



Artículo de Investigación

## The Linguistic Pitfall for Konstantierungen (or Schlick's Foundation of Belief) as Language of Thought or Natural Language Sentences

La Trampa Lingüística de las Constataciones (o Fundamento de Creencias de Schlick) como Oraciones en Lenguaje del Pensamiento o del Lenguaje Natural

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**Abstract:** One of the leading figures of Logical Positivism, Moritz Schlick, wrote a well-known article “On the Foundations of Knowledge”, edited in English by Sir Alfred Ayer in 1959, in which he proposes *Konstantierungen*, also known as *affirmations* or *confirmations* in English, to play the part of the much sought-after indubitable and incorrigible foundation of personal belief. In the present article I will oppose this view via the perspective of confirmations in their linguistic nature, a trait that renders *Konstatierungen* untenable both as sentences in Language of Thought (Fodor, 1975) – where it is thought that is linguistic, and natural language is but a means for expressing it-, and as occurring in natural languages due to the obligatory phenomenon of grammatical evidentiality in many world languages.

**Keywords:** *Konstatierung* - foundationism - linguistics - evidentiality

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**Resumen:** Moritz Schlick, uno de los líderes del Positivismo Lógico, escribió su reconocido artículo “Sobre los Fundamentos del Conocimiento”, que Sir Alfred Ayer editara en inglés en 1959, en el cual postula a las constataciones, también llamadas confirmaciones o *Konstatierungen* en alemán original, como ejerciendo el tan codiciado rol de fundamento indubitable e incorregible de creencias personales. En el presente artículo me opondré a esta postura desde la perspectiva de las constataciones en su naturaleza lingüística, rasgo que muestra que las *Konstatierungen* son insostenibles como oraciones en el Lenguaje del Pensamiento (Fodor, 1975) – por el cual es el pensamiento el que posee estructura lingüística, y el lenguaje natural solamente sirve para expresarlo-, y como enunciados en el lenguaje natural, debido al fenómeno de evidencialidad gramatical que emerge como obligatorio en muchas lenguas del mundo.

**Palabras clave:** *Konstatierung* - fundacionismo - lingüística - evidencialidad

## 1. Introduction

In 1930s' Vienna, Schlick, Carnap and Neurath were debating on the topic of a certain kind of statement that could serve as foundation of knowledge, in an attempt at avoiding experiences, sensory impressions or sense data themselves to play the part of epistemic intermediaries. It had become clear by then that sense data or similar mental entities did not satisfy conditions to pass verification tests, on account of the very properties attributed to these: sense data and the like did not have a propositional structure such as S is P, and they could be neither true nor false. Much heated debate ensued at the time around the question of *protocol statements*, as in Carnap (1932), specifically on whether they were to be understood physicalistically, naturalistically or strictly philosophically. Schlick questioned whether they could disentangle or not the “old problem of the basis” (1959: 212) and incontrovertibility for knowledge in science and for personal beliefs. The present article will focus only on Schlick's *Konstatierungen*, which had originally been presented as a superior alternative to protocols. The present work does not concern itself with the protocol controversy, though. The reasons why these *affirmations*, *confirmations* or *observation statements* are untenable are shown via analysis of linguistic characterizations in LOT and in grammatically well-formed sentences of several world languages. Before that, however, it will be necessary to describe the nature of this mental assertion that, according to Schlick, provides absolute certainty and grounding upon which other beliefs can be based.

## 2. Confirmations: definition and characteristics

If anything, a confirmation is to be a statement that is not open to erring. Neither can its truth derive from its agreement with other statements, in Schlick's view. It needs to enclose a material truth, and to express facts of immediate observation that, in turn, would allow cognition to rest upon it, and lend certainty to that cognition. And it can only be the case of accepting one's own observation statements, not others' experiences or observation statements – lest one should fall prey to deceit or lack of certainty immediately.

Schlick compared *Konstatierungen* to analytic and synthetic statements: unlike analytic statements, they do not hold a priori, nor are they true in virtue of their correct construction and agreeing with our “arbitrarily established definitions” (1959: 223). Like them, understanding their meaning and noting their validity constitute one and the same process. As is the case with synthetic assertions, their truth is determined by comparison with experience, but “the process of grasping the meaning is here quite distinct from the process of verification” (1959: 223). Schlick stated that:

I can understand the meaning of a ‘confirmation’ only by, and when, comparing it with the facts, thus carrying out that process which is necessary for the verification of all synthetic statements. While in the case of all other synthetic statements determining the meaning is separate from, distinguishable from, determining the truth, in the case of observation statements they coincide, just as in the case of analytic statements (Schlick, 1959: 225).

