

Pseudosentences, Auto-Misunderstanding, and Formalization

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1 Introduction

In the early Analytic Philosophy, the concept of a *pseudosentence* was used as a polemical device in order to declare certain problems as undeserving of cognitive attention. To try and formalize a sentence without success was a means to ›debunk‹ it as a pseudosentence. The classical example is Heidegger's dictum of the nothing which noths. Carnap criticized this sentence by providing a table of formalizations in which the relevant field remained empty. Either the non-existence of a formalization or its inadequacy was seen as indicating the status of the sentence as a pseudosentence. The consequence of this diagnosis: Not only does Carnap not understand what Heidegger said, but also Heidegger himself must have failed in understanding his own utterances! More exactly: Since he did not realize his own failure, he must have *misunderstood* himself.

This procedure raises questions. Carnap's diagnoses of pseudosentencehood and auto-misunderstanding presuppose that he understood Heidegger well enough to conclude that no attempts at formalizing 'The nothing noths.' will be successful. Do these diagnoses remain intact if one admits the possibility of a misunderstanding and misconstrual on Carnap's side? Should not the concept of formalization be substituted by that of logico-hermeneutical reconstruction in order to obviate any such infelicities?

Another more general question is at the heart of the matter: Most of the time we (including Carnap) speak in ordinary language. Our utterances do not result from successful reconstructions; rather they are potential objects of such endeavors and as such our informal understanding of them is dubious. In reality, we very rarely ever feel the need to undertake a significant effort to understand them. This attitude is at odds with Friedrich Schleiermacher's view that misunderstandings are ubiquitous and that one has to actively invest into the establishment of correct understandings. Therefore, one should ask: *Are there good reasons to reject the view that we misunderstand ourselves all the time?* Or: *Is there any worth in the view that misunderstandings are prevalent?*

The paper proceeds as follows: 2. The talk of pseudosentences as practiced in the Vienna Circle will be summarized and condensed into a specific understanding, based on the controversy between Carnap and Heidegger. 3. To this scenario I will apply concepts of understanding and collapsing understanding. The taxonomy used is inspired by Carnap's talk about pseudosentences and is rather narrow compared to more general conceptions of understanding. At the end of the section, a reflexive application of this terminology will be attempted: Did Heidegger understand what Heidegger meant by his talk about ›the nothing‹? 4. The Carnapian view that Heidegger might have misunderstood himself is supported by Schleiermacher's claim that misunderstandings are the rule. This generalizes Carnap's critique of Heidegger but also escalates the problem: How are we to deal with the situation that we misunderstand others and

ourselves most of the time? 5. A natural language example will be studied in order to see in what ways the Schleiermacher-Carnapian outlook poses a problem and how formalization can help. 6. Finally, the observations will be generalized to philosophical contexts and a maxim of escalating formalization is formulated. The debate about peer disagreement is adduced as an illustration of philosophical practices that evade the maxim and thus stagnate cognitively.

2 Pseudosentences and the Controversy between Carnap and Heidegger

For the better part of this paper, I will assume a rather uncompromising Carnapian view on Heidegger in order to distill from this view that which is, to my humble opinion, worthwhile to be preserved for *a general philosophical methodology*. The uncompromising stance may be invoked by Wittgenstein's dictum from the preface of the *Tractatus*.

“Was sich überhaupt sagen lässt, lässt sich klar sagen”

“What can be said at all can be said clearly” [29, Vorwort/Preface]

One way this can be understood is indicated by some sections of the *Tractatus* as well as certain texts by the members of the Vienna Circle: Something is clear if it can be expressed in a formal language (specifically in a formal language akin to that of Russell and Whitehead's *Principia Mathematica*). Sticking with this credo, Rudolf Carnap tried to formalize the fundamentals of an all-encompassing reductionist system of science (including humanities) in his 1928 *Aufbau* [5]. It is in this setting that Carnap and the other members of the Circle raised criticism of metaphysics and normative ethics. This criticism found its verbal expression in a number of pejorative words like 'nonsense', 'meaningless', and, characteristically, 'pseudosentence' as well as other words constructed by prefixing 'pseudo' (German: 'Schein') to various linguistic category expressions.

What may be dubbed the ›pseudo-talk‹ of the Vienna Circle is a specific collection of some of these words and their uses. In particular, it comprises the words 'pseudoconcept', 'pseudostatement', 'pseudosentence', 'pseudoquestion', and, most prominently, 'pseudoproblem'.¹ Investigations into these concepts are rather rare and even rarer are those that provide a clear understanding of the terms at hand.² While it is correct to state that the pseudo-talk in the Circle has nothing to do with (patent) falsehood but with meaninglessness in the sense in which this signifies phenomena which are outside the realm of the true and the false, it is equally correct to say that there is a lack of explicit characterizations of the pseudo-talk within the publications of the Circle.³ The reason for this can be sought in the fact that the main purpose of these

¹ Ger.: 'Scheinbegriff', 'Scheinaussage', 'Scheinsatz', 'Scheinfrage', 'Scheinproblem'.

² Here are the four monographs which have 'pseudoproblem' in their title and are known to me: [2, 1, 26, 7] (chronological order). I refrain from going into details about which of these books provides what I have called "a clear understanding" of 'pseudoproblem'.

³ For an overview over the relevant primary and secondary literature, see [8]. – Note that pseudosciences are usually understood to be endeavors which result in (patent) falsehoods. Therefore 'pseudoscience'

terms is a polemical, not a cognitive, one. However, it is possible to retrace a particular example of the employment of the pseudo-talk in order to arrive at a rough or initial understanding of how it was used.

