

IV. Conclusion

What the above discussion of "From A to B" has, I hope, offered is a brief, yet still informative glimpse of the rich and stimulating insights that Eckart Förster's *The Twenty-Five Years of Philosophy* provides on a grander scale throughout the entire book. Förster's historical scholarship brings to life the central philosophical issues of Kant and German Idealism and a clearer picture of the complex intellectual interactions that took place between the major figures of this period. For as we have seen, Förster suggests that Garve's significance for several different aspects of the development of Kant's project could be much greater than has been appreciated. Further, Förster's systematic reflections open up new possibilities for understanding the underlying philosophical options that were being explored at the time. For as we have seen, even if it was clear that space and time are, for Kant, both a priori intuitions, Förster offers interesting suggestions about the possibility that some aspects of time might depend on space for us to be able to exercise some of our most fundamental epistemic capacities, such as distinguishing between ourselves and objects that are in some sense distinct from us. And Förster also points us in the direction of a more satisfying understanding of the metaphysical grounds of the normativity of our moral obligations. These are significant accomplishments and bode well for the oft-entertained, but seldom entirely fulfilled hope that by exploring our historical and philosophical options clearly and carefully we might eventually be capable of making genuine progress in philosophy.¹¹

¹¹ I thank Eckart Förster, Peter Thielke, Clinton Tolley, Peter Yong, and audience members at the conference held at the Humboldt Universität in Berlin, June 2012 for helpful discussion of an earlier version of this paper.

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Mapping the Labyrinth of Spinoza's *Scientia Intuitiva*

On May 5th, 1786, Goethe wrote to Jacobi:

I hold faith with the atheist's [*i.e.* Spinoza's] worship of God and leave to you what you have no choice but to call religion. If you say that one can only believe in God, then I reply that I place stock in seeing, and when Spinoza says of *scientia intuitiva*: "*hoc cognoscendi genus procedit ab adequata idea essentiali formalis quoniamdam Dei attributionum ad adequatam cognitionem essentiali rerum*" (E2p40s2?)—those few words give me the courage to devote my whole life to the contemplation of things... of whose *essentialia formalis* I can

¹ Passages in Spinoza's *Ethics* will be referred to by means of the following abbreviations: κ(-xiom), c(-ollary), p(-roposition), s(-cholium) and app(-endix); 'd' stands for either 'definition' (when it appears immediately to the right of the part of the book), or 'demonstration' (in all other cases). Hence, E1d3 is the third definition of part 1 and E1p16d is the demonstration of proposition 16 of part 1. Unless otherwise marked, all references to the *Ethics*, the early works of Spinoza, and Letters 1-29 are to Curley's translation: *The Collected Works of Spinoza*, vol. 1, ed. and trans. Edwin Curley, Princeton: Princeton University Press, 1985. In references to the other letters of Spinoza I have used Shirley's translation: *Complete Works*, trans. Samuel Shirley, Indianapolis: Hackett, 2002. For the Latin and Dutch originals I have relied on Gebhardt's critical edition: *Spinoza Opera*, ed. Carl Gebhardt, 4 vols., Heidelberg: Carl Winter Verlag, 1925. I cite the original texts according to the volume and page number of this edition (for example, G III/17). I use the following standard abbreviations for Spinoza's works: TTE, *Treatise on the Emendation of the Intellect* [*Tractatus de Intellectus Emendatione*]; CM, *Metaphysical Thoughts* [*Cogitata Metaphysica*]; KV, *Short Treatise on God, Man, and his Well-Being* [*Korte Verhandlung von God de Mensch en deszelfs Welsandt*]; Ep, *Letters*. I would like to thank Nick Kauffman for their helpful comments on earlier versions of this paper.

hope to conceive an adequate idea without in the least worrying about how far I'll get and how much is tailored to my mind.²

This bold announcement by the distinctive hero of Eckart Förster's marvelous *The Twenty-Five Years of Philosophy* may strike the reader for a variety of reasons. I was astonished by its expression of unlimited devotion to a doctrine that is highly technical and enigmatic. In order to unpack Spinoza's doctrine of *scientia intuitiva* as the highest and best kind of cognition,³ one must work through many of the most intricate details of Spinoza's metaphysics as well as his theories of knowledge, ethics, and the affects. For quite a few years I have been trying to avoid a confrontation with this doctrine. I have done so not because I thought it was unimportant, or because I considered it to be merely a momentary, mystical lapse that could be forgiven and ignored. On the contrary. There is no doubt in my mind that this is one of the most important doctrines of the book—perhaps even the most important—as Spinoza clearly associates it with human *summum bonum* and blessedness. I have seen, however, many great Spinozist heads broken against it, making some valuable progress, but eventually leaving much of the riddle unsolved.

The issue of *scientia intuitiva* surfaced more than once in the two joint seminars I have taught with Eckart at Johns Hopkins over the past few years. These seminars were two of the most intellectually fulfilling experiences I have ever had, and in the course of them I learned a tremendous amount from Eckart not only about the German Idealists but also about Spinoza. Unfortunately, my ability to return Eckart's generosity was limited. Just like his hero, Goethe, Eckart cherished most Spinoza's doctrine of *scientia intuitiva*, but of all things Spinozist this was (and is) the issue on which I felt the least secure. Not wishing to make fool of myself, I had to answer Eckart's queries by claiming that despite my conviction

² *Goethes Briefe*, Hamburger Ausgabe, ed. Karl Robert MankeLOW, 3rd ed., 4 vols., München: C.H. Beck 1989, 1:753. The English translation is quoted from Eckart Förster, *The Twenty-Five Years of Philosophy: A Systematic Reconstruction*, trans. Brady Bowman, Cambridge, MA: Harvard University Press, 2012, 94.

