

# «In a certain sense we cannot make mistakes in logic» — Wittgenstein, Psychologism and the So–Called Normativity of Logic

GILAD NIR

§1.

**T**HE CONSTRUAL OF THE NATURE OF REASONING that informs Wittgenstein's *Tractatus* conflicts with the idea, which is often traced back to Frege, that logic is not descriptive of thought, but rather normative for it.<sup>1</sup> For although we do sometimes seem to reason incorrectly, Wittgenstein denies that we can make logical mistakes:

5.473 Logic must take care of itself. ...In a certain sense we cannot make mistakes in logic (Wittgenstein 1960)<sup>2</sup>.

Moreover, Wittgenstein seems to leave out of his account of reasoning those elements which are standardly appealed to in order to explain how cases of bad reasoning nonetheless count as cases of reasoning, and hence subject to the same norms of evaluation. For instance, one might think that an invalid inference is defective, but nonetheless an inference, precisely insofar as it involves an application of a rule that can be evaluated as incorrect. But Wittgenstein denies that in providing inferential

<sup>1</sup> Cf. Frege (1984, pp. 351-352).

<sup>2</sup> References to this work are made by citing the decimal numbering of the paragraphs, except for the Author's Preface (pp. 26-27), which is cited by page number.

G. Nir (✉)  
University of Jena, Germany  
e-mail: gilad.nir@yahoo.com

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justification we engage in any additional act over and above understanding the premises and conclusion, such as the application of logical laws or rules of inference:

5.132 ...«Laws of inference» which —as in the works of Frege and Russell— are supposed to justify inferences, are senseless, and would be superfluous. [Translation emended].

One natural way to read these and similar passages in the *Tractatus* is to take Wittgenstein to treat logic as an inexorable fact about us, thinkers. But such a substantive claim would immediately prompt us to ask: what, if anything, could be taken to ground such a necessity? Wittgenstein, as I understand him, does not propose to provide an answer to this question, but rather to dissolve the illusory appearance that the claim he is making is substantive, and hence that it requires any such grounding.

From Wittgenstein's perspective, the notion of thought which figures in the dictum that logic is not descriptive but rather normative for thought is itself a psychological notion. In rejecting it, Wittgenstein indeed leaves no room for seeing logic as normative, but this is neither because he takes logic to be descriptive, nor because he takes thought to be of no interest to the logician. By introducing a strictly logical notion of thought and distinguishing it from the psychological notion, and by clarifying the distinction between a mistake and mere confusion, Wittgenstein shows that the putative possibility of logical mistakes is simply not a coherently specifiable possibility.

## §2.

The relation between good and bad exercises of our capacity to reason, on Wittgenstein's view, are not related to each other as species of a single genus. Instead, Wittgenstein construes the relation between them in what may be called a *disjunctive* manner. Consider, by analogy, the disjunctivist account of perception proposed by John McDowell as a response to skepticism (McDowell 1998).<sup>3</sup> On the skeptical set-up, a case of perception and a case of illusion share a highest common factor, namely it appearing to one that so and so is the case. In the case of veridical perception, something else is present, but this is not known to the perceiver, who according to the

<sup>3</sup> Bronzo (2017) and Conant (2020) convincingly argue that the *Tractatus* proposes a disjunctivist construal of the relation between sign and symbol. I wish to argue here for a different, though related point, namely, that the *Tractatus* proposes a disjunctivist approach to reasoning. That the phenomenon of inference should be treated in a disjunctivist manner is proposed by Held (2020).

skeptic is unable to tell whether they are in the good or the bad case of perceptual appearing. By contrast, McDowell proposes that the two acts are different in kind, and that the good case is not additively built up from the components that make up the bad case, in addition to some further element that provides it with warrant. In genuine perception we form an actual relation to the object we perceive, whereas in illusion no relation to that which merely appears to be there is formed.

Analogous to the skeptical picture of our capacity (or lack thereof) to acquire perceptual knowledge, a non-disjunctivist approach to reasoning would take the following form. The non-disjunctivist assumes that both in valid and in invalid inference the thinker *takes* the conclusion to follow from the premises —this is the highest common factor.<sup>4</sup> And although the extra factor, validity, is there in the good case, it need not play a role from the point of view of the inferring subject. This is precisely why a logical mistake in reasoning nonetheless counts, on the non-disjunctivist account, as reasoning: for it is not the validity of the inference that this account takes to motivate the thinker's act of inference, even when it is a valid one. Rather, it is merely the inference's *seeming* to the thinker to be valid that renders her act a case of inferring. Contemporary debates revolve around the question whether the act of «taking» is to be construed as a belief, an intuition, or a disposition; whereas for Wittgenstein, as we have already seen, the need to supplement the inference with any such act is simply dismissed (5.131–5.132).