As a first step of doing so, it should be noted that, in the Vienna Circle, the pseudo-talk is almost always used in an absolute, i.e. unrelativized, way: Something is or is not a pseudoproblem/-sentence/-concept. Notwithstanding, it is plausible to suppose that two relativities are implicit: (i) A pseudo-F is only a pseudo-F *for some person* who is taken in by it, who falls prey to the illusion, who falsely thinks that the pseudo-F is a (proper/real/true) F.⁴ Without anybody believing that a given item is a sentence it is hard to argue that it appears to be a sentence, i.e. that it is a *pseudosentence*. (ii) Typically, the objects which the pseudo-talk refers to are linguistic entities. More specifically, they (at least pseudosentences, pseudostatements, and pseudoquestions) can be considered expressions. Since their (alleged) meaning and other relevant properties of them will vary from context to context, making this *contextual relativity* explicit is helpful. Due to the ambiguous term ‘context’, I will use another, more technical one, namely ‘state of discourse’: A state of discourse is just a sequence of texts (e.g. a classical work together with other texts that refer to it in chronological order). In sum, a pseudo-talk predicate ‘pseudo-F’ is at least a ternary predicate. The ordering of the three relata can vary, but here are two easily legible forms (note that ‘F’ does *not* mark the position of a relatum, but is a schematic letter to be substituted by ‘sentence’, ‘question’, or the like):

in d , s is a pseudo-F for p

in d , p falls for the pseudo-F s

(with d a state of discourse, s an expression, and p a person)

In what follows, the latter version will be employed. Some readers might find that this latter form does not capture what the Viennese philosophers wanted to say, because they wanted to talk about items of a language and not about people. Hence, so the line of thought proceeds, one should make reference to an item of a language in the grammatical subject position, not to a person. But, against this, if s ’s status as a pseudo-F for p consists in the fact that p falls for the pseudo-F s , then the two forms are interchangeable. I read the two forms in such a way that makes them interchangeable.

The specific example of the pseudo-talk to be retraced can be found in Carnap’s treatment of Martin Heidegger’s *What is Metaphysics?* [14] in the former’s *Überwindung* paper [3, sect. 5]. We will first look at what Carnap does with Heidegger’s text before ascribing a specific pseudosentence conception to Carnap. – After four sections of general systematic remarks and picturebook examples on what can go wrong in putting together sentences, Carnap opens sect. 5 of his text with a block quote from Heidegger’s text:

does not belong to the pseudo-talk. The closest approach between ‘pseudoscience’ and ‘pseudoproblem’ might have been Popper’s contribution to the Schilpp volume on Carnap [15].

⁴ For a systematic exposition on “debunkers” like ‘pseudo’ and “assurers” like ‘proper’, ‘real’, and ‘true’, see [25].

“Erforscht werden soll das Seiende nur und sonst – *nichts*; das Seiende allein und weiter – *nichts*; das Seiende einzig und darüber hinaus – *nichts*. *Wie steht es um dieses Nichts? – – Gibt es das Nichts nur, weil es das Nicht, d. h. die Verneinung gibt? Oder liegt es umgekehrt? Gibt es die Verneinung und das Nicht nur, weil es das Nichts gibt? – –* Wir behaupten: *Das Nichts ist ursprünglicher als das Nicht und die Verneinung. – –* Wo suchen wir das Nichts? Wie finden wir das Nichts? – – Wir kennen das Nichts. – – *Die Angst offenbart das Nichts. – –* Wovor und warum wir uns ängsteten, war ‘eigentlich’ – nichts. In der Tat: das Nichts selbst – als solches – war da. – – *Wie steht es um das Nichts? – – Das Nichts selbst nichtet.*”

“The being is supposed to be studied, exclusively, and besides that – *nothing*; being only, and further – *nothing*; solely being, and beyond that – *nothing*. *How do things stand with this nothing? – – Is there the nothing only because there is the not, i.e., the negation? Or is it the other way around? Is there the negation and the not only because there is the nothing? – –* We claim: *The nothing is more original than the not and the negation. – –* Where do we search for the nothing? How do we find the nothing? – – We know the nothing. – – *The dread reveals the nothing. – –* What and why we feared was ‘really’ – nothing. Indeed: The nothing itself – as such – was there. – – *How do things stand with the nothing? – – The nothing itself noths.*” [14, p. 26–34], cited after [3, p. 229], my translation.

As can be seen from the number of pages provided in the reference to the original Heidegger text, this quote consists of sentences that are distributed over a larger portion of text. All double em dashes (‘– –’) are inserted by Carnap and indicate ellipses of varying length (single em dashes are already present in Heidegger’s text). In other words, Carnap makes a specific selection, probably one which in his mind most obviously displays the phenomenon he is about to criticize. Of course, this robs the quoted sentences of their immediate context and, presumably, damages their comprehensibility (that is: if they can be comprehended at all).

After the quote, Carnap tries to formalizes some of Heidegger’s statements, but he is successful only with respect to some everyday statements that he adds for comparison. Reduced to what is essential for current purposes, Carnap’s table of formalization looks like this⁵:

informal	semi-formal	formal
There is nothing outside.	<i>outs(Noth)</i>	$\sim(\exists x) \cdot \text{outs}(x)$
We know the nothing.	<i>kn(Noth)</i>	
The nothing noths.	<i>noth(Noth)</i>	

⁵ Carnap’s table is here limited to columns II (left side), II (right side), and III in the horizontal dimension and the second part of line A, the third part of B.1, and B.2 in the vertical dimension. The symbolic expressions in the semi-formal and formal parts are adjusted to fit the English keywords.

What appears here in lines 2 and 3 lacks a formal representation – hence the blanks in the right column. Carnap acknowledges this deficit with the remark that “all these forms cannot be generated at all” [3, p. 230]. He goes on to qualify the informal expressions in these lines as pseudosentences. Taking into account my earlier remarks about the relativity of the pseudo-talk, Carnap’s assessments suggest a preliminary definitional proposal for the term ‘pseudosentence’:

in d , p falls for the pseudosentence s

iff

p is a person and d is a state of discourse and s is a sentence in the sense of traditional grammar and s occurs in d and p believes that, in d , p understands s but there is no formalization of s in d

The state of discourse d relevant for Carnap’s assessment would be the two-element set $\{[14, 3]\}$; p is Heidegger; and ‘the nothing noths’ poses as the alleged pseudostatement s . Carnap could then argue for this: *In $\{[14, 3]\}$, Heidegger falls for the pseudosentence ‘the nothing noths’.*

A lot can be said about above candidate for a definition as well as about its application to the case at hand.⁶ However, I would like to move away from the question as to whether this characterization of the concept of pseudosentences is appropriate or whether it is philosophically sound for Carnap to apply this concept to Heidegger’s writing. What I would like to know is, based on what Carnap assumed or found out, *how much understanding* is there to be found in this brief encounter between the two philosophers?

