"Hegel's Subjective Logic as a Logic for (Hegel's) Philosophy of Mind"

Paul Redding

Draft Only
Talk given at Hegel Society of Great Britain Conference, Sept. 2015.

I start from the assumption that any attempt to locate Hegel's philosophy within the area of philosophy of mind must address two fundamental desiderata. Most obviously, it must be able to give an account of the types of individual cognitive capacities and activities that Hegel thinks are achievable by minded beings—capacities and activities that can be related to those conventionally thought of as providing the subject matter for a philosophy of mind. But in particular, it must also be able to do this while conceiving of any finite individuals so-minded as being *essentially* related to others in conformity with Hegel's recognitive account of *spirit*. Since conventional philosophies of mind are typically approached in *individualist* ways, it can seem difficult to know how to engage with Hegel's approach from such a perspective. On first thoughts, an obvious place to start within Hegel's corpus might seem to be the section "Psychology" of The Philosophy of Subjective Spirit, within volume 2 of the *Encyclopaedia of Philosophical Sciences*. But the difficulty faced there is that to get a picture of any *distinctly* Hegelian conception of mindedness one would then have to take into consideration determining conditions only dealt with in *subsequent* sections of the *Encyclopaedia*, such as those dealt in the context of *objective* and, even further, *absolute* spirit.[1]

Here I want to suggest an alternative, but hopefully not incompatible, approach—one that starts by looking to the section "Subjectivity" in the *Subjective Logic* making up Book 3 of Hegel's *Science of Logic*. The initial premise here is that Hegel's Subjective Logic should be regarded as expressing a basically *intensionalist*, rather than *extensionalist*, approach to logic—broadly, an approach that focuses on relations between *conceptual contents* rather than simply the relations between *the extensions* of those concepts—that is, the entities of which the concepts are deemed *true*. Indeed, I will be arguing that Hegel's subjective logic is a particular *kind* of intensional logic, a *modal* logic. Moreover, I suggest that this distinction between intensional and

---

[1]   An example of such difficulties concerns the difficult issue of the relations between mind and language in Hegel. As often noted, Hegel nowhere develops a "philosophy of language", but were he to do so, it would presumably best be treated in the context of objective spirit. From his discussion of *subjective spirit*, it seems clear that Hegel takes belonging to a linguistic community as a condition of the possession of human self-consciousness, but the structures in which the philosophy of spirit unfolds makes it extremely difficult to bring these issues together.

extensional logics, having been introduced in the seventeenth century by Port Royal logicians and utilized by Leibniz in his project of a *characteristica universalis*, is an appropriate to bring to Hegel, as we can find in his attitude to Leibniz's characteristic (XII 109–10/607–8) warrant for treating his own subjective logic *as* an intensionalist one. Furthermore, given the *mind*-related nature of the notion of "concept", we can in turn take intensionalist logics *per se* as themselves inherently mind-related—a feature that is made explicit in the oft-commented-upon relation between the notion of "intension" (with an "s") and "intention" (with a "t"), a concept that derives from medieval approaches to Aristotle's philosophy of mind. Thus we might take the *psychological* notion of intentionality to be a species of the wider *logical* notion of intensionality (Prior 1966, 91), thereby providing a route from intensional logic to intentional psychology.[2] To this end I'll be exploiting some striking parallels between Hegel's subjective logic and modern *modal* logics in terms of their respective approaches to mental or "intentional" contents.

The broad outlines of this approach will be sketched below in a number of stages: first, I will briefly consider Hegel's treatment of judgment and inference in the subjective logic as an account of normatively conceived mental activities.[3] What we find at the heart of these treatments, I will argue, is what I will term a *mediated logical dualism*, that is, a dualistic treatment of the basic logical notions of predication and consequence in which each side of the dualism can be transformed into the other. This dualism, I'll suggest in the second part, invites comparison with recent dualistic conceptions of logic that have been formulated in the wake of the development of non-classical and, in particular, modal logics in the 20th century. Not only do quite

---

[2]   In contrast to the medieval origins of "intention" that had been reintroduced in the 19th century by Brentano, the logical "intension" is said to have been coined by William Hamilton as a translation of the Port Royal logicians' term "comprehension" and used to contrast with "extension" (*étendu*) (Kneale 1966, 84). The idea of psychological *intentionality* as a species of the genus *intensionality* is behind the turn to *intensional* logic as relevant to discussions of mental contents, such as is found in modern "doxastic" and "epistemic" logics (Hintikka 1962). A clear account of the history of these concepts in relation to Kant is given in Anderson 2015. For a systematic consideration of the *intensional-intentional* relation relevant to philosophy of mind see Zalta 1988.

[3]   Of course, thinking of logical structures and processes as structures and processes of *thought* will be objected to by those who, in the tradition of strongly *extensional* logic will be opposed to such an approach as "*psychologistic*" (although they might be likely to concede that it is appropriate *here*, testifying to Hegel's *faulty* approach to logic). On the other hand, some Hegel scholars will surely object to treating *Hegel* in this way, given a tendency to treat Hegel's logic, *including his subjective logic*, as fundamentally "ontological" and non-mind-related—an interpretation that, surprisingly, shares certain presuppositions *about* logic with the extensionalists. I have challenged the later view in "Subjective Logic and the Unity of Thought and Being: Hegel's Logical Reconstruction of Aristotle's Speculative Empiricism", (ms).

striking parallels to Hegel's subjective logic emerge in this area, but also, connections to the Hegelian tradition become evident when one looks at the *history* of these developments. In the third and fourth sections I'll turn to the topic of how we might start to think of Hegel's subjective logic, now explicitly thought of as a type of *modal* logic, as providing a framework for an understanding of a philosophy of individual mind embedded in a larger philosophy of *spirit*.

1. Hegel's mediated logical dualism

The crucial role played by *modal* notions within Hegel's account of judgments and syllogisms in the *Science of Logic*, Book III, is signaled by the difference between what he calls an *Urteil* or judgment and a *Satz*, by which he seems to mean here something like a *sentence* considered in the context of a simple *reporting* usage. Thus, considered as a mere *Satz*, the sentence "Aristotle died at the age of 73 in the fourth year of 115th Olympiad" will have a structure in which *both* subject and predicate are considered as name-like singular terms: "what is said of a singular (*einzelnen*) subject" says Hegel, "is itself only something singular (*nur etwas Einzelnes*)" (SL, XII: 55/553).[4] Considered as something like the juxtaposition of two *names*, Hegel's "*Satz*" looks something like what Wittgenstein in places in *Tractatus Logico-Philosophicus* also calls a "*Satz*"—that is, a *Satz*-sign [*Satzzeichen*] considered "in its projective relation to the world" (Wittgenstein 1922, 3.12). For Wittgenstein's extensionalist approach, the *relata* here were, on the one side, the configuration of the simple signs in the *Satzzeichen*, itself considered as a *state of affairs* and, on the other, "the configuration of the objects in the state of affairs" *pictured* by the *Satzzeichen* (Wittgenstein 1922, 3.21). While Wittgenstein says that one configuration "*entspricht*", corresponds to, the other, Hegel talks of "the agreement [*Übereinstimmung*] of representation with the subject matter" (SL, XII: 65/562).[5] However, for Hegel the *Satz* considered in such a *projective* way is itself neither true nor false, but *correct* (*richtig*) or *incorrect* (*unrichtig*), and as the capacity for being *true or false i*s the mark of a judgment, a *Satz,* considered in this way, is *not a judgment*.[6] In short, judgments cannot be understood *extensionally*.

