

THE PSYCHOLOGY OF THINKING VERSUS THE LOGIC OF THE CONCEPT

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Abstract: *The concept is both a logical category and a psychological reality. If the concept was not a type of mental content, it could never be thought by living individuals. Nevertheless, if the concept were just a mental content, logic proper would be precluded, robbing philosophical psychology of any possible truth. The essay explores how the concept can play this double role, enabling logic and the psychology of thought to be related yet distinct. In so doing, the essay shows how the dual thinking of thinking in logic and philosophical psychology allows conceptualization to retain the autonomy on which philosophy depends.*

Keywords: *philosophy; Hegel; logic of the concept; thinking.*

The concept is both a logical determinacy and a psychological reality.¹ If the concept were not a particular type of mental content, real minds could never think its logical determinacy. Nonetheless, if the concept were reduced to a mental content, logic proper would be precluded and philosophical psychology would be robbed of any possible truth. To see this, we must properly understand the double duty that the concept plays and how logic and the psychology of thought are related yet distinct.

The psychology of thought, like logic, is a thinking of thinking. Both investigations seem to unite their method and content, their subject and object, in contrast to all non-psychological, non-logical disciplines where thinking examines something other than itself. Those latter disciplines must presuppose the method they employ since what they examine does not include the thinking of it. Such non-logical, non-psychological investigations must further take for granted the boundaries of their subject matter, since unless these borders are assumed, they have nothing to investigate in distinction from their own thinking.

In the case of logic, the thinking of thinking makes an absolute beginning since at the start of logical investigation, what valid thinking is has still to be determined. At the outset of logic, neither its method nor its topic is yet at hand. Logic can begin with no presuppositions about knowing or the object of knowing, for in either case it would beg the question. Consequently, logic goes astray if it engages in any psychological explanations, bringing in the real activities of mind. They, no more than any other factors, cannot be introduced, for at the start of logic, no content or procedure has any validated authority. Only at the conclusion of logical investigation has valid thinking been established and this can only be secured through the accomplished constitution of valid thinking that thinks itself.² Although logic is normative, it cannot fail to practice what it preaches, since only then can it be the valid thinking of valid thinking.³

Unlike logic, philosophical psychology's thinking of thinking does not make an absolute beginning. The psychology of thinking presupposes not only logic, but the philosophy of nature and those parts of the philosophy of mind that account for the psyche,

1 This essay was delivered on July 28th, 2025, at the Winter School on Hegel's Metaphysics of the Concept, held at the Institute of Philosophy, Universidad Diego Portales, Santiago, Chile. It draws upon a more extensive discussion in my book, *The Intelligent Mind: On the Origin and Constitution of Discursive Thought* (Houndmills, UK: Palgrave Macmillan, 2015), pp. 181-203.

2 Hegel provides the classic statement of these insights in the Introduction to this *Science of Logic*. See Hegel, G. W. F., *Science of Logic*, trans. A. V. Miller (New York: Humanities Press, 1976), pp. 43ff.

3 As Collingwood notes, "If logic were merely descriptive, it would be a psychology of thinking; like all psychology, it would abstract from the distinction of thoughts into true and false, valid and invalid, and would consider them merely as events happening in the mind." See R. G. Collingwood, *An Essay on Philosophical Method* (Bristol, UK: Thoemmes Press, 1995), p. 128. If logic, Collingwood continues, "had only to consider other kinds of thought, it could afford to deal with its subject-matter in a way either merely normative or merely descriptive, but towards itself it can only stand in an attitude that is both at once." For this reason, as Collingwood observes, logic's "subject-matter, namely thought, affords an instance of something which cannot be conceived except as actual, something whose essence involves existence." See Collingwood, *An Essay on Philosophical Method*, pp. 130-1.

consciousness, and the development of intelligence from intuition through the constitution of propositional discourse. Mind's thinking can neither be conceived nor actualized without all these factors already determined, for no individuals can think unless they inhabit a universe in which their own animal bodies have evolved with the psychological dimensions that enable them to participate in a linguistic community in which they can formulate and communicate their thoughts. For just this reason, the psychology of thinking cannot possibly play the Archimedean role of being an epistemological principle, determining what can be thought and which thoughts are valid. Any attempt to give the psychological process of thought this foundational privilege is plagued by "psychologism", the incoherence of being determined by objective factors of nature and mind while being ascribed the juridical role of determining what can be truly thought to be objective.

Nonetheless, the psychology of thinking provides a service that neither logic nor any other discipline can accomplish: by accounting for the mental reality of thought, the psychology of thought can make intelligible how living individuals can truly theorize about themselves. Whereas logic determines the categories of thought, the psychology of thinking determines how real living individuals are able to conceive them as well as non-logical topics without being juridically conditioned by the enabling psychological conditions of reason. The Socratic imperative "to know thyself" here achieves fulfillment in that the philosophy of mind accounts for how mind can think autonomously. If this could not be done, the philosophy of mind, not to mention every other arena of philosophy, would be a vain enterprise, devoid of possible reality.