3 Understanding in Scenarios Involving Pseudosentences

For what follows I am going on the assumption that formalizations of natural language expressions have something to do with understanding such expressions. This is obviously inspired by Carnap and many things can be said against such a view. I would like to consider two general objections before providing more details about how one can relate understanding to formalizations.

⁶ Here are four issues: 1. Apart from the de-contextualizing quote of Heidegger’s, in the formalization table, Carnap further alters the central expression (“The nothing itself noths.”) leaving out ‘itself’ (Ger.: ‘selbst’). 2. Carnap does not really say whether he takes Heidegger to believe that he understands his own words. This is an assumption made by me about what Carnap takes to be the case. Of course, I might be wrong, and even if I am right, Carnap might be wrong about Heidegger, meaning that Heidegger might be aware of the putative fact that he does not understand himself. At any rate, the condition of illusory understanding in the definiens is added in order to account for the prefix ‘pseudo’. Moritz Schlick talks a bit about a connection between meaninglessness and lack of understanding in [22, p. 69]. 3. Heidegger’s paper has a clear explorative character which Carnap does not fully acknowledge, it seems. At one point he apostrophizes Heidegger’s disclaimer regarding the (quoted) questions about the nothing and the negation. About these questions Heidegger states: “This has not been decided, not even been elevated to an explicit question.” [14, p. 29, my transl.] 4. Finally, on pp. 220 and 228 in Carnap’s [3] there are comments amounting to definitions of ‘pseudosentence’. Unfortunately, it is not fully clear how these relate to Carnap’s application of the term to Heidegger. Therefore, I will not give further consideration to them.

First objection: Most people have nothing to do with formal languages. How can formal languages affect what they do or do not understand? Are people without any knowledge of formal languages unable to understand anything? – The latter question can be answered right away in the negative. But I would like to contest the view that there are many people who ›have nothing to do with‹ formal languages. Of course, most people ›on the street‹ will not be able to explain the difference between individual constant and function constant to me, but I can surely get them to talk about 'Judy' and 'the father of' and 'the father of Judy' and to abstract from this example by considering how some words refer to singular things and others do so only relative to another complementary word. This example indicates how, at least in a very basic sense, many people have an implicit command of aspects of formalization, despite being far from the logician who routinely transcribes natural language expressions using scientific terminology and standard symbols of formal logic. – I will come back to this issue in the penultimate section of the paper.

Second objection: There are many formal languages. If understanding is tied to formalization, then it needs to be clarified what the relevant formal framework is. – This is not really an objection but the flagging of a desideratum: How to choose between competing formal frameworks when it comes to understanding? As such a desideratum, I would like to subordinate it to the issue of whether my proposal would be acceptable w.r.t. *any* ›appropriate‹ selection of formal frameworks. In a sense the first objection gives some initial orientation for treating the second objection: The main categories of the chosen frameworks should be communicable to the laity. Another sensible limitation can be taken from Carnap's principle of tolerance, which, on the one hand, allows for a wide spectrum of languages to be considered but, on the other hand, demands syntactical determination⁷. – These considerations qualify the desideratum as apt to be addressed on another occasion.

So, for now, let us assume that Carnap is generally right with his assessment of Heidegger and how his utterances are not formalizable. What does this tell us about how much Carnap has understood about what Heidegger said? While neither Carnap nor anybody else will be expected to claim that Carnap has understood 'the nothing noths', he must have understood *something* which allows him to make claims which include the following ones [3, 231]:

1. If it were admissible to introduce/define 'nothing' as a name or a description of a thing, then it would be necessary to deny, within the definition, its existence.
2. In the sentence 'The nothing is there only because ...' existence is ascribed to the thing associated with the word 'nothing'.⁸

⁷ [4, §17]. It might be said that demanding *syntactical* determination is tantamount to restricting oneself to languages without ›semantics‹. Maybe this is the right way to read Carnap. At any rate, *at this point in time*, Carnap does not ask for a semantic component.

⁸ There is no such sentence in Heidegger's paper. But see the questions about why there are nothing and negation, as quoted by Carnap, as well as my remark in fn. 6 on how Carnap apostrophizes a disclaimer by Heidegger.

3. In the sentence 'The dread reveals the nothing.' the word 'nothing' designates a certain emotional, possibly religious, condition.

4. In Heidegger's combination of 'exclusively' and 'and besides that nothing' the word 'nothing' has the usual meaning of a logical particle helping to express a negated existential statement.

I take it to be uncontested that Carnap understood *some* of what Heidegger wrote and *some* of it he did not understand (still going on the assumption that Carnap is correct in his assessment of Heidegger). In order to clear up what is and what is not understood, let us specify a few kinds of understanding and lack thereof. We do so in a ›Carnapian‹ way, i.e. by reference to formalizations. The relativity to states of discourse will be left implicit. – Provided some person p_2 utters some expression s , then

1. p_1 understands (correctly) what p_2 means by s iff

there is a formalization f of s such that p_1 takes f to be an appropriate formalization of s and, if asked, p_2 would agree that f is an appropriate formalization of s ;⁹

2. p_1 lacks an understanding of what p_2 means by s iff

there is no formalization f of s such that p_1 takes f to be an appropriate formalization of s ;

3. p_1 misunderstands what p_2 means by s iff

there is a formalization f of s such that p_1 takes f to be an appropriate formalization of s and, if asked, p_2 would disagree that f is an appropriate formalization of s .

In the second definition, the simple phrase 'does not understand' is avoided in favor of 'lacks an understanding', because the former phrase might be seen as ambiguous, leaving open whether she who misunderstands does not understand or does understand, albeit ›incorrectly‹.

While, on first sight, one might be content with these three concepts, there are at least two more forms of collapsing understanding, which can be meaningfully designated. For one, misunderstanding can be taken in a broad sense, here indicated by an asterisk:

4. p_1 misunderstands* what p_2 means by s iff

p_1 takes the utterance of s by p_2 to be unproblematic but, if asked, p_1 cannot provide any formalization f of s such that p_2 , if asked, would agree that f is an appropriate formalization of s .

