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On Redrawing the Force-Content Distinction

Abstract

Frege distinguished the thought *qua* logical *content* from the assertoric *force* attached to it when claimed to be true. The gist of this distinction is captured by the so-called Frege-Geach point. Recently, several authors, drawing partly on inspiration from Wittgenstein, have rejected the force-content distinction. This article proceeds from the observation that Wittgenstein himself did not reject the force-content distinction but urged us to reformulate it in a non-dualistic way. While drawing on Wittgensteinian lessons about thought and its expression, the overall purpose of the paper is systematic, not exegetic: it seeks to contribute to the contemporary debate about force and content by arguing that this distinction should be *redrawn* in such a way as to exhibit force as internal to thought, namely, as that which provides for the unity of thought. To this end, it is investigated what it is for a thought to occur as a forceless part of a propositionally complex assertion (e. g. for *p* to occur as a part of the assertion that *not p*).

As is well-known, Frege distinguished the *thought qua* logical *content* from the assertoric *force* attached to it when claimed to be true (cf. T: 329). The gist of this distinction has been captured by what has come to be known as the "Frege-Geach point" according to which *one and the same* proposition can occur both asserted and unasserted. While the force-content distinction as drawn in the Fregean tradition allows to account for both *sameness and difference* between, for instance, the assertion that *p*, the assertion that *not p*, and the

question *whether p*, the suspicion that it leaves the relation between force and content unintelligible has often been raised.[1] Recently, several authors, drawing partly on inspiration from Wittgenstein, have rejected the force-content distinction and the Frege-Geach point.

In this paper I seek to argue that from a Wittgensteinian perspective the appropriate answer to puzzles raised by the force-content distinction does not consist in abandoning it but in redrawing it in a non-dualistic way. The first part of the paper, in which I look at Frege's and Geach's account of the force-content distinction, provides the historical background for the ensuing discussion. In the second part I critically engage with three contemporary accounts that dismiss the Fregean understanding of force and thought. Having argued that these attempts are, in certain respects, problematic I then lay out in the third section some Wittgensteinian lessons about thought and its expression which attempts at revising the force-content distinction should take into account. In the fourth section I seek to redraw this distinction in such a way as to exhibit force as internal to thought, namely, as that which provides for its unity. The leading thread for doing so will be provided by the question what it is for a thought to occur as a forceless part of a propositionally complex assertion. Following Wittgenstein I argue that this question cannot be answered in an abstract manner but requires attention to particular cases. Taking negation as my example, I give an account of how the *forceless* thought *p* occurs as a part of the assertion that *not p* – namely, by *indirectly* partaking in the force of the latter.

1. Historical Background: Frege and Geach

Frege introduces the distinction between force and thought by recourse to observations such as the one that the assertion that *p*, the question *whether p*, and the antecedent of the assertion *if p, then q* are in some respect identical, while differing in another (cf. CT: 8; N: 348). He refers to the respect in which they differ as "force" (cf.

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[1] Cf. Baker and Hacker 1984a: 47–120 for a history of the reception and critique of the force-content distinction in 20th century analytic philosophy.

T: 329). It is undisputable that not all expression of thought comes along with assertoric force, as can be seen, for instance, both with regard to questions and the fact that in asserting a conditional we do not thereby subscribe to the truth of its antecedent or consequent on their own terms (cf. IL: 185–186).

While these observations are uncontroversial, Frege also seems to assume that thoughts *qua* contents that can occur with or without assertoric force are not themselves intrinsically tied to force. This is manifest in Frege's distinction between thinking, judging and asserting[2]:

> We distinguish: (1) the grasp of a thought – thinking, (2) the acknowledgement of the truth of a thought – the act of judgment, (3) the manifestation (*Kundgabe*) of this judgment – assertion. We have already performed the first act when we form a sentence-question. (T: 329–330).

As emerges from this passage, Frege conceives of judging and asserting as well-founded acts which one cannot engage in directly, but only on the basis of previous engagement in the forceless act of grasping the thought in question. Frege explicitly subscribes to this view in the following passage:

> To think is to grasp a thought. *Once* we have grasped a thought, we can recognize it as true (make a judgement) and give expression to our recognition of its truth (make an assertion). (IL: 185, my emphasis).

The same idea is manifest in Frege's complaint that often "the act of grasping a thought and the acknowledgment of its truth are not kept separate" by philosophers. "In many cases, of course, one of these acts follows so directly upon the other that they seem to fuse into one act; but not so in all cases" (N: 354). What might be problematic about this isn't the view that in *some* cases the assertion of a thought is *clearly* preceded by a kind of engagement with it by which one does not yet commit oneself to its truth – for that is

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[2] It is equally manifest in the way in which he distinguishes between "assumption" (*Annahme*) and "assertion" (*Behauptung*): "According to the view I am here presenting, '5>4' and '1+3=5' just give us expressions for truth-values, without making any assertion. This separation of the act from the subject matter of judgment seems to be indispensable; for otherwise we could not express a mere assumption – the putting of a case without a simultaneous judgment as to its arising or not" (FB: 142).

possible indeed, as the fact of inquiry reveals. The problem might rather lie in Frege's underlying assumption that in *all* cases grasping and judging are *distinct* acts *following upon another*, while in *most* cases they *seem* to be fused into one act. For this would mean that *mere* thinking is a kind of engagement with thoughts *qua determinate contents* that can proceed independently of any commitment and prior to any undertaking of responsibility.

One might try to defend Frege by conceding that the passages just quoted are indeed unfortunate albeit *collateral* to his conception. For all examples of forceless, unasserted thoughts by recourse to which he introduces the distinction between thought and force, are ones in which engagement with unasserted thoughts is not presented as occurring *all on its own,* but within a larger context of inquiry that involves assertoric commitments (cf. T: 330; N: 348). Such a context might, for instance, consist in giving a *proof* in which the unasserted thought plays the role of an *assumption* (cf. FB: 142; N: 348). Accordingly, when Frege writes that it is "the very nature of a question that demands a separation between the acts of grasping a sense and of judging" (N: 348), he thinks of questions as being asked against a background of judgments and assertoric commitments. Hence, according to this line of defence, Frege does not subscribe to the view that there can be *independent* acts of *mere* thinking that engage with determinate thoughts while not being tied back, at least indirectly, to judgmental and assertoric activity. Accordingly, Frege would not conceive of thought and force as *altogether external* to each other. However, as we shall see, this line of defence won't do. For by understanding propositional connectives as *functions*, Frege indeed subscribes to a view of force as altogether external to thought.

Peter Geach has generalized the observations that led Frege to introduce the distinction between thought and assertoric force in the following statement that has become the canonical formulation of the Frege-Geach point: "A proposition may occur in discourse now asserted, now unasserted, and yet be recognizably the same proposition" (Geach 1965: 449). By "proposition" Geach means "a bit of language in a certain logically recognizable employment", namely one that expresses a thought (1979: 221, cf. 1965: 450).

While some critics of the force-content distinction have argued that the Frege-Geach point needs to be straightforwardly rejected (cf. Bronzo 2019: 1, 3, 20), I take Geach's formula to be deeply ambiguous, allowing for a deflationary reading on which it manifests an insight, while it *can* also be taken and usually *is* taken in a way that leads to confusion.[3] The ambiguity can be pinpointed by focussing on Geach's use of the words "unasserted" and "the same proposition". His use of the word "unasserted" is ambiguous insofar as it leaves open whether, on his account, an unasserted proposition can occur *on its own*, or whether it can only occur as a dependent part of an overarching proposition which *does* come along with a force (be it assertoric or non-assertoric).

