garden. Or, there is no need to suppose that, besides the plane's crossing of the USA, the route we are able to observe is the realisation of some hidden program guiding the plane.

Wittgenstein is trying to say that there is no need to introduce epistemic intermediaries, such as mental programs in some person's head, or electronic programs in planes crossing the country — which might again

originate in some person's mentalistic software. According to Wittgenstein, there is no need to suppose the existence of such intermediaries – which turn out basically to be epistemic intermediaries – in order that we explain a trajectory such as depicted in our schema. The account we are able to give of the trajectory is all there. It is there in its realisation, in following the rules of this realisation. It is not there in following the rules of some hidden program.

#### IV. SLIGHT DEVIATIONS

This is, however, not the complete story. According to Wittgenstein, slight deviations in the exercising of the program are quite possible. Let us imagine that the man walking in the garden takes a slightly different route than he already did. This might well happen as he tries to take the same route again. Even if he tries extremely hard, there will still be physically observable deviations from his route. Take a child who is trying to mimic him. He deviates from the route even more. Nevertheless, we would still be inclined to say that he is following the same trajectory in the garden. It seems plausible to say that there might be deviations in the realisation of the trajectory. (It is important to know that this realisation is no realisation of some mental schema. It is just a realisation in the field.) There is quite a strong intuitive sense in which we are able to say that this trajectory is still the same. Thus, there exist realisations of the trajectory which slightly deviate from it, but that we still consider to be realisations of the same trajectory.

It might be even better to say how there is actually no ideal trajectory that those realisations would follow. By observing various practices of exercising the trajectory, we are simply able to tell that this is our route.

There is a basic uniqueness of the trajectory that not only allows for slight deviations, but is actually itself derived from them. It derives from various different practices of rule following in the field which determines the trajectory.

It is not hard to see that this point in my explanation of the Wittgensteinian model fits well with his view that conceptual boundaries may not be considered too rigorously.

Moreover, in this way, the model of realising a program in a field becomes a practical answer to the negative remarks Wittgenstein made about epistemic intermediaries and against the classical view of concepts. No epistemic intermediaries are needed because the realisation of the trajectory is all in the field. Besides, there is no ideally delineated course of the trajectory (and thus no sharp boundaries to its concepts), although

its uniqueness stays preserved. Or, better still, the uniqueness of the trajectory might be derived from these realisations in the field.

## V. SOPHISTICATED EXTERNALISM

For some time I have tried to defend externalism in the philosophy of mind. According to the internalist explanation, mental states are individuated with the help of what is going on inside the boundaries of the organism only. Internalists would claim that, OK, my thought involving a cat might well be caused by a cat outside there in the world. But, as far as the individuation of my thought concerning the cat is at stake, the philosopher or psychologist is authorised to deliver an account of this thought only so far as it concerns internal goings-on in the individual. A justification of this view might be that in individuating the mental state concerning a cat, I, as a philosopher, surely do not need to be concerned with the physical realisation of the cat my thought is about, or about the genetic predisposition for this item to be a cat.

On the contrary, the externalist would claim that the individuation of the mental state about a cat involves the cat as an external object. Thus, he would claim, it is not sensible to individuate the thought about the cat using mechanisms inside the individual only, because those mechanisms would not be able to differentiate thoughts about cats from thoughts about dogs. I was convinced that the externalist account of mental states' individuation is right.

But then I met Davidson, and I realised that my view needed a serious revision. I began to see my previous position as a kind of very rough, too coarse grained, and misguided sort of externalism. And I realised that some people have already developed a much more interesting view which I have labeled sophisticated externalism.

Externalism in this version would be in trying to show how individuation of mental states predominantly depends on circumstances external to the borders of the organism. The sophistication of this view consists basically in two claims: that there are no epistemic intermediaries which would be needed for individuation of content, and that dualism between the organism and the environment is a misguided doctrine.

