

THE STRUCTURE OF THOUGHTS

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In recent years the philosophy of mind has been developed relatively independently from the philosophy of language. Only a few decades ago it was quite generally held that thought is linguistic: language was supposed to be both a vehicle for thought and a means of communication. Due to the rise of cognitive science this idea has been abandoned. Thinking in language is now regarded to be only a part of our cognitive apparatus.

As a result of this development new directions within the philosophy of language have been pursued without taking notice of what motivated philosophers to study language in the first place. Nowadays semantic theories about language are being developed (like Dynamic Predicate Logic) that simply ignore the fact that language serves as an expression of thoughts.¹

There was a time that such a separate development of thought and language must have seemed a mystery. In Aristotle's work it was presupposed that the structure of objects in reality was reflected in the structure of assertions about those objects. An object has properties and in assertions about that object those properties are being assigned to it. The fundamental form of an assertion cannot be anything else for Aristotle but 'Subject is Predicate', in which 'is' functions both as a copula and as the carrier of truth or falsity.²

¹ See f.i. H. Kamp and U. Reyle (1993), chapter 0, J. Groenendijk and M. Stokhof (1991).

² See E. Tugendhat [1956] (1982).

Frege's revolution in logic started from another analysis of the fundamental form of an assertion. In an act of assertion, according to Frege, the speaker judges that the thought expressed in the assertion is true. Predicates, according to Frege, are 'ungesättigt'; so instead of a tripartite analysis of thoughts expressed, we have a bipartite.³ However, what Frege shares with Aristotle is an interest in the smallest units that can be true or false and that interest is motivated by the philosophical question what the relation is between language, thought and reality.

Since the scientific revolution in the seventeenth century the Aristotelian belief that there is a symmetrical harmony between reality, on the one hand, and language and thought, on the other, seemingly has become an untenable assumption. A similar assumption with respect to the relation between thought and language, however, is still commonplace within the philosophy of mind. Frege's analysis of thoughts into argument (proper names) and function (predicates) has been generally adopted as if predicate logic is *the* logic of the mind.

To give a few examples: in Fodor's language of thought hypothesis, it is assumed without argument that the sentences of the language of thought can be analysed in terms of Frege's predicate logic.⁴ Davidson requires that a theory of meaning is compositional and the compositional structure is again that of predicate logic, as is the logical form of sentences (and thus of thoughts, given Davidson's views about the relationship between thought and language).⁵

³ G. Frege [1879] (1977), § 9, pp. 15 – 18, G. Frege [1891] (1980), [1904] (1980).

⁴ See J. A. Fodor (1975), "What the private language must be like", pp. 79 – 97. J. A. Fodor (1987), "Appendix: Why There Still Has to Be a Language of Thought", pp. 135 – 154, J. A. Fodor (1994), *passim*, J. A. Fodor (1998), chapter 1, "Philosophical Introduction: The Background Theory", pp. 1 – 22.

⁵ D. Davidson [1970] (1984).

As a result of the widely accepted rejection of the idea that thought is linguistic, the Aristotelian assumption that there is a symmetrical harmony between thought and language has to be rejected. We then need to know if thoughts are indeed structured, and, if so, where the structure of thoughts is derived from.⁶ Is it from another medium, like pictures, or are thoughts intrinsically structured? Some kind of justification is required for the structure of thoughts, for it does not seem *prima facie* implausible nor impossible that corresponding to sentences there are unstructured thoughts or thoughts with a logical structure far more complicated than that of good old predicate logic. In this paper I examine one well-known attempt to justify the claim that thoughts are intrinsically structured, Evans's justification of the Generality Constraint. I compare this with a rival account, proposed by Peacocke. I end by suggesting that a naïve, Aristotelian realist has no difficulty at all in providing a justification of the Generality Constraint, which is therefore a view that deserves serious consideration.

I

What could be the starting point for the justification of the claim that thoughts are *essentially* structured? In order to gain more clarity on this question, I have structured an informal argument for that conclusion in separate premises.