As the disjunctivist sees it —and as I take Wittgenstein to see it— in inferring, the thinker engages with the propositions *p* and *q* themselves, and hence uses the signs «*p*» and «*q*» in a way that renders their meaning determinate. This determinacy of meaning is precisely what cases of failing properly to reason lack. For when it merely seems to the thinker that there is a logical relation between the propositions expressed by «*p*» and «*q*», while in fact there is no such relation, the signs «*p*» and «*q*», as the wayward thinker uses them, do not actually mean what we would understand by them. Indeed, in certain cases the thinker's behavior cannot be taken to indicate that these signs have any determinate sense whatsoever. Whereas in good reasoning one engages with meaningful, propositional symbols, in cases which appear to involve invalid reasoning, what is at issue are mere signs, accompanied by an illusory appearance of meaningfulness.<sup>5</sup> A putative logical mistake, on the disjunctivist view, therefore does not count as a *kind* of reasoning, but rather as the mere illusion of

<sup>4</sup> For an influential account of inference that takes this form see Boghossian (2014).

<sup>5</sup> Cf. 5.4733, whose relevance to this issue I discuss in Section §5, below.

reasoning. The very notion of logical mistake is a parasitical concept, and the concept which it presupposes —that of valid inference— does not depend on it or presuppose it in any way. That is, the notion of reasoning—well is not to be seen as built—up additively from the supposed highest common factor of the good and the bad case — the thinker’s mere taking there to be a logical relation— in addition to some extra component of which the thinker might or might not be aware.

### §3.

The disjunctivist approach to inference that I just sketched interlocks with the top—down, holistic picture of reasoning, understanding and meaning that Wittgenstein offers in the *Tractatus*.<sup>6</sup> Wittgenstein’s starting point is the successful activity of a subject which is engaged in developing a coherent representation of its world; on this basis Wittgenstein proceeds to reshape the concepts of inference, understanding, belief, proposition, meaning and sign, all of which are construed with a view to their ultimate use. Thus although a mere sign can be abstracted from the symbol (3.32), it is the symbol, or the applied sign, with which Wittgenstein identifies the expression (3.31) and it is the thought with which Wittgenstein identifies the applied propositional sign (3.326). According to Wittgenstein’s context principle, only when they occur in the context of an applied proposition do names (and any other sub—propositional expression) have a determinate meaning (3.3, 3.326). What is at issue here is not the specific occurrence of the name on a particular occasion, but the general capacity to use names meaningfully; thus to identify the role an expression plays in any specific proposition is to determine the class of all the propositions of the speaker’s language in which that expression would function in the same way (3.311). Propositional expressions, for their part, serve as pictures in the sense that what is thought by means of them is the range of possible situations with which they are compatible. In affirming or denying them, we become answerable to the way the world is like (4.021, 4.024) as well as to how the world may or may not be (4.463). Propositions are therefore essentially capable of being interconnected, compared and combined—a requirement which Wittgenstein captures by speaking of propositions as locations in a «logical space» (3.4–3.42). It is through their standing in internal, logical relations to one another that propositions acquire their determinate location in the logical space; so to identify any proposition is to be able to see which other propositions affirm it and

<sup>6</sup> A major statement of Wittgenstein’s ontological holism can be found in 2.011-2.01231; in the following I focus on the specific ways in which holism informs his account of language and thought.

which ones exclude it, that is, to be able to use the proposition in inferences (5.124–5.132), and thereby to form a coherent view of the world (4.023).

The connection between Wittgenstein's holism and his disjunctivism is palpably apparent in what he says about our understanding of sub-propositional expressions. As I just noted, the logical identity of each expression consists in the contribution it makes to the totality of a speaker's language, and to the total inferential nexus that it embodies. In consequence, having mastery of the use of a name excludes any ambiguity and indeterminacy, and thereby prevents invalid inferences:

4.243 Can we understand two names without knowing whether they signify the same thing or two different things? Can we understand a proposition in which two names occur, without knowing if they mean the same or different things?

If I know the meaning of an English and a synonymous German word, it is *impossible* for me not to know that they are synonymous, it is *impossible* for me not to be able to translate them into one another. [My emphasis].

The claim that for someone who knows that «a» means the same as «b» it is *impossible* not to be able to infer  $fa$  from  $fb$  captures the idea that in the standard, non-defective case of proper reasoning by means of language, there is no gap between understanding and the capacity to infer. Wittgenstein's starting point here is not the highest common factor which seems to be shared by the defective and the successful case of using names —the state of a thinker who uses two names without seeing the symbol in the sign, and hence without noticing their synonymy. Rather, the disjunctivist account of linguistic understanding starts from the perfect case of a completely perspicuous use of language. The speaker's language may of course contain synonymous names, but as Wittgenstein sees it, this is no reason to deny that «propositions of our colloquial language are actually, just as they are, logically completely in order» (5.5563). For the *proper* use of any natural language would be one that enables the speaker to distinguish such synonymous names. To use a sign with understanding, Wittgenstein says, is «to recognize the symbol in the sign» (3.326), in the precise sense that it enables us to appreciate the inferential relations that might otherwise be obscured.