One could argue that labelling this form of collapsing understanding as 'misunderstanding' is off, because what ›really‹ happens here is not understanding at all,

⁹ In the clause beginning with 'if asked', this condition is to be read so that an asking can only occur under favorable communicative circumstances, i.e. under circumstances that allow p_2 to hear what p_1 asks and to answer freely etc..

i.e. this is about a *lack of understanding*. However, the label 'misunderstanding' (with or without asterisk) can be justified by taking into account, that it might be that a lot of communication works without understanding in any strong sense. Instead, it ›works‹ in the sense that sequences of utterances exchanged by people on one occasion yield satisfying or expected results for all parties involved so that they live under the impression that the exchange ›went alright‹.¹⁰ In such cases we may or may not encounter problems if we ever were to scrutinize to what extent we can formalize utterances in our environment, i.e. we may or may not have misunderstandings* – but this is obviously a weaker sense of misunderstanding than the un-asterisked one. – I will come back to this form of collapsing understanding later.

Another form of collapsing understanding can be derived from definitions 2 and 3 more straightforwardly. This comprises the situations where a recipient has two equally appropriate but substantially different ways to formalize an expression. Lacking a better name, I will call this 'dilemma of understanding':

5. p_1 is in a dilemma of understanding about what p_2 means by s iff

there are at least two formalizations f_1 and f_2 of s such that p_1 takes f_1 and f_2 to be equally appropriate formalizations of p_2 's utterance of s and there is no formalization f_3 of s such that p_1 takes f_3 to be a more appropriate formalization of s than f_1 and f_2 .

This definition requires a comparative concept of 'appropriate formalization'. Since, up to now, I did not say anything weighty about the *elative* concept of 'appropriate formalization', readers should keep their expectations low about the outstanding debt of explicating the *comparative* concept.

With the help of these five forms of understanding or collapse thereof one has now a vocabulary at hand that helps to express how much Carnap did understand of what Heidegger wrote. For example, with respect to 'the nothing' Carnap appears to be in a dilemma of understanding. The details of the relevant formalizations are not spelled out by Carnap, but there is an outline of the two alternatives: On the one hand, as we saw above (p. 7), he feels it appropriate to try to define 'the nothing' in a way that denies the reference object its existence. On the other hand, Carnap tends to formalize 'The nothing is there only because ...' in a way that ascribes existence to whatever 'the nothing' refers to. So he is caught between two ways to formalize 'the nothing', one implying non-

¹⁰ This describes, in vague terms, the essence of what 'unproblematic' means in the above definition. An utterance is, so to say, *communicatively* unproblematic if the communicative effects ›go alright‹. I am aware, that this is not clear at all. One might wonder, for instance, whether a claim of something that is, as is known to all parties involved, not provable in a certain mathematical theory is communicatively unproblematic if it is nevertheless claimed by one of the parties involved. In the face of its known unprovability is this claim already communicatively problematic, or do the communicative problems take their onset only when the ›claimant‹ follows up with something which others feel unable to classify either as an ill-conceived attempt at a proof or as something else?

existence¹¹, the other compatible with existence. Therefore, Carnap is in a dilemma of understanding about what Heidegger means by 'the nothing'.¹²

With respect to 'to noth' (Ger.: 'nichten') the situation is less complicated. Carnap appears to simply have no idea for a formalization:

"[...] die Bildung des bedeutungslosen Wortes "nichten" [...] Hier [...] haben wir einen der seltenen Fälle vor uns, daß ein neues Wort eingeführt wird, das schon von Beginn an keine Bedeutung hat."

"[...] the formation of the meaningless word 'to noth' [...] Here [...] we have one of those rare cases where a new word is introduced which, from the beginning, has no meaning." [3, p. 230–231] (my transl.)

This is one reason why the cells of Carnap's formalization table (cf. p. 4 above) which are reserved for the formalization of an expression containing a form of 'to noth' are left empty. Carnap lacks an understanding of what Heidegger means by 'to noth'. This result extends to at least some of the more complex expressions in which 'to noth' occurs, for example, the sentence 'the nothing noths'.

It should be noted that, here, it was not to be expected that we would arrive at the conclusion that Carnap misunderstands or misunderstands* Heidegger in any way. For such an assessment one would have to assume a position external to Carnap. But, as I indicated before, at this moment I am still taking Carnap's point of view. So if he errs, I am currently not in the business of correcting him. Nonetheless, even if Carnapian in mind, one can still indicate sources of the collapse of understanding that might reside in Carnap's point of view. For example, to make sure he has everything he needs at hand to come up with appropriate formalizations, Carnap could try to invest more in exegesis. Carnap might have had the impression that such investments in Heidegger's writings would not be worthwhile, but, possibly, he would not deny that it is *feasible* to intensify such efforts. In other words, instead of applying what could be called 'standard formalization procedures' to Heidegger, he could draw up methods of *hermeneutical reconstruction*, methods that, with respect to a *reconstruendum*, take into account methodic steps like structuring this *reconstruendum*, its indexicalisation, the elaboration of putatively true propositions, the documentation of deletions and additions, etc. – everything under the observation of hermeneutical maxims like the maxims of accuracy, charity, transparency, sense maximization, and economy.¹³ If Carnap were to develop his efforts in the indicated direction then he would be able to resolve some of the dilemmata of understanding as well as cases in which he lacks an understanding. Possibly, however, he would come up with new and different dilemmata of understanding because the reconstructive efforts might broaden the spectrum of

¹¹ While Carnap probably took non-existence to be incompatible with the idea of a referential expression in formal logic, today there is free logic. This keeps alive the first alternative in Carnap's dilemma of understanding.

¹² The list on page 7 contains another idea of Carnap's on formalizing 'the nothing' whose relation to his other ideas is unclear, namely that 'the nothing' designates a certain emotional, possibly religious, condition.

¹³ The terminology is taken from Friedrich Reinmuth. See [16] for an outline and [17] for a full development of an analytico-hermeneutical methodology.

potentially appropriate formalizations and he might even arrive at a point where he understands less (i.e. lacks more understanding) because some of his formalizations of Heidegger's turn out to be hermeneutically unwarranted.