Thought as a Psychological Reality

The psychology of thinking begins both in theory and in reality after language has attained sufficient syntax and vocabulary to actualize propositional discourse. Insofar as the linguistic vehicle of thinking has an infinitely generative grammar and indefinitely flexible lexicon, it leaves undetermined what concepts, judgments, inferences, and systematic arguments can be formulated and transmitted. The development of thinking that language makes possible therefore does not entail any further development of syntax or vocabulary. Thought may generate new concepts requiring additions to the lexicon, but it may equally use the vocabulary at hand and supplement the given meanings of words through the web of propositions its thinking produces. So long as the linguistic community has reached the plateau of propositional linguistic practice and its members have acquired mature mastery of their particular grammar, they are ready to engage in the autonomous activity of thinking.

What enables thought to be free are two factors, both of which are available once linguistic intelligence has provided the psychological resources for thinking. First, the creative generative character with which grammar and lexicon empower language provides thought with the means to formulate imageless content without any restriction regarding what meaning this content can have nor what propositions can be produced to determine that content.

Language provides the enabling, but not determining condition for conceptual discourse and, as such, it leaves thought free and unconditioned. Whatever limits apply to thought are limits thinking imposes upon itself in untrammelled rational inquiry. Second, the self-determined character of universality enables conceptual content to have an autonomous immanent development, permitting thought to be both synthetic and a priori. The logic of the concept establishes this identity between universality and self-determined determinacy. Thought can be ampliative without depending upon experience because the universal, contra Kant, cannot be empty. Universality necessarily entails both particularity and individuality. Without particularization, there can be no universal unity and without particulars being individuals, differentiated from one another, they cannot maintain the plurality on which their distinction from the universal depends. The universal is therefore freely self-differentiating and conceptual content need not be drawn from intuitions lying beyond thought.⁴

Nevertheless, the autonomous thinking that language makes possible is subject to different stages of psychological realization. This is due to how intelligence can think not only about conceptual content, but also about the imagery supplied by intuition and imagination. In all its operations, thinking is a having of thoughts, such that thinking is always occupied with itself, as both the subject and object of its activity.⁵ Whatever those thoughts may be, they cannot be formed and apprehended without being verbalized in either inner or overt speech. The meaning of thought may be completely imageless, but that meaning cannot be verbalized unless imagination keeps in mind the configuration of the words that express thinking. Consequently, thinking always involves imagination to supply at least the signs of the words with which thoughts are formulated. Moreover, the thoughts that thinking conceives may not be pure, deriving their entire content from logical determination. Thought can equally conceive concepts, judgments, and inferences that are empirical, deriving their content from general representations supplied by imagination and intuition. In the latter case, thinking will conceive thoughts whose content is dependent upon and in relation to external sources. The thoughts so conceived do not lose their form as thoughts, but their content is alien to that form. The psychology of thinking therefore involves distinct types of thought characterized by different relations between the form and content of thinking. Each of these types of thought involves the logical determinations of concept, judgment, and syllogism, but each realizes these logical determinations in particular psychological activities, distinguished by the psychological factors they employ. In all cases, language is necessarily

4 For a more detailed investigation of how universality is self-determined, see Winfield, Richard Dien, *From Concept to Objectivity: Thinking Through Hegel's Subjective Logic* (London: Ashgate, 2006), pp. 51-65.

5 Hegel writes, in thinking, intelligence "finds its universal in the double signification of the universal as such, and of the universal as immediate or as being ... it is a plain identity of subjective and objective ... the thinking of intelligence is to have thoughts: these are as its content and object". See Hegel, G. W. F., *Philosophy of Mind: Being Part Three of the Encyclopaedia of the Philosophical Sciences (1830)*, trans. William Wallace, together with the *Zusätze in Boumann's Text (1845)*, trans. A. V. Miller (Oxford: Oxford University Press, 1977), §465, p. 224.

at work, without having to undergo any grammatical or lexical modification. Consequently, the different stages in the psychology of thinking are not stages in linguistic development. Although thought always involves language, the development of thinking proper is distinct from the phylogenetic genesis of language, the historical modifications of language, and the ontogenetic maturation of discursive individuals.

The different relations between the form and content of thinking represent different stages in the autonomy of thought. Whenever thinking has a content different from thought, it occupies itself with something extraneous, something given independently of its own activity. In that case, thinking has a formal character, reflecting how its activity does not generate the content of what it thinks. A thinking whose form and content fall apart thus involves heteronomy in that thinking takes on a content it finds given, instead of thinking something immanent to thought itself. The more thinking determines the content of what is thought, the more heteronomy is overcome and the more conceptual autonomy is achieved.

Many have doubted whether thought can ever liberate itself from heteronomous content. Ever since Kant declared thought to be empty without intuition,⁶ it has been widely presumed that thinking is inherently finite and externally reflective in that thinking can think only about contents that it must find outside of conceptual determination. Such empty finite thinking is governed by the principle of formal self-identity, the principle of non-contradiction, according to which each concept is what it is and not what it is not. On this basis, thoughts have a given content that is fixed and rigid, barring concepts from having any self-determined, immanent development. Under this reign of heteronomy, a thinking that relies on thought alone can never arrive at new content or relate fundamentally different concepts to one another. Such formal, empty thought can only be analytic, analyzing what is contained within given contents and confirming whether they are internally consistent in accord with the principle of non-contradiction. How thought can then unconditionally affirm the non-analytic truth that thinking is finite, analytic, and governed by a formal logic is a mystery left unexplained and ignored by these eviscerators of reason.

