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Quatenus and Spinoza's Monism

ALEXANDER DOUGLAS*

ABSTRACT I examine Spinoza's use of the term *quatenus*. It is, I argue, an operator working in the context of a broader logical theory and blocking certain inferences that, according to critics such as Pierre Bayle, lead Spinoza's metaphysical system into absurdities. I reconstruct this crucial theory from some treatises on logic to which Spinoza had access. I then show how a later logical theory—that of the Port-Royal Logic—does not permit Bayle's troublesome inferences to be blocked by the use of terms like *quatenus*. Most likely, Bayle was thinking in terms of the later theory, Spinoza in terms of the earlier.

KEYWORDS Spinoza, *quatenus*, Pierre Bayle, monism, restriction

I. THE LOGICAL CRITIQUE OF SPINOZISM

SPINOZA HOLDS THAT GOD is the only substance and that ordinary things are modes of that substance. Precisely what this entails as a metaphysical thesis is a matter of contention, but it has been criticized on logical grounds. Briefly, the criticism is as follows. Assuming that only a substance can be a proper subject of predication, it follows from Spinoza's thesis that all predications correctly made of ordinary things must be properly made of God.¹ This leads to contradiction. As some read him, Spinoza's way out is to propose that various claims are true of God, not simpliciter, but only "insofar as" (*quatenus*) he is something specific.² It is then assumed that what holds of God insofar as he is A need not hold of God simpliciter, nor of God insofar as he is B where $A \neq B$.

Although many Spinoza scholars have accepted this reply, it is not obvious how it resolves the difficulty. What does 'insofar as' mean in this context? We need to

¹An alternative possibility that I do not discuss is that no predications *are* correctly made of ordinary things: all the claims we make about ourselves and the objects around us are strictly false or perhaps meaningless. This moves us in the direction of the 'acosmist' reading of Spinoza. Recent discussions of this reading can be found in Samuel Newlands, "Thinking, Conceiving, and Idealism in Spinoza"; Newlands, "Hegel's Idealist Reading of Spinoza," 100–108; Yitzhak Melamed, "Why Spinoza Is Not an Eleatic Monist"; Melamed, "Acosmism or Weak Individuals?"; Melamed, *Spinoza's Metaphysics*, ch. 2; and Eckart Förster and Melamed, eds., *Spinoza and German Idealism*.

²I discuss two replies on Spinoza's behalf that go along these lines below; they are found in John Carriero, "Mode and Substance"; and Melamed, "Metaphysics of Substance."

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offer some explanation of why saying this saves Spinoza from self-contradiction, and that requires us to situate ‘insofar as’ expressions in the context of a broader logical-semantic theory. I shall present some historical evidence that Spinoza had the resources to articulate such a theory. I will also point out that rescuing Spinoza from contradiction requires the rejection of an alternative logical theory that was prominent in his day.

Spinoza is not known for his contributions to formal logic.³ He declares logic to be no part of his main project in the *Ethics* (EVPref). At one point in the *Short Treatise on God, Man, and His Wellbeing*, however, he shows willingness to engage in it. He argues there that we should ignore the principle upheld by “all the Logicians,” stipulating that the correct definition for a term must consist of a genus and a difference. Instead, he insists, we should follow a “true logic,” which says something else entirely about how definitions must work.⁴ Spinoza has very little else to say about logic, at least explicitly.⁵ But here, at least, is one piece of evidence that he was interested in it, and not only in a passive way: he was willing to revise accepted logical theories when he believed he could justify doing so. As Mogens Laerke writes, “the absence of an explicit Spinozist semantics does not prevent us from investigating its implicit presence in his active thought.”⁶ Working out this implicit theory is an obvious help in imagining how Spinoza might respond to the logical critique outlined above.

The critique is given a clear and powerful statement in Pierre Bayle’s dictionary entry on Spinoza. Bayle calls Spinoza’s main metaphysical thesis “the most monstrous hypothesis imaginable, the most absurd, and the most diametrically opposed to the most evident notions in our mind.”⁷ First, Bayle points out that by allowing only one substance into his ontology, Spinoza provides himself with only one logical subject for all true predications. Bayle proposes “as an incontestable maxim, that all the terms we apply to a subject to signify what it does or what it suffers, apply properly and physically to substance and not to its accidents.”⁸ One can contest this maxim, but Bayle thought it was uncontested by anybody in his own era, and there is some evidence that Spinoza endorsed it (noted below).⁹ It follows that any true predication must be made of Spinoza’s one substance.