The impossibility claim made in 4.243 need not, however, be thought of as an appeal to some substantive notion of necessity. That is, it need not be read as a substantive metaphysical claim about the essential nature of being, nor as a claim about the essence of the thinking thing, nor as a descriptive psychological claim about how our minds work. The impossibility of failing to infer according to our

understanding of names, in 4.243, merely brings out the fact that to attempt to describe the situation of a thinker as involving such failure would not amount to a consistent description of a situation after all. For suppose the thinker knows that  $a=b$ , and yet fails to infer  $fa$  from  $fb$ , not in the sense that they are oblivious to it, but in the sense that they endorse  $\sim fb$ . To be inconsistent in this way —to make two contradictory representations of a single state of affairs— just means *not to know* that  $a=b$ , contrary to our assumption, that is, it means not to have an understanding of the names «a» and «b».

Anticipating the argument that I will develop in the following sections, the point which 4.243 makes with respect to our understanding of names also applies to our understanding of propositions and to the inferences we make on that basis, and the impossibility of making logical mistakes, pronounced in 5.473, is similarly not to be understood as a substantive claim. A successful understanding of propositions is such that the thinker who possesses it, possesses the capacity to discern the internal logical relations that constitute them. The non-substantive sense in which it is *impossible* for someone to truly understand a proposition and yet to behave in ways that conflict with its internal logical relations with other propositions is this: it makes no sense to describe someone as being in such a situation —to assume that a thinker has a determinate grasp of those propositions and yet does not acknowledge their relations— for in doing that we would ourselves be equivocating on the sense of terms such as «understand» and «proposition», or we would be referring equivocally sometimes to the mere signs the thinker uses, sometimes to the symbols that these signs seem to express.

#### §4.

Before turning to Wittgenstein's rejection of logical mistakes, let us take a brief look at what he says about correct reasoning. On Wittgenstein's view, the internal relations between the propositions that make up an inference are constitutive of their determinate identity qua propositions. The appreciation of such relations is already presupposed in our understanding of these propositions, and this renders void the need for any mediation between premises and conclusion:

5.131 If the truth of one proposition follows from the truth of others, this expresses itself in relations in which the forms of these propositions stand to one another, and we do not need to put them in these relations first by connecting them with one another in a proposition; for these relations are internal, and exist as soon as, and by the very fact that, the propositions exist.

Inference, on this view, serves to bring out and articulate the shape of the logical space of one's language. The harmony between what we understand and how we infer is secured neither by appeal to higher order beliefs about what follows from what, nor by means of instantiating axioms, nor by applying rules of inference. No such mediation between premises and conclusions is needed, since the components of inference are not discretely individuated atoms of belief, which form connections with other such atoms only when some additional act kicks in. Rather, the components of inference are propositions that we understand, and hence propositions that already occupy determinate locations in our logical space:

5.132 If  $p$  follows from  $q$ , I can infer from  $q$  to  $p$ ; derive  $p$  from  $q$ .

The mode of inference is to be gathered from the two propositions alone.

Only they themselves can justify the inference.

«Laws of inference» which—as in the works of Frege and Russell—are supposed to justify inferences, are senseless, and would be superfluous. [Translation emended].

In proposing that we can do without the application of laws of inference, Wittgenstein in effect rejects the idea that we can give a bottom-up account of inference, by first fixing the more basic components —thought and belief— regardless of the inferential nexus they stand in for a rational thinker, and then seeking the further component which is charged with bringing them together (e.g. «taking» or judging the premises to support the conclusion, applying rules of inference, etc.). Instead Wittgenstein opts for a top-down account of human mindedness, in which it is constitutive of the more basic elements of thought that they serve a determinate logical function in the context of full-blown thinking and reasoning.

## §5.

My aim in what follows is to explain the way in which Wittgenstein addresses failures to reason in light of his discussion of failures to use signs meaningfully. The distinction between attaching a determinate meaning to the signs that make up a proposition, on the one hand, and attempting to make use of signs without actually assigning them a determinate meaning, on the other hand, is of fundamental importance to Wittgenstein's *Tractatus*. The former results in making *sense*, whereas the latter results in *nonsense*. Indeed the confusions of philosophy, which the *Tractatus* sets out

to dispel, are said to arise from such misuses of language (Wittgenstein 1960, p. 26), which involve either the indeterminate use of one sign in more than one way, such that the absence of logical relations between the signs is obscured, or the use of different signs for the expression of one determinate meaning, such that the presence of logical relations between these signs is obscured (3.323–3.324), thereby resulting in nonsense.<sup>7</sup>