Admittedly the psychology of thinking does involve forms of heteronomous thinking, where thought orders figurative contents given independently of logical determination, allowing metaphor to play some role. These heteronomous forms, however, are not exhaustive of thought. The psychology of thinking will demonstrate this by leading through the stages of conceptualization where intelligence passes from understanding to reason, at which point the form and content of thinking cease to be opposed and thought becomes fully autonomous.

⁶ Kant notoriously writes, "Thoughts without content are empty, intuitions without concepts are blind" (Kant, Immanuel, *Critique of Pure Reason*, trans. Paul Guyer and Allen W. Wood [Cambridge: Cambridge University Press, 1998] A51/B75, pp. 193-4), adding, "without intuition all of our cognition would lack objects, and therefore remain completely empty" (Kant, *Critique of Pure Reason*, A62/B87, p. 199). Kant fails to recognize that he has thereby deprived his own transcendental investigation of any claim to genuine knowledge.

These stages are different from the logical succession whereby the concept gives rise to judgment, the forms of judgment develop into one another, and syllogism emerges from normative judgment and unfolds its own forms.⁷ The psychological stages of thinking do incorporate these forms of thought, but bring them into play in conjunction with mental content and mental activities supplied by intuition and imagination. In the *Republic* Plato pictured this psychological development of thinking in the Divided Line,⁸ where the heteronomous thought of calculative, demonstrative reasoning, which proceeds from external presuppositions and relies upon intuitive contents and constructions, leads to the pure thinking of “dialectics”, which moves beyond all assumption from one concept to another.

From the Opposition of Consciousness to Intelligence and Thinking

The development from intuition to representation provides the psychological conditions of linguistic intelligence and in doing so secures the place of thinking within the mental domain of intelligence. This location has been ignored by most modern accounts of thinking, which tend to place thought within consciousness. This reduction of thinking to a conscious awareness reflects two familiar dogmas. The first dogma is that consciousness is the one and only domain of mind. The second dogma is that consciousness is discursive, according to which consciousness cannot confront any objectivity unless consciousness conceives categories that confer upon its mental content a necessary, non-subjective unity. Kant pioneers the construal of consciousness as essentially discursive in his “Deduction of the Categories” in the *Critique of Pure Reason*, precluding any consciousness without thought. Although Kant does not explicitly take into account the linguistic reality of thinking, the dogma that consciousness is discursive has since been upheld by those who substitute language for consciousness as their epistemological foundation. The prime exponent of this move is Wilfrid Sellars, who maintains that the intersubjectivity of language allows mental content to be objective for consciousness. Sellars argues that insofar as consciousness makes knowledge claims, knowledge claims entail judgment, thinking judgment is bound up with language, and language involves interaction among individuals who recognize their common assents to commonly perceived objects, the opposition of consciousness is tied to linguistic practice and the thinking this involves.⁹

The genesis and actuality of discursive intelligence exposes the fundamental incoherence of these dogmas. If consciousness could not confront objects without using conceptual discourse, language and thinking would be unable to arise. If consciousness was essentially

7 For a systematic investigation of these logical developments, see Winfield, *From Concept to Objectivity*, pp. 67-130, and Winfield, Richard Dien, *Hegel's Science of Logic: A Critical Rethinking in Thirty Lectures* (Lanham, MD: Rowman & Littlefield, 2012), pp. 223-74.

8 Plato, *Republic*, 509d-513e, in Plato, *Complete Works*, ed. John Cooper (Indianapolis: Hackett, 1997) pp. 1130-2.

9 See Wilfrid Sellars, *Empiricism and the Philosophy of Mind* (Cambridge, MA: Harvard University Press, 1997), pp. 105-7.

tied to language and thought, no individual could be conscious before having linguistic intelligence. Not only would dumb animals be bereft of consciousness, but neither children nor the first originators of language could be conscious or self-conscious before they began to converse. If this were so, no pre-linguistic individuals could ever be conscious of one another, of their respective expressions, or of any objects that could be perceived in common, all of which must factor in the recognition process by which language can begin to be acquired.

Further, unless pre-discursive individuals are not only conscious, but have the subject-object awareness of intelligence, they could never apprehend both their mental contents and the objects to which they refer, as intuition and representation make possible before thinking occurs. Because consciousness is only aware of the object it confronts and never simultaneously of the mental act by which it has that awareness, it cannot concurrently apprehend the correlation of sign and signified necessary for language and thought. Only intelligence can do both because intelligence is the form of mind that apprehends its mental content to be both subjective and objective.

The reduction of mind to consciousness has another fatal consequence that undermines any prospect for philosophical psychology, not to mention logic itself. If consciousness exhausts mental activity and thinking is trapped in the oppositional polarity of conscious awareness, reason can never escape the impasse that results when consciousness counts as the ultimate framework of knowing. Insofar as conscious awareness treats its mental content as an object confronting it, consciousness can never certify that what it takes its object to be corresponds to that object as it is given independently of consciousness. To validate correspondence, consciousness must compare its own mental content with what it represents the object to be in itself. In doing so, however, consciousness cannot avoid discovering that what figures in that comparison as the standard for the truth of its own representation, the object in itself, is nothing but that object as it appears for consciousness. Accordingly, if the confrontational opposition of consciousness applied to all cognition, including that of reason, thinking would never be able to validate the truth of its thought.