Let us return to the state of formalization as it is provided by Carnap in *Überwindung*. While we could specify in a little detail in what way Carnap's understanding of Heidegger collapses, it is also possible to consider to what extent Heidegger understands himself or in what ways his understanding of himself collapses – still assuming that Carnap is right with his assessments. Since the talk about understandings and collapses thereof is based on which formalizations can be provided by the person whose comprehension is to be assessed, Carnap's observations about Heidegger's general scepticism toward logic (presumably including techniques of formalization) is crucial. The former quotes the latter, including this telling slogan: "The idea of ›logic‹ itself *dissolves* in the swirl of a more primal questioning."¹⁴ So, if (with Carnap) one takes this to signal that Heidegger cannot (and does not want to) provide or even acknowledge any appropriate formalizations of 'the nothing', 'to noth', or 'the nothing noths' and if one further supposes (with Carnap) that Heidegger takes his utterances of these expressions to be unproblematic, then one can say: Heidegger misunderstands* what he means by 'the nothing', 'to noth', and 'the nothing noths'.

Here is an overview of the ways in which Carnap's and Heidegger's understandings collapse, still seen from Carnap's stance:

expression	Carnap's collapse of understanding	Heidegger's collapse of understanding
'the nothing'	dilemma of understanding	misunderstanding*
'to noth'	lack of understanding	misunderstanding*
'the nothing noths'	lack of understanding	misunderstanding*

4 Schleiermacher and Misunderstanding

At this point I want to go beyond the specific controversy between Carnap and Heidegger, hoping that, in the preceding sections, the reader could see that the case is not as easy as Carnap presents it. For what follows, it is helpful to see that the prevalence of collapses of understanding, especially the prevalence of misunderstandings*, which we discovered by taking a closer look at Carnap's take on Heidegger, was already recognized by other scholars, namely by Friedrich Schleiermacher. The pioneer of hermeneutics proclaimed:

"Die strengere Praxis [der Auslegung] geht davon aus daß sich das Mißverstehen von selbst ergiebt und das Verstehen auf jedem Punkt muß gewollt und gesucht werden."

¹⁴ [3, p. 231–232], my transl.. Ger.: "Die Idee der ›Logik‹ selbst *lässt sich auf* im Wirbel eines ursprünglicheren Fragens." Carnap's italics.

“The more rigorous practice [of exegesis] goes on the assumption that misunderstanding happens as a matter of course and that understanding must be desired and sought at every point.” [21, p. 30] (my transl.)

Famously, this view is expressive of a Christian theology which is opposed to the view that, overall, common sense is enough to comprehend the teachings of the bible and that there are, at most, a few dark spots within ›the book‹. To the contrary, based on the assumption of language-related disparities between author and recipient (“Differenz”), Schleiermacher perceived a need for a rigorous art of interpretation/exegesis.

Schleiermacher applied this view beyond theology to law and other areas. Therefore, to acknowledge that in everyday discourse misunderstandings* are a frequent phenomenon appears entirely Schleiermacherian. There is potential in seeing things this way because, once this defectiveness of discourse is accepted, one can work on improving it.

Furthermore, as Schleiermacher remarks, whether exegesis is to be performed “artless” or “artful” depends on whether it is desired that its object is supposed to be understood exactly or not [21, p. 28]. From this, it appears that whatever interpretational defects Schleiermacher takes to be ubiquitous, there are contexts in which such defects do not matter or, at least, do no substantial harm. In other words, there are situations in which a more “exact” understanding is needed and thus “artful exegesis” is called for, but there are also other situations in which a ›basic‹ or ›rough‹ understanding is sufficient and thus one need not bother with an intricate methodology.

Thus, it seems that a skeptical position with respect to how much is understood in a broad spectrum of communicative settings is not too outlandish. But this is not a reason to assume that communication is almost always dysfunctional. Schleiermacher does not appear to view it that way and, in fact, this would be rather implausible: It is obvious that, speaking, listening, writing, and reading we achieve many of our goals, be they of a social nature (and thus, probably, more subtly intertwined with communication) or be they of a non-social nature (like setting up a telescope after reading and understanding the manual, for the purpose solitary stargazing). Hence, the question arises as to how the prevalent collapse of understanding and the intactness of large parts of everyday communication are to be reconciled. At the same time, one should acknowledge that, if there is a prevalence of collapses of understanding, this situation must be problematic *in some ways*. So a second question arises: How are such problems to be alleviated or even eliminated? That this is possible, is obvious from Schleiermacher’s as well as Carnap’s view.

In what follows I would like to primarily address the latter issue. I will do this in a Carnapian fashion assigning a role to formalization. In the course of doing so, the concept of formalization will be made a bit more precise in several dimensions. What I propose needs emancipation from how formalization is employed in the earlier mentioned methods of hermeneutical reconstruction and paradigmatic examples from logic and philosophy of language. The approach will be made via a natural language example, illustrating what I take formalization’s role to be in what one might call the Schleiermacher-Carnapian outlook. After that, by way of contrast, I will indicate how things might translate to philosophy as one major area for the pursuit of understanding.

5 Formalization in Everyday Communication

Imagine a communicative situation with two people somewhere around a party and, in the middle of the exchange, person A utters:

A: If I am not entirely mistaken, Lisa was at the party.

1

Most of the time, upon hearing such an utterance, the other person will not engage in activities that amount to a resolution of a perceived problem in understanding. Rather, the recipient will take the information ›as it is presented‹. There may be a follow-up question, but it will, in many cases, not concern the understanding of any component of the indicated utterance. Nonetheless, it is well within the realm of the possible and natural that a recipient of an utterance of this first sentence asks one of the following questions: (i) What do you mean by 'entirely'? Is it literal or hyperbolic? (ii) By 'was', do you want to say that Lisa is not here anymore? (iii) You mean this party right here, right? (iv) Which Lisa are you talking about?

If one of these questions, or a similar one, is raised, then it is manifest that something has not been understood. Person A can then try to establish understanding by straightforwardly answering the question(s). However, in order to support the Schleiermacher-Carnapian outlook, even if no such questions are asked, some kind of collapse of understanding must be supposed to probably have taken place. Does that mean that the addressee of line 1 can be unable to answer some of these questions while at the same time the conversation continues unimpeded? I think that, indeed, this is a plausible scenario. For example, it might be unclear to both, speaker and hearer, what the correct answer to the first question is, and still the following sequel – uttered by the addressee of line 1 – works perfectly fine:

B: I'm happy for her that she does not spend all Saturday evening
sulking at home.