The ambiguity in Geach's use of "the same proposition" manifests the same unclarity as the one tied to his use of "unasserted". If "the same proposition" means that the occurrences in question have the same *content*, one cannot deny that "p" as independently occurring and "p" *qua* part of "not p" or "if p, then q" can indeed amount to the same proposition. However, if a proposition is "a bit of language in a logically recognizable employment", notwithstanding their sameness of *content*, the *logical employment* of these propositions, i.e. the roles they play in an act of expressing a thought, might be different. For if an embedded unasserted proposition is one that plays a role in the business of thinking-and-speaking, which does not itself consist in asserting something but serves a certain function that is tied back to the logical employment of the overall proposition of which it is a part, then "p" *qua* unembedded, and "p" *qua* embedded proposition will be distinct propositions *insofar as they play different roles in the business of thinking-and-speaking*, even while their *contents coincide*.

We can accordingly disambiguate the Frege-Geach point in two ways, one which makes it the articulation of an insight that is hard to dispute, and one which makes it a nest of confusion, as I will seek to concretely show in further sections of this paper:

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[3] Kimhi (2018: 38) likewise stresses that Geach's statement is open to different interpretations. I critically engage with the interpretation Kimhi favours (cf. 2018: 39) in section 2 below.

(1) A proposition may occur in discourse now asserted, now *unasserted* (insofar as it either occurs as a part of an overarching proposition in whose assertoric force it indirectly partakes or as bearing a non-assertoric force), and yet be recognizably *the same* proposition (in terms of content).

(2) A proposition may occur in discourse now asserted, now *unasserted* (without being tied back to an overarching proposition in whose force it partakes), and yet be recognizably *the same* proposition (in the sense of playing the very same role in the business of thinking-and-speaking as the asserted proposition).

2. Recent Criticisms of the Force-Content Distinction

By subscribing to the second reading of the Frege-Geach point one underwrites a conception of force as external to thought. In this section I will review and discuss three views according to which the force-content distinction as drawn by Frege needs to be given up on account of its externality and replaced by a different understanding of how unasserted propositions and their assertoric counterparts relate to each other.[4] What is common to these three views is that their critical engagement with the force-content distinction is undertaken from a *broadly* Wittgensteinian perspective, while rejecting the speech-act theoretic approach to the topic of force and content.[5]

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[4] Earlier criticism of the Fregean distinction between force and thought as unfit to account for logically complex assertions has been voiced by Baker and Hacker. According to them Frege "gave no clear explanation of why sentences used as disjuncts or antecedents and consequents in hypotheticals are not used to make assertions", while it would have been "absolutely necessary" for him to give one (Baker and Hacker 1984b: 81). However, giving such an explanation would only be required had Frege assumed that declarative sentences *as such* involve assertoric force. Frege made it clear, though, that it is not the form of a declarative sentence *alone* that involves assertoric force which comes into play only when the sentence is used with appropriate "seriousness", and whether it is so used depends on the context of utterance (cf. T: 330). Accordingly, the primary problem with Frege's understanding of force is not that he fails to *explain* the *absence* of assertoric force from the use of declarative sentences in certain contexts but, rather, his failure to account for the *unity* of thought and force in assertions, be they logically simple or propositionally complex.

[5] Cf. Rödl 2018: 33, Bronzo 2019: 26–31, Kimhi 2018: 39. – There is another group of contemporary philosophers who, from vantage points rooted in speech-act theory, reject

The assumption that force is external to thought might seem problematic for at least three reasons, one pertaining to logical content as such, one pertaining to the problem of how to understand the attachment of a force to a thought, and one pertaining to the self-consciousness of thinking-and-speaking:

1. If there can be thoughts or propositions which are not even indirectly tied to forceful thinking-and-speaking – i.e. *purely forceless* thoughts or propositions, for short –, then it must be possible to *merely* think thoughts, and to *merely* voice propositions *whose joint assertion would amount to a contradiction* without thereby contradicting oneself.[6] This might be taken as a reason against the view that anything is meant by "purely forceless thoughts or propositions". For the fact that an act of merely thinking a thought is not such that it might turn out to be incompatible with any other act of that sort, shows that the supposed activity is wholly contextless and non-committal, while it seems questionable that any such activity could involve a *logical* content or a *determinate meaning.*[7]

2. If thoughts, and the propositions expressing them, do not themselves come along with a force, it might seem mysterious how force can be attached to them afterwards such that a *unified* act of judging or asserting results. Silver Bronzo speaks of "the mystery of what can turn a forceless truth-evaluable thought into a forceful one".[8]

3. If thinking is self-conscious insofar as the act of thinking that *p* is such as to bring itself, in one and the same act, under the concept of thinking, i.e. if the act of thinking that so and so *is*

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the Fregean conception of force as external to content and seek to replace it by an alternative picture, cf. Barker 2004: 89, Recanati 2013, Hanks 2015: 12–20, Hanks 2016, Recanati 2016. These positions deserve separate treatment, cf. Martin 2020: appendix.

[6] Cf. Rödl 2017: 221 for a different though related objection, namely that against the background of the force-content distinction the one who judges *not p* could not *understand herself* to contradict the judgment *p* but only to affirm a *further* content.

[7] The assumption of forceless propositions thus runs counter to what Kimhi calls the "full context principle". While Frege's context principle is limited to atomic propositions, Kimhi credits Wittgenstein with its "full" version according to which "even though a simple predicative proposition can occur alone, we cannot ask for its meaning in isolation from the propositional contexts in which it can occur" (2018: 48).

[8] Bronzo 2019: 20, cf. also 3, 26–28.

itself the *judgment* that one thinks that so and so, thinking as such involves judging and, hence, assertoric force, which means that force cannot be external to content. This is Sebastian Rödl's view:

> The idea that judgment is articulated into force and content is confused. […] This is so because judgment is self-conscious: in judging what I do, I think myself judging it. The *I judge* is inside what I judge. (Rödl 2018: 38)

I take it that these objections render the view that force is external to thought problematic, while not in themselves refuting it. For with regard to (1) a naturalist might simply stick to the view that it is possible to engage with and express a determinate thought without thereby committing oneself in any way. With regard to (2) he might stick to the view that it cannot be further explained how force attaches to content, i.e. that the concept of this relation is irreducible. And with regard to (3) he might as well take the implication that force cannot be external to thought as a reason against the underlying way of understanding the self-consciousness of thinking, rather than taking the argument to exhibit the distinction between thought and force as confused.

We can now look at the *consequences* drawn by those who advance such objections. According to Rödl (2018: 37)

> the force-content distinction makes no sense, it has no explanatory power. There is no cost to abandoning it. […] It is true that abandoning the distinction engages us to rethink a vast array of questions, in many disciplines".

As it seems to me, Rödl's idea of "abandoning" the force-content distinction is problematic due to its ambiguity. It either implies that we merely imagined we had drawn a distinction, but, in fact we didn't, being stuck with empty words instead. In that case there is nothing to rethink. Or, it means that we did indeed draw a distinction, albeit confusedly. Then there is an "it" which needs to be understood more clearly, namely, in a non-dualistic way, rather than to be "abandoned". The observations by which the force-content distinction is motivated speak in favour of the second option.