This problem is compounded for both logic and psychology insofar as the opposition of consciousness precludes the reflexivity that allows logic to think thinking and the philosophy of mind to conceive the real mental process it employs in conceiving the psychology of thinking. So long as mind is reduced to consciousness, every attempt to know an act of knowing will depend upon a further reflection that remains beyond the consciousness under consideration.

When instead the two dogmas are cast aside and consciousness is relegated to its proper place among the psyche and intelligence, the psychology of thinking can free reason from confinement to the opposition of consciousness.

In thinking, as well as in intuition and representation, intelligence combines the contrasting self-relations of the psyche and consciousness, thereby presupposing and incorporating both. Just as the psyche feels its own feelings, so intelligence relates to its intuitions, representations, and thoughts as its own products. At the same time, however,

intelligence departs from the self-communing of the psyche by treating its intuitions, representations, and thoughts as determinations of something objective. Conversely, although intelligence distinguishes its mental contents from itself, giving them an intentionality or reference like that of consciousness, intelligence relates to its objective intuitions, representations, and thoughts as equally its own subjective determination. In this concurrent way, intelligence relates to its thoughts, as well as its intuitions and representations, as both subjective and objective, unlike the psyche, which communes with its own mental content without distinguishing subject from object, and unlike consciousness, which repels its mental content as something confronting it.

Like consciousness, thinking is about something. Thought has meaning and the thinking of thoughts is intentional. Nonetheless, thinking operates fundamentally differently from pre-discursive conscious sense-certainty, perception, and understanding, where conscious mind needs no verbal formulations to be certain of the immediate being of the sensible manifold, of things and their properties, and of the dynamical interaction of objects. Although thinking may address what is sensed, perceived, and understood pre-discursively, thought does so by thinking about conceptual determinations. These are concepts and thought by intelligence as such, but they no less comprise universal determinations of objects. By contrast, consciousness senses, perceives, and understands its objects without apprehending how their determinations are its own. Unlike consciousness, intelligence theorizes in thinking, for to theorize, mind must apprehend the concepts with which it grasps the universal nature of objectivity, while recognizing that these concepts are mind's own thoughts.¹⁰

The objectivity of thought has its logical basis in how universality and what is determined in and of itself both have a self-determined character.¹¹ Unlike what is truly objective, phenomena are relative to something else that is their underlying ground. The same is true of heteronomous understanding, whose apprehension is dependent upon given content. Although conditioned apprehension may address the "correctness" of its representations by seeking to confirm their conformity to appearances, this match

10 Hegel notes that consciousness may know *that* an object is, engaging in *Wissen*, but intelligence aims to know what the object is, to know its substantial nature, that is, to engage in cognition proper, *Erkennen*. In thinking "intelligence strips the object of the form of contingency, grasps its rational nature and posits it as subjective; and conversely, it at the same time develops the subjectivity into the form of objective rationality. Thus our Knowing, which was at first abstract and formal, becomes a Knowing that is filled with a true content and is therefore objective. When intelligence attains this goal ... it is in truth what, to begin with, it only ought to be, namely cognition (*Erkennen*). The latter must be clearly distinguished from simple Knowing or awareness (*Wissen*). For consciousness is already a Knowing. But free mind does not content itself with a simple Knowing; it wants to cognize, in other words, it wants to know not merely that a n object is, and what it is in general and with respect to its contingent, external determinations, but it wants to know in what the object's specific, substantial nature consists." See Hegel, *Philosophy of Mind, Zusatz* to §445, p. 191.

11 For further discussion of this key truth, see Richard Dien Winfield, *Hegel and the Future of Systematic Philosophy* (Houndmills, UK: Palgrave Macmillan, 2014), pp. 45-56.

remains within the phenomenal domain of what is relative and cannot provide true knowledge. Only autonomous thinking can grasp what is non-relative and determined in and of itself. Whereas oppositional appearance may confront consciousness, objectivity proper is an object of thinking intelligence.¹²

Intelligence as Thinker

Whatever content thinking may have, thought gains its own objectivity in verbal expression, either inner or overt. In thinking, intelligence knows that this expression is its own thought and thereby knows itself to be the thinking self that pervades all its verbalizations. The words through which intelligence thinks are the particularizations of its thinking being. To the extent that these particular verbal thoughts no longer draw their meaning from intuition, they are products of discourse, contained within the universality of thinking intelligence as the differentiation by which one affirms one's own identity as a thinker.

Intelligence as thinker cannot be the disembodied solitary meditator of Cartesian solipsism. To think is to verbalize and to verbalize requires being an animal with an evolved "language faculty" who has interacted with other similarly endowed animals with whom one has developed or acquired language. The thinker necessarily has an embodied psyche, consciousness, self-consciousness, intuition, imagination, and the habits allowing one to focus on having thoughts while all one's other physiological and mental processes proceed sufficiently in the background. Only with all these natural and psychological factors in play, can intelligence engage in conceptualization, where the subjective activity of thinking produces thoughts as its object, knowing these to be both in mind and with a meaning of their own, accessible to others. By thinking, intelligence can engage in theoretical cognition, the cognition that knows objects through concepts. The objects of theory are inherently conceivable, uniting the subjectivity of concepts with the objectivity of their independent being. This allows thinking to be objective and intelligence to know itself as uniting subjectivity and objectivity in its exercise of true thought.

