

Some Frege Passages from Late Fragments on Logic

Passages from unpublished 1897 *Logic* fragment:

Introduction: The predicate *true*, thoughts, consequences for the treatment of logic

When entering upon the study of a science, we need to have some idea, if only a provisional one, of its nature. We want to have in sight a goal to strive towards; we want some point to aim at that will guide our steps in the right direction. **The word 'true' can be used to indicate such a goal for logic, just as can 'good' for ethics and 'beautiful' for aesthetics.** Of course all the sciences have truth as their goal, but logic is concerned with the predicate 'true' in a quite special way, namely in a way analogous to that in which physics has to do with the predicates 'heavy' and 'warm' or chemistry with the predicates 'acid' and 'alkaline'. There is, however, the difference that these sciences have to take into account other properties besides these we have mentioned, and that there is no one property by which their nature is so completely characterized as logic is by the word 'true'. [B 227-8]

Like ethics, logic can also be called a normative science. [B 228]

Consequently we can also say: **logic is the science of the most general laws of truth.** [B 228]

Now **it would be futile to employ a definition in order to make it clearer what is to be understood by 'true'.** If, for example, we wished to say 'an idea is true if it agrees with reality' nothing would have been achieved, I since in order to apply this definition we should have to decide whether some idea or other did agree with reality. Thus we should have to presuppose the very thing that is being defined. The same would hold of any definition of the form '*A* is true if and only if it has such-and-such properties or stands in such-and-such a relation to such-and-such a thing'. In each case in hand it would always come back to the question whether it is true that *A* has such-and-such properties, or stands in such-and-such a relation to such-and-such a thing. **Truth is obviously something so primitive and simple that it is not possible to reduce it to anything still simpler.** [B 228]

What, in the first place, distinguishes it from all other predicates is that predicating it is always included in predicating anything whatever.... Therefore **it is really by using the form of an assertoric sentence that we assert truth, and to do this we do not need the word 'true'.** Indeed we can say that **even where we use the form of expression 'it is true that ...' the essential thing is really the assertoric form of the sentence.** [B 229]

In the cases which alone concern logic the sense of an assertoric sentence is either true or false, and then we have what we call a thought proper. [B 229]

Instead of speaking of 'fiction', we could speak of '**mock thoughts**' ['*Scheingedanke*']. Thus if the sense of an assertoric sentence is not true, it is either false or fictitious, and it will generally be the latter if it contains a I mock proper name. [B 230]

The sense of an assertoric sentence I call a thought. [B 230]

What if it is objected that I am attaching to **the word 'thought'** a sense that it does not ordinarily have, and that other people **understand by it an act of thinking**, which is obviously private and mental? [B 236]

Ftnt: Dedekind, in proposition 66 of his work *Was sind und was sollen die Zahlen?*, uses this word as I do. For he is attempting there to prove that the totality of things that can be objects of his thinking is infinite. Let s be such an object; then Dedekind calls $\Phi(s)$ the thought that s can be an object of his thinking. And this thought can now itself be an object of his thinking. Thus $\Phi(\Phi(s))$ is the thought that the thought that s can be an object of his thinking can be an object of his thinking. We can see from this what ' $\Phi(\Phi(\Phi(s)))$ ', ' $\Phi(\Phi(\Phi(\Phi(s))))$ ' and so on, are supposed to stand for [*bedeuten*]. It is essential to the proof that the sentence's can be an object of Dedekind's thinking' always expresses a thought when the letter ' s ' designates such an I object. Now if, as Dedekind wishes to prove, there are infinitely many such objects s , there must also be infinitely many such thoughts $\Phi(s)$.

The metaphors that underlie the expressions we use when we speak of grasping a thought, of conceiving, laying hold of, seizing, understanding, of *capere*, *percipere*, *comprehendere*, *intelligere*, put the matter in essentially the right perspective. **What is grasped, taken hold of, is already there and all we do is take possession of it.** Likewise, what we see into or single out from amongst other things is already there and does not come into existence as a result of these activities. [B 237]

In an assertoric sentence two different kinds of thing are usually intimately bound up with one another: the thought expressed and the assertion of its truth. And this is why these are often not clearly distinguished....

When we inwardly recognize that a thought is true, we are making a judgement:

when we communicate this recognition, we are making an assertion.