³‘Formal logic’ is difficult to define accurately. I mean it in roughly the same sense as Józef Bocheński uses it, namely, the discipline that is historically and conceptually continuous with Aristotle’s logical investigations. For his explanation, see Bocheński, *A History of Formal Logic*, §1, 2–4.

⁴KVI.7. The abbreviation “KV” here refers to the *Short Treatise on God, Man, and His Well-Being*. References refer to Part and Chapter.

⁵Logic clearly played a role in Spinoza’s theory of knowledge, as argued in Aaron V. Garrett, *Meaning in Spinoza’s Method*. However, I do not believe there to be a clear logical theory directly expressed anywhere in Spinoza’s extant writings.

⁶Laerke, “Deus quatenus,” 261, my translation.

⁷Pierre Bayle, *Dictionnaire*, 3.259.

⁸Bayle, *Dictionnaire*, 3.261.

⁹It is true that the *Ethics* is full of passages in which Spinoza seems to assert that predications are made of modes. If his “modes” are what Bayle calls “accidents,” this might suggest that he rejects Bayle’s theory of predication. But it might not: Bayle’s argument is not that we cannot make predications of the accidents of a substance but only that, if we were to *speak properly* in such cases, we would make the predications of the substance itself. For instance, ‘Helen’s beauty launched a thousand ships’ is acceptable, but would be properly rendered, on Bayle’s theory, as ‘Helen, by being beautiful, launched a thousand ships.’

As Jonathan Bennett puts it, "If your ontology says that there is only one thing, then . . . there is no difference between 'The thing is F' and 'Something is F' and 'Everything is F.'"¹⁰

This singular subject of predication is the key ingredient in Bayle's logical recipe for drawing monstrosities out of Spinoza's thesis. If Judas is treacherous, then God is treacherous. But if Peter is not treacherous, then God is not treacherous. The result is impossible. As Bayle puts it, "If there is anything certain and incontestable in human knowledge, it is this Proposition: . . . one cannot affirm two opposing terms of the same subject, in the same respect, and at the same time."¹¹ Yet in using the qualifier "in the same respect," Bayle seems to point the way out of the difficulty he raises. Could we not reply on Spinoza's behalf that although God is both treacherous and not treacherous, he is so *in different respects*, and so there is no violation of Bayle's incontestable principle?

2. RESPECTS ANALYSIS

John Carriero takes up this option.¹² He focuses on Spinoza's use of the word *quatenus*. This term, as Carriero reads it, functions to introduce various respects in which contrasting predicates can hold of God without yielding contradiction. Thus, for instance, Spinoza claims that God possesses certain properties, not insofar as (*quatenus*) he is infinite, but rather insofar as he constitutes the essence of the human mind. Carriero explains:

it seems to me that Spinoza often uses the Latin *quatenus* to mark out these different "ways" or "respects," as when, for example, he writes that . . . "God, not insofar as [*quatenus*] he is infinite, but insofar as he is explained through the nature of the human Mind, or insofar as [*quatenus*] he constitutes the essence of human Mind" has a certain idea (*E IIP IIC*).¹³

Carriero claims that this distinction, which Spinoza makes several times in the *Ethics*,¹⁴ solves the logical problems Bayle raises. Carriero is far from alone in proposing this potential way out for Spinoza. In his 1888 book on Spinoza, John Caird supposes that "Every reader of Spinoza knows what an important *rôle* is assigned to this *quatenus*," by which Spinoza "contrives to escape from difficulties and inconsistencies otherwise insuperable."¹⁵

Does Spinoza's use of *quatenus* expressions solve problems like the Judas and Peter problem mentioned above? This depends in part on whether *essentiam humanae mentis constituit* means, for Spinoza, 'constitutes the essence of the human mind' or 'constitutes the essence of a human mind.' If there is only *one* essence for both Judas's and Peter's minds, then God, insofar as he constitutes that essence, both has and does not have a certain treacherous idea. Contradiction remains.