In intuition subjectivity and objectivity are immediately united insofar as the given mental content provided by sensation is directly apprehended to be just as much a mental as an objective determination. Intuition does this without any mediating transformation of its content.

Representation departs from this immediate intuitive unity by opposing the mental to the objective. Imagination does this by recollecting intuitions, thereby producing images that it knows to be fashioned by its own activity in distinction to the objects whose intuitions it represents. Imagining intelligence is always aware of its representations being both mental products of its image-making and about something intuitable. Otherwise, representation reverts to intuition. Imagination thereby knows that its representation has distinctly sub-

12 The distinction between oppositional appearance and objectivity proper is highlighted by Hegel in his rigorous employment of "*Gegenstand*" versus "*Objekt*".

jective features which render its recollected intuition something different from the object to which it originally refers. The representation is still about something objective and thereby unites subject and object. Representation does so, however, in a form, imagery, that intelligence knows to be merely subjective.¹³ In imagining, intelligence connects its intuitions and representations in a mental time and space of its own. Thereupon, in mechanical memorization, semiotic imagination suspends the reference of words to their independently given meanings, leaving them wholly contained within the mental field of verbal memory. Although imagination thereby frees intelligence of dependence upon given intuition, it has yet to generate a new objective meaning of its own.

In thinking, intelligence provides what imagination cannot: image-less content that is no less objective. To the extent that thoughts are theoretical, they unite subjectivity and objectivity in a psychological activity that is just as much objective as subjective. Thinking can unite subjectivity and objectivity because the subjectivity it comprises and the objectivity it is about are both conceptual. In thinking, the embodied individual employs language to perform an activity of conceptual determination, discursively formulating the object of its thought. This subjective reality of thinking has as its objective counterpart a conceptually determined objectivity, objects as manifest in thought. In thinking objects of thought, intelligence unites its concepts with the conceivable objectivity they comprehend. By conceiving what is objective, one has thoughts that comprise one's subjective reality as thinker as well as the conceptual being of one's object. One's thinking, which unites subjectivity and objectivity in its theorizing, is itself both subjective and objective. Intelligence cannot fail to be aware of this, for thinking has a psychological reality consisting in the verbalization of one's thought where one is equally aware of formulating these verbal expressions, of thinking one's thoughts.

The Psychology of Conceptualization

Although the logical autonomy of conceptual determination underlies the psychological autonomy of thinking, the latter does not parallel the former. Logic, as a thinking of thinking, can assert no determinate claims about knowing or its object without begging the question. Logic's self-thinking thought can only arise as an autonomous development from indeterminacy, depending on no external operations or introductions of material.

By contrast, the psychological reality of thinking begins on the very concrete threshold of propositional discourse, where the individual member of a linguistic community has a particular grammar and lexicon with which to begin formulating concepts from the general representations at hand. Initially, thought will consist in thinking through that given

¹³ Hegel, *Philosophy of Mind, Zusatz to §465*, p. 224.

content, producing concepts out of imagery and names.¹⁴ This will involve transformations of verbal meanings, where words that originally signified general representations begin to take on a logical, conceptual significance. The general development is the same whether this occurs in the independent efforts of the founders of a linguistic community or through the interaction of a new language user with the conceptually proficient adults of that user's community. Verbal meanings that applied to pictured groups of individuals come to designate abstract attributes or classes or geni and species that contain those individuals within their logically defined universality.

Deriving Concepts from Given Representations

Thinking begins its psychological career by reflecting upon the general representations to which words initially refer and verbally formulating what universals it finds in that given content. To the extent that general representations retain the individuality of imagery, the concepts that reflective understanding uncovers in them have a formality that leaves out of account what individuates these representations. In this respect, the thinking of understanding consists in abstracting.¹⁵

Three types of universality come into play: abstract universality, class, and genus. Understanding first thinks abstract universals that pick out common features of individuals, while leaving otherwise undetermined the other aspects that distinguish those individuals from one another. This involves an engagement in propositional discourse, whether inner or overt, stating the relation of abstraction by which the universal in question is defined. Once such generalities are verbalized, understanding confronts a second type of universal that it can now articulate: class. Class arises from the thinking of abstract universals since whatever individuals share a common generality can be thought to belong to the class that has that shared identity. All understanding must do is think that grouping, verbalizing what it means to belong to that collection of individuals. Once more, the universal leaves undetermined what distinguishes the particulars to which it refers, for class membership does not itself differentiate its members. Nonetheless, thinking class membership puts the understanding in a position to conceptualize the genus and species being of individuals. When all members of a class are conceived to have something in common, they can be

14 As Vygotsky points out, it would be mistaken to study concept formation by focusing solely on the verbal definition of concepts, since concentrating just on words "fails to take into account the perception and the mental elaboration of the sensory material that give birth to the concept. The sensory material and the word are both indispensable parts of concept formation" (Vygotsky, L. S., *Thought and Language*, trans Alex Kozulin (Cambridge, MA: MIT Press 1986), pp. 96-97). Conversely, "concept formation cannot be reduced to association, attention, imagery ... all these moments are indispensable, but they are insufficient without the use of a sign, or word ... Real concepts are impossible without words, and thinking in concepts does not exist beyond verbal thinking. That is why the central moment in concept formation, and its generative cause, is a specific use of words as functional "tools"" (Vygotsky, *Thought and Language*, p. 106-107).