By "abandoning" a logical distinction that is shrouded by confusion instead of trying to draw it more clearly, one might bereave oneself of the means to understand further logical distinctions that clearly *cannot* be abandoned. As it appears to me, this is happening in Rödl's treatment of negation. After exhibiting how Frege's functional account of negation presupposes the force-content distinction that needs to be abandoned according to Rödl, he goes on to claim:

> Now we can understand negation. It is not a function on contents. [...] It is contained in the self-consciousness of judgement: judging that things are so, I understand myself to oppose the judgment that they are not. As negation is contained in the *I judge*, it is in what is judged in so far as it is something judged. (Rödl 2017: 223)

This, however, does not provide an understanding of *negation*. For it merely stresses that *judging as such* involves rejection of the opposite judgment. It does not make clear what the *unity* of a judgment *qua opposed to another* consist in. In other words, it does not help one to understand what the *logical difference* between the act of judging that *not p* and the act of judging that *p* amounts to (even if both types of act should indeed reflect each other in the way Rödl assumes).

The idea that thought is *inherently* forceful can only become an insight if it is concretely shown how that idea is compatible with the fact that embedded thoughts and dependent acts of thinking must do without a force *of their own*. If thoughts as such are tied to some force or other, while embedded thoughts (e. g. *p qua* part of ¬*p*) do not *directly* come along with a force *of their own*, it must be clarified how the *indirect* connection to force, which embedded thoughts must indeed come along with, is to be understood. That is, it must be clarified how *dependent* logical acts that have an embedded thought as their content, and the *overarching* logical act that does indeed bear a force of its own interlock with each other such as to provide for the unity of a propositionally complex thought.

A proposal of the following sort has recently gained prominence as a reply to this question: If, contrary to Frege and Geach, propositions *as such* are forceful, the forceless occurrence of a proposition needs to be understood as the result of a

"cancellation" of the force which an act of thinking-and-speaking with the very same content would bear, if it occurred on its own, a cancellation which is said to be due to a certain type of "context" in which the proposition occurs.[9] Proponents of this view tend to think of such a context by analogy to the *stage qua* place on which utterances are conventionally deprived of their usual assertoric force.[10] This idea is spelled out by Irad Kimhi in the following way:

> We do not have to say that a thought can be conveyed without assertoric force. The actors in a play *do* display assertions. […] It is just that, by convention, the display of assertion in a *play* is not an assertion but a *mock* assertion. I want to suggest that a similar point applies to logic. In the theater the display of force is not an assertion; the setting upsets the force-form. In a compound proposition, too, the display of force is not an assertion. Here too – I suggest – the setting upsets the force-form which is nonetheless displayed. (Kimhi 2018: 44)

Based on this idea, Kimhi characterizes the logical acts manifest in subordinate propositions as acts that *simulate* or *imitate* assertoric acts, referring to such acts as "assertoric gestures":

> An assertoric gesture is analogous to a mimetic gesture that displays an act without being it. […] A mimetic gesture can be performed as basis for another act, as when we threaten someone by tracing a finger slowly across our neck. Similarly, an assertoric gesture occurs as a basis for the display of another repeatable, for example, *p* in *¬p*. An assertoric gesture is an occurrence of a repeatable – a propositional sign – that can occur either as a gesture or as a self-identifying display. (Kimhi 2018: 56)

This analogy seems problematic for the following reason: A *mimetic* gesture *can* indeed be performed as a basis for another act, while it *can* as well be performed without providing the basis for anything further. In contrast, an *assertoric* gesture is not such that it merely *can* occur as a basis for a further act. For if it were, it would amount to a *forceless while logically contentful* act *on its own*, which is exactly what seemed problematic about the Fregean conception. Accordingly, one might need to acknowledge – pace Kimhi – that mere assertoric gestures can *only* occur as *dependent* parts of acts which are

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[9] Cf. for instance, Barker 2004: 89, Hanks 2015: 90 ff. and Recanati 2016: §4.

[10] It is telling, as we shall see, that the origin of this analogy is *Fregean*, cf. T: 330.

not themselves mere gestures, rather than just providing a *possible* basis for *further* logical acts. For what merely provides a possible basis for further acts is not itself dependent of the performance of that for which it provides the basis. This objection shall now be fleshed out.

By attempting to say *in general* what kind of logical act it is that corresponds to a logically embedded proposition, and by characterizing such acts by way of analogy to *mimetic acts,* Kimhi implicitly commits himself to a view of them as acts which, even while depending *in type* from assertoric acts, are such that *particular occurrences* of them might adequately be characterized as the acts they are, independently of recourse to an overarching logical act in which they partake. *Mimetic* acts are indeed such that particular instances of them might as well occur on their own, rather than essentially depending for their occurrence on an actual forceful act of which they are *dependent* parts. Playing air guitar, or imitating throat-cutting, for example, are acts which, even while depending *in type* on guitar playing or throat-cutting, are such that *instances* of them can be engaged in *for their own sake,* without necessarily serving a function within a 'serious' act in which they partake.

The problem with Kimhi's account, on my understanding, does not consist in the analogies it relies on, but in even so much as asking *in general* for *the type of act* which *a* logical act that is manifest in a subordinate proposition belongs to. For the answer will then be one which does not take recourse to the *specific* logical context in which such acts occur, and will *therefore* exhibit them as acts which might as well occur on their own.

That this is indeed the case – albeit against Kimhi's own better intention to subscribe to what he calls the "full context principle"[11] – can be seen by looking somewhat closer at how he characterizes the distinction between the assertion *p*, and the assertoric gesture *p*. According to him, asserting *p* is an act which both "displays" an assertoric act, *and* actually "expresses" or performs it. In other words, in this case we have an assertoric gesture that is identical to

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[11] Cf. fn. 8 above.

an act of assertion.[12] In contrast to that, in a logically complex proposition (e. g. in ¬*p*), the assertoric gesture *p* is said to *merely display* an assertion "without" being one.[13]

By assuming that assertoric gestures can either occur "with" or "without" being assertoric acts Kimhi has subscribed to a view that allows for the *occurrence* of logical acts – namely, *mere* assertoric gestures – which, albeit *generically* tied to assertoric force, are not *qua particular acts* tied to an *overarching logical act* whose force they *actually* partake in. Once one has introduced assertoric gestures in the way Kimhi does, it would be of no help to say that *mere* assertoric gestures can only occur as dependent parts of overarching logical acts which are not themselves mere gestures. For that would have to *follow* from how the logical acts manifest in subordinate propositions are characterized rather than being *added*.

By envisaging embedded thoughts or subordinate propositions as items whose *logical type* can be characterized independently of characterizing the role they play in *overarching* acts or propositions *of a specific logical type*, neither the *unity* of these overarching logical acts or propositions nor the fact that a logical act or proposition is *an embedded part* of these can be understood any longer. By distinguishing between occurrences of propositions which merely display assertion without expressing it ("assertoric gestures") and occurrences of propositions which *are* the assertion they display ("self-identifying displays") Kimhi unwittingly subscribes to a conjunctivist understanding of assertion. For assertions are, accordingly, characterized by recourse to two features: they are said to *display and express* a judgment, or, in other words, to be displays

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[12] Cf. "I term any display of an assertion that is *also* an instance of an assertion self-identifying. Any display that is not self-identifying I call an assertoric gesture. An assertoric gesture is analogous to a mimetic gesture that displays an act *without* being it […]" (Kimhi 2018: 56, my emphases). "Logically compound assertions such as *p→q* are acts of identifying our consciousness as agreeing or disagreeing with the combination (and their negation) displayed by the subordinate judgments. These can be said to display an assertion *without* manifesting it" (ibid., my emphases).