Alongside the traits of not being hypothetical nor ever false, and being about one’s own direct observable experience, these confirmations serve another function, “namely, the corroboration of hypotheses, their verification” (Schlick, 1959: 221), hence the name *Konstatierung*. According to Schlick, we obtain a peculiar satisfaction “in the very moment in which the confirmation takes place, in which the observation statement is made” (Schlick, 1959: 222). The fact that they are simultaneous with actual observation means they cannot take up any duration in time, nor can they be written or expressed orally, as that would place these statements, in their external enunciation as from one second after they were thought, in a position quite like a hypothesis (of an event, etc.). To facilitate comprehensibility of the hard-to-handle question of cognition, he even resorted to a fire-kindling metaphor in cognition:

[confirmations] are the only synthetic statements that are not hypotheses. They do not in any way lie at the base of science; but like a flame, cognition, as it were, licks out to them, reaching each but for a moment and then at once consuming it. And newly fed and strengthened, it flames onward to the next (Schlick, 1959: 227).

Yet another characteristic is that “they are logically of no use”, but “they constitute an absolute end” bringing verification to completion. What they are the origin and stimuli of is those hypotheses that we seek, in addition to the search for universal laws and so on, at a later stage. In other words, the function of observation statements is *finality*: the task of cognition begins with the satisfaction of it being fulfilled at this very point. “Science leads to them, and they indicate that it has led correctly” (Schlick, 1959: 223).

To clarify what Schlick had in mind regarding confirmations and their characteristics, he said that:

they (...) are always of the form ‘Here now so and so’, for example ‘Here two black points coincide’, or ‘Here yellow borders on blue’, or also ‘Here now pain’, etc. What is common to all these assertions is that demonstrative terms occurring in them have the sense of a present gesture, i.e. their rules of usage provide that in making the statements in which they occur, some experience is had, while attention is directed upon that which is being observed. What is referred to by such words as ‘here’, ‘now’, ‘this here’, cannot be communicated by means of general definitions in words, but by means of them together with pointings or gestures. ‘This here’ has meaning only in connection with a gesture. In order, therefore, to understand the meaning of such an affirmation, one must simultaneously execute the gesture, and somehow point to reality (Schlick, 1959: 225).

It has become quite clear in Schlick’s proposal of confirmations that for these to act as valid justification of belief, confirmations have to be ephemeral mental assertions (perhaps unspoken), definitely unwritten, not prone to error at all and always true by virtue of immediate experience while the process of immediate verification is taking place, whose structure includes demonstratives as if pointing to reality, and which by no means can make reference to perceptions taking place nor to third parties (as had been the case with protocol statements). Their validity is absolute but they are useless as a *permanent* foundational tool for justification of knowledge or belief – they only justify, fleetingly, our own beliefs.

In attempting to find an “unshakeable point of contact between knowledge and reality”, it is worth mentioning the effort to avoid the pitfalls of unstructured mental content as epistemic intermediaries which had been embraced by proponents of ideas, sense data and the like, whose structure is as mysterious as is not propositional. In my view, it is evident Schlick had faith that confirmations were indeed structured propositionally and hold true at all times, by characterizing them as based on direct perception (i.e. they count as somewhere in between synthetic and analytic propositions in this sense) and allowing verification of this process all at once, thus placing the “burden” of justification on a special kind of statement that is self-contained, accounting for direct observation of particulars (as being thus-and-so, as we will see below) and that confirms itself on the fly. In spite of the fragmented nature of, for example, “Here now pain”, the fact that Schlick inscribed *truth* as one necessary condition for confirmations is, from my perspective, sufficient to believe he had a propositional structure in mind for *Konstatierungen*. The move of removing the mark of the existential or the copula was made to make these statements more akin to perceptual experience. This view is very much in line with Davidson’s critique (2001: 163) of Schlick’s confirmations:

Quasi-sentences like ‘Black here now’ have been proposed as expressing such states of mind [that bridge or eliminate the gap between sensation, where no question of truth can arise, and judgement, which is plausibly a source of evidence]. And perhaps we will be persuaded that there are such states of mind if we overlook the fact that the verb has been omitted (since putting it in would push things too far in the direction of judgement) and that words like ‘here’ and ‘now’ cannot be understood except as involving a reference to an agent.