We can think without making a judgement. [B 239]

The distinction between what is part of the thought expressed in a sentence and what only gets attached to the thought is of the greatest importance for logic. [B 242]

let us never forget that two different sentences can express the same thought, that we are concerned with only that part of a sentence's content which can be true or false....

...if there were only a jot more to the thought contained in the active form than in the passive,

we should not be able to go over from the passive form to the active without examining the particular case in hand. But if both transitions can always be made *salva veritate*, then this confirms that what is true here, namely the thought, is not affected by this change of form. [B 244]

Standing by a river one often sees eddies in the water. Now would it not be absurd to claim that such an eddy of water was sound or true? And even if the dance of the atoms and molecules in my brain was a thousand times more spirited and frenzied than the dance of gnats on a summer evening, would it not be just as absurd to assert that it was sound or true? ... They are no more true than they are false; they are simply processes, as an eddy in water is a process. And if we are to speak of a right, it can only be the right of things to happen as they do happen. One phantasm contradicts another no more than one eddy in water contradicts another. [B 245-6]

It is not the holding something to be true that concerns us but the laws of truth. We can also think of these as prescriptions for making judgements; we must comply with them in our judgements if we are not to fail of the truth. So if we call them laws of thought or, better, laws of judgement, we must not forget we are concerned here with laws which, like the principles of morals or the laws of the state, prescribe how we are to act, and do not, like the laws of nature, define the actual course of events. [B 247]

Let us summarize what we have elicited about thoughts (properly so-called).

Unlike ideas, thoughts do not belong to the individual mind (they are not subjective), but are independent of our thinking and confront each one of us in the same way (objectively). They are not the product of thinking, but are only grasped by thinking. In this respect they are like physical bodies. What distinguishes them from physical bodies is that they are non-spatial, and we could perhaps really go as far as to say that they are essentially timeless - at least inasmuch as they are immune from anything that could effect a change in their intrinsic nature. They are like ideas in being non-spatial.

Since thoughts are not mental in nature, it follows that every psychological treatment of logic can only do harm. It is rather the task of this science to purify logic of all that is alien and hence of all that is psychological, and to free thinking from the fetters of language by pointing up the logical imperfections of language. Logic is concerned with the laws of truth, not with the laws of holding something to be true, not with the question of how people think, but with the question of how they must think if they are not to miss the truth. [B 250]

Passages from the 1906 fragment *Introduction to Logic*:

Proper names are meant to designate objects, and we call the object designated by a proper name its *Bedeutung*. On the other hand, a proper name is a constituent of a sentence, which expresses a thought. Now what has the object got to do with the thought? [B 293]

'we can't say that an object is part of a thought as a proper name is part of the corresponding sentence. Mont Blanc with its masses of snow and ice is not part of the thought that Mont Blanc is more than 4000 m high; all we can say is that to the object there corresponds, in a certain way that has yet to be considered, a part of the thought' (*PW*, p. 187).]

The two sentences 'The Evening Star is the same as the Evening Star' and 'The Morning Star is the same as the Evening Star' differ only by a proper name with the same *Bedeutung*. Nevertheless they express different thoughts. So the sense of the proper name 'the Evening Star' must be different from that of the proper name 'the Morning Star'. The upshot is that **there is something associated with a proper name, different from its *Bedeutung*, which can be different as between proper names with the same *Bedeutung*, and which is essential to the thought-content of the sentence containing it.** A sentence proper, in which a proper name occurs, expresses a singular thought, and in this we distinguished a complete part and an unsaturated one. The former corresponds to the proper name, but it is not the *Bedeutung* of the proper name, but its sense. The unsaturated part of the thought we take to be a sense too: it is the sense of the part of the sentence over and above the proper name. And it is in line with these stipulations to **take the thought itself as a sense, namely the sense of the sentence. As the thought is the sense of the whole sentence, so a part of the thought is the sense of part of the sentence.** Thus the thought appears the same in kind as the sense of a proper name, but quite different from its *Bedeutung*. [B 294]

If several proper names occur in a sentence, the corresponding thought can be analysed into a complete and unsaturated part in different ways. The sense of each of these proper names can be set up as the complete part over against the rest of the thought as the unsaturated part.... If we split up a sentence into a proper name and the remainder, then this remainder has for its sense an unsaturated part of a thought. But we call its *Bedeutung* a concept. [B 295]