The best way to explain this sophisticated kind of externalism is in starting to list the theses of Gibsonian ecological psychology. Contrary to the mainstream psychology of the last decades, ecological psychologists do not presuppose that heavy processing going on in the heads of organisms is responsible for their perception. Explaining visual perception, Marr presupposes a poverty of visual stimulus at organism's disposal, and heavy

elaboration of this stimulus in the individual's head. This elaboration delivers information about the object, say about the cat, to the individual only at its latest stages. Heavy elaboration of information is supposed to follow the model of classical computation. Gibson thinks that, to the contrary, there might be some elaboration of information in the organism's head as it is exposed to visual stimuli. But this elaboration going on in its head is not the most important thing for the account of visual perception. In fact, Gibson thinks the classical model to be misguided in many ways. First, the model is made as if the organism's real home would be the psychological laboratory, and not real life situations. In real life, the organism's perception follows a temporal span, and it is basically guided by his interests, as he moves around in the environment. There is not too little, but too much information that the organism has at its disposal. And, this information comes ready formed to the perceptual surfaces of the organism. The organism, however, still has to perform some things. It has to select information from all the information it assembles. In order to achieve his, it would use movements in space when this information is not clear enough, to gather more chunks of information. Perception is basically possible only if there is too much information in the environment. Information about external objects, such as visual information about cats, can only be gathered on the basis of background information. There is never only the cat around. The cat is sitting on the mat, playing with the ball. And there are so many things for me to observe in the background as I observe the cat. I have to sort information about the cat out of the basis of this background information in order to be able to perceive the cat visually.

The story of the ecological psychologist that I tried to explain in the case of visual perception shows that we really have to do with the two claims which I earlier stated to be characteristic of sophisticated externalism. It should now be clear that, according to the ecologist's story, there is no need to suppose epistemic intermediaries. Information is gathered by the organism from its environment, and it uses its perceptual systems in order to accomplish this task. It should as well be clear that there is no place for dualism between the organism and its external environment in this story. The organism is somehow coimplicated in its environment.

What we have in the view already described, is a kind of externalism, because external world is very important for delivering any account whatsoever of the organism. And there is sophistication of externalism, because there is no supposition that the organism is separated from its surrounding world. Moreover, there is even no supposition for the existence of any kind of epistemic intermediaries that the story would need to explain. This includes contents.

It is not only ecological psychology that supports this kind of view. As I already indicated, Davidson defends a similar kind of sophisticated externalism. He thinks that separation of the organism from its environment is not justified in the philosophical account. And, he thinks that it is not appropriate to suppose the existence of epistemic intermediaries. Answering the question about what might be before the mind, Davidson answers that there is nothing before the mind. Still more, he thinks that two inappropriate suppositions are interdependent. The supposition of epistemic intermediaries is plausible only on the ground of the supposition of the separation of organism and the external world. The function of epistemic intermediaries is making the sceptic's advance impossible. But, it is plausible to suppose, again, that the sceptic will be able to triumph exactly and only in the case where one creates a gap between the organism and the environment. In fact, Davidson claims, fears of massive error are unjustified. Most of our perceptions and beliefs will not be misguided, because, as organisms, we follow maxims of rationality.

I would like to mention Heidegger as one of sophisticated externalism's precursors. Heidegger started with the criticism of Husserl's internalist project of intentionality. He tried to build a sophisticated externalist story of intentionality. Being-in-the-world of the organism (*Dasein*) which he introduces would fit the typical claim of sophisticated externalism with which this one rejects the dualism of organism and environment. And it is clear that Heidegger abhors epistemic intermediaries, which flourished to such an excessive extent in Husserl's work.

It is not hard to see that the previously explained Wittgensteinian model is sophisticated and externalist as well.

## VI. STEREOTYPES, CATEGORISATION AND OTHER DANGEROUS THINGS

In the last decades, a whole new approach to concepts has developed in psychology and philosophy.

First, there is the work about stereotypes in psychology, which shows that there are no unique properties people use in categorisation. There is no unique set of properties an individual should satisfy in order to be able to count as a member of a concept. Secondly, there are prototypes. Thinking about a bird, I picture myself a robin, say, and not a typical abstract bird, whatever this one might be.

The story about stereotypes is the result of psychological empirical research. It has been taken over by philosophers. They used it in order

to show that stereotypes and concept building in their sense needs to be sharply separated from the causal support of concepts. The flourishing literature concerned with this issue, however, seems to be a »dangerous thing«, exactly because of the separation of causal and conceptual roles. I shall not go into this issue here. I only wish to indicate that Wittgenstein, with his model, made such a kind of separation impossible, at least impossible to such an extent as it is now to be found in the literature.