[13] Cf. "We can display swimming *without* actually swimming (e. g. by performing certain gestures on dry land). In this case the gestures display an act of a certain kind by means of its characteristic appearance *without* being an instance of the act" (Kimhi 2018: 41, my emphases).

and to be identical to what they display. [14] By underwriting a conjunctivist account of assertion, however, one is no longer entitled to conceive of thought as intrinsically assertoric, for it follows from such an account that an assertion comprises a *logical* part (the "display") which does not itself *actually* partake in the force *which the other logical part* (the "expression") *comes along with.*

Kimhi, opposing Frege, seeks to conceive of force as internal to thought. However, he does not conceive of subordinate propositions as partaking in the actual force of the *specific logical type of* complex proposition in which they occur. This would require one to characterize the *specific* logical act which thinking-and-expressing the embedded thought in question amounts to *from the vantage point of what that thought is embedded into.* Instead, Kimhi attempts to characterize them independently. In consequence, he can no longer conceive of subordinate propositions as *dependent* parts of propositions that *actually* bear a force, but can only view them as items that display the *possibility* of engaging in a certain act that *would* bear assertoric force. Frege himself, however, did assume that thoughts as such essentially come along with the *potential* of being the contents of judgments as well, as can be seen from his early characterization of them as "judgeable contents" (CS: 53). Dummett has reformulated that Fregean idea by way of semantic ascent, calling declarative sentences "essentially assertible" and stating: "The sentences of a language could not express the thoughts they do unless they, or related sentences, were *capable* of being uttered with assertoric force, that is, to make assertions" (1994: 13). – In order to really overcome the Fregean paradigm one would therefore have to follow through with the idea that thought and force are so deeply intertwined that there is not even room for derivative cases of logical acts that merely indicate the *possibility* of engaging in a forceful act of thinking. They can only do that

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[14] This is manifest, for instance, in the following passage: "Consider the following pair of assertions: (1) *p* (2) ~*p*. The very same *p* occurs in (1) as in (2). In (1), *p* exemplifies the assertion it displays (it is self-identifying). In (2), it displays the assertion *without* exemplifying it (it is a gesture)" (Kimhi 2018: 56, my emphasis). So, in (1) *p* is said to be such as to display an assertion *and* exemplify it (i.e. be identical to the assertion displayed), while in (2) *p* is said to be such as to display an assertion *and* not exemplify it.

indicative work by *actually,* albeit indirectly, *partaking* in the (assertoric or interrogative) force of an overarching logical act.

Silver Bronzo recognizes that one cannot conceive of embedded propositions as logically contentful items that might as well occur independently, and that can be characterized on their own. He concludes from this that an embedded occurrence of a propositional sign such as "p" in "not p" does not itself express a thought and does not, therefore, itself amount to a proposition in Geach's sense, but merely to a "simulation" thereof:

> Propositions, construed as truth-evaluable items, do not occur at all as parts of truth-functionally complex propositions. [...] Truth-functionally complex propositions include as their parts *simulations of propositions*, which are neither true nor false. (Bronzo 2019: 9)

Against Bronzo's proposal, the following objection might be raised: If what is supposed to be part of a truth-functionally complex proposition does not itself contribute to its truth-evaluable content, that which it is supposed to be an essential *part* of can itself no longer be understood as *a proposition*, i.e. a bit of language in a certain logical employment. For if something has essential parts which do not contribute to the expression of a thought, i.e. do not perform a logical role, that something cannot itself be performing such a role, and, therefore, cannot amount to a proposition. In order to be able to attribute a logical content to a truth-functionally complex proposition that is supposed to contain simulations of propositions as its parts, Bronzo has to grant that *simulations* of propositions, while not themselves *being* propositions and, therefore, not themselves expressing a thought or bearing a logical content, nevertheless bring such a content into play. For the propositions *simulated* by them do indeed have a logical content by recourse to which the logical content of the overarching proposition is said to be determined:

> The truth-value of a truth-functionally complex proposition depends on the truth-values of the propositions that are *simulated* by the expressions that occur in it. It does not depend on the truth-value of the simulations themselves – which don't have any. (Bronzo 2019: 9)

This, however, might be taken to show that Bronzo's claim that simulations of propositions do not themselves bear a logical

content or express a thought is a mere *façon de parler*, for he effectively treats them as identifying such a content[15], thereby making their supposed status as simulations drop out as irrelevant[16]. That Bronzo *represents* the expression of an embedded thought in a different way, namely as devoid of logical content, from how he *effectively treats* it, namely as bearing a logical content, is symptomatic of the dilemma that embedded propositions must be taken as logically contentful, while they cannot thus be taken as long as they are depicted as units of expression which are characterizable on their own. Bronzo seeks to find a way out by conceiving of them as *independently* characterizable units which are not directly, albeit *indirectly* contentful, instead of conceiving of them as logically *dependent* units which are *directly* contentful.

In Bronzo's approach the insight, that the logical role of an embedded proposition *cannot independently* be characterized by merely looking at that proposition instead of looking at its role from the vantage point of the logically complex proposition in which it occurs, manifests itself in a distorted way, namely by way of conceiving of the embedded proposition as something that can indeed be characterized independently, while lacking a logical content of its own. This is revealing, indeed, insofar as it shows

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[15] Cf. "A simulating expression must specify the propositions it simulates: someone who understands the simulating expression knows which proposition it simulates" (Bronzo 2019: 11).

[16] The idea of something that does not directly express a determinate logical content, but does it indirectly, by way of simulating something that does indeed express that content, seems incoherent to me for the following reason. A simulation must be such as to identify an item of a certain type, namely the one simulated, while not itself being an item of that type. A proposition is a bit of language identified by the logical work it does, namely that of expressing a thought. The simulation of a proposition would amount to a bit of language doing the work of identifying a proposition, while not being identifiable by the identificatory work it does. However, insofar as the concept of a simulation of a proposition *does not involve any further essential traits* beyond the ones that it is a bit of language doing the work of identifying a certain proposition while *not* being identical to that proposition, the simulation of a proposition could itself *only* be identified by the identificatory work it does. Therefore, there is no way of positively distinguishing between propositions and simulations of propositions, and it doesn't make sense, accordingly, to assume that there might be such a thing as a simulation of a proposition. While a simulation of something real, e.g. pain, doesn't give us *the real thing*, namely *pain*, the simulation of a proposition would give us *that very proposition*, and would not, therefore, amount to a *simulation*.

that if one conceives of propositions which do not come along with a force of their own as nevertheless characterizable independently of the logical context in which they occur, one can no longer understand them as performing logical work (i.e. contributing to the determinacy of a thought expressed). This, however, amounts to a *reductio* of the attempt to conceive of embedded propositions as independently specifiable items.

3. Lessons from Wittgenstein

We can now look at the attempts to come to terms with the force-content distinction discussed in the previous section from a Wittgensteinian perspective. As far as I can see, there is no passage in Wittgenstein, early or late, in which he *straightforwardly dismisses* Frege's distinction between force and thought.[17] What he indeed rejects is Frege's tendency to conceive of assertoric force as external to thought, which is manifest in Frege's assumption that acts of judging and asserting presuppose *previous* engagement in an act of "grasping" the thought which is *subsequently* judged and asserted:

> Of course we have the right to use an assertion sign in contrast with a question-mark, for example, or if we want to distinguish an assertion from a fiction or a supposition. It is only a mistake if one thinks that the assertion consists of two actions, entertaining and asserting (assigning the truth-value, or something of the kind), and that in performing these actions we follow the propositional sign roughly as we sing from the musical score. (PI: §22)

Wittgenstein's general point is that the distinction between thought and force should not tempt one into conceiving of assertions as consisting of two independent acts, one of which forceless, the other forceful. While the views discussed in the previous section all seek to achieve an understanding of force as internal to thought, their treatment of complex propositions shows that they run counter to Wittgenstein's insight. This can be brought into view in the following two ways:

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[17] Important passages in which the topic of force and content is touched upon are TLP: 4.063 and 4.442, BT: §47 and PI: §22.