It is in articulating his own conception of nonsense and distinguishing it from what he takes to be a tempting, but ultimately mistaken view of nonsense (5.473–5.4733) that Wittgenstein puts forth the claim that it is impossible to make logical mistakes. Indeed, the rejection of the possibility of logical mistakes can be seen as a corollary of the rejection of the tempting conception of nonsense with which Wittgenstein takes issue there. Following Cora Diamond, I take Wittgenstein to leave no room for the idea that nonsense is the outcome of attempting to say something which is in a substantive sense impossible to say (cf. Diamond 2000, pp. 150–151 and Diamond 1991). For Wittgenstein, nonsense is not a kind of use of language, but the failure to use language properly, which consists in the thinker's failure to assign determinate meanings to signs:

5.473 Logic must take care of itself.

A *possible* sign must also be able to signify. Everything which is possible in logic is also permitted. («Socrates is identical» means nothing because there is no property which is called «identical». The proposition is nonsensical because we have not made some arbitrary determination, not because the symbol is in itself unpermissible.)

In a certain sense we cannot make mistakes in logic.

5.4731 Self-evidence, which Russell talked about so much, can become dispensable in logic only because language itself prevents every logical mistake. That logic is a priori consists in the fact that we *cannot* think illogically.

5.4732 We cannot give a sign the wrong sense.

5.4733 Frege says: Every legitimately constructed proposition must have a sense; and I say: Every

<sup>7</sup> Wittgenstein's critique of philosophical nonsense and his insistence that all metaphysical propositions lack sense reflect his convictions that there is only one kind of necessity —namely logical necessity (6.37)— and that logical claims are themselves senseless, and hence lack the kind of substance that the metaphysician yearns for. These points are controversial not only since the modern metaphysician insists that there are other sources of necessity, but also since the early Wittgenstein seems to conceive of logic rather narrowly. A full discussion of these issues lies beyond the scope of the present investigation.

possible proposition is legitimately constructed, and if it has no sense this can only be because we have given no *meaning* to some of its constituent parts.

(Even if we believe that we have done so.) ... [Translation emended]

Purporting to assert nonsense is here diagnosed as a manifestation of an illusion: as Wittgenstein puts it, to fail to determine the meaning of signs is something which might happen to the thinker *even if they think that they have done so*. Importantly, it is not that the signs themselves *cannot* be used in a way that would make sense—Wittgenstein does not take the symbol «Socrates is identical» to be «in itself unpermissible». For the thinker can always make new, arbitrary determinations of the meaning of each sign, for example they can interpret the one-place predicate *is identical* as expressing some property of objects (cf. 4.5: «every symbol to which the description [of the the most general form of the proposition] fits can express a sense, if the meanings of the names are chosen accordingly.» [translation emended]). To the extent that nonsense involves the thinker's failure (or refusal) to make such determinations, it gives rise to a situation in which that thinker expects their signs to behave in several conflicting ways—that is, to yield inferences that no unambiguous symbol could give rise to. Nonsense thus consists in an indeterminacy of meaning, combined with the insistence—the illusory appearance—that the sign nonetheless means some determinate thing.

The correct method of engaging with illusions of sense, Wittgenstein suggests at 6.53, is to allow the interlocutor to realize on their own that they have not made the meanings of their words determinate.<sup>8</sup> This is done not by telling them what the putative rules for the use of those words are, but by displaying to them the various possibilities of interpretation that could make sense of their words, and allowing them to recognize that none of these correspond to what they initially took their words to mean. There is no presumption in the context of this diagnosis that we would be able to tell what it is that the interlocutor has been trying to but failed to say. It is the interlocutor, not us, who according to the «only strictly correct method» described in 6.53, owes us an account of what they might mean.

To begin to see the connection between Wittgenstein's discussion of nonsense and his attitude toward logical mistakes, consider the case of an explicit logical contradiction. To affirm any proposition, one must understand it, and the very minimal level of understanding that is required if one is to count, in affirming a proposition, as

<sup>8</sup> I borrow the phrase «illusion of sense» from Kremer (2007, p. 144).

affirming *it*, involves seeing what situations it represents as possible and what situations it excludes (4.463). In the case of a contradiction, however, a proper understanding reveals that no possible situation could make it true, that is, that there is no content there to affirm. But if affirmation requires understanding, and understanding a contradiction involves seeing that it is false, purporting to affirm a contradiction must involve an illusion of sense; whenever it seems that one is affirming a contradiction, we must first check whether their use of signs actually coheres with ours, and whether in it, the signs are consistently used. If, for instance, in « $p \& \sim p$ » one does not use « $p$ » in the same way on both of its occurrences, no contradiction arises. Indeed, given the indeterminacy inherent in such a use of signs, for a thinker to insist that they do affirm a contradiction would be a prime example of the kind of illusion that Wittgenstein calls nonsense, and would call for a similar treatment. As Wittgenstein puts it in 5.4731, «language itself»—that is, insofar as language is properly used—«prevents every logical mistake».