---

[4]   For references to Hegel's *Science of Logic* (SL), initial volume and page numbers are to Hegel's *Gesammelte Werke*. Corresponding volume and page numbers to the translation by di Giovanni follow.

[5]   Here Hegel is referring to the initial form of the judgment of existence, the positive judgment, which is as yet not truly a judgment, but only a *Satz*.

[6]   Even here, however, as *richtig* or *unrichtig* the act of producing a *Satz* is to be conceived as an evaluatively judgeable event rather than a simply natural one. I suggest the difference between a the production of a mere *Satz* and a genuine judgment is that the *Satz* is evaluable from an external point of view, whereas a judgment is an act of a subject in possession of the criteria against which the content can be judged.

For a *Satz* to count as a judgment, an *Urteil*, it must be used in more than in a simple reporting sense: specifically, it must form part of a larger piece of inferential reasoning: "There would be in it an element of judgment", writes Hegel, "only if one of the circumstances, say, the date of death or the age of the philosopher, came into doubt …. In that case, the figures would be taken as something universal, as a time that, even without the determinate content [*bestimmten Inhalt*] of Aristotle's death, would still stand on its own filled with some other content or simply empty" (SL, XII: 55–6/553). It is in relation to *this* function that the judgment must contain universals,[7] the clear suggestion being that we must be able to think of the predicate "happening in the fourth year of the 115th Olympiad", not as simply naming a point in time but as an *abstract* universal capable of being true of (Hegel will say, "subsuming") *diverse* events, allowing it to mediate evidentiary relations among judgments. We might have evidence, for example, that a three-year siege of Athens started in the fourth year of the 115th Olympiad, and evidence that Aristotle was still alive in the *final* year of that siege, bringing into doubt the "correctness" of the original *Satz*. And, of course, modal notions are involved here. If we have the dates right, and if Aristotle had been alive in the final year of the siege, then not only did he *not* die in the forth year of the 115th Olympiad, *he could not have died* in that year. For Hegel, then, truth and falsity seem then to have been bound up with modal notions at the most elementary level, with *this* presumably linked to the differentiation of truth and correctness. His logic is irreducibly modal and not truth-functional.

The idea that for the *Satz* to function as a judgment *one* of its terms must express an inference-articulating universal is further exploited in Hegel's treatment of the *types* of judgment. Hegel first distinguishes judgments of *determinate being* (or "thereness [*Dasein*]") (SL, XII: 59–71/557–68) from judgments of *reflection* (SL, XII: 71–84/568–81), it being clear that this is a distinction between perceptual and inferentially elicited judgments. The judgment of determinate being in its initial form as a *positive judgment* with two juxtaposed terms seems to approximate a *mere Satz*, but being a *Urteil* one of the terms, of course must be universal, but here Hegel surprizes. We typically think of judgments like "Gaius is learned" or "the rose is red" on the model of the predicate expressing something general, *being learned* or *being red*, about some *singular* existent, such as Gaius or some rose, but Hegel points out that the subject and predicate "are *names at first* that receive their actual determination only as the judgment runs its course" (SL, XII: 60/557, emphasis added). That is, at the *very start* of this development, the singular subject and

---

[7]   C.f "It can also be mentioned in this context that a *proposition* [*Satz*] can indeed have a subject and predicate in a grammatical sense without however being a *judgment* [*Urteil*] for that. The latter requires that the predicate behave with respect to the subject in a relation of conceptual determination, hence as a universal with respect to a particular or singular." (SL, XII: 55/552–3)

universal predicate are both considered as independent "abstract" name-like elements, each purporting to independently "name" some item, such as *Gaius* and the state of *learnedness*. But the very juxtaposition of the terms *in the judgment*, Hegel seems to suggest, signals their reciprocal determination. Thus the *subject* is "determined as universal by the predicate" and so *becomes* universal, while the predicate is "determined in the [singular] subject" and "is therefore *a singular*" (SL, XII: 62/560). In short, in the very act of *judging,* the initial logical roles of subject and predicate terms have been *reversed*. Let's attend to the puzzling ideas of the singularity of the predicate and the universality of the subject that has come to mark the judgment of immediate being.

The singular predicate of the developed judgment of determinate being, such as "the rose is red",[8] acts in a name-like way to pick out the *particular* redness *inhering* in *some specific rose*—we might say, pointing to a rose before us—*that rose's* particular way of *being* or *looking* red.[9] With the predicate as a *singular*, we will be tempted to think of it as expressing something like a Kantian *intuition*, the referent of which conceived as an *individual, concrete property instance*—*this* instance of redness that is conceived as *inhering* in *this* rose. But as predicated *of* the subject, the predicate "red" *cannot* be simply thought of as semantically simple in that way; it has an *internal* structure that emerges on consideration of the judgment's negative form. Starting as a mere *Satz*, the positive judgment "is *not true* but has its truth in the negative judgment" (SL, XII: 64/562). When one says, for example, "the rose is *not* red", negation here will only be taken as applying to the *determinateness* of the predicate. In saying that the rose is *not* red one does *not* imply that the rose is not *coloured*.[10] Rather, "it is … assumed that it has a color, though another color" (SL, XII: 68/565).[11] If a rose *is* red then it is *not* yellow, *not* pink, *not* blue and so on, and if it is *not* red, it is either yellow *or* pink *or* blue, and so on.[12] This shows that the *meaning* of the predicate in the simple judgment "the rose is red" cannot be given

---

[8]   Hegel switches between the examples "the rose is red" and "the rose is fragrant". For simplicity sake, I will keep to the former. No logical point hangs on the difference between examples.

[9]   C.f., "'The rose is fragrant.' This fragrance is not some indeterminate fragrance or other, but the fragrance of the rose. The predicate is therefore *a singular*" (SL, XII: 62/560).

[10]   "From the side of this universal sphere, the judgment is still positive" (SL, XII: 68/565).

[11]   Here Hegel draws on features of the logical structure of perceptual judgments later pointed out by the Cambridge logician and Russell-critic, W. E. Johnson, when he called such predicates the *determinants* of some general *determinable*. Johnson 1921, Ch. 11). Prior notes the non-extensionality of this relation in Prior 1968, 94–5.

[12]   Moreover, what counts as a determinable of any entity depends up what *sort* of entity it is. While numbers can be characterized as either odd or even, but *not* as either red, or blue, or yellow, or …, roses can be characterised as either red, or blue, or yellow, or …, but not as either odd or even.

demonstratively, nor independently of an account of the types of inferences of exclusion into which that judgment can enter.