³ I translate *agnitio* as cognition, rather than knowledge, since for Spinoza *agnitio* may well be inadequate and false.

about the importance and centrality of this doctrine, I had only a vague understanding of it, since virtually every aspect of the doctrine is surrounded with unresolved problems and questions. And so I kept postponing writing on the issue "till I have a better grasp."

As one can expect from this introduction, I am not going to solve in this paper the plethora of problems and riddles surrounding Spinoza's *scientia intuitiva*, but I do hope to break some new ground and help make this key doctrine more readily understandable. I will proceed in the following order (keep in mind the word 'proceed'). I will first provide a close preliminary analysis of the content and development of Spinoza's discussion of *scientia intuitiva* in the *Treatise on the Emendation of the Intellect* and the *Ethics*. In the second part, I will address two closely related questions which have drawn the attention of many readers: (i) *Is scientia intuitiva* a cognition that is *inferential*? and (ii) *Is scientia intuitiva* a kind of cognition that is closely tied to causation? To the surprise of many, I will argue that Spinoza's *intuitive* knowledge is both inferential and causal (in a certain rigid sense of 'inferential' and 'causal' to be explained below). In the third and final part, I will explain Spinoza's preference for *scientia intuitiva* and his frequent use of mathematical examples, and then attempt to map the major remaining questions and problems surrounding the doctrine.

I. *Scientia intuitiva* in the *Ethics* and the *Treatise on the Emendation of the Intellect*

Spinoza develops his theory of *scientia intuitiva* as part of his three-fold taxonomy of the kinds of cognition, the lower kinds being imagination (*imaginatio*) and reason (*ratio*). Spinoza discusses this taxonomy in some detail in the *Ethics*, as well as in two of his earliest works: the *Treatise on the Emendation of the Intellect* (TIE), and the *Short Treatise on God, Man, and His Well-Being* (KV). In the following I will concentrate on the first two texts, since the KV discussion—though interesting and highly important for understanding Spinoza's philosophical development—is both dispersed over several chapters (chapters one, two, five, and twenty-two of

the second part of KV), and strongly tied to views Spinoza no longer adhered to in his late period.⁴ I will quote the *Ethica* (E) and TIE passages *in extenso*, since it is precisely the small details and nuances of these texts that may help us clarify many of the problems at stake.

Spinoza's main discussion of the three kinds of cognition in the *Ethica* appears in E2p40s2, following an explication of the nature and genesis of universals (E2p40s1). For Spinoza, universals are highly confused ideas (G II/121/13) we form in our mind to compensate for the limitedness of our cognitive capacities, i.e., our inability to perceive, store, and recollect individual items in their complete manifold of characteristics. For example, instead of perceiving and recording distinctly three items I have just perceived in their intricate details, I use the universal "man" and store the experience of these three items as "three men." This enormous zipping of data helps me function in the world, but it obviously does not reflect reality as it is. Moreover, my concept of "man" will be quite different from yours, since we have perceived different individuals from which we have abstracted the universal term (G II/121/30). It is noteworthy that for Spinoza God does not perceive things through universals:⁵ God's cognitive capacities are unlimited, so he has no need for compensation mechanisms. Thus, Spinoza claims, God knows universals "only insofar as he understands the human mind,"⁶ i.e., insofar as he understands the cognitive structure of the human mind and its compensation mechanisms. This view is an almost total inversion of medieval Aristotelian claims that God knows *only* universals.⁷ Having made this clarification, let us now have a look at Spinoza's lengthy text:

From what has been said above, it is clear that we perceive many things and form universal notions [*notiones universales formari*]:

⁴ Such as a Cartesian conception of love, an explanation of the mind-body union as grounded in the mind's love of the body, and mind-body causal interactionism.

⁵ See CM II 7 (G I/263/8) and Ep. 19 (G IV/92/1).

⁶ CM II 7 (G I/263/8).

⁷ Spinoza explicitly describes his stand as such an inversion at CM II 7 (G I/263/1-9). Gersonides seems to be at least part of the target of this critique.

I. from singular things which have been represented to us through the senses in a way that is mutilated, confused, and without order for the intellect (see P29C); for that reason I have been accustomed to call such perceptions cognition from random experience;

II. from signs, e.g., from the fact that, having heard or read certain words, we recollect things, and form certain ideas of them, which are like them, and through which we imagine the things (P18S). These two ways of regarding things I shall henceforth call cognition of the first kind, opinion or imagination.

III. Finally, from the fact that we have common notions and adequate ideas of the properties of things (see P38C, P39, P39C, and P40). This I shall call reason and the second kind of cognition.