15 Hegel remarks of understanding that "its activity consists, in general, in making abstractions" (Hegel, *Philosophy of Mind, Zusatz to §467*, p. 226).

thought to have a shared nature with that feature as a necessary differentiation. That thought of genus and species being is once more psychologically constituted in the propositional formulation of its identity. By having necessary differentia, genus and species involve a more concrete universality than abstractions and classes, which leave undetermined everything distinguishing the individuals they involve. Nonetheless, the individuation of species members still remains outside the concept of genus and species, for when the lowest species is reached, what individuates its members is not specified by their species being. So long as thinking remains a conceptual understanding that conceives what is universal in representations given to it, thought remains burdened by this formality of being unable to lay hold of what is individual.

Due to this abiding formality, a subjective arbitrariness taints whatever certainty understanding may have that its conceptions are objectively valid. The universal content that is abstracted from given representations can always be redefined to cover a greater or lesser extension, just as the boundaries of a class can always be altered as the identity of shared membership gets revised. The same corrigibility applies to the taxonomy of genus and species, for what differentia are truly necessary cannot be firmly established by reflecting upon the concrete contents of given representations. What differentia may apply to the current members of a genus or species may turn out to be absent from other individuals who appear to warrant inclusion. And the validity of laws and the forces they govern are always subject to revision when understanding confronts representations that cannot be accommodated by them.

From Associating Representations to Discursive Judgment

The categorizations that understanding makes in thinking over what intelligence represents provide the material for making judgments that further determine objects of thought. Thinking judges not by connecting representations, but by formulating propositions to determine verbal meanings through one another. Although judgment logically determines the individual or particular by the universal in an immediate fashion, discursive judging qualifies individuals or particulars that are already sufficiently conceptualized to be designated by words. Since these subjects of discursive judgment are categorized through the reflective thinking of understanding, they have a plurality of specifications that are not all determined by the categories found in them by the understanding. Consequently, when understanding judges its objects of thought, the predications it imposes have an external, subjective character. Although the judgments affirm thought determinations that hold true of the subject in question, the manifold content of the object of judgment allows for other judgments involving different qualifications. This predicament applies to judgments that attribute abstract universals, class membership, and species being to verbally identified subjects, as well as to judgments that apply further predications to subjects which are already characterized as sharing abstract universals, class membership, and species being. In every

case, substitutions can always be made, both with regard to the subjects of the judgment as well as to the predicate that is ascribed. Accordingly, when understanding seeks to validate the judgment it makes, it is impelled to provide reasons for the predication. Although imagery might illustrate what judgment claims, only verbal formulation can properly identify the logical terms of the judgment and articulate a supporting reason for their connection.

From Discursive Judgment to Discursive Syllogism

Understanding develops syllogisms in order to provide a mediating rationale for the connections that judgment immediately makes. Just as judgment depends upon prior conceptualization of the factors it combines, so syllogism depends upon prior formulations of judgments that can serve as the constitutive steps of inference. Thinking intelligence can continue to formulate new concepts and make new judgments, but every engagement of understanding will exhibit the structural dependence of judgment on preliminary concept formation and of syllogism upon antecedent judgment. That structural dependence will be present in the engagements of verbal recall that must accompany the thinking of judgments and inferences, without which the train of inferential thought cannot be sustained.

The syllogizing of understanding contains the same formality that afflicts the concept formation and judging that understanding undertakes. This can be no surprise, since understanding infers by thinking through a series of its judgments. Although syllogism logically connects the individual to the universal through its particularity, the universals, particulars, and individuals that figure in the thinking of understanding are not exhaustively determined by their relation to one another. Because the understanding initially forms its concepts through abstraction, the particulars of its universals are individuated by extraneously given content that lies outside those universal's conceptual differentiation. Just as the judgments of the understanding exhibit arbitrariness insofar as their subject can be connected to other predicates and its predicates can be connected to other subjects, so the inferences built of such judgments follow routes that could be supplanted by others. Since a universal applies to individuals who may share multiple particular features and fall under multiple commonalities, what unites universal and individual is a matter of choice, just as is what universal is connected to individuals through some particularity.¹⁶

Nonetheless, the very form of syllogism presents understanding with the challenge of overcoming the extraneous content of the objects of thought. In syllogism, the universal, particular, and individual are all mediated by one another. Inference ties the universal and individual together through the particular, as can be articulated in the three successive judgments: "the universal is the particular", "the particular is the individual", and "the universal is the individual". In so doing, inference renders the particular connected to the individual through the universal, since in the two judgments, "the universal is the particular" and "the

¹⁶ For further discussion of these options, see Winfield, *From Concept to Objectivity*, pp. 107-22.

universal is the individual”, the universal ties the particular to the individual. This further renders the universal connected to the particular through the individual, which follows from the judgments, “the universal is the individual” and “the particular is the individual”.¹⁷ Although the mediation of all three terms through one another overcomes in form the immediacy with which syllogism proceeds,¹⁸ so long as understanding makes inferences from independently given premises, its thinking remains bound to heteronomous content. Nonetheless, the mediating activity of inference carries with it the imperative of overcoming the immediacy of its premises, which remains unfulfilled so long as the factors of syllogism retain an externality calling for the mediation inference supplies.