Consider now the corresponding subject term of the judgment of determinate being, which, determined by the predicate, *becomes* a universal.[13] In this process "it is thereby posited as the *concrete* – according to the category of being, as a something *of many qualities*; or as the concrete of reflection, *a thing of manifold properties*, an *actual of manifold possibilities*, a *substance* of precisely such *accidents*" (SL, XII: 61–2/559). The first of these two steps taken in the course of the development of the judgment is in accord with the categorical structures of *being*, explored in the *Science of Logic*'s Book I. And again, it is the possibility of the judgment's negation that establishes its status as a proper *Urteil*, and the *positive judgment* (of determinate being) develops into *the negative judgment* (XII, 64/562). When, say in a dispute, one denies that the rose is red, and thereby implies it is *another* colour, one is tacitly appealing to essential properties of *roses*. In contrast, to deny that the number *two* is red is clearly *not* to imply that it is *either yellow, or pink, or blue*, and so on. The universal *sortal term* "rose" appearing as part of the subject term here functions to control the array of possible contraries relevant for the predicate, further demonstrating the type of reciprocal determination of subject and predicate terms once they conjoined in the act of judging. This implicit universality of the subject will become *explicit* later in the *judgment of necessity*, which will be thought as being *about the kind* that had been appealed to in determining the concrete subject term of the judgment of determinate being. To get *there*, however, we must pass thought the *opposing* form of judgment, the judgment of *reflection* (SL, XII: 71/568), in which the terms of the judgment are determined in line with the categorical structures of "essence" from the *Logic*'s Book II.

Judgments of reflection are *subsumptive* judgments, and here the conventional singular-subject, universal-predicate order has been restored, in that the property predicated of the subject is now a universal in the standardly abstract sense, what Hegel calls an "essential universal", that might be *truly said* of a *variety* of different things *across* different genuses. "Red" is truly said of *this rose* just as it is said of a London bus, and beside abstracting away from the *kinds* involved, it abstracts away from the particular *ways* the things it predicates "red" of, *instantiate* redness. (There is nothing analogous here to Kant's empirical "intuition".) The irrelevance of kind terms in subject place here will mean that its subject term will have the characteristics of a bare "singular", allowing a domain of singular unqualified things to be classified under *different* abstract universals with the use of explicit quantification (XII:72–7/570–5). Via *reflective* judgments we could thus make judgments such as "some red

---

[13]   The rule that one of the terms of the judgment must be universal means that *if* the *predicate* is treated as a singular term, then the subject *must* be treated as a universal. Otherwise it would be a mere *Satz* rather than an *Urteil*.

things are plants", "all red things are coloured" and so on. Here, predication is conceived along the line of class membership and so is extensional.

This distinction between judgments characterized by the different *inherence* and *subsumption* forms of predication is now repeated at higher and higher levels, generating an array of increasingly complex judgment types, and ultimately types of *syllogisms*. In the judgment of necessity, the kind term in the subject dropped in the judgment of reflection now returns as the *explicit referent* of the subject term, this correlating with the fact that predicates of the judgment of reflection such as "fragrant" or "red" have come to refer to something more like *dispositions* to produce a certain effects — some particular phenomenological state, say — in the perceiver. In this context such predicates would then be understood on the model of *more explicitly* dispositional properties such as the "curative" property of *some kind of plant*, in an example from Hegel's *Encyclopaedia Logic* (EL, §174 add).[14]

This series of increasingly complex judgment forms will eventually lead to a complex judgment form, the *apodictic judgment* — the final sub-form of the *judgment of the concept* — that is shown to be an implicit syllogism (SL, XII: 87–9/585–7; Redding 2007, 188–9), and Hegel's treatment of judgments thereby transits to his treatment of inferences or syllogisms. In this new context, the difference between the two conceptions of predication now appears as one between two different conceptions of *logical consequence*, as both the "containment" and "said of" relations can be considered as *transitive*, although Hegel, following Aristotle, will take this transitivity to be *paradigmatically* found in the inherence or containment relation. If A is contained in B, and B is contained in C, we can immediate grasp, thought Aristotle, a conclusion stating that A is contained in C. In teaching, Aristotle is said to have used diagrams to convey the relevant sense of the transitivity of containment relations (Ross 1949), and had relied on this intuitable idea of consequence as a mark of the *perfect* syllogisms in relation to which those whose validity could *not* be immediately recognized were considered imperfect.[15] For Aristotle, the proofs of the imperfect syllogisms relied on their reduction to perfect ones by way of "conversion rules", but in *his* treatment of the syllogism Hegel aims to show that the "inherence" relation underlying Aristotle's conception of the *perfect* syllogism actually depends on the weaker extensional "said of" relation found in the conversion rules. This results, in Hegel's account, in the collapse of the traditional syllogistic and its *reduction* to the type of abstract *mathematical* logic introduced by Leibniz, and championed by the Tübingen philosopher–logician, Gottfried Ploucquet — effectively Hegel's own logic

---

[14]   We might thus think of such "reflective" properties more on the model of the unseen as so *posited* "forces" that explain the fluctuations of appearance as explored by Hegel in Chapter 3 of the *Phenomenology of Spirit*, "Forces and the Understanding". See Redding 2010–11, 18–40.

[15]   Perfect syllogisms were those in the first figure that were later labelled "Barbara", "Celerent", "Darii" and "Ferio".

teacher.[16] While I've argued elsewhere for the relevance of the collapse of the ancient syllogistic for Hegel (Redding 2014), here I want rather to maintain a focus on the two elements we have noted so far: Hegel's *dual* account of predication and consequence relations and the crucial role of *modal notions*—an approach that I will refer to as his *mediated logical dualism*. It will be these features that will be crucial, I will suggest, for his recognitive theory of mind, but to bring out what is at stake with this notions I want to detour to the topic of *modal logic* as it has developed in the last hundred years.

2. Contemporary modal logics and logical pluralism

A recent textbook on modal logic by Blackburn, di Rijke and Venema commences with three "slogans" concerning the nature of modal languages: 1, Modal languages are simple yet expressive languages for talking *about* relational structures; 2, Modal languages provide an internal logical perspective on relational structures; and 3, Modal languages are not isolated formal systems but are related to other branches of mathematical logic, among which is the "classical" language of the type of first-order quantified predicate logic of Frege and Russell (Blackburn et. al. 2001, xi–xiii). It is this idea of a modal language as an incomplete language within which one speaks *about* relational structures from a point somewhere *within* those structures that I want to consider in relation to Hegel's "judgments of determinate being". And just as Hegel's judgments of determinate being are shown to *become* judgments of refection in the course of their development, sentences in modal languages need to be able to be translated into "classical" first-order predicate logic which are "the prime example of how to take an *external* perspective on relational structures" Blackburn et. al. 2001, xiii). The sentences in turn correspond to Hegel's *judgments of reflection*. But the question of the translational "bridge" connecting the two languages surely raises the question of how we are to think of the passage between them. In short, which of these languages should we think of as ours? In relation to modern modal logic, although there are dissenting voices, the conventional answer here is that "classical" language is basic, providing the "meta-language" into which the sentences of modal languages are reducible. Clearly Hegel's answer will be to resist such a reduction, as the relations of inherence and subsumption are at each stage of the course of the judgment's development "*aufgehoben*" into a higher level *at which* the distinction is in turn repeated.

---

[16]   With his characteristica universalis Leibniz aimed at constructing a calculus within which valid syllogisms as well as other inference types could be proven. Although Leibniz himself had still affirmed the primacy of intensional over extensional logic, Hegel treats him as pursuing something akin to the extensionalist project of the last century. In a sense this is prophetic, with some contemporary scholars arguing that Leibniz actually *did* effect the reduction of intensional to extensional logic (Lenzen 2004, 14–21).