Wittgenstein does not use causal explanations in philosophy. According to him, the explanation of behaviour should not take recourse to representations, because representations could play such a kind of causal role. On the contrary, it does not seem that his model excludes causal powers existing in the field explained. The route in our field allows for causality. This does not yet mean that we should use the explanation with recourse to causality in order to explain the trajectory in the field.

There is another issue which might be seen in the Wittgensteinian model. He does not imply that there would be just one, idealized trajectory in the observed field. To the contrary, an unique trajectory might be only deduced on the background of many trajectories. And those always, at least slightly, differ one from another.

This seems to be very near to what is going on in the issue of perceptual categorisation lately. The issue is about how organisms individuate various items. Usually, two kinds of categorisation are distinguished; categorisation which is going on in sensual perception, as in the case of distinguishing phonemes such as (b), (d), (g) in speech perception. Another kind of categorisation is sometimes called generic knowledge categorisation, and it is concerned with issues of how to distinguish cats from mats, and again from rats. This last kind of categorisation includes the categorisation of larger events, such as my going into in the restaurant, or of such things as WWII. It is not difficult to see the interwovenness of issues in stereotype accounts of categorisation with the Wittgensteinian schema. Particularly if one knows that in categorisation, a level of deviation is allowed: in recognizing dogs perceptually, I surely have to do with various dogs. But nevertheless, I recognize them as dogs. Similarly for various physical realisations of the sound (b).

## VII. ANTIREALISM IN CATEGORY INTERPRETATION

Some philosophers (Lakoff) have justifiedly ranked Wittgenstein as a precursor of the actual development in categorisation research, especially of the research in categorical perception.

Yet, along with this justified claim, they seem to jump to the conclusion that Wittgenstein has been, as well, and with the same move, a precursor of antirealism. The supposition in their reasoning is that categories are best interpreted antirealistically, because they are really kinds of conceptual nets, or parts of a network that we use to account for the world, covering it. The meaning of worldly events and objects would thus depend on our categorisation. By this very token, it would predominantly depend upon what is going on in our heads. Such claims are often supported by evidence of the cultural dependence of categorisation. For example, a typical bird for me might be a robin, but seagulls would be typical for someone living at the seashore. This does not show anything, however, because it might be that external conditions (robins being around, seagulls being around) vary, and that this is then determining typicality of concepts.

Besides, it is hard to see why Wittgenstein should be a precursor of antirealism, as antirealism, mind dependence, and internalism going along with them, is all too contrary to his overall views.

## VIII. WITTGENSTEIN'S REALISM

It follows from my discussion, and especially from the consideration of models that might be attributed to Wittgenstein, that he was a sophisticated externalist, because he did not suppose any epistemic intermediaries or any internal net of concepts. Neither does his model allow for organism-environment dualism.

This kind of realism might lead to a sophisticated externalist interpretation of categories, which, in my view, would be typical for Wittgenstein.

Suppose that Wittgensteinian schema is made to show us some entity, such as a bird, the information about which might be gathered on the basis of different birds encountered by an organism. It depicts some trajectory, that we might be able to recognize as a bird. This trajectory allows for slight deviations in its interpretation. It is some kind of an idealized residue of the bird, its causally supported core that we encountered in the various perceptions of birds.

I shall not go deeper into this question here. I would just like to indicate that there are some problems concerning individuation of mental states that are still with us, such as the disjunction problem, or various puzzles that originate from thought experiments. These puzzles might, at least in part, be products of the separation of the organism and its environment, and of the supposition of epistemic intermediaries. As well,

they might be products of a too strong causal requirements on the one side, and of too strong conceptual requirements on the other side. I think that the Wittgensteinian model is able to overcome both of these troubles. It does not imply a sharp separation of organism and external events and causes. In allowing the psychological realism of concepts, it also gives a basis for a causal account of them.

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*Maijaž Potrč: WITTGENSTEIN O SPOZNAJNIM POSREDNICIMA I  
KATEGORIZACIJI*

**S a ž e t a k**

Prikazuje se aktualnost Wittgensteinove kasne filozofije za suvremeno kognitivističko razumijevanje pojmova. Ističu se dvije značajke – Wittgensteinovo odbacivanje mentalnih reprezentacija i njegova teorija pojma kao spleta »obiteljskih sličnosti«. Ovo potonje je blisko novijim teorijama pojma, bilo onima koje upotrebljavaju pojam prototipa, bilo onima koji govore o modelu svijeta.