¹⁰Bennett, *A Study of Spinoza's Ethics*, 96.

¹¹Bayle, *Dictionnaire*, 3.260.

¹²Carriero, "Mode and Substance," 263.

¹³Carriero, "Mode and Substance," 263.

¹⁴E.g. *E IIP 30D*, *IIP 28D*, *IIP 40D*, *VP 36*.

¹⁵Caird, *Spinoza*, 166. However, Caird denies that Spinoza's contrivance is entirely successful.

However, if there is one essence for Judas's mind and another for Peter's mind, then we can suppose that God has the treacherous idea insofar as he constitutes the essence of Judas's mind and does not have it insofar as he constitutes the essence of Peter's mind. Then *perhaps* we have resolved the contradiction, *if* we can suppose it coherent to say that what God does *quatenus* he constitutes the essence of one mind is logically independent of what he does *quatenus* he constitutes the essence of another.¹⁶ However, we need to know more about why there is this logical independence. I do not find it sufficiently luminous to say simply that such phrases express distinct 'respects' in which God does something and yet does not do it. Yitzhak Melamed proposes that "Spinoza developed this respects-analysis into a genuine art."¹⁷ But what is this art, and what is the logical theory behind it?

Carriero and Melamed both imply that a proper appreciation of Spinoza's use of *quatenus* shows that Bayle's inferences to absurdity are instances of the fallacy of *secundum quid ad simpliciter*. Aristotle discusses such fallacies in the *Sophistical Refutations* and *On Interpretation*.¹⁸ Some versions of the fallacy are not obviously relevant to Spinoza, for instance, the version where 'S is' is wrongly inferred from 'S is P' or versions involving 'alienating' adjectives (to be discussed below). But one version is clearly relevant. As Allan Bäck explains it,

a simple declarative statement of *tertium adiacens* has its predicate complement qualified so as to constitute a complex. Aristotle . . . worries about which cases it is legitimate to make the inference to a predication of only a part of that complex. E.g., "an Ethiopian is white with respect to his teeth" does not imply "an Ethiopian is white," whereas "an Ethiopian is white with respect to his skin" does.¹⁹

Here we have a case where 'S in respect R is P' does not always entail 'S is P.' But, as Bäck goes on to point out, Aristotle does not offer general rules for deciding when an inference *secundum quid ad simpliciter* is false and when it is true. Rather, "he gives only the general advice to look at the contradictory of the conclusion, to see if it be compatible with the premises."²⁰

Later thinkers who build on Aristotle's discussion suggest that the consequences in question are *material* rather than *formal*.²¹ The explanation of this distinction by Albert of Saxony is particularly apposite:

¹⁶It is not entirely clear whether Spinoza believed there to be one essence of the human mind or one essence for each human mind. With respect to essence of persons, according to Alan Donagan, "Nothing but confusion can result from interpreting Spinoza according to the Aristotelian-Scholastic notion that, for example, Socrates and Plato are individuated by their matter, and share a common essence, *humanity*" ("Spinoza's Proof of Immortality," 250.) On this issue, see Christopher P. Martin, "Framework of Essences."

¹⁷Melamed, "Metaphysics of Substance," 50.

¹⁸*Sophistical Refutations* V, 166b37–167a21; and *On Interpretation* XI, 20b31. There is a growing body of literature on *secundum quid ad simpliciter* inferences (though not named as such) in the modern context. One exemplary piece is Donald Baxter, "The Discernibility of Identicals."

¹⁹Bäck, *Aristotle's Theory of Predication*, 261.

²⁰Bäck, *Aristotle's Theory of Predication*, 261.

²¹On this distinction, see Bocheński, *A History of Formal Logic*, §30; E. J. Ashworth, *Language and Logic in the Post-Medieval Period*, ch. 2.1; Catarina Dutilh Novaes, *Formalizing Medieval Logical Theories*, pt. 3; and Bäck, *On Reduplication*, 243 and continuing.