As a recent approximation to Hegel's dualistic account of logical consequence we might consider the doctrine of "logical pluralism" advocated by J. C. Beall and Greg Restall (Beall and Restall 2000). There the authors attempt to make sense of the proliferation of various non-classical "logics" in contemporary logic by appealing to an underlying logical distinction based on a difference between what they call a "pretheoretical (or intuitive)" understanding of the nature of consequence, and a more reflective truth-conditional one. Beall and Restall link this distinction to different logical languages that have their semantic domains tied to *situations* on the one hand, and *complete worlds* on the other, a distinction echoing Blackburn et al's distinction between modal and classical languages. Importantly, they point to the different treatments of negation in each. "Situations", they point out, "'make' claims true and they 'make' others false", but some situations, "by virtue of being *restricted* parts of the world, may leave some claims undetermined… It follows that the classical account of negation fails *for situations*" (Beall and Restall 2000, 482). By "classical", they mean the way negation functions in classical first-order quantified predicate logic—*propositional* negation in contrast to the type of Aristotelian *term* negation that seems to work for the predicates of Hegel's judgments of determinate being. Thus with a certain qualification, we might understand Blackburn et al's *third* slogan as another way of putting what Beall and Restall express in terms of their thesis of logical pluralism. Modal logic is not a complete logical system or language, but needs to be seen as having its sentences translatable into standard first-order quantified predicate logic. The qualification is that the *pluralism* of Beall and Restall implies also that sentences in first-order quantified predicate logic must *also* be seen as somehow incomplete and *likewise* in need of translation back into the modal form, otherwise this logical *dualism* would be simply reducible to the logical *monism* of first-order quantified predicate logic.

Our thesis concerning Hegel's subjective logic might therefore be put thus: Hegel's subjective logic can be read in terms of a mediated dualism between incomplete modal and non-modal logics. Moreover, such a picture, I strongly want to suggest, is not anachronistic. As Arthur Prior had put it, what logicians were doing when turning to work on modal logic in the mid twentieth century was taking a "new look" at an "ancient development"—one going back to the Greeks (Prior 1967, 15). In Hegel's own time, the attempt to relate an intensional modal logic to a truth-functional extensional one can to be found in Leibniz's project of a *characteristica universalis*, the project pursued by Ploucquet, in the course of which Leibniz freely translated between intensional and extensional logical forms (Lenzen 2004). This was a development that Hegel was clearly well aware of, as is clear from his treatment of "the mathematical syllogism" in the *Subjective Logic* (SL, XII: 104–6/602–4).[17]

---

[17]   I have explored this further in Redding 2014.

Moreover, in times closer to our own, I suggest that we can see the influence of Hegel's thought in the modern revival of modal logic.

It is generally considered that modern modal logic made its first appearance in the twentieth century when C. I. Lewis developed modal *propositional* logic in the wake of his criticisms of the truth-functional conception of implication in Bertrand Russell's early logical work. Appealing to the more "intuitive" conception of implication noted by Beall and Restall, Lewis had opposed his *strict* implication to Russell's *material* implication. That *p* implied *q*, he claimed, could not be reduced to falsity of the conjunction of *p* and *not q*. Rather, for *p* to *imply q* it had to be *impossible* for *p* to be true and *q* false (Lewis 1918, Ch. 5). He thereby went on to develop a modal *propositional* logic as a logic for necessary and possible sentences (Lewis and Langford, 1931) on the basis of the formal logic of his own teacher, Josiah Royce, the most prominent representative of Absolute Idealism in the US. An even clearer example of an Hegelian influence can be found, however, in the development of *quantified* modal logic in mid century via the intermediary role played by *tense logic* as had been developed by Arthur Prior.

It was Prior's tense logic that had effectively been the model for Saul Kripke's development of a quantified modal predicate logic in the 1960s (Copeland 2002), but Prior had been drawn to the topic by a paper first published in the *Australasian Journal of Philosophy and Psychology* in 1941. This paper was by his former undergraduate teacher in New Zealand, the South African born philosopher John Niemeyer Findlay (Findlay 1941).[18] Read now, Findlay's paper can read as a type of exercise in "therapeutic" ordinary-language philosophy: Findlay had been in Cambridge in the late 30s, had been influenced by Wittgenstein and had acknowledged the influence of Wittgenstein in the 1941 paper. But Findlay was, as the author of *Hegel: A Re-examination* (Findlay 1958), one of the first interpreters of Hegel in the post-war period to challenge the anti-Hegelian sentiment of contemporary Anglophone philosophy, and to draw upon similarities seen between Wittgenstein's post-Tractarian philosophy and the approach of Hegel. Moreover, it would seem that Findlay came to Wittgenstein from Hegel, *not* to Hegel from Wittgenstein.[19] Furthermore, towards the conclusion of the 1941 paper Findlay critically engages the views on time of the British Hegelian, John McTaggart in "The

---

[18]   Prior doesn't seem to have read it until the mid 1950s, however, after its being reprinted in Flew 1951.
[19]   In an autobiographical piece Findlay described Hegel's *Lesser Logic*, a gift received from his brother on first starting university, as one of the first two philosophical works he had ever read seriously, and a "constant companion" throughout his life (Findlay 1985, 4).

Unreality of Time" (1908). Prior goes as far as calling Findlay the "founding father of modern tense logic" (Prior 1967, 1).[20]

Propositional tense logic neatly illustrates what Blackburn et al have in mind with the three "slogans" concerning generic modal logic.[21] The sentences of tense logic take an "internal" perspective on temporally conceived events in that events are portrayed as being either past, present or future in relation to the point *in time*, the present, which is implicitly understood as the time at which the sentence is uttered.[22] From the perspective of *tenseless* logic such as modern quantified predicate logic, a *tensed* sentence, such as "Socrates is sitting" will be treated as *incomplete*, and considered as a mere *predicate* rather than a whole proposition—a predicate that is true *at* the particular instant in time at which it is uttered and, in a sense, true *of* it. Thus, a *would-be* complete tensed sentence "*p*" is able to be made into a complete one by *predicating* it of a point in time, *a*, to get "*pa*" (Prior and Fine 1977, Ch 1). Thus, while it may be the case that, when uttered at noon, say, the sentence "Socrates is sitting" is true *then*, as Hegel noted in *Phenomenology of Spirit* of the judgment "now is night [*das Jetzt ist die Nacht*]", such a sentence is likely to become false *some time later* (Phen, § 95).[23] But treated as a mere *predicate*, predicated *of* (or at) the time of utterance, noon, it becomes a tenseless one within the non-tensed metalanguage, "Socrates is sitting *at noon on such and such a day*". If true it is timelessly or

---

[20]   Prior points to Findlay's claim that "our conventions with regard to tenses are so well worked out that we have practically the materials in them for a formal calculus", which he mentions "should have been included in the modern development of modal logics" (Findlay 1941, p. 233). But if "all is so desirably definite", Findlay goes on, "what room is there for puzzles and perplexities" he had been discussing? Findlay then points to "a certain aspiration which all our language to some extent fulfils, and which we are at times inclined to follow to unreasonable lengths. We desire to have in our language only those kinds of statement that are *not* dependent, as regards their truth or falsity, on any circumstance in which the statement happens to be made". While he notes that "we do *in part* say things which may be passed from man to man, or place to place, or time to time, without a change in their truth-value" it is clear that he thinks that *something* is lost in such an aspiration, although it is not quite clear what.

[21]   In its current form, the term "modal logic" is used to cover a variety of logics that show similar structural features, only one of which is the logic of necessary and possible propositions. Besides tense (or temporal) logic, these others include, epistemic and doxastic logics (the logics of knowledge and belief), deontic logic (practical reason), and so on. Tense logic, however, was the particular logic in relation to which quantifiable *alethic* modal logic (the logic of possibility and necessity) developed.