2

Similarly, question (ii) need not be implicitly answered in order for line 1 to function as a regular building block of a conversation untroubled by questions of understanding. – Notably questions (iii) and (iv) are not easily shown to be as irrelevant as (i) and (ii) are in some settings.

The picture is this: From the total body of what a person utters only certain parts are relevant enough to the addressee to require the latter to ask a question concerning the understanding of these parts (should these parts be affected by some kind of collapse of understanding). This is not very surprising. However, it should be emphasized that the components, some of which are understood and some of which are not, are to be individuated on a subsentential level. It is not the case that only fully understood sentences are ›workable‹. Even in the face of single sentences, it is sufficient to understand the *relevant* components, not *all* components! – In summation, even simple everyday utterances like line 1 are (probably quite frequently) not understood in their entirety. In order for such utterances to be functional still, it probably suffices that certain components are understood.

Having said that, one should recognize that there is still value in coming to understand hitherto misunderstood (or not understood) components despite this collapse of understanding being no impediment to the utterance's functionality. So even if questions (i) and (ii) have not been answered and even if the conversation still goes on without significant problems, there is still a value in posing and answering these questions (i) and (ii). For example, specifying what is meant by 'entirely' may lead the addressee to discard it as hyperbole or may lead the addressee to gain insight into what is the *entire* body of evidence for the speaker to say that Lisa was at the Party. Imagine, for example, this line of discourse:

A:	If I am not entirely mistaken, Lisa was at the party.	1
B:	This is a very helpful piece of information.	2
	So we can drop Lisa from the list of suspects.	3
A:	By all means!	4
	I do not think she had anything to do with whatever you investigate.	5
B:	Would you be willing to state under oath that Lisa was at the party?	6
A:	About that, I am not sure.	7
B:	Well, you seemed pretty sure, when you said that Lisa was at the party...	8
	Didn't you say that you could not be mistaken about this?	9
A:	Oh, I said something like that – but I think, I only wanted to state what, to me, appears obvious.	10
	I cannot prove it and, in fact, I had a couple of beers that evening...	11

From this dialogue, one can see that the immediate communicative purpose of the initial utterance is fulfilled: Information relevant to an investigation is made available to B. At the same time, B would like to take more than that from this utterance and so tries to find out how robust it is. That A needs to attest to Lisa's presence at the party *under oath*, is something that may dawn on both, A and B, only subsequently. If B would not have thought about that and would not have uttered line 6 at that moment then, some time later, B might have lived under the impression that A is ready to attest under oath. This would have been a misunderstanding, in an intuitive sense. It would have also been an auto-misunderstanding, if A was not aware of what she actually wanted to say by 'If I am not entirely mistaken'.

Take a look at the following dialogue, which tries to show that after question (ii) is initially left unraised and unanswered the dialogue runs smoothly at first. This indicates that the lack of understanding may be unproblematic for the initial utterance to function. However, in a next step, it becomes obvious, that the full appraisal of the initial utterance is desired and so question (ii) is hinted at after all:

A:	If I am not entirely mistaken, Lisa was at the party.	1
B:	Good, I feared that she might have missed out on that formidable DJ set.	2
	Let me call and ask her whether she liked the music.	3
A:	You may do so, but I think it is quite possible that she is still here.	4
B:	I thought you said 'was'...	5
	Oh, nevermind, I think I see her over there.	6

I take it that these examples show that, frequently, there is a collapse of understanding in many informal and, after all, unproblematic conversations. The two examples were designed in such a way as to make the initial utterance appear problematic only *after* the immediate continuation indicates that the exchange *could* go through without any problems popping up at all. In a way, the collapses of understanding turn from benign to malignant in the course of the dialogues.

To see that formalization can help whenever collapses of understanding become obvious and whenever one wants to guard against those cases of misunderstanding that may or may not become malignant, a demonstration is in order. This demonstration will also go part of the way of explaining what I take 'formalization' to encompass. By way of a disclaimer: Formalization encompasses more than substituting logical expressions with standardized symbols and inserting brackets. It can include the definition of occurrent non-logical terms. It may be partial and does not necessarily aim at explicating the true deep structure of a given sentence. In distinction to the examples known from logic textbooks, formalization is not an exercise for translating picturebook propositions like 'all men are mortal' or phrases like 'the present king of France' into a first-order language (or some other kind of standard framework).¹⁵

As a first example, consider again the initial utterance by A in the example dialogues and question (ii) about the past tense 'was'. Here is a dialogue that uses formalization to alleviate the collapse of understanding:

A:	If I am not entirely mistaken, Lisa was at the party.	1
B:	By 'was', do you want to say that she is not here anymore?	2
A:	All I wanted to say is this:	3
	There is a past point t in time such that, at t , Lisa is at the party.	4

A's answer can be rephrased thus: 'All I wanted to say is this: There was a point in time when Lisa was at the party.' – Both versions should suffice to indicate to B that no statement is made about the present moment.

What happens here is that A makes explicit (a) that party attendance is relative to points in time and (b) that only an unspecified moment in the past is at issue. Clarifying (a) can be seen as the essential step in formalizing the concept of attendance, by expressing it through a predicate with a certain arity, most likely ternary (' p is at location/event e at time t '). With the means of first-order logic, (b) can be made even more explicit than it is made in the semiformal version (line 4) above:

A:	$\exists t (t < t_0 \wedge \text{Lisa is at the party at } t)$	4
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At this point, formal logic gains the upper hand in the sense that readers (or hearers) untrained in the relevant formalism would probably reject A's specification. For the readers of this article, which I assume to have some such training, it might be obvious how it is to be read (with ' t_0 ' referring to the present moment and ' $<$ ' expressing

¹⁵ Nonetheless such exercises are an important part of the training if one wants to apply formalization in the way that I advertise here.

a relation of temporal precedence, for instance) and it will, hopefully, be palpable how this clarifies what A tried to state in her initial utterance.