[Y.] In addition to these two kinds of cognition, there is (as I shall show in what follows) another, third kind, which we shall call intuitive knowledge [*quod scientiam intuitivam vocabimus*]. And this kind of cognition proceeds from an adequate idea of the formal essence of certain attributes of God to the adequate cognition of the [N]: formal essence of things [*Aliaque hoc cognoscendi genus procedit ab adequata idea essentiali formali quorundam Dei attributorum ad adequatam cognitionem essentiali rerum*].

I shall explain all these with one example. Suppose there are three numbers, and the problem is to find a fourth which is to the third as the second is to the first. Merchants do not hesitate to multiply the second by the third, and divide the product by the first, because they have not yet forgotten what they heard from their teacher without any demonstration, or because they have often found this in the simplest numbers, or from the force of the Demonstration of P7 in Bk. VII of Euclid, viz. from the common property of proportionals. But in the simplest numbers none of this is necessary. Given the numbers 1, 2, and 3, no one fails to see that the fourth proportional number is 6 - and we see this much more clearly because we infer the fourth number from the ratio which, in one glance [*uno intuitu*], we see the first number to have the second. (E2p40s2 | G II/122/1-30)

Let us begin with a few general observations. (1) The Latin text of this scholium, which stems from Spinoza's 1677 *Opera Postuma*, is virtually identical to the text of the recently discovered Vatican manuscript of Spinoza's *Ethica* (which predates the *Opera Postuma*).⁸ The few variations are completely marginal, and thus we may infer that the *Opera Postuma* editors did not interfere with this

⁸ *The Vatican Manuscript of Spinoza's Ethica*, eds. Ileen Spruit and Pina Toraro, Leiden: Brill, 2011, 154-5. On the dating of the manuscript, see page 2.

text. (2) Notice that the explication of the sources from which “we perceive many things and form universal notions” (122/2) ends with the presentation of the second kind of cognition. The paragraph which begins the explanation of *scientia intuitiva* (“In addition to these two kinds of cognition...”) does not begin with “from,” and is *not* dealing with the formation of universal notions. (3) *Scientia intuitiva* exemplifies Spinoza’s claim in E2p40 itself: “Whatever ideas follow in the Mind from ideas that are adequate in the Mind are also adequate.” Cognition through *scientia intuitiva* of the essence of things follows in the mind from an adequate idea (of the formal essence of an attribute). (4) Spinoza’s reflective talk about the first kind of cognition (“I have been accustomed to call such perceptions...”) indicates that he has been working on this taxonomy for quite a while. (5) Spinoza does not seem to limit the scope of ‘things’ that can be known by *scientia intuitiva*. The third kind of cognition is knowledge of *essentiae rerum*. For Spinoza *verum* refers to everything that is real. (6) Cognition of the first kind is inadequate and confused (122/4), while cognitions of the second (122/13) and third kind (122/18) are adequate.⁹ In E2p41, Spinoza argues that cognitions of the second and third kind are necessarily true, and that cognition of the first is the only cause of falsity. (7) The mathematical example at the end of the scholium seems to show that for Spinoza the very same content can be cognized through each of the three kinds of cognition. (8) In the mathematical example Spinoza describes *scientia intuitiva* as being “in one intuition/glance.” In other words, it is *not* a process that *takes time*.¹⁰

Let us turn now to Spinoza’s discussion of *scientia intuitiva* and the other kinds of cognition in the TIE. Having concluded that the most urgent task, which must precede everything else, is the emendation of the intellect, Spinoza turns to examine “the modes of perceiving which I have had up to now for affirming or denying something without doubt?” (TIE §18). These modes of perceiving can be reduced to the following four:

⁹ Cf. KV II 1 (G I/54/15): “The first is commonly subject to error. The second and third, though they differ from one another, cannot err.”

¹⁰ Cf. KV II, 1 (G I/55/12): “...through his penetration he immediately sees the proportionality in all his calculations.” (Italics added.)

§19, 1. There is the Perception we have from report or from some conventional sign.

2. There is the Perception we have from random experience, that is, from experience that is not determined by the intellect. But it has this name only because it comes to us by chance, and we have no other experiment that opposes it. So it remains with us unshaken.

3. There is the Perception that we have when the essence of a thing is inferred [*includitur*] from another thing, but not adequately. This happens—[Note F: When this happens, we understand nothing about the cause except what we consider in the effect. This is very general terms, from the fact that then the cause is explained only in its general terms, e.g., *Therefore there is something. Therefore there is some power, etc.* Or also from the fact that the terms express the cause negatively. *Therefore it is not this, or that, etc.* In the second case something clearly conceived is attributed to the cause on account of the effect, as we shall show in an example; but nothing is attributed to it except *propterea*, not the essence of a particular thing—either when we infer the cause from some effect, or when something is inferred from some universal, which some property always accompanies.

4. Finally, there is the Perception we have when a thing is perceived through its essence alone, or through cognition of its proximate cause [*Dansque perceptio est, ubi res percipitur per solum suum essentiam, vel per cognitionem suam proximam causalem*].

§20 I shall illustrate all of these with examples. I know only from report my date of birth, and who my parents were, and similar things, which I have never doubted. By random experience I know that I shall die, for I affirm this because I have seen others like me die, even though they had not all lived the same length of time and did not all die of the same illness. Again, I also know by random experience that oil is capable of feeding fire, and that water is capable of putting it out. I know also that the dog is a barking animal, and man a rational one. And in this way I know almost all the things that are useful in life.