1. While they rightly assume that force is not externally attached to propositions but that the primary way of being a proposition involves bearing a force, in accounting for the embedded occurrence of propositions they nevertheless assume that there are derivative cases in which the expression of thought occurs without a force – namely contexts, in which it is stripped off actual force. The underlying assumption is thus that the expression of a thought can only bear a force *of its own*, which is taken to be the primary case, *or* be lacking in force *altogether*, which is taken to be the derivative case. Complex propositions are accordingly analysed in terms of forceless acts (mimetic gestures, simulations) on the one hand, and forceful acts on the other, where the latter ones are thought of as providing an 'environment' for the occurrence of the former. While forceless acts are characterized as derivative *in type* from forceful acts, their *particular* occurrence is treated as a self-standing act on its own. Contrary to that latter assumption, one can only stick to Wittgenstein's insight, if one recognizes that the assertion of a truth-functionally complex thought does not involve two acts, one forceful and one forceless, but that acts of thinking which are manifest in embedded propositions are *dependent parts* of *one* overarching act in whose force they indirectly partake.

2. The other way of exhibiting the same underlying assumption that marks recent attempts at understanding force as internal to thought, can be introduced by recourse to Wittgenstein's warning against a "craving for generality" and a "contemptuous attitude towards the particular case" as a source of philosophical confusion (cf. BB: 17). That Wittgenstein deems this caveat relevant to the topic of force and thought, which he deals with in §22 of the *Investigations,* is evident from his warning, in the immediate vicinity of that paragraph, of the disastrous consequences of "not keep[ing] the multiplicity of language-games in view" (PI: §24). Accordingly, it is misleading to ask *in abstracto* for what it is to

be an embedded proposition. For if an embedded thought or proposition is such that it essentially partakes in the force of the overarching thought or proposition of which it is a part, no unique *general* answer to this question can be given that would specify *the* logical type of act that thinking an embedded thought is, or would say in general how an embedded proposition bears its meaning. There is no unique general answer to these questions, but only a family of interrelated answers, for, depending on the overall force and form of the logically complex proposition at issue, the act of thinking-and-expressing *p qua* part of that proposition will differ.

What all such cases share, and what the views previously discussed correctly bring into view, is that in order to think-and-express an embedded thought it must be identified by a kind of non-assertive use of some expression or other which, if used on its own, would ordinarily serve to express an unembedded counterpart of that thought. But it is misleading to assimilate that non-assertoric use to phenomena such as mimetic gestures, simulation, etc., which are all acts which can occur on their own and do not need to be part of an overarching non-mimetic, non-simulative act.

Accordingly, the only way to understand what thinking an embedded thought is, and how an embedded proposition is tied to the context in which it plays its logical role is by inquiring into *specific* types of logically complex act, such as the assertions that *not p*, that *p if q* or that *p or q,* and working one's way towards an understanding of what thinking and expressing the embedded thought *p* consists in *in these specific cases,* in order to bring into view how the determinate logical role of "p" in such a case is dependent on the overarching logical context in which it occurs.

That the activity of thinking-and-speaking does not consist in taking a stance *towards* a thought, but is *internal* to thought in being that which provides for the unity of the thought itself, is a lesson

that can be learned from the *Tractatus*.[18] At first sight, it might appear as if Wittgenstein did only treat of thoughts and their logical form in that book, but not of *thinking qua activity*. In 5.631 he even states that there is no such thing as "the thinking subject". This remark, however, should just be taken to indicate that the thinking subject, *if it is viewed as external to what is thought*, would not be the *thinking* subject. That Wittgenstein does indeed aim to show that only such activity amounts to thinking which is *operative in thoughts themselves*, providing for their unity, follows from his statement that "the correct explanation of the form of the proposition 'A judges *p*' must show that it is impossible to judge a nonsense" (TLP: 5.5422). For there might be a threat of judging nonsense if and only if it wouldn't be the act of judging *itself* which accounts for the unity of the thought judged and, thus, for there being anything at all that is not nonsense. Judging, or, more generally, thinking is, accordingly, the activity which provides for the unity or logical form of thoughts and, thus, an activity which is intrinsic to thoughts as such.

The logical activity which *the thinking subject* is engaged in does not, accordingly, consist in engaging *with* thoughts and taking a stance *towards* them. It is nothing but the activity which manifests itself as logical form, and in virtue of which thoughts are all comprised in *one* logical space. That Wittgenstein understands logical connectives as *active* contributions to the accomplishment of unity that thoughts as such bear is manifest in his characterization of them as "operations" (TLP: 5.2341). For in distinction to a

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[18] It might seem problematic that I draw in this section on ideas from both the *Tractatus* and the *Investigations* that seem relevant to the topic of force and thought, given that Wittgenstein's ideas about logic and language underwent deep transformations from one work to the other. However, these transformations should not make us overlook important continuities between these works. I thus follow James Conant's advice that with regard to each topic we have to figure out concretely, in which respect the *Investigations* deviates from the *Tractatus* while it might at the same time preserve some of its insights (cf. Conant 2007). On my understanding, Wittgenstein conceives of force, both in the *Tractatus* and the *Investigations*, as internal to thought. A crucial divergence between both works is that he primarily, albeit not exclusively, treats of fact-stating propositions in the *Tractatus*, while regarding the whole variety of other uses of language on an equal footing with these in the *Investigations* (cf. PI: §23). This latter divergence is compatible, on my understanding, with preserving the Tractarian conception of thinking-and-speaking as internal to thought and of how it provides for the unity of propositionally complex thoughts.

function, an operation is *a way of proceeding* from propositions (and, hence, according to TLP: 4, from thoughts) of a certain form to other propositions (and, hence, thoughts). It is, accordingly, a mode of logical activity. In distinction to an operation, a function cannot amount to a way of providing for the unity of a thought. For a function consists in a relation that assigns each element of one domain, i.e. each argument, one element of another domain, its value. From this follows that a function cannot be "its own argument" (cf. TLP: 5.251), insofar as the arguments of a function are identified *prior* to the assignment of values to them and are, therefore, at best *per accidens* identical to values of that function, which means that a value of a function cannot itself *qua value* amount to an argument of that very function. In contrast to that, it is distinctive of an operation that the "result" of its application can *as such* provide the basis for further application of that same operation (cf. TLP: 5.2521)[19]. In this feature of an operation to be such that *its application* provides a condition for further application, it is manifest that an operation, in Wittgenstein's sense, is *a way of thinking* – of proceeding from expressions of thoughts of a certain form to further expressions of thoughts of a certain form.

4. Towards Redrawing the Force-Content Distinction

The preceding discussion of the force-content distinction shows that there is, on the one hand, ample motivation for drawing such a distinction, while at the same time indicating that the way in which it is drawn in the Fregean tradition, namely, such as to make it appear as though force were external to thought, is problematic. Holding these two observations together instead of merely

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[19] According to Black and Hylton Wittgenstein's claim that "a function cannot be its own argument, whereas the result of an operation can be its own basis" (TLP: 5.251) does not seem to succeed in establishing a difference between functions and operations. One reason for their suspicion is that "the result of applying a function to an argument can, at least in some cases, in turn be an argument for that function" (Hylton 2005: 140, cf. Black 1971: 261). This objection seems misguided. For a function's range of arguments is determined prior to its application to these *arguments*, which cannot as such involve recourse to that very function (cf. TLP 3.333). Hence, an argument of a function is at best *per accidens* identical to a value of it, and successive applicability isn't, therefore, part of the concept of a function.

focusing on the diagnosis of confusion suggests that one cannot do away with the problems surrounding the force-content distinction by "abandoning" it. For in light of the profound motivations that have led to its introduction, the distinction seems doomed to re-emerge in some guise or other. Therefore, in order to come to terms with force and content, the distinction needs to be *redrawn* in a *non-dualistic* way, i.e. in a way that *concretely* exhibits thoughts as tied to force. A central prerequisite for doing so will consist in rejecting the assumption that a thought can *only* bear a force of its own, *or be lacking in force altogether* in order to replace it by the insight that a thought will either bear its force directly *or indirectly* by partaking in the force of an overarching thought of which it is a dependent part.