Although Kant imprisons reason within the form of syllogism, inference can never think the unconditioned that Kant properly recognizes to be reason’s distinguishing content. To move beyond the heteronomy of understanding to the autonomy of reason, intelligence must overcome the limits of inferential thinking. What Plato pictured in the Divided Line as an ascent from demonstrative thought to dialectic will consummate the psychological development of theoretical intelligence.

Reason as a Psychological Process

To think autonomously, intelligence must no longer foist universal forms of thought upon an independently given content. The heteronomous thinking of understanding formulates concepts, judges, and infers such that what is thought over is distinct from the conceptual ordering it undergoes. In order for thinking to determine the object of thought without appeal to externally given content, the entire determination of what is thought must emerge in the process of its conceptualization. The discourse in which the subject matter is conceived must formulate it as it is constituted in its own right. For this to be the case, the content must be self-ordering and the form by which it is thought must be intrinsic to how it is determined. Thinking will then have a form pregnant with content, a form that is no longer relative to givens external to it, a form that is instead unconditioned and self-determining. For its part, the object of reason will no longer be the product of a form-giving manufacture, but something determined in and of itself. Thought will not abstract from some concrete factor it confronts but instead proceed from the most minimal determination of the subject matter and think through the path of its internal constitution, where nothing is thought before its prerequisite constituents and preconditions have been conceived. In this manner the subject matter will be conceived as it constitutes itself in its self-subsistent objectivity,

17 See Winfield, *From Concept to Objectivity*, pp. 114-6, for a detailed explanation of how these connections follow from one another.

18 Hegel maintains that “in inference” the understanding “characterizes a content from itself, by superseding that form-difference” by which the parts of syllogism are distinguished. “With the perception of the necessity, the last immediacy still attaching to formal thought has vanished” (Hegel, *Philosophy of Mind*, §467, p. 225). Still, more than syllogism is necessary to comprehend the positive outcome of the elimination of the formality of understanding.

taking on further determinations whose order is rooted in how their content is related to the prior and posterior determinations that together comprise the formation of the object in its own right. Instead of proceeding from given representations to which understanding relates concepts through judgment and inference, intelligence reasons by thinking through the intrinsic process of its subject matter, securing the objectivity of its thought by having it be the self-constitution of its object.

The general path of this concrete thinking is familiar enough. In the domain of logic, reason must begin with indeterminacy and think through how determinacy arises without taking determinacy for granted. On this basis, reason can proceed to address determinacy that is determined by a prior determinacy, thinking through the two-tiered relations of essence, where categories such as essence and appearance, grounded and grounded, whole and part, and cause and effect can be constituted. This can then pave the way for thinking through self-determined determinacy, which incorporates determinacy and the determiner of determined determinacy such that what is determined is indistinguishable from what does the determining. Similarly, in addressing nature, reason will begin with what is least determinate and ingredient in all further natural being – namely, space. Time can next follow, followed by matter, whose constitution requires perdurance in both space and time. The mechanics of matter in motion can then be constituted and thought, as prerequisite for the physical workings of electromagnetic processes, from which chemical relations can be thought and constituted. On this basis, reason can then think the emergence of life from the coordination of chemical reactions into a self-renewing system, from which the centralized sensitivity and motility of animal life can be thought and be constituted. With these contents at hand in thought and reality, reason can proceed to develop the reality of mind from its most minimal constituents, thinking through the psyche, then consciousness, and finally intelligence, before addressing the conduct and cultural world that discursive rationality makes possible. What makes this conceptualizing a concrete autonomous thinking that has objective truth is how its thinking comprises a self-developing content that involves nothing more than the self-subsistent nature of its subject matter. The thinking of understanding remains heteronomous because it applies its thought to a given material, producing something determined by an external reflection upon a predetermined, presupposed topic. Reason, by contrast, thinks autonomously because the universals it conceives particularize themselves, comprising a conceptual self-development that follows out the intrinsic self-constitution of an object as it is determined in and of itself.¹⁹ By unifying its

¹⁹ Hegel contrasts the object of understanding and the object of reason in this vein, writing, “the following distinction must be firmly established between Understanding and Reason: that for the latter, the object is determined in and for itself, is the identity of content and form, of universal and particular, whereas for the former it falls apart into form and content, into universal and particular, and into an empty ‘in-itself’ to which the determinateness is added from outside; that therefore, in the thinking of the Understanding, the content is indifferent to its form, while in the comprehensive thinking of Reason the content produces its form from itself.” See Hegel, *Philosophy of Mind, Zusatz* to §467, p. 226.

own particularization into an individual self-determined concrete universal, the conception of reason can be at one and the same time the true comprehension of its subject matter and the determination of that object's own independent individuality.²⁰ Unlike understanding, reason is fully free in its relation to its object, for intelligence can only know the object as it is determined in and of itself by thinking concepts that develop themselves.²¹