1. Let us start by saying that what ever else a thought might be, it is the smallest unit of content that can be true or false.

⁶ For a rejection of the view that thoughts are structured see S. Schiffer (1991).

2. A thought about the external world is true, if and only if it describes the way the world is. These thoughts are world-directed.
3. In order to have a thought about an object in the world, we need to be able to identify and re-identify that object.
4. The notion of re-identification presupposes that we have a conception of that object as existing unperceived.
5. When is a thought about an object true? If the object the thought is about indeed has the property that it is thought to have.
6. Thus formulated, it seems that to entertain a thought about an object involves at least two separate ways of thinking:
 1. We need to be able to think about the object in a particular way (as the occupant of a particular place in time and space).
 2. We need to think about that same object as the possessor of a particular property (quality).
7. So when can we credit an individual with a true thought about an object? At the very least the subject must be able to think about that object and be able to identify it, and also must be able to think that it has that property.

This way of arguing for the claim that thoughts are intrinsically structured is basically Strawsonian. Strawson starts from the assumption that “the basic combination of subject and predicate” reflects some fundamental features of our thought about the world.⁷

“In any ground-level linguistic expression of a judgement of our fundamental type we distinguish three functions: that of specifying the particular(s) concerned; that of specifying the general concept concerned (i. e. the general concept which the particular(s) is (are) judged to exemplify); and that of presenting particular (s) and general concepts as assigned to each other in such a way that you have a propositional combination, true if the particular (or pair, trio, etc.) exemplifies the concept, false if not.”⁸

What distinguishes the informal argument cited above from Strawson’s approach, is that Strawson explains the structure of thoughts in terms of the structure of sentences that express these thoughts. As is well known, Evans has reversed this order of explanation in *The Varieties of Reference*, by interpreting Frege’s notion of sense as a way of thinking about the reference.⁹

The reversal of the order of explanation implies, of course, that “the essential combination” of subject and predicate in linguistic propositions needs to be explained in terms of the structure of the thoughts that are expressed in these propositions. For this purpose Evans introduces his by now famous Generality Constraint.

“[...], if a subject can be credited with the thought that *a* is *F*, then he must have the conceptual resources for entertaining the thought that *a* is *G*, for every property of being *G* of which he has a conception.”¹⁰

⁷ P. F. Strawson (1959), Part II, P. F. Strawson (1971), and P. F. Strawson (1974).

⁸ P. F. Strawson (1974), p. 22.

⁹ G. R. Evans (1982), chapter 1: “Frege”.

¹⁰ G. R. Evans (1982), p. 104.

The Generality Constraint plays a crucial role in Evans's justification for the claim that thoughts are structured as can be seen from the following quote. Evans writes:

“With the Generality Constraint in mind, we may take a small step from our truistic starting-point, and say that in the case of a proposition of the form ‘a is F’, knowledge of what it is for it to be true must be the result of two pieces of knowledge, one of which can be equated with an Idea of an object, and the other with an Idea of property, or more familiarly, a concept. [...] An Idea of an object is part of a conception of a world of such objects, distinguished from one another in certain fundamental ways. For every kind of object, there is a general answer to the question ‘What makes it the case that there are two objects of this kind rather than one (or three rather than two)?’”¹¹

At this point we are in the following position. The claim that thoughts are essentially structured is based on the Generality Constraint. So if we want to justify that thoughts are essentially structured, we need a justification for the Generality Constraint. If the Generality Constraint can be justified, we have all that is required for the claim that thoughts are essentially structured.

Evans's justification of the Generality Constraint employs as crucial notions that of ‘the fundamental ground of difference of an object’ and that of a ‘fundamental Idea of an object’. These ideas are grounded in Wiggins's sortal theory of identity.¹² An idea of an object is part of a conception of a world of such objects, distinguished from one another in certain fundamental ways. The most fundamental way that distinguishes an object from others is the fundamental ground of difference of that object. This fundamental ground of difference is a specific answer to the question what differentiates this object from all other objects. A subject possesses a fundamental idea of an object, if he thinks of it as the possessor of the fundamental ground of difference that it in fact possesses.