## §6.

Wittgenstein's treatment of apparent logical mistakes is informed by the distinction he draws between the psychological and the non-psychological approach to the thinking subject. The centrality of this issue can be brought out in the following manner. In the Author's Preface Wittgenstein articulates the task of the *Tractatus* in terms of drawing the limits of language, outside which only nonsense lies (p. 26), or as he puts it later in the book, the limits outside which only what is unthinkable lies (4.114, 5.61).<sup>9</sup> But by drawing limits to the totality of senseful propositions, and hence to the totality of science (4.11, 4.113), Wittgenstein takes himself to spell out not only the limits of our world but also the limits of our subjectivity. In other words, in drawing limits to language, Wittgenstein supplies us with a distinct notion of subjecthood:

5.6 *The limits of my language mean the limits of my world. ...*

5.62 ...That the world is my world, shows itself in the fact that the limits of the language (the language which only I understand) mean the limits of my world. ...

5.641 There is therefore really a sense in which in philosophy we can talk of a non-psychological I.

<sup>9</sup> As Wittgenstein is quick to add (at 5.61), the locution «what is unthinkable» is misleading, for it purports to denote something, which *ex hypothesi* cannot be an object of thought. On Wittgenstein's dissolution of the idea of thoughts which lie outside the limits of the logical, see Conant (1992).

The I occurs in philosophy through the fact that the «world is my world».

The philosophical I is not the man, not the human body or the human soul of which psychology treats, but the metaphysical subject, the limit—not a part of the world.

The non-psychological I is the notion of a subject understood in terms of the totality of the content that its language allows it to represent. A subject, thus conceived, is a coherent logical whole, a point of view on the world, which might differ from other such points of view (or from the past states of the same subject) in terms of what objects count as simple in it and hence in terms of what atomic and molecular propositions belong to it.<sup>10</sup>

Wittgenstein further argues that one can describe all of the content-involving mental acts of this non-psychological I, while avoiding any reference to the subject itself, thereby eliminating the grammatical illusion that the self is given to us as an object which stands apart from, and forms a correlate of acts of thought (5.541–5.5421). Indeed, acts of thought and belief can be fully described, Wittgenstein suggests, purely in terms of their semantic relation to their intentional objects, namely propositions. It is here that Wittgenstein's refusal to cede the notion of thought to psychology becomes most apparent:

5.542 But it is clear that «A believes that p», «A thinks p», «A says p», are of the form «“p” says p»: and here we have no co-ordination of a fact and an object, but a co-ordination of facts by means of a co-ordination of their objects.

5.5421 This shows that there is no such thing as the soul—the subject, etc.—as it is conceived in contemporary superficial psychology.

A composite soul would not be a soul any longer.

5.5422 The correct explanation of the form of the proposition «A judges p» must show that it is impossible to judge a piece of nonsense. (Russell's theory does not satisfy this condition.) [Translation emended].

Having a thought, Wittgenstein suggests, is constituted by the relation of the thought to the fact about which one thinks: to *think* something is to think *something*. So in saying what it is that one thinks, we say of a possible fact (that which a proposition with sense means) that it is the content of one's thought. On the right-hand side of «A believes p», just as on the right hand side of «“p” says p», we *use* a proposition to state

<sup>10</sup> On this see also the discussion in Wittgenstein (1984, p. 70, entry dated 22.6.15).

a possible fact, whereas on the left-hand side we describe the thinker's mental state as a sign that stands for that possible fact. As Wittgenstein points out in a letter to Russell, the question what the psychological realization of the sign is, i.e. what state is referred to on the left hand side of «A believes p», is a question that we can leave to empirical psychology to answer, since this has no bearing on the logical questions that interest him (Wittgenstein 1984, p. 130, letter dated 19.8.19).

An important implication of this construal of ascriptions of judgment is that it leaves no room for treating nonsense as the content of a subject's act of judgment. For to attempt to attribute nonsense to someone, in the sense of saying that *that* is their thought, would require not merely mentioning on the left-hand side of «"p" says p» what piece of nonsense seems to be present in them, but purporting to *use* that very piece of nonsense on the right hand side of «"p" says p», to spell out that determinate content which the person thinks. But to do that would itself be to utter a piece of nonsense, and hence to fail to determinately say what the content is—only this time the fault would be ours, the observers.<sup>11</sup> This is the reason why 5.5422 says that a correct explanation of ascriptions of judgment must demonstrate that it is *impossible* to judge nonsense —which Wittgenstein's explanation does, whereas Russell's does not.