§21 But we infer [one thing] from another in this way: after we clearly perceive that we feel such a body, and no other, then, I say, we infer clearly that the soul is united to the body, which union is the cause of such a sensation; but we cannot understand absolutely from this what that sensation and union are. Or after we have come to know [*notimus*] the nature of vision, and that it has the property that we see one and the same thing as smaller when we look at it from a great distance than when we look at it from close up, we infer that the sun is larger than it appears to be, and other things of the same kind.

§22 Finally, a thing is perceived through its essence alone when, from the fact that I know [*novi*] something, I know what it is to know something [*scio, quid hoc sit aliqual natus*], or from the fact that I know [*novi*] the essence of the soul, I know [*scio*] that it is united to the body. By the same

kind of cognition, we know [*intuitivus*] that two and three are five, and that if two lines are parallel to a third line, they are also parallel to each other, etc. But the things I have so far been able to know [*intelligens*] by this kind of cognition have been very few.

§23 That you may understand all these things better, I shall use only one example. Suppose there are three numbers. Someone is seeking a fourth, which is to the third as the second is to the first. Here merchants will usually say that they know what to do to find the fourth number, because they have not yet forgotten that procedure which they simply heard from their teachers, without any demonstration.

Others will construct a universal axiom from an experience with simple numbers, where the fourth number is evident through itself—as in the numbers 2, 4, 3, and 6. Here they find by trial that if the second is multiplied by the third, and the product then divided by the first, the result is 6. Since they see that this produces the same number which they knew to be the proportional number without this procedure, they infer that the procedure is always a good way to find the fourth number in the proportion.

§24 But Mathematicians know, by the force of the demonstration of Proposition 19 in Book VII of Euclid, which numbers are proportional to one another, from the nature of proportion, and its property, viz. that the product of the first and fourth numbers is equal to the product of the second and third. Nevertheless, they do not see the adequate proportionality of the given numbers. And if they do, they see it not by the force of that Proposition, but intuitively, [NS: or] without going through any procedure [*sed intuitivè, nullam operationem facientes*].

Looking closely at this passage and comparing it with Spinoza's discussion of *scientia intuitiva* in E2p40s2, we can register the following observations. (9) The first two kinds of cognition in the TIE are considered as two subspecies of the first kind of cognition in the *Ethica*. (10) Unlike the discussion in the *Ethica*, in the TIE Spinoza does not claim that the first three kinds of cognition are the sources from which we form universals. This can be explained by the context of the *Ethica* passage (E2p40s1) which addresses the issue of universals. (11) The TIE's third kind of cognition refers to an *inadequate* inference of an essence, but the corresponding kind of cognition in the *Ethica* is said to be "an *adequate* idea of the properties of things." Did Spinoza change his mind about the adequacy of this kind of cognition (*veritas*), or is it

perhaps the case that, as Don Garrett suggests,¹¹ the idea of the essence that is *inadequately inferred* is still an adequate idea, even in the TIE? (12) The notion of *inadequate inference* is not frequent in Spinoza's writings. Normally, 'adequate/inadequate' modifies 'cause', 'idea', or 'cognition.' Spinoza's Note F seems crucial for understanding what constitutes an inadequate inference. In such an inference, we infer that the properties of the effect must come from the cause (relying on *ex nihilo nihil fit*), and thus ascribe to the cause *only* the qualities of the effect.¹² Spinoza would not deny that the qualities of the effect must come from the cause, but he would deny that these qualities constitute the essence of the cause, rather than its *propria* (i.e., qualities which follow necessarily from the essence of a thing, but do not constitute the essence).¹³ This kind of inference is especially problematic since it leads to anthropomorphism, i.e., conceiving the infinite (i.e., God) in the image of its finite effects.¹⁴ (13) The third kind of cognition in the TIE appears to be split into two disjuncts, though, as far as I can see, the difference between them is quite minimal. The two disjuncts are "inferring the cause from some effect," and inferring "something" from the *propria* of a thing. This something is most probably the *essence* of the thing (since this is the general feature of the TIE's third kind of cognition). Now, given Spinoza's explicit claim in other texts that "cognition of an effect through its cause is

¹¹ Don Garrett, "Spinoza's Theory of *Scientia Intuitiva*," in *Scientia in Early Modern Philosophy*, eds. T. Sorrell et al., *Studies in History and Philosophy of Science* 24, New York: Springer, 2010, 109. According to Garrett Spinoza "presumably means only that the inference fails to show exactly what the essence of the cause is" (109). I wonder, however, how can one have an adequate idea of a thing without having an adequate and exact idea of its essence.

¹² Cf. Spencer Carr, "Spinoza's Distinction between Rational and Intuitive Knowledge", *Philosophical Review* 87 (1978), 245.

¹³ See *Theological Political Treatise*, ch. 4 (G III/60): "Cognition of an effect through its cause, is nothing but knowledge of some property of the cause."