I will tackle the task of redrawing the force-content distinction by proceeding from a minimal and *preliminary* understanding of a thought as that with regard to which it makes sense to ask whether it is true or false, and which allows to be negated and logically conjoined with other thoughts by means of logical connectives. I will proceed by showing that the unity of propositionally complex thoughts can only be understood if thoughts as such owe their unity to a way of *holding together* their parts, i.e. to force *qua* way of logically binding oneself.

4.1 Why Thought Requires Expression

If it belongs to thoughts that they *can* be negated and logically conjoined with one another, we need to ask how thoughts must *be* to *allow* for such embedding. For a potential must have a foothold in actual features of that whose potential it is. We can get a grip on what it is about thoughts that allows for them to be logically embedded by inquiring into the unity that propositionally complex thoughts have. A complex thought into which a thought *p* is embedded – for instance, the thought that *not p*, or the thought that *p and q* – involves *p* as a part and, beyond that, some further part with which *p* is integrated[20]. We therefore need to ask what it is that

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[20] Saying, for instance, that the thought ¬*p* contains the thought *p* as an "embedded part" does not amount to denying that the latter occurs primarily on its own. It occurs on its own as the content of the proposition "p" which can then form the basis of an

makes the overarching thought *one* thought, or, from another angle, what it is that makes the *embedded* thought *p* a *dependent part* of the overarching thought, and thus distinguishes it from the *unembedded* thought *p*.

The relation between an embedded thought *p* and whatever else it is with which it is conjoint such as to make up a logically complex thought cannot be an external relation. For an external relation is one into which something *can* enter, while its identity is independent of whether the relation obtains. Insofar as that which is *externally* related isn't, accordingly, related *on its own*, external relations require a medium or third factor which allows for the relata to be thus related. Space, for instance, is such a medium insofar as it allows for what is spatially extended to be externally related in various ways. However, there is no *medium* which allows for thoughts to be parts of logically complex thoughts, for neither could a *further thought* function as such a medium – this would lead to a regress – nor could anything which is *not a thought* or part thereof, because what is at issue is *logical* complexity. It follows that an embedded thought p must be *internally* related to whatever it is with which it is integrated into the logically complex thought in question. If this is so, we face a dilemma: For if an embedded thought p is internally related to whatever it is with which it is integrated into the logically complex thought of which it is a part, while its unembedded counterpart p isn't thus related, p *qua embedded thought* must itself, in some respect, be *distinct* from p *qua* unembedded thought.

The first horn of the dilemma is this: That which distinguishes p *qua* unembedded thought from p *qua* embedded thought cannot, on the one hand, be *purely* logical in character, i.e. it must *involve* something which is *not* a thought or part thereof. This can be seen in the following way: The embedded thought p, even though

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application of the operation "¬" to it in whose result it reoccurs as an embedded part. Moreover, saying that the thought *p* is contained in ¬*p* as an *embedded part* does not imply that the propositional sign expressing the thought ¬*p* has to contain a *discrete* part corresponding to the embedded thought *p*. Negation might as well be expressed by *rewriting* the sign of what is negated (e. g. writing it upside down), rather than by adding *further* signs. – I'm grateful to Martin Gustafsson for pressing me on these points.

distinct from its unembedded counterpart p, must be identical in content to that counterpart, for otherwise, by negating a thought or by logically conjoining it with another, one would *alter* the content at issue, which is absurd insofar as this would mean that one cannot negate *that very thought,* or logically conjoin *it* with another one. The identity in content between p *qua* unembedded and p *qua* embedded cannot, however, be accounted for in purely logical terms, i.e. in the way in which the logical equivalence between, say, p and ¬¬p is. For not only is *logical equivalence* less that *identity-in-content*, but the assumption that the latter could be accounted for in terms of the former leads to a regress, insofar as we would try to explain the logical distinction between an unembedded thought and its embedded counterpart by invoking a *further* logically complex thought *in which the thought in question is embedded.*

The second horn of the dilemma is this: what distinguishes the unembedded thought p from its embedded counterpart p (to which it is identical in content) cannot amount to a *purely* non-logical factor, i.e. one that is simply located outside of the sphere of thoughts and their parts, for this would render it unintelligible how the embedded thought is even so much as *one* thought, let alone one that is identical in content to its unembedded counterpart.

The dilemma can be solved as follows: If an unembedded thought and its embedded counterpart must both be distinct *and* identical-in-content, while their distinction cannot be accounted for in *purely* logical terms, namely, by recourse to further logically complex thoughts into which p is embedded, the embedded thought p must be the very same thought as the unembedded thought p, but *logically identified in a way that takes recourse to a non-logical factor.* Accordingly, what is *distinctive* about the embedded thought p is that it must be *indirectly* identified by recourse to that non-logical factor. If that is so, any *unembedded* thought p, insofar as it is logically *embeddable*, must itself be such as to *allow* for indirect identification, by recourse to *some* non-logical factor *or other* which it comes along with. For reasons that will hopefully become clearer in a moment it is apt to call such a non-logical factor which a thought comes along with a "real guise", a "sign" or "an expression" of that thought.

That a thought can be logically embedded thus requires it to come along with a non-logical factor, namely *some expression or other* by recourse to which it *can* be identified *indirectly* and *is* thus identified, indeed, insofar as it occurs as an embedded part of a logically complex thought. The thought that it is presently snowing, for instance, *qua* embedded part of the thought that it is not presently snowing is identified by recourse to some expression or other which, if used on its own, would ordinarily serve to express the claim that it is presently snowing. That thoughts are tied to *some* expression *or other* is concretely manifest in the fact that one cannot fulfill the task to judge that *it is not snowing* other than by availing oneself of some phrase or other which, if used on its own, would ordinarily serve to express the judgment that *it is snowing*, thereby putting that phrase to the logical use of identifying the thought which the overarching negative judgment rejects.

If thoughts were not *in themselves* tied to *some expression or other*, it would be impossible for one and the same thought to occur unembedded as well as embedded *qua* part of a logically complex thought, because the distinction between unembedded and embedded occurrence would automatically amount to a difference in content. If that were so, one could not even so much as negate a thought, for what is negated would thereby be altered. If, on the contrary, thoughts as such are tied to some expression or other, the identity in content between an unembedded and an embedded thought can be manifest, on occasion, in an equality of the *shape* of expression, while the different roles which they play in the business of thinking-and-speaking is manifest in a different way of occurrence of these shapes – namely, syntactically independent occurrence in the first case ("It is snowing.") and syntactically dependent occurrence in the second ("It is not snowing."). It has thus been shown that thoughts as such are tied to expression, because otherwise they could not even have a formal feature characteristic of them, namely, their logical embeddability.

Accordingly, it is not accidental to thoughts to be expressed or manifest in signs[21].

This does not imply that thoughts *are* expressions or types thereof. Thoughts cannot be *identical* to expressions or types thereof, for thoughts do not have real properties, e. g. acoustic features or graphic shapes, while expressions and types of expression obviously do. Thoughts merely *require some* real guise *or other*. They *essentially albeit indeterminately* presuppose some expression or other, while not being tied to any determinate expression or type thereof.