If I am correct, then here, too, the impossibility Wittgenstein appeals to is not a substantive one. It is not that there really is such an «in itself unpermissible» thing, namely judging nonsense, which according to Wittgenstein's theory we are debarred from doing. Rather, what he aims to show us is that that thing which we imagined we can achieve by ascribing a nonsensical judgment to someone is not anything at all — that to ascribe a nonsensical judgment to someone is itself a mere illusion of saying something meaningful. The point then is that in thinking of nonsense as a possible object of judgment we lose our grip on what judgment is.<sup>12</sup> Here again, Wittgenstein is a disjunctivist: to accuse someone of uttering nonsense is not to attribute to them a *kind* of judgment, which lacks some extra component that proper judgments do have; rather, it is to describe them as having failed to carry out any act of judging at all. For similar reasons, I will argue in the next section, putative attributions of mistakes in reasoning ultimately fail to count as attributions of reasoning.

<sup>11</sup> For a similar suggestion see Diamond (2000, p. 156-157)

<sup>12</sup> Wittgenstein's line of thought here anticipates Davidson's (1974) well-known argument, that insofar as our conception of truth (and of meaning) essentially involves translatability into our language, any attribution of thought to someone else presupposes that its content can be understood by us.

## §7.

Let us consider a concrete case that one might be tempted to describe as involving a mistake in reasoning, and examine whether Wittgenstein is right that the imputation of such logical mistakes to the subject is incoherent. Suppose a thinker purports to infer by affirming the consequent. In some (perhaps most) instances we might be able to explain such behavior by taking it to indicate that the person is not affirming the same content that we attach to the signs «q», « $p \supset q$ », and «p». If they truly affirm anything determinate, it might be something weaker, or simply different, than what we affirm in using the same signs. E.g. by « $p \supset q$ » the thinker might (at least momentarily) mean  $q \supset p$ , and by saying «q» they might actually mean p, and vice versa. In such cases our diagnosis would yield that the thinker's reasoning is in fact valid, though their use of language diverges from our own. But if we say, in such cases, that the thinker mistakenly takes the premises q,  $p \supset q$ , to support the conclusion p, we would ourselves be equivocating—for it is not *our* p,  $p \supset q$  and q that the thinker affirms, and with which they purport to infer. Once we distinguish sign from symbol, and account for differences in meaning, we will see that the apparent logical mistake is in fact a genuine inference—in a language other than our own.

If the proponent of logical mistakes is correct that there are cases which are not similarly reducible to a problem of interpretation, those would have to be cases in which the thinker uses the same signs that we do, with the same determinate sense that we do, and yet takes them to yield a justified inference, despite the fact that they do not. But for us to attribute such a state to a thinker would be tantamount to our making two contradictory attributions to that thinker. For on the one hand, as is clearly visible in the truth-table which expresses the sense of the putative premises (q,  $p \supset q$ ) and conclusion (p), the possibility of the falsity of the apparent conclusion is not excluded by the joint affirmation of the premises. What we understand, in conjoining these premises, includes the possibility of the conclusion's being false, or, to put it differently, the falsity of p is one of the «truth-grounds» of q and of  $p \supset q$ , and hence part of their sense (cf. 3.02, 4.4, 4.463, 5.122). On the other hand, to say that one *infers* the conclusion from the premises q and  $p \supset q$  is tantamount to saying that they deny that the premises leave room for the falsity of p. It would be an incoherent description of the subject to ascribe to them both of these acts at once, for the contradictoriness of these two attributions, which we conjoin in our ascription, undermines our own assumption that by each of the signs «q», « $p \supset q$ » and «p», the thinker means a single, determinate thing. And if the subject cannot be taken to mean anything determinate

by them, then its uttering them in succession is not a logical mistake, but rather nonsense.

For the proponent of logical mistakes to insist on there nonetheless being a coherent description of a thinking subject who falls prey to logical mistakes would ultimately come at the cost of no longer providing a non-psychological account of that subject. For suppose that the proponent of logical mistakes denies that recognizing what possibilities a proposition excludes is internal to understanding it, and instead seeks to treat this as a further, separate inferential step. This would involve severing the internal relations that render the sense of a proposition that we understand determinate, and through which that proposition receives its sense. Indeed it would no longer be clear that the objects of belief and understanding, so described, are senseful propositions at all.<sup>13</sup>

Some proponents of logical mistakes insist that fallacious inference counts as an inference precisely because it is possible for the subject to *take* the premises to imply the conclusion even when they in fact do not, and it is this taking, rather than the actual validity of the inference, that determines whether an act counts as an inference or not (in the terms I introduced above, this is what makes their approach to inference a non-disjunctivist one). But for the notion of taking to serve the role it is here required to play—for it to secure the intelligibility of logical mistakes by making room for the possibility of a thinker attaching a determinate meaning to the premises and to the invalid conclusion, and yet taking them to amount to a valid inference— would seem to require, on the one hand, that such acts of taking are not transparent to the sense of the propositions that occur in them (or else the thinker would recognize the looming contradiction), and on the other hand, that ascribing such acts to a thinker has no effect on what meaning we, the observers, take the thinker to ascribe to these propositions. Such an idea of taking—taking propositions to stand in an inferential relation without at the same time recognizing whether or not they do— involves, from the Wittgensteinian perspective, an equivocation between sign and symbol. For while signs can be treated as opaque objects which stand in external relations to one