¹⁴ See Spinoza's discussion of the "proper order of philosophizing" in E2p10s2. I discuss this issue in some detail in Yitzhak Y. Melamed, *Review of Rationalism, Platonism, and God*, ed. Michael Ayers, *Notre Dame Philosophical Reviews* (February 24, 2009).

nothing but knowledge of some property of the cause,¹⁵ it seems that both disjuncts refer to an inference of the cause¹⁶ (or essence) from an effect (i.e., *proprium*). (14) The phrase Spinoza employs at the end of his description of the TIE's third kind of cognition ("... inferred from some universal which some property always accompanies") is far from clear. What does the universal have to do with what is at stake? How is it related to the inference of the essence of a thing (which is the general characterization of the TIE's third kind of cognition)? I suspect (though I am not sure) that what Spinoza has in mind here is that we occasionally perceive a *proprium* which follows from the essence of a thing (such as God) as a universal. This perception may be an unconfused idea (if its content is "what is equal in the part and in the whole" (E2p37)), but we wrongly assume that this quality is a *universal* (instantiated by several individuals), rather than a *proprium* of one all-embracing entity (which includes all the individuals exemplifying the *proprium*). (15) The TIE's fourth and highest kind of cognition is also split into two exclusive disjuncts: perceiving the essence of a thing directly (and not inferring it from a *proprium*), or perceiving the proximate cause of the thing. The split between the two disjuncts fits Spinoza's discussion of the criteria for a proper definition in TIE §§96-97. There Spinoza distinguishes between the proper definition of an "uncreated thing," which "should exclude every cause, i.e., that the object should require nothing else except its own being [*esse*]¹⁷ for its explanation," and the proper definition of a created thing, which has "to include the proximate cause." Both kinds of definition are supposed to capture "the innermost essence of a thing" (TIE §95). Thus, if I am not mistaken, both disjuncts of the fourth kind of cognition in the TIE refer to the essence of a thing. The split is really about whether the essence must refer to the proximate cause of the thing or not. In the TIE Spinoza allows for the existence of an uncreated, or *innatus*, thing, i.e., God. In the TIE the fourth kind of cognition whose object is God

¹⁵ *Theological Political Treatise*, ch. 4 (G III/60). Cf. KV II 26 (G I/111).

¹⁶ Indeed the NS has here "cause" instead of "something."

¹⁷ *Ess* denotes the relationship (identity or not) between a thing's essence and existence. In the case of God (the "uncreated thing"), essence and existence are identical (see E1p20), and this identity suffices to explain God's existence.

cannot refer to God's cause, since God is uncreated. Instead, it captures God's essence qua pure existence.¹⁸ In his late period, Spinoza would reject the conception of God as an uncaused or uncreated thing (describing God instead as *causa sui*). In Ep. 60 he stipulates that the proper definition of God must "express God's efficient cause."¹⁹ God's efficient cause is God himself, or more precisely, his essence (see E1p16c1). For this reason, Spinoza does not distinguish between *scientia intuitiva* of God and *scientia intuitiva* of other things in the *Ethics*, though he did in the TIE. In both cases we conceive a thing adequately by tracing the causal ancestry of its essence to the essence of God, the ultimate cause of all things (God himself included). (16) Following the presentation of the four kinds of cognition in §19, Spinoza turns to provide examples of each in §§20-24. The examples of *experientia vaga* in §20 (including a tongue-in-cheek one directed toward the Aristotelians) are mostly clear. The two examples of the TIE's third kind of cognition in §21 are quite important. In both cases we infer causes (or essences) from effects (or *propria*). In the first case, we infer from our sensation of the body (an effect), the nature of the mind-body union (the cause). But, of course, all we ascribe to the cause are the characteristics we find in the effect. This is not likely to give us an adequate and complete conception of the cause. Similarly, in the second example, we infer from our perception of the sun and our knowledge of vision (the effect), the nature of the sun (the cause). (17) In §22 Spinoza provides three examples of the fourth and highest kind of cognition. The second example ("From the fact that I know [*know*] the essence of the soul, I know [*know*] that it is united to the body") is a precise inversion of the example we have just examined of the third kind of cognition. While the TIE's third kind of cognition infers the essence (cause) from a *proprium* (effect), the fourth kind of cognition proceeds from the essence to the *proprium*. In the fourth kind of cognition the essence itself is perceived directly and not through any mediation. Once the essence is perceived, the intellect follows the causal

¹⁸ For a detailed discussion of the identity of God's essence and existence, see my article, "Spinoza's Deification of Existence," *Oxford Studies in Early Modern Philosophy* 6 (2012), 75-104.

¹⁹ In another work I argue that for Spinoza all causation is efficient, but I cannot enter this issue here.

order and proceeds to the effects of the essence, the *propria*. The two other examples of the fourth kind of cognition make the very same point. In the first example Spinoza points out that second-order knowledge is a *proprium* following from the essence of knowledge, and in the third example he shows that transitivity is a *proprium* that follows from the essence of the relation of parallelity. (18) In §§23-24 Spinoza provides the example of the proportionality of numbers, which shows how the same thing can be cognized through all four kinds of cognition. We have already seen that the very same example appears in the *Ethics*; and Spinoza employs it in the *Short Treatise* too.²⁰ In §23 Spinoza explains how merchants and commoners perceive the fourth proportional through the first two kinds of cognition. In §24 Spinoza claims that *mathematicians*, i.e., people that have a good grasp of the nature of numbers and their properties, perceive the fourth number through either the third or the fourth kind of cognition. Here again the mathematician may infer the number (cause/essence) from one of its properties (THE's third kind of cognition), or he may conceive the essence of that number directly (THE's fourth kind of cognition), and have this intuition confirmed by the *proprium* of the number (the proportion it maintains with other numbers).