Note that the version with the quantifier still leaves some aspects unclarified. For example, even if 'to' is recognized as referring to the current moment in time, the extent of this moment might be obscure. Should this turn into a problem (i.e. into a ›malignant‹ collapse of understanding), one would have to further clarify, for example by providing some kind of definition of the individual constant 'to'. *Providing such a material definition should be understood to belong to formalization as I envision it here.*

This avenue of further development indicates a problem of regress: If a definition for 'to' (or for '<' or 'Lisa' or 'is at the party at') is provided, is it not at the same danger of collapses of understanding as the original utterance about Lisa's party attendance? And if so, how does one keep from entering a regressus ad infinitum? To this, I believe, Schleiermacher's view provides a satisfactory answer: Although there will be further misunderstandings "as a matter of course", these need not be problematic. Whether they are problematic depends on how "exact" an understanding one is hoping for. So even if the regress is potentially infinite, each step on it may still increase ›exactness of understanding‹ until it reaches a level that meets discussants' demands.¹⁶

Dismissing question (ii), I would like to indicate the scope of formalization by reconsidering question (i), which was directed at the portion 'If I am not entirely mistaken', or maybe just 'entirely mistaken', or even just 'entirely'. Person A could clarify this component the following way:

A: If I am not entirely mistaken, Lisa was at the party.	1
Let me rephrase that:	2
I constate that Lisa was at the party.	3

If 'I constate that' is recognized as an expression within a certain formal framework, while 'If I am not entirely mistaken' is not so earmarked, then one may say that what A deploys here is formalization. For example, 'I constate that' can be read as belonging to a *formal category of illocutionary indicator expressions* [23, 18]. The items in this category can be specified in various ways with 'I constate that' being associated with certain rules of operationalization of attendance predicates (and, possibly, other predicates). If this is the case, line 3 (in distinction to line 1) makes clear to the informed addressee that A performed an act of constating. This clarification makes questions about what 'entirely' is supposed to mean obsolete. Provided the right conceptualization of the act of constating, this might anticipate issues like whether A can repeat her utterance under oath.¹⁷

What this illustration indicates is that the author-driven declaration or the recipient-driven analysis of what kind of speech act is being performed is part of formalization –

¹⁶ Having said that, I think there is no need to concede a looming regressus ad infinitum. Concepts like, 'axiomatic basis', 'construction language' [24, p. 126–127], 'pre-discourse consensus' [12, p. 298], 'natural language foundations of logic', and the like can help in sketching what counts as a *fundamentum inconcussum*. (I do not claim that there is only one such *fundamentum*.)

¹⁷ It turns this question into a question partly about how the formal framework is set up: Can acts of constating be repeated? Can they be reported on once they have been performed?

despite the fact that it is often neglected in the contexts where formal languages are at issue. However, in the earlier mentioned analytico-hermeneutic methodology “speech act analysis” is a linchpin [19, p. 108–111], [16, p. 155]. For the purpose of avoiding collapses of understanding it is to be expected that the part of formalization that one may call ‘declaration of illocutionary force’ plays a major role.

6 Consequences for a General Methodology

In the course of the preceding section, it should have become clear what the differences are between the advertised kind of formalization and what happens in logic courses and hermeneutical courses of logical reconstruction. In particular, the methodology that I have in mind is different from any hermeneutical approach in that it is not about interpreting an unchanging ›given‹ piece of text. It is about improving what has been said or written by rephrasing it in a clearer way or by getting the original author to rephrase it in a clearer way. Especially the reflexive application seems entirely different from what hermeneutics and interpretation are about. Of course, if one has made an utterance of which one or more components have not been understood by oneself, it is possible to apply hermeneutical methods to one’s own utterance. But the more direct way is to get oneself to think about what one ›really‹ wanted to say¹⁸ and then to say it in a second attempt. This will most likely disregard what was actually said in a first attempt – and in that it is fundamentally different from how interpretation works. Of course, at the recipient’s end, interpretative acts are helpful and, at least in a basic form, indispensable, but the aim is not to find a “defensible understanding” [17, p. 153] but to make progress with the author and, prospectively, to communicate with her ›understandingly‹.

A more pointed way to put it is this: The kind of (application of) formalization that I have in mind aims at rectifying those components of an utterance that are an impediment to an intact communication between discourse participants. Formalization goes hand in hand with cooperatively asking and answering the right understanding-directed questions. The methodology can be turned into a maxim, namely

(The Maxim of Escalating Formalization)

If understanding collapses, gradually increase your efforts to formulate in terms of an explicitly defined framework, if necessary up to the point where what you want to say is entirely formal!

While this way of putting it is far from a crisp rule which is able to determine an author’s and a recipient’s specific questions to be asked in the event of a collapse of understanding, this maxim has the advantage of providing a general orientation. It betrays a certain confidence in formalisms, which some may share and others not, but at any rate, it provides an alternative to a less goal-oriented methodology.¹⁹

¹⁸ How this “thinking about what one really wanted to say” works is not obvious and, possibly, it is dependent on who does the thinking. Sometimes, the thinker might admit that she is not sure what she wants to say or that she feels that, in fact, she has nothing to say on the issue at hand.

¹⁹ It is also an alternative to a methodology that only accepts what is written in symbolic notation. The extent to which one employs formal devices is determined by demand, which is, in turn, determined by

There is a trivial way of reading the maxim: Of course, we need to make things explicit which are the cause of a collapse of understanding, some might say. However, only if one accepts that this implies a progression toward an explicit formal framework, an ideal that can become very real in some cases, only then one adheres to the above maxim of escalating formalization.

Carnap might have accepted this kind of maxim, but not so much Heidegger, although it requires some adjustment on Carnap's side, too. Instead of imposing his own ideas of formalization on Heidegger, Carnap should take his own ideas as an offer to Heidegger, which the latter is free to accept or reject. If rejected, Heidegger should be held liable to provide his own formalizations – maybe not as detailed as Carnap's.²⁰ That Carnap and Heidegger do not develop an exchange that is structured in this way indicates two things: (i) Carnap might not have been interested in what Heidegger really wanted to say, and so he is rather confrontative.²¹ (ii) Heidegger was not expected to clarify his paper in any way that is in some accord with the maxim of escalating formalization.

Some might contend that the Heidegger/Carnap controversy has grown stale over the last 90 years. It needs to be shown that the proposed methodology is of use for current debates in philosophy. In the remainder of this paper, I adumbrate the usefulness by pointing out that it takes a definite stance against a certain prevalent view in the debate on *peer disagreement* [10, §5]. A question often posed in this epistemological debate is this:

(Leading Question in Peer Disagreement)

Provided A is in an epistemic situation with respect to some issue and B is in an epistemically equally good situation with respect to the same issue but A and B disagree about this issue, what should A (and B) believe about it?