The preceding argument shows that a thought can only occur as part of another logically complex one, if thoughts as such are tied to expression, and that an embedded thought is logically identified by a use of *some expression or other* which, on its own, might ordinarily serve to express the unembedded counterpart of that thought. This insight, however, gives us merely a *necessary condition* but not yet a sufficient understanding of what makes an embedded thought part of another thought, and what the act of thinking-and-expressing an embedded thought concretely consists in. For it only tells us that an embedded thought is logically identified by a use of some expression or other which its unembedded counterpart would come along with. This, however, does not yet tell us what that use consists in and how the thought identified by it is integrated into the overarching logically complex thought of which it is a part. It does not yet tell us what the *logical act* of using an

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[21] Insofar as thoughts, in virtue of their logical form, require expression, given that there are thoughts there must be a realm of that which is not identical to any thought and which is such as to provide resources for the expression of thought. We know, accordingly, on logical and, hence, on non-empirical grounds that there is something *real* and that it is such as to provide material for the expression of thought. To know these things is not yet to know very much, philosophically, about what is real. But it is the first thing we can know, philosophically, about what is real, and this inchoate knowledge is such as to point beyond itself to further things we can know, philosophically, about what is real. For that the real is such as to provide material for the expression of thoughts puts certain constraints on how it can be, and by way of explicating these constraints we can acquire further non-empirical insight into the real. Along these lines it can be shown, step by step, that the real must be a material space-time continuum which is not by chance populated by embodied thinkers like us who transform it, by their activities, into a meaningful world as we know it. I have systematically unfolded this line of thought in my forthcoming book *Die Einheit des Sinns. Untersuchungen zur Form des Denkens und Sprechens* (Martin 2020).

expression for the sake of identifying an embedded thought – i.e. the non-assertoric work to which that expression is thereby put – consists in and how that act is integrated, as a *dependent* part, into the overarching act of thinking-and-expressing a propositionally complex thought. Asking these questions will lead to an understanding of thought as tied, in some way or other, to force. Inquiring into the unity of propositionally complex thoughts will thus help to *concretely* exhibit ways in which force is internal to thought.

4.2 Force as Internal to Thought

I will now provide an argument to the conclusion that thoughts *as such* are tied to force. The argument proceeds by showing that this is the only way of accounting for the logical relations in which thoughts stand to each other without rendering thoughts impossible to think. So, the argument is not the usual one that if one detaches thought from thinking and thinking from force, it becomes *mysterious* how a force can be "attached" to a content.[22] It is rather that, if thoughts were thus detached, it would be *impossible* to think them.

From that thoughts stand in logical relations to other thoughts it follows that it is not accidental to thoughts to be thought. This can be shown by starting from the truism that at least some thoughts *can* be thought. If the logical connections between thoughts as such were independent of thinking, thoughts could not be thought. For given that these connections are internal to thoughts, and that internal connections are constitutive of what is thus connected, the thinking of a thought could start nowhere, if the internal connections between thoughts did not obtain *in virtue of thinking*. Otherwise, each thought would, in order to be thought, require one to think further thoughts, namely those to which it stands in logical relations. Any attempt to think a determinate thought would thus refer thinking elsewhere, for which reason it couldn't start anywhere. – Against this argument it might be objected that to think a determinate thought it is not necessary to

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[22] Cf. the references in fn. 8 above.

think 'all thoughts' to which it is internally connected, e.g. those to which it is logically equivalent, given that these connections can be characterized *in general ways*. Accordingly, to grasp a certain thought it would suffice to identify *the ways* in which it is logically connected to further thoughts. For instance, to think the thought p one would not, on this account, have to identify it as equivalent to *each* thought of the series ¬¬p, ¬¬¬¬p etc., for it would suffice to grasp its equivalence to *any* thought which results from p by the operation of double negation.

However, instead of refuting the view that internal connections between thoughts obtain in virtue of thinking, the alleged objection actually confirms it. For an operation is *a way of proceeding from one thought to another*, and, hence, a *way of thinking*. Apparently, this only shows that thoughts are tied to *ways of thinking*, rather than to *actual* thinking. The connection, however, between a thought and a way of thinking is not a logical relation between thoughts, for an operation – a way of thinking – isn't a thought, i.e. is not true or false. The only manner in which a way of thinking can be tied to a thought is by virtue of thinking. Thoughts, accordingly, stand in *logical relations* to other thoughts *which* are constitutive of them, but these relations do not obtain *immediately* between thoughts *qua abstract entities*, but *in virtue of* thinking. To achieve a *non-psychological* understanding of thinking one needs to hold onto the insight that thinking is the activity to which thoughts as such are tied. Certain traits of what we usually call "thinking" can then be revealed as *logical traits* in distinction to *psychological concomitants* of thinking, if it can be shown that thinking must thus be characterized, insofar as it is that which accounts for the unity of thoughts as well as for the logical connections between them and is, accordingly, that which opens up logical space.

Thinking in the sense of that activity which provides for the unity of thoughts as such, must involve logical force. Otherwise, it could not be that to which thoughts owe their unity and their logical relations. For alleged forceless acts of thinking or "grasping" contents that are logically opposed to each other would be such that one can jointly engage in such acts without thereby contradicting oneself. Such acts could not, accordingly, be

internally related to each other *qua acts*. Therefore, the logical incompatibility between the thoughts p and ¬p, for instance, could only be grounded in these *contents themselves*, rather than in the alleged forceless acts of thinking them. However, insofar as it has already been shown that logical relations between thoughts obtain in virtue of thinking, while the expression "forceless thinking" does not refer to anything that might do this job, thinking in the sense of the activity to which thoughts as such are tied must amount to a way of *binding oneself* – making oneself responsible – and must, accordingly, involve "force".[23]

If it would be unintelligible that thoughts can be thought, if their logical relations amongst each other were not mediated by thinking, logical relations between thoughts must have their source in actual thinking. Yet, how can one conceive of *actual thinking* as the source of logical relations between thoughts without thereby falling into psychologism?

Insofar as thinking is *binding oneself* in some way or other, it is an activity which does not allow for any arbitrary continuation. For insofar as an act of thinking is a determinate act of binding oneself, further possible acts of binding oneself cannot all be equal candidates for the continuation of one's logical activity, but some must be such that by engaging in them one would set oneself in accord or disaccord with the thinking undertaken so far. By engaging in an act of the latter sort one would be undoing logical commitments undertaken before.

On this account of thinking, the thought that *p*, *qua* content of the judgment that *p*, does not, for instance, in some shadowy way anticipate the whole series of thoughts ¬¬p, ¬¬¬¬p…, to which it is logically equivalent, as if these were mysteriously contained in the judgment that *p*. Rather, in judging that *p*, I do something that renders me *capable,* or *grounds my potential* to reject not p, *if the issue should arise*, and to be justified in doing so, namely, insofar as it *can then be shown* that commitment to ¬*p* is *discontinuous* and, hence,

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[23] The force of thinking need not be assertoric but can equally well be interrogative, etc. Even asking *oneself* a question involves a kind of commitment, namely, that *given what I or we know*, it is indeed the question, whether…

incompatible with what I have already committed myself to. Accordingly, logical relations that connect one thought to others do not consist in this very thought somehow containing the 'shadows' of 'all other thoughts' to which it stands in such relations. It rather consists in that thinking, *qua* forceful activity, is an activity that brings about the potential for non-arbitrary continuation insofar as it *enables*, for instance, engagement in further explicative or reflective *acts* of thinking-and-speaking, which, *if actually engaged in*, can *then* be shown to be logically continuous or discontinuous with previous ones. Expressed in a condensed way: the *contents* of these acts stand in certain logical relations (even though that way of speaking can give rise to confusion). In any event, that the thoughts p and ¬¬p, for instance, are logically equivalent, does not mean that two "abstract entities" are mutually contained in one another, but that engagement in the judgment that p is such that it allows for the undertaking of a further act, which, *if indeed undertaken*, can *then* be shown to be rationally continuous with the act previously undertaken.