Although the path of reason is nothing other than the development of philosophical theory, the thinking of reason has a psychological reality that can be distinguished from the conceptual content of philosophical argument. To think autonomously, intelligence must employ discourse, with all its given syntax and vocabulary. Moreover, intelligence must use propositions in which judgments and inference come into play. Even though judgment immediately connects universals with particulars or individuals, without supplying the rationale for the connection it makes, concrete thinking must make predications to articulate the differentiations that its subject matter takes on in its self-constitution. Inference also must come into play even though the universal, particular, and individual are external to one another in the mediating process of syllogism. Intelligence needs inference to articulate how conceptual determinations are mediated by one another, for the concrete thinking of reason follows out how the universal particularizes itself and thereby attains the individuality of being something determined in and through itself. To overcome the givenness of content that enters into every inference, intelligence must rely upon the order in which it presents propositions articulating successive differentiations of the subject matter that is underway being thought and constituted. This is not a matter of inferring the premises of each syllogism from an antecedent inference, but rather verbally formulating the sequence of concept determinations that provide the prerequisite constituents of those that follow. This involves articulating contrasting judgments and inferences that ascribe different determinations to the same subject. Only through such opposing propositions can the subject matter develop itself, taking on determinations that it does not yet have, becoming what it is not without ceasing to be at one with itself. If instead, intelligence restricted itself to analysis in obedience to the principle of non-contradiction, no new content could emerge.

In these ways, propositional discourse provides sufficient resources for intelligence to think concretely, producing out of its own thought process the independent content of

20 As Hegel notes, in the pure thinking of reason, "the universal is known as self-particularizing, and from the particularization gathering itself together into individuality; or, what is the same thing, the particular loses its self-subsistence to become a moment of the Notion. Accordingly, the universal is here no longer a form external to the content, but the true form which produces the content from itself – the self-developing Notion of the thing [*Sache*]" (Hegel, *Philosophy of Mind*, *Zusatz* to §467, p. 227).

21 As Hegel remarks, here "thinking has no other content than itself, than its own determinations which constitute the immanent content of the form; in the object, it seeks and finds only itself. Here, therefore, the object is distinguished from thought only by having the form of being, of subsisting on its own account. Thus thinking stands here in a completely free relation to the object" (Hegel, *Philosophy of Mind*, *Zusatz* to §467, p. 227).

its object. In so doing, intelligence can recognize itself to be a reason that thinks objectively, attaining truth. In reasoning, one knows oneself to be, in one's own autonomous thinking activity, the realization of the correspondence of subject and object, of concept and objectivity.²² Once more, the psychological resources for doing so do not determine what one thinks, let alone what counts as true. Rather they enable our intelligence to think autonomously and delineate the intrinsic nature of the subject matter.

In distinguishing reason from understanding, the philosophy of mind arrives at the point of securing its own psychological reality. If this could not be done, if the theory of mind could not establish how intelligence can think autonomously and conceive itself in truth, philosophical psychology would be a vain endeavor.

In conceiving the concept, we must never forget that the psychological resources that enable us to think through logical development play no juridical role in determining either its form or content. The identification of the concept, that is, the universal, with self-determined determinacy is of key importance in allowing the psychological conditions of thought to leave the autonomy of conceptual determination unencumbered. Precisely because logic must make an absolute beginning that presupposes neither method nor subject matter, the concept cannot be at hand from the outset. Self-determined determinacy presupposes determinacy. Determinacy cannot be accounted for by appealing to any given determinacy without begging the question. Determinacy can only be constituted from indeterminacy. Similarly, determined determinacy, which is posited by a determiner, cannot be accounted for without the development of determinacy from indeterminacy. Determinacy can only become a determined determinacy when the development of determinacy comes to incorporate all given determinacy in a process that mediates determinacy in its totality. This development occurs when measure relations give way to an infinite progress in which all qualitative and quantitative determinations are absorbed. The logic of essence thereby arises and it provides the two factors on which self-determined determinacy depends: what is determined by a determiner and what is a determiner of determined determinacy. What generates the logic of the concept is the process whereby the distinction between determiner and determined undermines itself, which fully occurs in reciprocal causality, where what determines and what is determined become one and the same. That indistinguishability constitutes self-determination, which involves the self-differentiation of the universal into particularity and individuality, in which the concept consists.

Although the concept thereby arrives late on the scene of logical development, every step along the way is in truth a concept. The logical determination of being is the concept of being, just as that of nothing is the concept of nothing, and so forth. All stages in the

²² Accordingly, Hegel can duly characterize reason as "self-knowing truth, the self-cognizing Reason" where "knowing now constitutes the *subjectivity* of Reason, and the *objective* Reason is posited as *Knowing*" ([Hegel, *Philosophy of Mind, Zusatz* to §467, p. 227).

logic are conceptual determinations precisely because they have been generated in a completely autonomous development. That self-determined character is what allows them to be exhaustively conceptualizable and free of any dependence upon given assumptions.

As thinkers, we are living animals dependent upon immersion in a linguistic community, but as engaged in conceptual discourse, we are able to share in the autonomy of the concept and access the truth without qualification.

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