[22]   That is, tense logic effectively adopts the point of view of McTaggart's "A series", while in contrast, *tenseless* logic portray events as objectively ordered along a scale from earlier to later as in McTaggart's B series.

[23]   In the Subjective Logic Hegel effectively classifies this judgment as an instance of the "positive judgment" of determinate being, which is really a *Satz* rather than a judgment. His example there is "now is day [*jetzt ists Tag*]" (SL, XII:64/562).

eternally true in being able to be said *truly* at any time. This, then is the pattern reproduced in alethic modal logic. The judgment *possibly p*, for example, can be interpreted such that *p* is treated as a predicate *predicated* of (or at) an array of *possible worlds* such that it is true of (or at) some of those worlds, while *necessarily p* is understood as saying that *p* is true of (or at) *all* of those worlds.

As mentioned earlier, the modern orthodoxy has been to accept first-order quantified classical logic as the basic "metalanguage" into which all tensed or otherly modal sentences can be translated, but this point of view was challenged by Prior himself. Rather than think of tense logic as a fragment of an essentially complete first-order predicate logic, Prior favoured treating the non-tensed classical logic as an *outgrowth* of the intensionally understood modal one.[24] Essentially, Prior was, like his former teacher Findlay, critical of the implied *platonism* of reifying instants of time (and, in relation to alethic modal logic especially, possible worlds) as objective entities, the properties of which could make a judgment true or false.

As earlier noted, modal logic, qua intentional, is mind-related in ways that extensional logics are clearly not, and this is explicit in varieties of modal logic such as doxastic and epistemic logics, the logics of belief and knowledge, which are treated along the same general lines that we have seen in the case of tense and alethic modal logic. Considered as the content of a particular subject's *belief*, we will think of proposition *p* not as true or false *simpliciter* but as true or false *for* that particular subject in a way analogous to that in which a tensed proposition can be thought of as true or false *at* a particular time. Moreover, as the contents of beliefs *states*, such contents can be considered as objective, such that *the same* belief can be thought of as true *for* both James and Ada, analogous to the way a single proposition can be thought of as true at two different times.[25] One variety of modal logic on which Prior touches that looks particularly appropriate for the question of *idealist* logic is what he calls "egocentric" logic and that he sees structuring Leibniz's monadology.[26] Thinking of Hegel's mediated dualistic logic in relation to such a construal of modal logic can, I suggest, provide a pathway for the consideration of Hegel's philosophy of mind, to which we can now turn.

3. Hegel's logic and philosophy of mind.

It is commonly said that for Hegel the most important existing philosophy of mind was that of Aristotle; we might then consider Hegel's accounts of judgment and

---

[24]   "It is not that modal logic or tense logic is an artificially truncated uniform monadic first-order predicate calculus; the latter, rather, is an artificially expanded modal logic or tense logic." (Prior 2003, 246)

[25]   Here we must, of course, distinguish the belief qua *occurrent* psychological state from its intensional *contents*.

[26]   In "Egocentric Logic" and "Supplement to 'Egocentric Logic'" Prior and Fine, 1977.

syllogism sketched above in relation to Aristotle's account of the mind's acquisition of content from the perception-based process of induction (*epagoge*) as sketched in *Posterior Analytics* Book 11, ch. 19.

There Aristotle states that all animals have perception, but in some animals, centrally humans, percepts are retained in the soul, and it is here that he introduces his celebrated analogy of the formation of ideas from percepts with the actions of a group of soldiers who come to "take a stand" in the context of a rout in a battle. The soldiers are fleeing, but a common stand eventually comes about, first by one soldier taking a stand, then another, then the next, and so on, until "the original position is restored" (Aristotle 1960, 100a1–14). The retreating individual soldiers represent the flow of individual percepts in time, and when the stream of percepts comes to make *its* collective stand in this way "there is the first beginnings of the presence [in the soul] of a universal (because although it is the singular [*to kath ekaston*] that we perceive, the act of perception involves the universal, e.g., 'man' not 'a man, Callias'" (Aristotle 1960, 100a15–b1).[27]

While the individual soldiers are singular, it is clearly the collective group of soldiers that is taken as the universal of which the singulars form *the parts*. Aristotle's imagery is puzzling, the collective group taking the stand presumably understood as a *concrete* universal, while in Aristotle the universal existing *in the mind* is without matter.[28] Moreover, one might pause to wonder how, while *singular things* like *this* man Callias are perceived, perception can, nevertheless, not only involve *universals* but seemingly be *about* universals. Hegel's account of judgment in the Subjective Logic, I suggest, can be taken as intended to provide such an explanation, and it involves positing a crucial step missing but needed in Aristotle: the conversion of immediate perceptual judgments of singulars to "reflective" judgments that are then converted *back* to judgments about higher-level single substances. Before turning to this, let us compare Aristotle's account to Hegel's similar account of memory in in the Encyclopaedia *Philosophy of Spirit*, section on Psychology.

There, something akin to Aristotle's fleeing percepts coming to take a "collective stand" is recognizable in Hegel's treatment of the formation of *intuition* from sensations considered in terms of their *temporal* relations of "*successiveness*, of *arising* and *vanishing*" (PM, §448z). At this sensory starting point in the formation of

---

[27]   While the translators give "particular" here, I follow Whitaker who claims that "Aristotle's own terms, 'singular' [*kath ekaston*] and 'partial' [*en merei*], are used clearly and consistently" (Whitaker 1996, p. 89).
[28]   The notion of a concrete universal it would seem is not *entirely* foreign to Aristotle. Thus Chen (1964) points to the otherwise largely ignored idea of the "universal concrete" or "materiate universal" in Aristotle's Metaphysics Z. According to Chen, Ross (Ross 1924) had been the first to point to the presence of the "materiate universal" in Aristotle.

intuition we are, he says, first "*outside ourselves*, in *spatiality* and *temporality*", "*immersed* in the external material". But the mind "posits the intuition *as its own*, pervades it, makes it into something *internal*, *recollects itself in it*" and "by this withdrawal into itself, intelligence raises itself to the state of *representation*" (PM, §450z).

A number of things are clear from Hegel's picture so far. First, Aristotle's fleeing percepts are not to be thought of as, somehow, arresting this flight, regrouping and taking a stand simply *by themselves*, as found, for example, in the modern idea of association. Rather, the fleeing sensations are arrested in the context of a process in which the *mind* unifies this material *into* its own intuition. "Intuition is *sublated* in mind, not *vanished*, not *merely passed away*" (PM, §450z). Next, in the succeeding paragraphs in the section "Representation", it becomes clear that central to the mind's capacity to retain and, especially, *achieve voluntary control over* past contents in the form of retained *images* is the subject's capacity to retain a very specific type of intuition, *the intuition of names*, bringing in the condition of the subject's belonging to a linguistic community for the development of the capacity for mental representation. "Sound articulating itself further for determinate representations, speech, and its system, language, give to sensations, intuitions, representations a second, higher reality than their immediate one, in general an existence that carries weight in the *realm of representation*" (PM, §459). Thus when Hegel says that "Intelligence … in filling itself with the word, receives into itself the nature of the thing", he makes the linguistic capacity to use names a *condition* of the Aristotelian process of the incorporation into *nous* of a thing's essence or nature in perception.