But even if the view of Schlick’s *Konstantierungen* as propositional in structure were rebuffed, it is doubtless he included linguistic elements into play when it comes to founding belief. And this ought to be so because, after all, confirmations ought to be formulated somehow, at least to oneself. Notice the examples Schlick used himself:

Example 1: “Here two black points coincide”.

Example 2: “Here yellow borders on blue”.

Example 3: “Here now pain”.

### 3. The linguistic pitfall

There is one difficulty with Schlick’s confirmations which renders them impossible: their linguistic nature. One must stop and ask oneself what Schlick could have had in mind when he conceived them *as statements*. It is quite evident no claim is being made here in favor of saying that Schlick himself formulated confirmations in LOT back in the 1930’s. What seems to be a worthy attempt today is to salvage confirmations in their potential theoretical value. I propose a rational reconstruction of this problem today, which would render the following alternatives: either they are purely mental constructs, or they make use of resources from natural languages.

#### 3. 1. *Konstatierungen in LOT*

On the one hand, if we are to take confirmations as purely mental propositions with formal properties and they retain the characteristics attributed to them, then they count as strange mental occurrences that would seem to agree with Fodor’s (1975) notion of conceptual learning and its sentences in Language of Thought. A vast proportion of concepts in LOT are innate, unacquired concepts that make up sentences whose symbols operate in (i.e. are computed by) the brain, and whose learning only requires experience and computational (i.e. syntactic) work. Most importantly, Language of Thought, apart from being rationally nativist, treats natural language as a mere means for expressing or communicating thought. In other words, thought is “psychologically and semantically previous to language and is independent of how it is expressed” (Gomila, 2012). As a matter of fact, it does not necessarily require an output. Because LOT has concepts as building blocks of propositions, it also admits compositionality

and systematicity, just like natural languages would – hence, according to LOT, thoughts are, in a formal way, *linguistic*. In line with sentences in LOT, confirmations, then, would carry a certain content, and would not require linguistic output, as they only need be *thought*. It appears that confirmations cannot be uttered nor written because of their fleeting duration in time: to be uttered, or to be written out, a sentence would take a certain, however brief, time. It would seem that confirmations could very well figure as sentences in LOT. For *Konstatierungen* would be large structured statements that contain recombining elements within them, independent of any natural language spoken in any speech community, pretty much in the same fashion as sentences in Mentalese. Additionally, both confirmations and sentences in LOT seem to work well as mental representations.

Yet for *Konstantierungen*, the question of the role in grounding belief epistemically and their alleged incontrovertibility would be intensely problematic in LOT. First, because of the “phenomenological” or qualitative attributes of sentences in LOT, which appear to be antagonistic to those of confirmations. For sentences in Mentalese, the mind is, basically, a semantic engine in the brain that contains a module supposed to grasp or interpret meanings – the interpreter is a homunculus, as it were. LOT sentences are not present to the conscious mind. *Konstantierungen*, however, are not only present to consciousness (whether it be agent, introspective, phenomenal and experiential – or the whole lot), but an aspect that cannot be overlooked is the satisfaction that derives from self-verification. This involves the believer in an emotional way that the computational semantic engine that represents symbols in the brain does not – at least not directly with its cause. When it comes to normativity of content, it is a challenge for internalist theories in general to explain what authorizes causal mechanisms of a system (like LOT) to count as *reasons* for its agents. In contrast to sentences in Mentalese, confirmations contain, by definition, a material truth, and relate the one that holds a confirmation *directly* to the world. Satisfaction is therefore immediate, *Konstantierungen* being, above all else, an expression of a direct observation that justifies itself.

### 3.2. *Konstatierungen in natural languages*

On the other hand, if we are to take confirmations as expressions in a natural language, then a linguistic problem comes to the surface. When Schlick posited confirmations as foundation of belief, he was definitely thinking about humans as producing them, and we have no reason to believe he would purposefully exclude a vast number of humans worldwide from the possibility of grounding/verifying their beliefs. The very first lines of his article read: “All important attempts at establishing a theory of knowledge grow out of the problem concerning the certainty of *human* knowledge [my italics]. And this problem in turn originates in the wish for absolute certainty” (1959: 209).