<sup>13</sup> Stroud (1979), and more recently Marcus (2021) similarly argue that understanding must involve the recognition of at least some inferential relations. Questions arise with regard to where the line should be drawn, below which no understanding can properly be ascribed, and it is worth noting in this connection that it is a common objection to Wittgenstein's *Tractatus* that his account makes the unreasonable demand that the subject be able to discern *all* of the inferential relations that hold between the propositions they entertain. I believe this objection rests on a misinterpretation, but a full discussion of this issue must await a different occasion.

another, and toward which a subject may stand in various external relations (such that these objects would not be affected by alterations in the external relations that involve them), propositional symbols are inherently constituted by their significant use, that is, by the internal relations that make up the context of a subject's inferential activity; indeed for Wittgenstein proposition-involving acts are fully transparent to the content of the propositions they involve (as we have seen in the previous section).

There is no denying that in a *psychological* account of the subject we may speak of mental acts as forming an oblique context whose content we can only describe by appeal to mere signs, and that we can thus speak of the psychological subject as being in a state in which some signs seem to it to express propositions that support one another —indeed this might be a legitimate way of explaining how that subject is *caused* to undergo certain illusions. But the appeal to such mental acts and such causal relations has no role to play in proper attributions of judgment and inference. Now if it is not the propositional symbols, but the mere signs (or the psychological phenomena that embody them) which according to the proponents of logical mistakes play a role in the act of taking, and thus motivate the thinker to draw an inference, and if this kind of motivation by signs is supposed to be operative not only in the case of fallacies, but also to form the highest factor which is common to good inferences as well (since this is what guarantees, according to the non-disjunctivist approach, that fallacious inference is nonetheless a legitimate kind of inference), then the very notion of inference that is at issue for these proponents of logical mistakes, even when they speak of logically valid inferences, is a merely psychological notion, not a logical one. Wittgenstein's disjunctivism blocks this slide to psychologism.

The rejection of logical mistakes can thus be seen as a correlate of Wittgenstein's adopting the non-psychological point of view on thinking and reasoning, that is, as a correlate of his deployment of notions of thought, of inference and of language for which logic is not normative, but constitutive. I proposed that cases which appear to involve logical mistakes can be treated in one of two ways, namely either by reinterpreting the thinker's use of words, thereby rendering their meanings determinate and their reasoning valid, or by showing these apparent inferences to involve an equivocal use of mere signs, which lack determinate meaning, and can therefore be dismissed as nonsense. If this is correct, then the claim that it is *impossible* to make mistakes in logic turns out not to be a substantive one after all. Indeed what is being excluded by Wittgenstein's disjunctivist approach to reasoning is not a possible species of reasoning, that he declares to be «in itself unpermissible». Rather, it is the mere appearance of reasoning, which is to be exposed as illusory, i.e. as not reasoning

after all.

## §8.

The exclusion of logical mistakes seems to prevent Wittgenstein from making sense of what is widely taken to be a distinctly recognizable fact, namely the normativity of logic. Articulating what such an objection ultimately comes down to is a central task of the *Philosophical Investigations*, where Wittgenstein traces it back to a remark made to him by Ramsey (Wittgenstein 2009 §81). At least part of what Ramsey's concern might have been is given a vivid articulation in the following text:

The chief danger to our philosophy, apart from laziness and woolliness, is scholasticism, the essence of which is treating what is vague as if it were precise and trying to fit it into an exact logical category. A typical piece of scholasticism is Wittgenstein's view that all our everyday propositions are completely in order and that it is impossible to think illogically. (This last is like saying that it is impossible to break the rules of bridge, because if you break them you are not playing bridge but, as Mrs C. says, not-bridge.) (Ramsey 1990, p. 7.)

Ramsey's point in the parenthetical remark seems to be that treating logical mistakes as nonsense would not allow us to criticize an interlocutor for using language in ways that we confess not to be able to understand, just as not-bridge cannot be subjected to the criticism that it does not comply with the rules of bridge. But Ramsey's analogy between bridge and not-bridge, on the one hand, and reasoning and nonsense, on the other hand, is misleading, and it ultimately breaks down. The realm of indeterminacy, of nonsense, and of inconsistency is not a space which one might form a preference to conduct one's thinking in. As Wittgenstein sees it in the *Tractatus*, logic is coextensive with the realm of regularity (6.3) and there just isn't anything that could count as thinking, or as a language, to which logic does not apply (3.03–3.032, 5.4731). So unlike not-bridge, which is putatively a practice that is governed by determinate rules (which are different from the rules of bridge alright, but are still rules for all that), in not-logic there would be no governance by rules at all. Unlike the symmetry between bridge and not-bridge, there is no symmetry between logic and what lies outside it. One might think that in order to avoid the unbearable symmetry that Ramsey describes, logic must count as an overarching norm which can also be applied to illogical thought, and thereby give the propounder of nonsense a reason to revert to logical reasoning. But how could one be given a reason to opt for logic, if only within logic could reasons be given at all? There is something incoherent in the very idea of a norm being applied to

so-called illogical thought.