By "names (*Namen*)" here, Hegel clearly means *common names*, like "philosopher" or "dog", not proper names like "Aristotle" or "Rex". That is, he has in mind names that can play both the role of predicates as well as subjects, as in "Rex is a *dog*" and "*the dog* was domesticated in Mesolithic times". Moreover, as we have seen, the development of *judgments of reflection* such as "Rex is a dog" is needed to understand how the generic term that is implicit in *judgments of determinate being*, such as "This dog *pants*" can become transformed into the explicit subject term of *judgments of necessity* of the type "*the dog* was domesticated in Mesolithic times". In short, the psychological process involved in Aristotle's *epagoge* is understood as mediated by the stage of reflection. How are we to think of names as playing a role in this process? I suggest the implicit picture in Hegel might be developed along the following lines.

First, it would seem that transition to a *reflective* cognitive relation to a perceivable rose requires learning names from others—names that can be used of *different* contents that are linked by transformations according to similarly ordered patterns. Thus the word "red" that I use when uttering the judgment of determinate being "this rose is red" expresses *my* intuition of redness, the phenomenal "what it is

like" that is simultaneously a "what it is like" *for me* and simultaneously a particular way of the *rose's* being or looking *red* for me. But while it has the determination of singularity, as with the predicate of a judgment of determinate being, the meaning expressed by the word "red" can *also* be understood as an abstract universal, when, say, I learn of some unseen rose's colour from someone else's assertion, and it is understood as no longer expressing *my* intuition but *theirs*. In sum, this progressive determination of cognitive contents involves making the implicit locatedness or situation-specificity of the immediate judgment *explicit*, and this involves the "reflection" of the thinker *qua* thinker *out of* the locatedness of the situation in order for them to become explicitly aware of it. This can be thought of as an instance of a subject recognizing itself *in* the expressions of another subject's recognition of it—a recognition that in turn transforms that initial self-conception involved in the subject's initial recognitive capacity. It is this characteristic "return" to self "out of" otherness—for Hegel, the process that is at the heart of "spirit" itself—that is accompanied by the deepening of the logical structure of intended object. It is what allows, for example, the intended object to achieve the complexity required of judgments of necessity, a complexity akin to an Aristotelian "secondary substance".

However, from the perspective of subjective spirit, it remains unclear *how* language, which surely would be properly treated in *objective* spirit, is to be conceived as a necessary condition for the proper functioning of these cognitive processes. This is one reason why these issues, I suggest, might be profitably treated in relation to the *subjective logic*, which is indifferent to the *types of mechanisms* speculated upon in the discussion of subjective spirit, and indifferent to the nature of the media—external linguistic, and internal subjective—which may be thought of as capable of having representational properties. Exploiting parallels between Hegel's judgments of determinate being and expressions within Prior's systems of tense and egocentric logics we might attempt to draw Hegel's subjective logic together with his recognitive structure of spirit.

4. Subjective logic as a mediated egocentric logic

The first link we might forge between Hegel's Psychology and his treatment of judgment in the Subjective Logic is to relate *intuition* as treated in the Psychology with the referent of the pecularly *singular predicate* of the judgment of determinate being in the Subjective Logic. Spirit *as the soul* [*als Seele*], the topic of the *Encyclopaedia*'s earlier Anthropology, Hegel notes, "is naturally determined" (PM, §446), and "at the standpoint of mere *intuition* we are *outside ourselves*, in *spatiality* and *temporality* … Here intelligence is *immersed* in the external material, is one with it, and has no other content than that of the intuited object" (PM, §450).

One can recognize here something of the *mere* mapping relations between sensory contents and elements of the external world suggested by the simple *Satz* as described

in the Subjective Logic. But intuition is not *merely* "immediate or *sensory consciousness*". For both intuition and representation [*Vorstellung*], "the object is both detached from me and at the same time my own", but *unlike* the situation that obtains in representation proper, in intuition the object is mine only *implicitly*: it is not yet *posited* as mine. The crucial step will come when "mind posits the intuition as its own, pervades it, makes it into something *internal, recollects itself in* it, becomes present to itself in it, and hence *free*" and thereby "raises itself to the stage of *representation* [*Vorstellung*]" [PM, §450z]—some state or process with representational content.

Such process, I suggest, can be seen to coincide with steps in the passage from the mere *Satz* to the structure of the judgment of determinate being. Remember, in the judgment of determinate being the content is not yet strictly *propositional*, as it is in the case of reflective judgment. Nevertheless, intuition, now *posited as the mind's own*, has achieved a degree of cognitive articulation. A singular intuition is grasped as *this* redness, not as mere sensory content but as a property *inhering* in the rose recognized *as* a rose. Moreover, it is grasped in the modality of *transience and passing*: "Representational mind *has* intuition; intuition is *sublated* in mind, not *vanished*, not *merely passed away*" (PM, §450z).[29]

Let us focus for the moment on that transitional stage that Hegel points to when he treats intuition as no longer *mere* phenomenal content but still not yet "representation", when that the content will be explicitly posited *as* the mind's own. At this stage we might compare the sense in which intuition is to be grasped as a state *of* the self with the type of primitive "egocentric" judgment that Prior exemplifies with the judgment "It is paining". Just as tensed expressions contain an implicit reference to the "now" of speaking that can be made explicit (as when one goes from "It is raining" to "It is raining *now*"), similarly, "first-person" expressions such as "I am in pain" can be thought of as developments of more basic egocentric expressions in which the subject has been made explicit by the use of "I".[30] This more basic form of egocentric expression that Prior exemplifies with "It is paining", like the tensed

---

[29]   The parallels between Hegel's analysis at this level and Findlay-Prior *presentism* is striking. "Therefore, when we talk about an intuition sublated to representation, language too is quite correct in saying: I *have* seen this. By this is expressed no mere past, but presence as well; there the past is merely *relative* past… But the word 'have', used in the perfect tense, has quite literally the meaning of presence: what I have seen is something that I not merely *had*, but still *have*, —thus something present in me" (PM, §450z).

[30]   In the case of the explicit use of "now", Prior describes his theory as a "redundancy theory" of the present tense, analogous to a redundancy theory of *truth* (Prior 2003, 171). Analogously, the translation of "It is paining" to "I am in pain" would be seen as another expression of this theory. The "I" adds nothing other than make the implicit egocentricity of the first sentence explicit, and the semantics of the second sentence should be understood in terms of that of the first.

judgment "It is raining", can be thought of as locally true—true *of* or "at" some particular part of the world—while not true of the world *per se*. Thus analogous to the way "It is raining" is true, if true, *at* some indeterminately extended situation to which the speaker belongs, "It is paining" is true, when true, "at" a much more *limited* part of the world. It is still true of *some* part of it, nevertheless—true of a part of the world that is, as it were, *both* subjective and objective.

In the system of egocentric logic, when the content "It is paining" gets expressed in the explicit first-person form of "I am in pain", the utterance can be understood, just as in the system of tenses, as a typical modal judgment that talks about "relational structures" from a point *within* those structures. In the case of the tense system, translation can occur within an orderly system of terms marking tense, such that with the passage of time, what was once an "it is" will eventually become an "it was", with all these judgments all *implicitly* centred on the "now", at which a subject immediately experiences herself as located. And with regard to egocentric logic, we might think of a similarly orderly set of transpositions as occurring within the system of personal pronouns. Just as an "is" becomes a "was", an "I" becomes a "you" when the original "you" becomes an "I".[31] And further than this, "I" can become a "he" or "she" when spoken about from within some *other* I-you dialogue to which the original "ego" does not belong.