¹¹ G. R. Evans (1982), p. 106.

¹² D. Wiggins (1980) and (2001). I return to this influence below.

Given this explanation of what a fundamental idea is, Evans clearly presupposes that objects that can be differentiated from one another in one and only one fundamental way inhabit the world. He, therefore, does presuppose that there is a ready made world out there and his justification is therefore a realist one. However, Evans inherits from Wiggins and Strawson a version of realism that could be called ‘conceptual realism’. It starts from the assumption that we possess thoughts and then proceeds by inquiring what the pre-conditions are for being able to possess thoughts about a mind-independent reality. Evans then justifies the Generality Constraint, the claim that thoughts are essentially structured, by considering thoughts about objects. But given his starting point from within the realm of thoughts, one could very well question why we ought to base the justification of the Generality Constraint on thoughts about objects. For, so one could claim, all our thoughts are structured, not just thoughts about objects. So either one ought to assign a conceptual priority to thoughts about objects or else the justification of the Generality Constraint should not be based on a fundamental level of thinking about objects. Peacocke chooses to follow the second route.

II

Peacocke has criticised Evans’s approach, because it presupposes a questionable theory of identity.¹³ His own justification of the Generality Constraint is given in terms of the notion of ‘knowing what it is for’. This notion is embedded in his theory of concepts. According to Peacocke a thought is individuated by possession conditions for its constituents, concepts. Those possession conditions state what conditions a thinker must meet in order to be credited with the possession of that particular concept. It has

¹³ C. Peacocke (1992), “Appendix B: Evans’s derivation of the Generality Constraint: A Comparison”, pp. 231 – 235.

to be supplemented with an account of how concepts are combined in complete thoughts. Peacocke's account starts with Frege's dictum that sense determines reference. He uses this very requirement to explain how concepts are combined in one thought. The requirement, in his words, is:

“Possessing a concept is *knowing what it is for* something to be its semantic value.”¹⁴

The fact that concepts possess a semantic value explains how the truth-value is determined of a thought that is the result of combining two concepts.

Peacocke justifies the Generality Constraint by providing a Referential Explanation. This justification starts from two premises. The first is that attitudes are relations to complex contents, composed in a distinctive way from concepts possessed by the thinker. The second premise is that possessing a concept is *knowing what it is for* something to be its semantic value.

Armed with these premises we need to explain what it is for a thinker who has the thought Fa and the singular mode of presentation b to know what it is for the thought Fb to be true. If a thinker is capable of entertaining the thought Fa , then he has to know three things. First, he has to know, since he possesses the concept a , what it is for an arbitrary object to be the semantic value of a . Secondly, since he possesses the concept F , he must know what it is for an arbitrary object to be the semantic value of F . Thirdly, he must be able to grasp the semantic significance of the mode of combination of F and a .

If a thinker possesses the concept b , he similarly has to know what it is for an arbitrary object to be the semantic value of b . Since the possession of any concept requires that a subject has the capacity to entertain propositional attitudes towards contents containing that concept, the subject also knows what it is to judge Fb . If he judges Fb , then he *eo ipso* aims at the truth, when judging Fb . If he is able to aim at the

¹⁴ C. Peacocke (1992), p. 43.

truth when judging Fb , he must also be able to grasp the semantic significance of the mode of combination of F and b . In that case we cannot but conclude that the subject knows everything that is required for knowing what it is for the thought Fb to be true, so we have justified the Generality Constraint.¹⁵

Peacocke's justification of the Generality Constraint is very abstract. This has two consequences. The first is a virtue, because the account is applicable not only to the name/bearer relation in the case of observable, concrete objects, but also to abstract and microscopic objects, and also, his own example, moments in time. It thus avoids the problems Evans's account faces as a result of introducing the notion of a fundamental level of thought.

Peacocke does have a point: why should we require, as Evans does, that our thoughts necessarily involve knowing the fundamental ground of difference of objects? Do we really need to know to what ultimate sortal an object belongs to in order to be able to identify and re-identify that object?