It so happens that different natural languages encode evidentiality, i.e. the phenomenon by which speakers let know what the source of information is for their statements, in different ways, sometimes it is lexical (as is the case in German, English, Spanish and many other European languages), as in:

- Example 4: I saw him kill her. (direct perceptual access)
- Example 5: He allegedly killed her. (indirect unspecified source)
- Example 6: Me contaron que la mató. (hearsay)

Lexically, evidentials may appear as verbs (Ex. 4), adverbs (Ex. 5), fixed expressions (Ex. 6), modals, etc. But if confirmations are in a natural language, it seems Schlick had only born in mind the language(s) he knew, for there are many languages in Asia and in the Americas that mark evidentiality via an obligatory morphosyntactic system. This means that no sooner does the thinker/speaker think up a statement than they (mentally or orally – to say the least) have got to express evidentials as a necessary and inseparable segment in syntax: they are grammaticalized (Hopper & Closs Traugott, 2008). This means that many world languages force their users in their speech communities to indicate the source of their belief (statement) as

they utter any sentence whatsoever (as is the case in Aymara (spoken in Bolivia, Peru, by some in N Chile and NW Argentina), Tuyucan (in Colombia and Brazil), Bulgarian and many other languages). Grammatical evidentiality consists in the compulsory encoding of evidentials, hence reference to source of belief or knowledge, usually with elements that are also codifying tense, agreement or exhibit other morphosyntactic functions at the same time. Grammatical evidentials may include, depending on the specification required by the grammar of each language, whether the source of information is inferential, hearsay, speaker attitude, direct perception (sometimes even further specification is required, such as visual vs. non-visual, visual vs. auditory vs. others, among others), as in:

Example 7:  
*mütúru*            *bisi-ti*  
 motor roar-NON.VIS.OTHER.PST  
 'The motor roared.' (I heard it)

Example 8:  
*páaga punī-ga*  
 stomach            hurt-NON.VIS.OTHER.PRES  
 'My stomach hurts.' (I feel it) (Barnes, 1984)

Example 9:  
*jupa-w ut unj-i. s/he-wa*  
 house see-ST.3>3  
 'She saw the house.' (the speaker saw her looking at the house) (Hardman, 1986)

When evidentials are grammaticalized, they may appear as affixes that also express tense (past and present, not future), person, number and gender, clitics, particles, etc. all at once. That evidentiality is grammaticalized also precludes from separation, even as a mental exercise, from the sentence constituents it is dependent upon. Breaking down and deciding to exclude an evidential would result in either an unintelligible statement or one that will not pass well-formedness tests. It seems fairly evident from the examples given by Schlick himself that he did not have in mind a mere *list* of concepts: confirmations exhibit a certain structure *as statements*. And even where it would seem plausible to strip bare the parts of a confirmation in order to isolate and remove the evidential from it, if the evidential is grammatical and therefore obligatory, then the statement surely risks its fundamental capacity to be evaluated *as true*.

In the cases above, example 7 marks auditory evidential, while 8 one of the other senses (with a change in tense), both in Tuyucan. Example 9 from Aymara (currently under debate by Klose (2012)), marks direct evidentiality with a clitic (the particle *-wa*), which must attach to any constituent but the direct object. Their use is obligatory and necessary for a sentence to be well formed, i.e. to be possible in these languages.

In the panorama offered by natural languages whose morphosyntactic system includes obligatory evidentiality, sentences like confirmations would be impossible, since, in the latter, a necessary condition for their existence is the absence of the expression of perceptions. Then if a given language has optional evidentiality (say, English), it is possible for confirmations to work well in them. But if in another language it is obligatory, confirmations are impossible. That is, each of the following two possibilities exclude the other one: either a statement offers the option of marking evidentiality (examples 4 through 6 can take the form of: Ex. 4. and 5.i. "He killed her" and Ex. 6.i. "La mató" with well-formed sentences, alternatively), or it does not offer that choice and forces the speaker to mark evidentials (expression of perceptions) in the language (examples 7 through 9). Because Schlick had claimed universality for Konstantierung as part of a theory of human knowledge, and because in many world languages grammatical evidentiality is compulsory, confirmations appear untenable as universal foundation of belief.

As a final remark, what would Schlick reply to this critique today? Would he disregard grammatical evidentiality now that he would know a little bit more about it, shrug off and

simply say “So be it, then, let these sentences include evidentials if they must”? It seems to me he would take the matter more seriously. For if they include grammatical evidentials as they have to, then *Konstantierungen* would work in a rather similar way to protocol statements – and *that* would put the whole notion of *Konstantierung* to the test from the start. It would no longer *express* a direct observation that justifies itself, but be *about* a direct observation that would be prone to error.

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