II. *Is scientia intuitiva causal/inferential?*

Following our exploration of Spinoza's discussions of *scientia intuitiva* in E2p40s2 and the TIE, we are now ready to approach the questions of the inferential and causal nature of this kind of cognition. I will discuss the issues of inferentiality and causal nature together, since the view I am about to suggest is that the inference at stake is from cause to effect (or from essence to *proprium*).

Next to E2p40s2, the other major discussion of *scientia intuitiva* in the *Ethics*, appears in the second half of the fifth and last part of the book. In this part, Spinoza demonstrates that the greatest striving and virtue of the human mind is to understand things

²⁰ KV II 1 (G I/54/17-55/13).

through *scientia intuitiva* (E5p25), that the Intellectual Love of God arises from *scientia intuitiva* (E5p33), and that the more we know things through *scientia intuitiva* the less harmful is death to us (E5p38 and E5p38s). Of particular importance for us is E5p36s. The scholium begins with characterization of the Intellectual Love of God and *scientia intuitiva* in terms that are almost eschatological (G II/303/1-11).²¹ It argues that the human mind follows from, and depends on, God's nature, and then notes:

I thought this worth the trouble of noting here, in order to show by this example how much the cognition of singular things [*rem singularium cognitio*] I have called intuitive, or cognition of the third kind (see E2p40s2), can accomplish, and how much more powerful it is than the universal cognition [*cognitione universalis*] I have called cognition of the second kind. For although I have shown generally in Part I that all things (and consequently [*consequenter*] the human Mind also) depend on God both for their essence and their existence, nevertheless, that demonstration, though legitimate and put beyond all chance of doubt, still does not affect our Mind as much as when this is *inferred* [*concluiditur*] from the very essence of any singular thing which we say depends on God (E5p36s | G II/303/17-25. Italics added).

The passage makes several important points. It provides an important example of the distinction between *ratio* and *scientia intuitiva*.²² Most crucial for our purposes is the depiction of *scientia intuitiva* as *inference* from the essence of the human mind. What is inferred from the essence of the singular thing (i.e., the human mind) is its dependence on God.

Before turning to provide further support for the claim that *scientia intuitiva* is inferential, let me make one crucial reservation. The inference involved in *scientia intuitiva* is clearly *not in time*. In the fifth part of the *Ethics* Spinoza stresses time and again that the third kind of cognition (and the ensuing *Amor Dei Intellectualis*) is

²¹ For helpful discussions of these aspects of the fifth part of the *Ethics*, see Warren Zev Harvey, "The Term *Gloria* in Spinoza's *Ethics*," in Hebrew, *Lynn* 48 (1999), 447-449, and "Isaq, Hasag, and *Amor Dei Intellectualis*," in Steven Nadler (ed.), *Spinoza and Medieval Jewish Philosophy*, Cambridge: Cambridge University Press (forthcoming).

²² Cf. Garrett, "Spinoza's Theory of *Scientia Intuitiva*," 108.

eternal.²³ As far I can see, *scientia intuitiva* is cognition *in one glance* – just like a map – of the complete causal ancestry of a certain thing.²⁴

We should notice that inference is also involved in *ratio*. In the passage just quoted Spinoza refers to the second kind of cognition as “demonstration,” and in the KV he qualifies this kind of cognition as an “art of reasoning.”²⁵ The question of course arises what is then the difference between the inference involved in *ratio* and that of *scientia intuitiva*? Spinoza’s claims in E2p40s2 suggest that the inference of *scientia intuitiva* “proceeds from an adequate idea of the formal essence of certain attributes of God to the adequate cognition of the essence of things,” while the inference of *ratio* begins from universals. In other words, *scientia intuitiva* infers the effects from the essence of God (i.e., the attributes), while *ratio* infers cognitions²⁶ from universals.

Another crucial element in the depiction of *scientia intuitiva* in E2p40s2 which we have not scrutinized so far is the term ‘*procedit*’ (proceeds). The word appears five times in the *Ethica*, and in all cases it refers to the manner in which either a demonstration (E3p39d, E3p44d, and E5p40d), or the third kind of cognition (E2p40s2 and E5p25d), proceeds.²⁷ This use of the term provides some support for my claim that the third kind of cognition is a certain kind of inference. Similarly, in §85 of the TIE Spinoza

²³ See, for example, E5p31. On the nature of eternity in Spinoza, see my article, “Spinoza’s Delineation of Existence.”

²⁴ In the *Cogitata Metaphysica*, one of Spinoza’s earliest works, Spinoza makes a closely related point while discussing God’s intellect and his omniscience. In this context, Spinoza stresses that “God does not conclude anything by reasoning,” since he does not acquire any *new* knowledge of which he would have to have been ignorant *before* reasoning (CM II 71 G I/261/21). Obviously, this claim does not prevent God from perceiving the entire causal-inferential map of nature in one glance.

²⁵ KV II 1 | G I/55/11. Spinoza’s description of *ratio* as inadequate inference in TIE §19 seems also to suggest that another kind of cognition involves adequate inference.