It is instructive to try to reconstruct why Evans felt that thoughts have to be fundamental in order to be objective. The introduction of the Generality Constraint occurs in a chapter that is also a direct polemic with Dummett. As is well known Dummett accused semantic realists of employing a verification transcendent notion of truth in their theory of meaning. Consequently, according to Dummett, semantic realists cannot give a satisfactory account of how we manifest in our linguistic behaviour knowledge of the meaning of many sentences.¹⁶

Evans attempts to defend the realist's contention that we possess a verification transcendent notion of truth. Such a notion involves an absolute conception of the word. In such an absolute conception of the world each object possesses its fundamental ground of difference. Evans thus seems to have been motivated by the realist's craving for objectivity, but from within the realm of thoughts. But why couldn't a realist just start with the assumption that there is world out there inhabited by structured entities?

¹⁵ Cf. C. Peacocke (1992) (a), p. 43 - 44.

¹⁶ M. Dummett [1976] (1993). R. Garrett Millikan (2000), pp. 180 – 184, makes a similar point.

This question brings us to the second consequence. Since Peacocke intends his account to remain neutral about the external world, he needs to provide us with an explanation of how we acquire the capacity to know what it is for something to be semantic value of a concept.¹⁷ But that he does not provide. It is difficult to see how this can be achieved without presupposing the prototype situation of the referential name/bearer relation: names for observable entities. And indeed Peacocke suggests as much:

“Some of the possession conditions presented earlier have a clause with the property that judging in accordance with that clause requires, in the most basic case, making a fundamental identification of the object of predication. [...] Judging in accordance with that clause involves identifying the object of predication in a perceptual-demonstrative way. In the most basic case, this provides an egocentric identification of the location of the object at the time of the judgement. I also emphasized in earlier chapters that the other clauses of these possession conditions ride on the back of the perceptual clause: these other clauses make reference to experiences of the sort mentioned in the perceptual case, but not vice versa.”¹⁸

If perceptual concepts are the most basic concepts of our conceptual repertoire, then we expect that to be reflected in an account of the structure of thoughts, not just in a clause, but centrally in the framework of the explanation, unless we are being given very good reasons to give up that expectation.

III

As we saw in the previous section Peacocke questioned whether a fundamental level of thought is required in order to be able to credit someone with the capacity of referring

¹⁷ That Peacocke intends his Referential Explanation of the Generality Constraint to be abstract is illustrated by the following quote: “[...] the Referential Explanation is independent of the kind of object referred to by the concepts quantified over in the constraint. It is of equal application to thoughts about material objects, numbers, sets, mental events, or anything else. As far as the explanation of the constraint is concerned, no subject matter has any explanatory priority.” C. Peacocke (1992), p. 44.

¹⁸ C. Peacocke (1992), p. 233.

and thinking about an object. We do not need a fundamental, sortal concept in order to be able to refer and think about an object. He provided an alternative justification of the Generality Constraint that did not require a fundamental level of thought. However, his account became so abstract that it did not pay justice to the fact that our basic thoughts are intimately tied with our perceptions; it treated that fact as a mere afterthought. So the challenge that we now face is to come up with an explanation of the structure of thoughts that respects that thought and perception are inextricably linked without invoking the notion of a fundamental level of thought in the way Evans proposed.

In order to develop such an alternative, let us return to the informal argument for the Generality Constraint given above. The first premise in that argument was the following:

1. Let us start by saying that what ever else a thought might be, it is the smallest unit of content that can be true or false.

This premise might be true, but it invites the question whether thoughts are the only contents that can be true or false. The answer is that they are not, since there are other contents like perceptual contents, that can be true or false as well.¹⁹ Let us focus on perceptual content. In perception objects are presented to us. It is the means through which our thought is connected with the world. We perceive objects that are *presented* to us in perception.²⁰ This brings us to the second premise of the informal argument.

2. A thought about the external world is true, if and only if it describes the way the world is. These thoughts are world-directed.

The crucial notion in this premise is that of ‘world directedness’. Is the ‘world directedness’ of thoughts the same as that of perception? The answer is that it is not.