With this we might now appreciate what is involved in the transition from understanding predicates *qua* inhering in grammatical subjects (of judgments of determinate existence) to *subsuming* such subjects (of judgments of reflection). In short, one must be able to grasp the equivalence of the egocentric sentence "I am in pain" said be me, and the assertion "you are in pain" said *of me* by *you*. But here we must be careful. It cannot be simply that when I come to grasp the determinacy of "I am in pain" I am merely coming to learn something that was true *of me* prior to my coming to grasp it.[32] To think that the non-egocentric "you are in pain" (or the third

---

[31]   The first to draw upon Hegel's account of recognition for a form of intersubjectivity regarded as between an "I" and a "thou" was Ludwig Feuerbach. This "I-thou" relation most well known in the philosophy of Martin Buber is clearly implicit in Hegel's account of recognition, as noted by Robert Williams in Williams 1977, 365).

[32]   Thus Wittgenstein pointed to different object-determining and subject-expressing uses of the first person pronoun (Wittgenstein (1958), 66–7). On the one hand, "I" can be used *like* a proper name to which empirical concepts (concept-representations) are predicated to state some empirical fact. But when a speaker applies "I" to him or herself expressively, the "I" does not work in this way. When I inform you, say, that the prime minister was overthrown *yesterday*, I am not primarily informing you *of* my belief, despite the fact that I must believe it to sincerely tell you. And analogously, I can tell you some empirical fact about *myself*. Thus, while for the subject-expressing use, the idea of the I as *like* a proper name is clearly misleading

person "Paul is in pain") captures the *proper meaning* of the egocentric assertion in a non-egocentric metalanguage is akin to thinking that the *non*-tensed "Socrates is sitting at noon" captures the proper meaning of the simple *tensed* sentence "Socrates is sitting". And just as Prior had refused the metaphysical idea of time as a sequence of self-subsistent temporal entities that can come to be named and subsumed under abstract universals, we might think of Hegel as similarly rejecting the widespread metaphysical assumption of a pre-existing self-sufficient cognitive subject (an "ego") with determinate contents waiting, as it were, to be similarly named and described.[33]

Nevertheless, as Prior had realized there is a need to achieve an analogue in tense logic to the naming of temporal points in non-tensed logics. Importantly, he had recognized that the internal past-present-future relations of tense logic were not yet adequate to the specification of *particular* times—something that was unproblematic in the rival untensed logic of "earlier and later". While undeveloped tense logic allows one to say that a particular event had happened *sometime* in the past, it does not have the resources to enable one to say that it happened at *such and such a time* in the past—that such an event happened on September 14, 2015, for example. To *this* end he saw the need to *extend* the resources of tense logic to include an analogue to the naming of singular points. Rather than being considered primitive, such reference to some specific point in time could be derived from the relational tense system itself, the result being what now is known as *hybrid logic*.[34] Moreover, he hinted at the possibility of egocentric logic being similarly extended to incorporate the means for individuating and "naming" subjects considered as *reflected out of* the relational system to which they otherwise belong, including their relations to specific others.

Prior explicitly linked this latter idea to Leibniz's notion of the *complete concept* of an individual—an idea Prior interpreted as the totality of beliefs true *only* for that person: "Each person is identified by a set of propositions which describe the world as it is from his point of view, i.e., by the set of propositions which are true when said by him; by any single proposition which is true *only* when said by him" (Prior and Fine

---

(Anscombe (1981)),[32] but the object specifying use has clear parallels with the use of a proper name or an identifying description.

[33]   This non-reducible character of the egocentric sentence is stressed in Prior's paper "On Spurious Egocentricity" in Prior 2003, 27–37.

[34]   Of particular relevance here is the paper "Tense Logic and the Logic of Earlier and Later" in Prior 2003, 117–38. On the topic of hybrid logic, see Blackburn et. al. 2001, ch. 7.3. The equivalent development from Hegel's perspective concerns the recognition of the inadequacies of the traditional Aristotelian syllogistic, limited to picking out individuals as *particular* instances of kinds, to a syllogistic enhanced with the resources of singular terms, as they had been added in the medieval period. It is only thus that Hegel can treat the "moments" of the concept as "universal", "particular" *and* "singular". C.f., Hegel's discussion of the three moments of "the concept", SL, XII: 33–52/530–49.

1977, 59). If a person could in principle be so identified, this of course allows the person herself to conceive of herself "objectively" as the singular being she takes herself to be, in abstraction from the relations in which she stands to others.

This, I suggest, is just what we should expect from the perspective of Hegel's two-tiered account of the *recognitive* conditions of self-consciousness—the two tiers corresponding to mechanisms operative with the "inherence" and "subsumption" modes of predication and ultimately structuring the different ways of the "I"'s belonging to the "we" (PR, §§ 158–81).[35] Such relationality, in which *the I* first achieves a perspective from "within the relational structure", applies initially within that domain of objective spirit to be thought of as relevant to the conditions under which humans *first* acquire cognitive contents—that is, the family. In the relational structure of the family, then, any role switching personal pronouns will work within a network of fixed highly differentiated normative statuses in which the parents, as Hegel says, constitute "the universal and essential element" of things by their capacity to define the nature of an initially shared intensional content (PR, § 174z). The parents' control includes, clearly, control over what things are called, what predicates are brought to child's experience via the *non-egocentric* translations of their egocentric first-person expressions, and so on. It is in this sense that, as Hegel puts it the *Encyclopaedia* philosophy of subjective spirit, "intelligence … in filling itself with the word, receives into itself the nature of the thing" (PM, §462z).

But if, in Hegel's view, an individual's beliefs will always presuppose a common background of shared beliefs the contents of which come from such family-like relational contexts, there is another force working towards the dissolution of these fixed relationships (the dissolution of "immediate *Sittlichkeit*") and their replacement by a different system centred on the subject conceived abstractly in terms of the locus of their own theoretical and practical beliefs. This is the system typified for Hegel by the form of recognition found in modern *civil society* (PR, §§ 182–8). There must then be linguistic mechanisms adequate for the formation of the abstract and singular conception that a subject has of herself *qua* the subject of those beliefs and desires. Traditionally this has been thought to be the function of the word "I" regarded as a type of name, but from the *psychological* perspective, "the I" does not exist *first* as a name but as a locus of egocentric expression and an exchangeable role in dialogue. Rather than *starting* from such Cartesian ontological assumptions, the *I* must be grasped as an achievement within the dynamic processes of a domain of objective spirit it which it gains its dimension of bare *singularity*. On the logic of the Hegelian reading then, seen as akin to Prior's extension of egocentric logic, this Leibnizian way of arriving at a type of singularising identification of the self will be an outgrowth of an earlier relational conception rather than primitive. Moreover, it will always take place against a background of those immediate forms of relatedness that are found in

---

[35]   I have argued for a version of this thesis in Redding 1996, ch. 9.

the family, and resolution of these dualisms will always proceed by the *Aufhebung* of both forms, Hegel's mediated dualisms being recognizable at *all* levels.