4.3 Towards an Account of the Unity of Propositionally Complex Thoughts: the Case of Negation

If thoughts *as such* come along with a force, all utterances which appear to be forceless must lack a logical content or, if indeed expressing a thought, either bear non-assertoric forces or indirectly partake in the assertoric force of an overarching logical act.[24] The *act of thinking an embedded thought*, to which I will refer as a *presentation* of that thought, needs accordingly to be understood as a *dependent part* or 'moment' of the act of thinking a propositionally complex thought. We can take this insight as a starting point for a proper understanding of propositional connectives and of logically

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[24] In §47 of the *Big Typescript* Wittgenstein assembled a number of examples of such cases, cf. BT, 161.

complex acts of thinking-and-speaking involving them. In what follows, I must confine myself to negation as an example[25].

The presentation of p as a dependent part of the negative judgment that *not p* consists in presenting-p-for-the-sake-of-rejection. Accordingly, judging that *not p* is ruling out the possibility to judge that *p* or presenting that possibility as one that needs to be rejected. Unsurprisingly, negative judgment, on the understanding of force as *intrinsic* to content, differs from positive judgment both in content as well as in force. Concretely, this can be shown as follows. Negation pertains to the *content* of the judgment that *not p* insofar as it contributes to determine what would be the case if that judgment were true. Deviating from what Frege thought (cf. N: 355–356), negation amounts at the same time to a logical force of its own. For the negative thought ¬p contains the thought p as an embedded part. *Qua* thought this part must be tied to a dependent logical act which, *qua* logical act, must somehow involve force. However, p *qua* embedded in ¬p can neither *directly* be tied to assertoric force – for this would mean that in order to judge *not p* one had to judge *p* as well, which is absurd – nor can it *directly* come along with a 'negative force'. For if the *dependent* logical act which the content p *qua* embedded in ¬p *directly* comes along with were a 'negative act', this would lead to a regress, because it would mean that an act of negative judgment is such as to contain an act of negative judgment as its part. The *dependent* logical act to which the content p *qua* embedded in ¬p is *directly* tied must therefore be one which does *not directly* bear an actual force of its own: it cannot consist in *actually* binding oneself in thinking. But it must nevertheless come along with a force insofar as it indicates the *possibility* of *assertorically* judging that p – for the sake of an *actual* stance taken by the overarching negative act to that very possibility. This shows that the stance taken by the overarching act cannot be assertoric and that negative judgment thus comes along with a force of its own. For otherwise, judging that *not p* would absurdly consist in *asserting* or *assenting* to the possibility of judging that *p*, i.e.

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[25] In chapter 2 of Martin 2020 this account is extended to two-place propositional connectives.

in judging that *p*. The unembedded negative thought ¬p must therefore be tied to a logical act with a *non-assertoric negative* force of its own, and judging that *not p*, accordingly, consists in rejecting the actualization of the possibility to judge that *p*. We might thus say that the assertoric force of a positive judgment consists in *including* the content of that judgment into the unity of thinking, whereas the force of a negative judgment consists in *including-it-as-excluded* where *inclusion-qua-excluded* cannot be analysed in terms of the inclusion of a thought and some further characterization of it.

It might seem that this account of negative judgment is 'too subjective', insofar as negative judgment is understood as exhibiting the possibility to engage in a certain logical *act* – the act of judging that p – as one whose actualization needs to be rejected. Against that understanding of negation it might be objected that the judgment that it rains, for instance, does not, primarily, deal with how we should not *think* but with *how things are*. The act of rejection, however, in which, on the account given, a negative judgment consist, is a way of *logically* binding oneself. As such it does not deal with how we should not think *at the expense* of dealing with how things are, but by dealing with the first it deals with the second. For judging that the possibility to judge that p is to be rejected is committing oneself to *that things are such that* the possibility to judge that p needs to be rejected.[26]

That negative judgment, thus understood, is judgment about how things are does not, however, mean that it might be understood as *exclusively* about how things are, and that the recourse to a possibility of *judging* it invokes cancels out. For a negative thought is, as such, tied to the logical act of rejection. One cannot, however, in an act of theoretical judgment, reject that which *is* nor that which *is not*. One can only reject the actualization of a possibility that one might actualize, i.e. a possible act. Therefore, that things are such that the actualization of the possibility to judge

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[26] That judging that not *p* is said to amount to a rejection of the *possibility* to judge that *p* does neither mean that one would thereby declare judging that *p* to be *ontologically impossible* nor that one would rule out, categorically, that *circumstances might arise* upon which judging that *p* turns out to be appropriate. It only means that in light of the relevant circumstances which one has indeed taken into account one *might not* judge the opposite.

that p is to be rejected cannot mean that something about how things are needs to be rejected, but that things are such that the actualization of the possibility to judge that p needs to be rejected.

This does not mean that things 'stand negatively' or that they 'reject' something[27]. That things are such that the actualization of the possibility to judge that the rose is red needs to be rejected means that they are, *for instance,* such that the rose is yellow. To think that a rose that is not red must 'in itself' be 'negatively determined' is to let one's notion of negative judgment be confused by a philosophical picture that makes it appear as if a rose, in order to not be red, would not just have to be coloured as it is but, beyond or beneath that, to be red *in some strange way.*[28] The spectral redness which apparently pertains to a rose insofar as we judge correctly that it isn't red is a shadow cast by our practice of negating – a symptom of a tendency to misunderstand ourselves that is inherent to our practice of thinking-and-speaking in general and to the distinction of force and content in particular. If the present article contributes to dispelling some of that latter confusion, it has reached its aim.[29]

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[27] That negation is a force of its own and that negative thoughts do not *exclusively* deal with the world but *equally* with thinking are two sides of one coin. One might be tempted to reject both by claiming that negative judgments consist in assertoric commitments to the obtaining of 'negative facts' which, as such, would not come along with a *peculiar* relation to thinking that is *formally distinct* from that characteristic of positive facts. The judgment that the rose is not red, would, accordingly, deal *in the same way* with how things are as the judgment that the rose is red does. This kind of view has already been rejected insofar as it does not allow to answer the question which kind of logical act the thought p *qua* part of the content $\neg p$ is tied to. It can, however, equally be reduced to absurdity by trying to go through with it. That this view is confused can be shown as follows. A negative thought $\neg p$ is logically complex insofar as it contains the thought p *qua* embedded part. All parts of a thought which purport to pertain to how *things* are rather than to *thinking* must have a foothold *in rerum natura*. If a negative thought as such *exclusively* pertains to how things are rather than pertaining to that by way of pertaining to *how we should not think* about how things are, p, *qua* part of the true thought $\neg p$ must indeed have a foothold *in rerum natura*. This means that 'negative facts' would have to 'contain' positive facts, e.g. that the fact that it is not raining would have to contain *the fact* that it is raining, which is absurd.

[28] Cf. Russell 1990: 9–10, 41–43 for an articulation of such a picture.

[29] I'm grateful to three anonymous reviewers for *Nordic Wittgenstein Review* for their criticisms of an earlier version of this paper.

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