²⁶ Either cognition of the particulars that fall under the universals, or cognition of the essence from the *propria* which accompany the universals (as the TIE suggests).

²⁷ In Spinoza’s book, *Descartes’ Principles of Philosophy*, ‘*procedit*’ is used almost exclusively in the context of demonstrations.

notes that in the case of true idea “its objective effects proceed in the soul according to the formal nature of its object. This is the same as what the ancients said, i.e., that true knowledge [*veram scientiam*] proceeds [*procedit*] from cause to effect.” Employing the scholastic distinction between formal and objective features, Spinoza claims in this passage that a true idea maps and reflects the causal structure of its objects. Thus, it is clear I believe that for Spinoza an intuition – being a true idea – is not an isolated perception that is unrelated to any other cognition, but rather it must be imbed in the true reflection, in the intellect, of the causal structure of nature.

III. Tentative conclusions

The notion of intuition has a long and twisted history in western philosophy, to the extent that it is questionable whether any two philosophers used the term in the very same sense.²⁸ The nature and epistemological value of intuition are subjects of major debates in contemporary philosophy.²⁹ In this paper I have argued that Spinoza’s *scientia intuitiva* is not a mystical illumination detached from any other cognition, but rather an inference from the essence of God (i.e., the attributes), through the immediate effects of the essence of God,³⁰ to the essence of all things.³¹

²⁸ Thus, in his *Regulae*, Descartes stresses that his use of ‘intuition’ is unlike any of his predecessors (AT X 369). Descartes’ use is significantly different from Spinoza’s. See Frédéric Manzini, “D’ou vient la connaissance intuitive? Spinoza devant l’aporie de la connaissance des singularités,” in F. Manzini (ed.) *Spinoza et les singularités*, Paris: PUFS, 2011, 46–48.

²⁹ See, for example, Timothy Williamson, *The Philosophy of Philosophy*, Oxford: Blackwell, 2007, 1–9 and 214–220.

³⁰ For a detailed discussion of the infinite modes, see the fourth chapter of my book, *Spinoza’s Metaphysics: Substance and Thought*, Oxford: Oxford University Press, 2013.

³¹ Thus, I believe, cognition of the attributes themselves is the most trivial and accessible case of *scientia intuitiva* which requires merely the perception of the attributes as self-conceived. On the triviality of this cognition, see E2p47s: “God’s infinite essence and his eternity are known to all.”

At this point we may address two major questions raised by previous studies of the issues: (1) Since in the *Ethica*, Spinoza insists that both *ratio* and *scientia intuitiva* are adequate, why does he prefer the latter over the former?³² and (2) Why does Spinoza frequently use mathematical examples to illustrate *scientia intuitiva*?³³

The answer to the first question is rather simple. To conceive things through *scientia intuitiva* is to think like God, or, more precisely, to take part in God's infinite intellect.³⁴ As we have already seen,³⁵ Spinoza's God does not conceive things through universals which are of hardly any use for him.³⁶ God does not conceive things through the second kind of cognition. Hence, if we wish to take part in divine knowledge, we must turn to *scientia intuitiva*.

Turning now to the second question, let me point out that in E5p36d and TIE §22 Spinoza employs quite a few non-mathematical examples. Still, the frequent use of mathematical examples for illustrating *scientia intuitiva* (as well as many other issues in Spinoza's philosophy) demands an explanation. For Spinoza, mathematical entities – both numbers and geometrical figures – are *entia rationis*.³⁷ We form concepts of numbers by abstraction from equinumerical classes.³⁸ I may form the concept of five from observing give chimpanzees, while you may form the same concept by observing five elephants. After the abstraction,

³² Garrett, "Spinoza's Theory of *Scientia Intuitiva*," 101.

³³ Förster, *Twenty Five Years of Philosophy*, 97.

³⁴ The elaboration of this last point will require a detailed study of part five of the *Ethica* and hence cannot be done here.

³⁵ See the beginning of Part I above.

³⁶ See note 6 above. Spinoza's God knows universals only insofar as he knows the human mind, its limitations, and compensation mechanisms.

³⁷ See TIE §95 (G II/35/5) and Ep. 12 (G IV/57-58). I discuss these issues in some detail in Yitzhak Melamed, "On the Exact Science of Non-Beings: Spinoza's View of Mathematics," *Iyyun: The Jerusalem Philosophical Quarterly* 49 (2000), 3–22.

³⁸ See Ep. 50 and Ep. 12 (G IV/57/4). For two important discussions of Spinoza's claims in Ep. 50, see Peter Gaech, "Spinoza and the Divine Attributes," *Royal Institute of Philosophy Lectures* 5 (1971), 15–27 (p. 23), and Gotlob Frege, *The Foundation of Arithmetic*, ed. J. L. Austin, Evanston: Northwestern University Press, 1996, §49.

we disregard the causal ancestry of our number concepts (neither elephants nor chimpanzees enter into our calculations of 5). It is precisely for this reason that Spinoza degrades mathematical entities to the low ontological level of *entia rationis* (or even *entia imaginationis*); the very notion of number assumes an abstraction from its cause. But this abstraction has a positive side as well. Being abstracted and isolated from the causal network of real beings, numbers and figures provide perfect methodological tools for illustrating things *in vitro*. Through the test tube of numbers we can easily demonstrate the relationship between essence and *pro-terminum*, since after we conceived the essence of a certain number, we are not required to further trace the causes of this essence; numbers (qua abstractions) do not refer to causes.³⁹ Thus, unlike the study of real beings where knowledge of the first cause and its immediate effects is a *sine qua non* condition for having an adequate understanding of anything, in the case of numbers we are not looking for any unifying first cause. Of course, achieving *scientia intuitiva in vivo* (i.e., in the real and infinite network of causes and effects) is far more difficult than demonstrating the same cognition in the isolated surrounding of mathematical entities.