I started with the idea that any attempt to reconstruct Hegel's philosophy of mind must face two desiderata: that of giving an account of the types of cognitive capacities that Hegel thinks are achievable by the mind, and that of conceiving any individual mind as in someway determined by the position within which it exists within the larger context of spirit. Using some of the tools of modal logic might allow us to think of minds in terms of their intentional contents, contents that can be linked to the world only via the means that allow them to be linked to other minds that can share them. But this should not be surprizing, given the fact that Hegel himself seems to use just such tools in his own subjective logic.

Bibliography

Anderson, R. Lanier. 2015. *The Poverty of Conceptual Truth: Kant's Analytic / synthetic Distinction and the Limits of Metaphysics*. Oxford: Oxford University Press.

Aristotle. 1935. *Metaphysics*, ed. and trans. Hugh Tredennick in *Loeb Classical Library, Aristotle XVII–XVIII* (Cambridge, Mass.: Harvard University Press, 1960).

Aristotle. 1960. *Posterior Analytics and Topica* Translated by Hugh Tredennick and E. S. Forster. Cambridge, Mass.: Harvard University Press.

Arnauld, Antoine and Pierre Nicole. 1996. *Logic or the Art of Thinking: Containing, besides common rules, several new observations appropriate for forming judgment*. Translated and edited by Jill Vance Buroker. Cambridge: Cambridge University Press (first published 1662–1683).

Beall J. C. and Greg Restall. 2000. "Logical Pluralism", *Australasian Journal of Philosophy*, 78, 4 (2000), pp. 475–492.

Blackburn, Patrick, Maarten di Rijke and Yde Venema. 2001. *Modal Logic* (Cambridge: Cambridge University Press).

Chen, Chung-Hwan. 1964. "Universal Concrete, a Typical Aristotelian Duplication of Reality", *Phronesis*, Vol. 9, No. 1, 48-57.

Copeland, B. Jack (2002) "The Genesis of Possible Worlds Semantics", *Journal of Philosophical Logic*, 3, 99–137.

Findlay, John N. 1941. "Time: A Treatment of Some Puzzles", *Australasian Journal of Psychology and Philosophy*, 19:3, 216-235, reprinted in Anthony Flew, *Essays on Logic and Language*. Oxford: Blackwell, 1951.

Findlay, John N. 1958: *Hegel: A Re-examination*. London: Allen & Unwin.

Findlay, John N. 1985. "My Life: 1903–1973", in Robert S. Cohen,
    Richard M. Martin and Merold Westphal (eds), *Studies in the Philosophy of J.
    N. Findlay*. Albany: State University of New York Press, 1985.

Flew, Anthony (1951), *Essays on Logic and Language*. Oxford: Blackwell.

Hegel, G. W. F. *Gesammelte Werke*. Hamburg: Meiner, 1968–.

Hegel, G. W. F. (EL) *Encyclopedia of the Philosophical Sciences in Basic Outline*.
    Part I: Science of Logic. Translated and edited by Klaus Brinkmann and
    Daniel O. Dahlstrom. Cambridge: Cambridge University Press, 2010.

Hegel, G. W. F. (SL) *The Science of Logic*. Translated by George di Giovanni.
    Cambridge: Cambridge University Press, 2010.

Hegel, G. W. F. (Phen). *Phenomenology of Spirit*. Translated by A. V. Miller, with
    analysis of the text and foreword by J. N. Findlay. Oxford: Oxford University
    Press, 1977.

Hegel, G. W. F. (PM). *Hegel's Philosophy of Mind*. Translated from the 1830 Edition,
    together with the Zusätze by W. Wallace and A. V. Miller, with Revisions and
    Commentary by Michael Inwood. Oxford: Oxford University Press, 2007.

Hintikka, Jaakko (1962): *Knowledge and Belief: An Introduction to the Logic of Two
    Notions*. Ithaca: Cornell University Press.

Johnson, W. E. 1921. *Logic: Part 1*. Cambridge: Cambridge University Press.

Kneale, William (1968), "Intentionality and Intensionality", *Proceedings of the
    Aristotelian Society, Supplementary Volumes*, Vol. 42, pp. 73-90. 106

Kripke, Saul. 1963. "Semantical considerations on modal logic", *Acta Philosophica
    Fennica*, 1963.

Kripke, Saul. 1971. "Naming and Necessity" in D. Davidson and G. Harman, *The
    Semantics of Natural Language*. Reidel. Republished with a new Preface as
    Naming and Necessity. Oxford: Blackwell, 1980.

Lenzen, Wolfgang. 2004. "Leibniz's Logic", in In Dov M. Gabbay, John Woods &
    Akihiro Kanamori (eds.), *Handbook of the History of Logic*, Elsevier 3–1.

Lewis, C. I. 1918. *A Survey of Symbolic Logic*, Berkeley: University of California
    Press.

Lewis, C. I. and C. H. Langford. 1931. *Symbolic Logic*, New York: Century Books.

McTaggart, J. M. E. 1908. "The Unreality of Time", *Mind* 17 (1908), 457–74.

Prior, Arthur N. 1957. *Time and Modality*, Oxford: Clarendon Press.

Prior, Arthur N. 1967. *Past, Present and Future*. Oxford: Clarendon Press

Prior, Arthur N. 1968. "Intentionality and Intensionality", *Proceedings of the
    Aristotelian Society, Supplementary Volumes*, Vol. 42, pp. 91–106.

Prior, Arthur N. 2003, *Papers on Time and Tense: New Edition*. Edited by Per Hasle,
    Peter Ohrstrom, Torben Braüner, and Jack Copeland. Oxford: Oxford
    University Press.

Prior, Arthur N. and Kit Fine. 1977. *Worlds, Times and Selves*, London: Duckworth.

Redding, Paul. 1996. *Hegel's Hermeneutics*. Ithaca: Cornell University Press.

Redding, Paul. 2007. *Analytic Philosophy and the Return of Hegelian Thought*.
    Cambridge: Cambridge University Press.

Redding, Paul. 2010–11. "Hegel's Anticipation of the Early History of Analytic Philosophy", *The Owl of Minerva: Journal of the Hegel Society of North America*, vol. 42:1–2, 18–40.

Redding, Paul. 2014. "The Role of Logic "Commonly So Called" in Hegel's *Science of Logic*", *British Journal for the History of Philosophy,* vol. 22, no. 2, pp. 281–301.

Redding, Paul. 2016. "Subjective Logic and the Unity of Thought and Being: Hegel's Logical Reconstruction of Aristotle's Speculative Empiricism", ms.

Ross, W. D. 1924. *Aristotle's Metaphysics* (Oxford: Clarendon Press), Vol 2, p. 197.

Ross, W. D. 1949. *Aristotle's Prior and Posterior Analytics, A Revised Text with Introduction and Commentary*. Oxford: Clarendon Press.

Whitaker, C. W. A. 1996. *Aristotle's De Interpretatione: Contradiction and Dialectic*. Oxford: Clarendon Press.

Williams, Robert R. 1977. *Hegel's Ethics of Recognition*. Berkeley: University of California Press.

Wittgenstein, Ludwig. 1922. *Tractatus Logico-Philosophicus*, trans. C. K. Ogden. London: Routledge and Kegan Paul, 1922.

Wittgenstein, Ludwig. 1969. *On Certainty*. Edited by G. E. M. Anscombe and G. H. von Wright, translated by Denis Paul and G. E. M. Anscombe. Oxford, Blackwell.

Zalta, Edward N. 1988. *Intensional Logic and the Metaphysics of Intentionality*. Cambridge, Mass.: MIT Press.