We have seen that it is true of parts of sentences that they have *Bedeutungen*. **What of a whole sentence, does this have a *Bedeutung* too?** If we are concerned with truth, if we are aiming at knowledge, then we demand of each proper name occurring in a sentence that it should have a *Bedeutung*. On the other hand, we know that as far as the sense of a sentence, the thought, is concerned, it does not matter whether the parts of the sentence have *Bedeutungen* or not. It follows that there must be something associated with a sentence which is different from the thought, something to which it is essential that the parts of the sentence should have *Bedeutungen*. This is to be called the *Bedeutung* of the sentence. **But the only thing to which this is essential is what I call the truth-value—whether the thought is true or false.** [B 297]

In fact at bottom the sentence 'It is true that 2 is prime' says no more than the sentence '2 is prime'. If in the first case we express a judgement, this is **not because of the word 'true', but because of the assertoric force** we give the word 'is'. [B 297]

A sentence proper is a proper name, and its *Bedeutung*, if it has one, is a truth-value: the True or the False. There are many sentences which can be analysed into a complete part, which is in its turn a proper name, and an unsaturated part, which stands for [*bedeutet*] a concept. In the same way there are many proper names, whose *Bedeutung[en]* are not truth-values, which can be analysed into a complete part, which is in its turn a proper name, and an unsaturated part. If this latter is to have *Bedeutung* [*bedeutungsvoll sein soll*], then the result of saturating it with any proper name with *Bedeutung* must once more be a proper name with *Bedeutung*. When this happens, **we call the *Bedeutung* of this unsaturated part a function.** [B 297-8]

As an example let us start off from the sentence ' $3 - 2 > 0$ '. We split this up into the proper name ' $3 - 2$ ' and the remainder ' > 0 '. We may say this unsaturated part stands for [*bedeute*] the concept of a positive number. This **concept must have sharp boundaries. Every object must either fall or not fall under this concept.** [B 298]

Passages from "A Brief Survey of My Logical Doctrines" (1906):

Now two sentences *A* and *B* can stand in such a relation that anyone who recognizes the content of *A* as true must straightaway [*ohne weiteres*] also recognize that of *B* as true, and conversely, that anyone who accepts the content of *B* must immediately [*unmittelbar*] accept that of *A* (*equipollence*). [B 299]

So one has to separate off from the content of a sentence the part that alone can be accepted as true or rejected as false. I call this I part the thought expressed by the sentence. It is the same in equipollent sentences of the kind given above. It is only with this part of the content that logic is concerned. 6 I call anything else that goes to make up the content of a sentence the colouring [*Färbung*] of the thought.' [B 300]

Now the hypothetical combination of *A* and *B* is the opposite of the conjunction of *A* and the opposite of *B*. But, conversely, the conjunction of Γ and Δ is the opposite of the hypothetical combination of Γ with the opposite of Δ . By means of negation the hypothetical mode can thus be reduced to conjunction and conjunction to the hypothetical mode. Looked at from a logical standpoint both appear equally primitive. **But since the hypothetical mode is more closely connected with drawing inferences, it is best to give it pride of place, and see it as the primitive form, reducing conjunction to it.** [PW 200]

Passages from "Notes for Ludwig Darmstaedter" [1919]:

What is distinctive about my conception of logic is that I begin by giving pride of place to the content of the word 'true', and then immediately go on to introduce a thought as that to which the

question 'Is it true?' is in principle applicable.' So I do not begin with concepts and put them together to form a thought or judgement; I come by the parts of a thought by analysing the thought. [B 362]

A distinction has to be drawn between the sense and *Bedeutung* of a sign (word, expression). If an astronomer makes a statement about the Moon, the Moon itself is not part of the thought expressed. The Moon itself is the *Bedeutung* of the expression 'the Moon'. Therefore in addition to its *Bedeutung* this expression must also have a sense, which can be a constituent of a thought. We can regard a sentence as a mapping of a thought: corresponding to the whole-part relation of a thought and its parts we have, by and large, the same relation for the sentence and its parts. Things are different in the realm of *Bedeutung*. We cannot say that Sweden is a part of the capital of Sweden. The same object can be the *Bedeutung* of different expressions, and any one of them can have a sense different from the sense of any other. Coincidence in the realm of *Bedeutung* can go hand in hand with difference in the realm of sense. This is what makes it possible for a sentence of the form ' $A = B$ ' to express a thought with more content than one which merely exemplifies the law of identity. A statement in which something is recognized as the same again can be of far greater cognitive value than a particular case of the law of identity. [B 364-5]