To say, with Wittgenstein, that what is done by someone who seems to reason illogically is not really reasoning and is therefore not evaluable as a mistake is in no way to deny that humans minds are finite, and hence subject to failure. Rather, it is to deny that such fallibility can be properly understood in terms of mistakes. This is indeed to admit that we cannot directly criticize such failures—for as Wittgenstein sees it, there is really no «it» that we can recognize as subject to logical criticism in such contexts. But this need not mean that we must remain indifferent to an interlocutor who utters nonsense. Insofar as we recognize them as a person, as someone with whom we could share a life, we also have an interest in making sense of them and in enabling them to make sense of us. So although we might not be able to *convince* them, we can continue to exhibit to them our own ways of making sense, and hope that they will eventually catch on, transform their use of language, and ultimately come to use it in ways that do make sense (cf. the method described in 6.53).

Ramsey's objection prompted Wittgenstein to rethink his earlier conception of reasoning, understanding and meaning. But it has *not* led him to abandon the distinction between failures of reasoning that can be overcome by means of ordinary argumentation and failures which cannot be treated as mere mistakes, and call for alternative forms of engagement (see in particular Wittgenstein 2009, §§143–144, §§208–211 and §§241–242). Getting clearer on the issues I discussed in this paper may thus help us gain a better grasp of the essential continuities and discontinuities in Wittgenstein's thought.

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### **«In a certain sense we cannot make mistakes in logic» –Wittgenstein, Psychologism and the So–Called Normativity of Logic**

Wittgenstein's *Tractatus* construes the nature of reasoning in a manner which sharply conflicts with the conventional wisdom that logic is normative, not descriptive of thought. For although we sometimes seem to reason incorrectly, Wittgenstein denies that we can make logical mistakes (5.473). My aim in this paper is to show that the *Tractatus* provides us with good reasons to rethink some of the central assumptions that are standardly made in thinking about the relation between logic and thought. In particular, the rejection of logical mistakes is to be understood in connection with Wittgenstein's non-psychological approach to the thinking subject (5.641). On Wittgenstein's view, inference, understanding, and meaning are holistically related; cases of defective reasoning are to be explained in terms of a defective grasp of meaning which manifests in an indeterminate use of signs. Invalid reasoning therefore does not count for Wittgenstein as a species of reasoning, but rather as the mere illusion of reasoning. The rejection of logical mistakes thus gives voice to a radical disjunctivist approach.

**Keywords:** Inference · Logical Mistakes · Disjunctivism.

### **«En cierto sentido no podemos cometer errores en la lógica» –Wittgenstein, Psicologismo y la, así llamada, normatividad de la lógica**

El *Tractatus* de Wittgenstein construye la naturaleza del razonar de una manera que está fuertemente en conflicto con la convicción convencional de que la lógica es normativa, no descriptiva del pensar. Puesto que ocasionalmente parecemos razonar de manera incorrecta, Wittgenstein niega que podamos cometer errores lógicos (5.473). Mi objetivo en este trabajo es demostrar que el *Tractatus* nos ofrece buenas razones para volver a pensar algunas de las suposiciones centrales que se hacen rutinariamente al pensar la relación entre la lógica y el pensamiento. En particular, el rechazo de los errores lógicos se tiene que entender en asociación con el planteamiento del no-psicológico acerca del sujeto pensante (5.641). Según el punto de vista de Wittgenstein, la inferencia, el entendimiento y el significado están relacionados de manera holista; la ocurrencia del razonar defectuoso ha de ser explicado en términos de una comprensión defectuosa del

significado que se manifiesta en un uso indeterminado de los signos. El razonar inválido, por consiguiente, no cuenta para Wittgenstein como un tipo de razonar, sino, más bien, sólo como la ilusión del razonar. El rechazo de los errores lógicos enuncia de esta manera un planteamiento radicalmente disyuntivo.

**Palabras Clave:** Inferencia · Errores lógicos · Disyuntivismo.

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GILAD NIR has held postdoctoral research positions at the University of Leipzig and the University of Jena after completing his doctoral studies at the University of Chicago. His philosophical work concerns the topics of inference and understanding, the early and later philosophy of Ludwig Wittgenstein, and the philosophy of Martin Heidegger.

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**INFORMACIÓN DE CONTACTO | CONTACT INFORMATION:** Institut für Philosophie, Friedrich Schiller Universität, Zwätzengasse 9, 07743 Jena, Germany. e-mail (✉): [gilad.nir@yahoo.com](mailto:gilad.nir@yahoo.com) · **iD:** <http://orcid.org/0000-0002-9942-844X>.

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