There are quite a few significant questions regarding *scientia intuitiva* that has not been discussed in this paper. Of such a kind is the issue of the proper historical context and background of this doctrine.⁴¹ Similarly, the precise wording of Spinoza's description of *scientia intuitiva* in E2p40s2 – "this kind of cognition proceeds from an adequate idea of the formal essence of certain attributes of God to the adequate cognition of the [NS: formal] essence of

³⁹ Ep. 12] G IV/57/8.

⁴⁰ Once I start tracing the causes of my concept of seven I leave the domain of mathematics and enter the study of real beings of my psychology. I stress that I leave the domain of mathematics, since once I trace the cause of my concepts of numbers it would longer by generally trace that '5=5.'

⁴¹ For three alternative suggestions, see Warren Zev Harvey, "A Portrait of Spinoza as Maimonidean," *Journal of the History of Philosophy* 20 (1981), 156, 161, Frédéric Manzini, "D'où vient la connaissance intuitive?", and Leen Spruit, "Cognitio," in Wiep van Bunge, Henri Krop, Piet Steenbakkers, Jeroen van de Ven (eds.), *The Continuum Companion to Spinoza*, London, Continuum, 2011, 183–186.

things” – raises quite a few questions. What does Spinoza mean by “the formal essence of certain attributes of God?” Since the attributes themselves are said to “constitute the essence of God” (E1d4),⁴² what could be *their* formal essence?⁴³ Furthermore, it is not clear whether we should accept the NS version of this description (“to the adequate cognition of the *formal* essence of things”)?⁴⁴ Finally, we may wonder about the precise nature of the inference from essence to propria – what makes an intellect capable of this inference, and how can we *not* know any effects of God’s essence, if we have an adequate cognition of God’s essence (as E2p47 states)? As I have warned you at the beginning of this paper, in spite of my best efforts, many of the riddles surrounding this doctrine still remain.

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Kants Begriff des Transzendentalen und die Grenzen der intelligiblen und der sinnlichen Welt

Das fünfte Kapitel in Eckart Försters *Die 25 Jahre der Philosophie*

Blickt man von heute aus auf die abgeschlossene Systematik von Kants kritischer Philosophie, so läuft man leicht Gefahr, sie als ein statisches Ganzes aufzufassen. Eckart Förster will demgegenüber neue Perspektiven darauf gewinnen, welche Veränderungen und welche Revisionen Kant im Zuge der Ausarbeitung seiner kritischen Philosophie vornimmt. Im fünften Kapitel setzt Förster an bei einem Begriff, der zwar grundlegend für sein Projekt ist, in einer detailgenauen Analyse aber Rätsel aufgibt, nämlich den Begriff des Transzendentalen. Bei ihm diagnostiziert Förster eine folgenreiche Verschiebung: mit einer Erwidernung auf diese These werde auch ich meine kritische Diskussion im zweiten bis vierten Abschnitt einleiten. Försters Diagnose vollzieht sich in zwei Schritten. Zunächst – und d. h.: in der ersten Auflage der *Kritik der reinen Vernunft* von 1781 – wird die Transzendentalphilosophie durch die apriorische Referenzproblematik definiert. In den *Prolegomena* sowie in der Einleitung in der zweiten Auflage der *Kritik der reinen Vernunft* von 1787 verlagert sich der Akzent dann hin zu der Möglichkeit synthetischer Urteile a priori. Förster spekuliert, dass bei dieser Verschiebung der Versuch der Einbeziehung der praktischen Philosophie in die Transzendentalphilosophie im Hintergrund stehen könnte. Dass Kant eine Erweiterung der *Kritik* in diesem Sinne zumindest zwischenzeitlich erwogen hat, zeigt sich in einer Mitreilung Kants an den Herausgeber der *Jenaischen Allge-*

⁴² I take what “the intellect perceives” in E1d4 as true. For a defense of this reading and explanation of the “constitute” relation, see part two of my article, “The Building Blocks of Spinoza’s Metaphysics: Substance, Attributes, and Modes” in Michael Della Rocca (ed.), *The Oxford Handbook of Spinoza*, Oxford: Oxford University Press (forthcoming).

⁴³ This could, of course, be just a loose talk on Spinoza’s side by which simply meant the attributes in their unmodified form, or what he calls in E1p21 “the absolute nature” of an attribute.

⁴⁴ Garrett rejects the NS in his “Spinoza’s Theory of *Scientia Intuitiva*,” 111.

**Übergänge – diskursiv oder
intuitiv?**

Essays zu Eckart Försters

Die 25 Jahre der Philosophie

Herausgegeben von

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