¹⁹ See a. o. T. Crane (1992).

²⁰ A point also stressed by A. Clark (2000), p. 115.

The aboutness of perception requires an ongoing flow of information; the aboutness of thoughts does not. As Austen Clark has put it: “The ‘ofness’ of sensation is not the ‘ofness’ of thought.”²¹

This claim raises the question which of the two is the more fundamental notion. From the seventeenth century onwards the mainstream answer has been that only conceptual content has intentional content, which implies that experience, if is *about* anything, has to be conceptual, an implication embraced by philosophers as diverse as Kant, Quine and McDowell. As is well known, this position has been challenged on the basis of the following arguments, which I repeat below, because I want to connect them with the justification of the Generality Constraint.

The main arguments are the following:

1. One should not confuse the content of a perceptual experience with a description of that content, just like one should not confuse an object with a description of that object.²²
2. An indication of the truth of 1) is the observation that contents of experiences are more finely grained than the concepts possessed by the experiencer.²³
3. A further indication of the truth of 1) is that perceptions are resilient to conclusive counterevidence which forces us to acknowledge that they are not beliefs.²⁴

²¹ See A. Clark (2000), p. 115.

²² M. R. Ayers (2004), pp. 250 – 251.

²³ C. A. B. Peacocke (1992), p. 67.

²⁴ G. R. Evans (1982), pp. 123 – 124, T. Crane (1992).

4. Perceptual content is a more primitive notion than that of conceptual content. We share it with animals and children.²⁵

If these arguments are convincing, some obvious consequences for an account of thought follow. For we now have to say that “the propositional account of non-propositional content is based or grounded on that content, not simply caused by it. It has to be so grounded, in order to be an account of the thing of which it is an account. The cause of a description is not thereby its object. The object of a non-accidentally true description has both to cause and ground it.”²⁶

This view is supported by an argument to the effect that a more primitive level of thought makes demonstrative thoughts about objects possible.²⁷ Knowledge of reference is thus based on acquaintance with the object, on conscious attention to an object.

Campbell writes:

“Our grasp of the identity conditions of an object over time, or the boundaries of the object at a time, is grounded not in grasp of sortal concepts, but in the style of conscious attention we pay to the thing. And conscious attention to the object does not have to be focused by a grasp of sortal concepts; the various styles of conscious attention of which we are capable do not rely on our use of sortal concepts. Grasp of sortal concepts is a more sophisticated matter than the phenomena of reference and conscious attention.”²⁸

If that is correct, the implications for the justification of the Generality Constraint in terms of sortal concepts or fundamental Ideas at the fundamental level of thought are far reaching. For such a justification just seems to demand too much sophistication on the part of the thinker, than seems required for the ability to entertain structured thoughts. Campbell concludes: “It seems evident that we cannot sustain this conception of a level of thought, more fundamental than the level of perceptual demonstratives, at

²⁵ F. i. C. McGinn (1989), p. 62.

²⁶ M. R. Ayers (2004), p. 251.

²⁷ J. Campbell (2002).

²⁸ J. Campbell (2002), p. 83.

which predicates of physical things are first introduced and explained.”²⁹ However, he does not explicitly draw the obvious conclusion from his own argument that Evans’s justification of the Generality Constraint fails for the very reason that such a fundamental level of thought cannot be sustained, although it is implied by what he writes.

The reason that Evans’s justification of the Generality Constraint fails is thus his adherence to a fundamental level of thought. As mentioned above, what seems to have motivated Evans to adopt it is a vestige of conceptualism, probably under the influence of Wiggins. In *Sameness and Substance* the latter defends a sortal theory of identity according to which every object is individuated by the fact that it belongs to a natural kind and occupies a certain position in space and time. Indeed, exactly the criteria an idea of an object has to satisfy in order to qualify as a fundamental Idea of that object. In the course of expounding his views Wiggins defends the thesis that realism and conceptualism are compatible; in a later essay supported by referring to Leibniz:

“In Leibniz’s account of ordinary human knowledge, a clear idea of horse is not an image or a likeness of horse. It is that by the possession of which I recognize a horse when I encounter one. [...] A clear idea of horse is confused (or non-distinct) if, even though I can recognize a horse when I encounter one, I cannot enumerate one by one the marks which are sufficient to distinguish that kind of thing from another kind of thing. My understanding is simply practical and deictic. What I possess here I possess simply by having been brought into the presence of the thing. [...] Our idea of horse will begin to become distinct as we learn to enumerate the marks that flow from the nature of a horse and that distinguishes a horse from other creatures.”³⁰

Conceptual realism thus requires an active role of concepts in the identification of concepts, and at the same time demands a contribution of the object to be identified in that process. Wiggins emphasizes that duality:

²⁹ J. Campbell (2002), pp. 109 – 113.

³⁰ D. Wiggins (1994), p. 213.

“[...] the object is there anyway, even if it took a particular sort of empirically and logically constrained looking to light up there. The mind *conceptualizes* an object that is there to be conceptualized, even as the object *impinges* upon the mind that has the right thought to single out that object.”³¹

Evans has not adopted Wiggins’s terminology, but the framework of conceptual realism is clearly visible in his account of an information-based particular thought about an object. Such a thought involves a duality of factors:

“[...] on the one hand, the subject’s possession of information derived from an object, which he regards as germane to the evaluation and appreciation of the thought; and on the other hand, the subject’s satisfaction of the requirement imposed by Russell’s Principle – his identification of the object which his thought concerns.”³²

So even though Evans’s work provided many of the ingredients that enabled philosophers to develop theories about non-conceptual content, in his own work that notion mainly played a role in a causal explanation of how we are able to locate an object belonging to a particular natural kind in space and time of which we already possess a conception, thus essentially remaining faithful to conceptual realism.

If what has motivated Evans to introduce the notion of a fundamental level of thought is no longer credible, then there is less urgency to defend it on independent grounds. And if the arguments against a fundamental level of thought are convincing, then we need an alternative justification for the Generality Constraint and for the idea that thoughts are structured. In earlier work Campbell has provided an alternative account of why thoughts are structured.³³ However, his own recent work suggests yet another alternative.

Campbell argues at some length that conscious attention to an object unites the different features our senses register as coming from one location. Conscious attention

³¹ D. Wiggins (1986), p. 180.

³² G. R. Evans (1982), p. 138.

³³ J. Campbell (1986).

thus presents an object as a material unity with different qualities to our thinking. Subsequently we can apply concepts to that object and refer to it.

It could be objected that this account focuses on perceptual identification and that an account and an explanation of reference ought to be more general, as Peacocke argues. But there is a simple rebuttal of this objection (already mentioned in the above): the notion of reference is acquired by the prototype of the reference relation, which is the name/bearer relation. Even the most prominent anti-realist has to resort to the standard situation of referring to medium shaped size objects in order to explain what reference is.³⁴ That means that there is conceptual asymmetry between the concept of reference when applied to medium-sized objects and the concept of reference when it is used for referring to, for instance, deceased or abstract objects, in the following sense: that the notion of reference when applied in the case of terms for abstract objects is explained in terms of reference to concrete medium-sized objects, but not vice versa.³⁵

The question of what justifies this conceptual asymmetry then arises, and the answer surely must be that our notion of reference is based on a realist conception of the world around us. So we can derive from Dummett's remark the following transcendental argument:

1. We possess a notion of (successful) reference.
2. A precondition for the possibility of possessing the notion of referring to objects, is that we are able to refer to medium sized objects in our vicinity.
3. Therefore: we are able to refer to medium sized objects in our vicinity.

The decidability of the reference relation thus requires us to acknowledge the existence of medium sized objects. The question then arises what explains our capacity to refer successfully to these objects and the answer must be: through experience. In Campbell's words: "concepts of individual physical objects, and concepts of the

³⁴ M. Dummett (1973), several places, f. i. pp. 406 – 408.