To the extent that the disagreement may involve collapses of understanding this question is misleading. The fact that the disagreement is unresolved is circumstantial evidence for a collapse of understanding, be the collapse located in the controversial claim itself or its surroundings. If this is right, then the formation of a belief about the disputable issue is not a priority here, but the establishment of a correct understanding is. In other words: One should not ask which of two alternatives to believe; one should ask what components of these alternatives might suffer from a collapse of understanding.

Of course, one may interject that the debate about peer disagreement refers exclusively to disagreements where (correct) understanding is presupposed (limiting the area of research to those cases where said circumstantial evidence is deceptive). But this seems

whether a collapse of understanding is a hindrance for communication. A similarly measured stance guided by demand was assumed in [13, p. 45] with regard to the reconstruction of scientific theories.

²⁰ Again, Heidegger's paper is exploratory. As such there might be no need to, for example, define 'the nothing'. However, he would have to be more careful about the formulations of (exploratory) sentences involving 'the nothing'.

²¹ However, one should not make the mistake to think that Carnap's attitude stems from a general lack of acquaintance with Heidegger's overall work. Michael Friedman's book [11] about Carnap, Cassirer, and Heidegger shows that quite the opposite is the case.

very unlikely considering the examples that scholars are talking about. Here is an example which concerns Peter van Inwagen and David Lewis's purported peer disagreement about the free-will problem:

"I [van Inwagen] am convinced beyond all possibility of doubt that David understood perfectly all the arguments for incompatibilism that I am aware of – and all other philosophical considerations relevant to the free-will problem (philosophical distinctions and philosophical analyses, for example)." [27, p. 24]

I submit, that van Inwagen, being convinced in this self-proclaimed way, is most likely erroneous. Taking into account that most of the debate is informal, there is much room to apply the maxim of escalating formalization. – Consider another example from the same volume but a different author, again concerning Lewis, but this time about his views on the existence of possible worlds:

"Nor can I [Catherine Elgin] conclude [...] that in this case Lewis's reasoning is flawed. The position is amply, publicly, brilliantly defended. The number of able philosophers who cannot find a defect in the argument is legion. And, in response to an endless barrage of criticisms and incredulous stares, Lewis re-examined his position often. Granted, there may nevertheless be an extremely subtle flaw in Lewis's reasoning. But, on the available evidence, it is sheer hubris to insist that there must be." [9, p. 59]

Elgin, to be sure, still objects to Lewis's modal realism. While one could say that this quote goes a long way to defeat her own position, the more striking problem is its implausibility. She points to many appreciative ("legion") but also to many critical ("endless barrage") assessments by other scholars. This sounds like the argument she refers to is essentially contested. How can anyone, at this point in a debate, make such a comprehensive statement about the flawlessness of one participant's reasoning?²²

Both examples, I suppose, bear witness to the degree to which some philosophers of peer disagreement are willing to jump the fence when it comes to stipulating a ›real‹ case of insurmountable peer disagreement. To my mind, I do not even take it for granted that Elgin fully understood Lewis or that Lewis understood van Inwagen or that Lewis did not fall prey to any kind of auto-misunderstanding* with respect to his argument. In fact, there is ample opportunity to apply the maxim of escalating formalization and there is no guarantee that this will not improve the debate and its disagreements to a point which it has not reached before. In that way, van Inwagen's and Elgin's respective positions betray a methodology that is rather stagnating with regard to dispute

²² To cut it short: It is as if Thomas Aquinas were to observe that Anselm's ontological proof for the existence of god was "amply, publicly, brilliantly defended" (not at all untrue!) and "reexamined" in the face of Gaunilo's criticism (also true!) and thus he, Thomas, is left with an unresolvable peer disagreement between Anselm and Gaunilo. – After more than 800 years this short proof is still the subject of many a scholar's efforts and, although more than a few of them have taken a stance for or against it, nobody has decided that this is just a matter of what to spontaneously believe in the face of Anselm and Gaunilo's differing positions.

development; the methodology associated with the maxim of escalating formalization counteracts such stagnation.

To provide an extreme example (taken from [28, p. 156]): Imagine an everyday situation involving two persons of no ill epistemic repute. A hitherto unremarkable dialogue between the two develops in a natural way and, at some point, involves simple counting operations. Surprisingly, one of the two relevantly (but apparently erroneously) remarks that $1 + 1 = 3$; the other, to no surprise, objects. While some might say that such a situation debases this dialogue as a venue of cognitive exchange, the maxim of escalating formalization still leaves room to travel. Of the person claiming that $1 + 1 = 3$, we could ask whether this is to be understood as a claim of arithmetic, and if so to display supporting arguments. This will lead us to a better understanding of the framework within which it is claimed that $1 + 1 = 3$. If we find out that behind this claim is some kind of non-standard arithmetic, then we have improved our understanding. We can then go on to talk about why somebody would use this non-standard arithmetic in an everyday situation. This, then, is a new discussion about a new topic, probably with new collapses of understanding, which, again, can be made subject to the proposed methodology.²³

While this is an extreme²⁴ form of disagreement indeed, it displays the optimism which is associated with the maxim of escalating formalization – an optimism that cannot be found in the (quite literally) know-it-all attitudes of van Inwagen, Elgin, and others. Whether it is to be found in Carnap is not quite clear, but there are those who adhere to largely Carnapian methodologies, including an ideal of formalization, and are still not ready to cease their attempts to understand Heidegger [20, 6].

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²³ Presumably, the two debates referenced by Elgin and van Inwagen would give rise to similar kinds of topic shift. Shifting the topic in this way does not mean that one leaves the initial debate behind. The goal consists in settling the occurrent new debate *in order to help settling the initial one*.

²⁴ This is the label under which Weber [28, p. 156] files the dispute. He appears to belong to those scholars who are unable to see any way forward in such situations. This is, in part, founded in the conditions of the leading question in peer disagreement: It asks what epistemic position to take in the face of such situations, not which further communicative and, particularly, understanding-seeking acts to perform.

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