³⁵ As Peacocke also suggests in the passage quoted above from his (1992), p. 233.

observable characteristics of such objects, are made available by our experience of the world. It is experience of the world that explains our grasp of these concepts.”³⁶

The explanatory role experience plays is that knowledge of reference of a term in the prototype situation (for instance, when a person is introduced to a hearer by a speaker with a phrase like: “This is Miss so and so”) demands an ability to locate the object referred to. The ability to locate that object involves the binding of features located at the place occupied by the object and registered by our senses and our informational systems.

Thus described, the ability to locate an object that enables a thinker to describe whether his or her reference to an object has been successful involves a capacity to unite different features into a single object. This cognitive capacity of binding features ought to be distinguished from the capacity to make a distinction between features and the thing they are features *of*. It is a more primitive capacity than the capacity to predicate, yet is crucial for an account of the structure of thoughts.

The argument for the claim that thoughts are structured now proceeds as follows. The first step is to accept that we have to assign conceptual priority to name/bearer relation in the case of middle-sized objects. That is the prototype situation in which we acquire the notion of reference.

Secondly, in that prototype situation a thinker has a thought about that middle-sized object in front of him or her. That thought is true, if and only if the object the thought is about indeed has the property the thought assign to it.

Traditionally, the explanation of how thoughts were verified followed the Fregean model. “The two anchors of Frege’s semantics” are truth and reference.³⁷ The relationship between truth and reference was thought to be reciprocal. Only if the proper name successfully refers to an object, can the question whether the thought is true arise. Conversely, asking whether the thought is true, forces a thinker to find out whether the proper name refers.

³⁶ J. Campbell (2002), p. 128.

³⁷ The phrase “The two anchors of Frege’s semantics” is Evans’s. See G. R. Evans (1982), p. 9.

Campbell's explanation of knowledge of reference demands a modification of Frege's model. Knowledge of reference ought to be distinguished from finding out whether a demonstrative or a proper name occurring in a thought refers. The identification of the object is more fundamental than its re-identification and recognition. We first have to lower the first anchor, reference, and then we can start to entertain thoughts about the object. Thoughts require pre-predicative experience.³⁸

Campbell argues convincingly that we ought to distinguish between

(1) Using an object's possession of a property to single it out visually,

and

(2) Verifying a proposition to the effect that the object has that property.³⁹

The first is a pre-conceptual cognitive activity, the second a conceptual one. The distinction between these two cognitive activities thus explains that thoughts are structured, much in the way as Aristotle suggested: there is something immediately present in front of us (*hypokeimenon*) that has certain properties.

Conclusion

After the linguistic turn in philosophy the structure of thoughts could be explained and derived from the structure of sentences. Now philosophy has taken a cognitive turn this view can no longer be sustained. I have examined attempts to justify the structure and compositionality of thoughts that take as their point of departure the so-called Generality Constraint. Evans' s account, which has been the first attempt, failed

³⁸ Cf. E. Husserl[1939] (1985), Abschnitt I.

³⁹ J. Campbell (2002), pp. 28 – 34.

because it relied on the notion of a fundamental level of thought, which is too demanding. First, since its *explanans* seems more sophisticated than the *explanandum*, the capacity to entertain structured thoughts. Secondly, because it is incapable to account for the structure of many thoughts that do not involve a fundamental way of thinking, yet are clearly structured.

I then examined Peacocke's justification. Although in many ways congenial to the spirit of the proposal I favour, I concluded that its main structure, based on the notion of 'knowing what it is for', is too abstract, in particular because it does not assign a central role to perception, although Peacocke states that this is the basic case.

In Campbell's account of knowledge of reference perception is treated as being fundamental for the ability and the development of conceptual thoughts. He treats knowledge of reference as a pre-conceptual cognitive capacity that enables us to entertain thoughts about objects presented to us in perception.

If that is correct, it is a return to Aristotle in at least this respect, that there is some kind of harmony between thought and reality after all. In that case an extremely straightforward justification of the Generality Constraint and the structure of thoughts presents itself: it is simply that the structure of thoughts mirrors the structure of reality. There is simply no other way to think about reality.

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