Of consequences, one kind is formal, another material. That is said to be a formal consequence to which every proposition which, if it were to be formed, would be a valid consequence, is similar in form, e.g. “*b* is *a*, therefore some *a* is *b*.” But a material consequence is one such that not every proposition similar in form to it is a valid consequence, or, as is commonly said, which does not hold in all terms when the form is kept the same; e.g. “a man runs, therefore an animal runs.” But in these (other) terms the consequence is not valid: “a man runs, therefore a log runs.”²²

Aristotle's refusal to provide formal rules for deciding cases of *secundum quid ad simpliciter* was generally taken to imply that such inferences, if they hold, hold materially rather than formally.²³ In some cases, ‘S in respect R is P’ does not imply ‘S is P.’ In other cases, there is such an implication, but by material rather than formal consequence.

Bayle's reduction of Spinoza's theory to absurdity requires *secundum quid ad simpliciter* inferences. Since he offers no justification for those inferences besides Spinoza's statements and a few basic rules of logic, he must regard such inferences as *formally* valid. Thus, he rejects the Aristotelian view as I have interpreted it. On what basis does he do so? And what basis did Spinoza have for, on the contrary, retaining the Aristotelian view?

Before turning to these questions, we should note one further problem for Spinoza. In the passage to which Carriero refers, Spinoza draws a distinction between God insofar as he is infinite and God insofar as he is explained through the nature of the human mind. Since the human mind is finite, and since Spinoza cannot have believed that something infinite could be explained through something finite, the upshot of his claim seems to be that God is something insofar as he is infinite and something contrary insofar as he is finite. But how does this resolve the contradiction? If I say that a number is both even and odd, and then clarify the point by saying that it is even insofar as it is composite, and odd insofar as it is prime, I appear to have created a second contradiction rather than resolving the first one. Invoking respects to resolve a contradiction does not appear to help if the respects are themselves contradictory; it only pushes the problem back.

3. THE MEANING OF QUATENUS

To understand how Spinoza's *quatenus* clauses can work to block Bayle's *secundum quid ad simpliciter* inferences, we must examine how *quatenus* functions logically for him. Spinoza gives no analysis of the term, and the natural reading of it gives us little help in making sense of his claims. It seems to be a quirk of Spinoza scholarship that *quatenus* has so often been translated ‘insofar as’ in English, *en tant que* in French, *sofern* in German, and so on. The French-Spanish-Latin dictionary Spinoza owned does not contain an entry for *quatenus*,²⁴ but another dictionary,

²²Albert of Saxony, *Perutilis Logica*, 4.1.24ra–b. Translated by Bocheński, *A History of Formal Logic*, 30.14.

²³See Bäck, *On Reduplication*, §3.1, §5.5, §7, §15.1, and §17.1B.

²⁴Or, more properly, it does not contain an entry for any French term translated as *quatenus*—the dictionary entries are in French. Heinrich Hornkens, *Recueil de Dictionnaires*. My information on Spinoza's library comes from Jacob Freudenthal, *Die Lebensgeschichte Spinoza's in Quellenschriften*, 160–64.

not in Spinoza's library but typical of the period, translates it by the Dutch *hoe vele* (*hoeveel*). It then gives the examples: *videndum est quatenus amicitiae tribuendum sit*, translated to *Men moet zien hoe vele mender vrientschappen toe laten moet; quatenus fas erit*, translated as *soo verre her gheoorloft sal sijn*; and *quatenus negatur nobis diu vivere*, translated as *om dat het ons niet ghegunnet en wordt langhe te leuen*.²⁵ In these examples, *quatenus* is used to mean, respectively, 'how far,' 'to the extent that,' and 'because'—not 'insofar as.'

Taking *quatenus* to mean 'how far' or 'to the extent that,' we must read Spinoza's statements that God, *quatenus infinitus est*, does not ϕ to mean that God does not ϕ to the extent that he is infinite. However, Spinoza tells us in *Ethics* Idef6 that God is infinite "absolutely." It follows that God *absolutely* does not ϕ , which would seem to imply that there is *no extent* to which he ϕ s. This, however, cannot be what Spinoza means in the passage cited by Carriero. For that passage clearly implies that God, in having an idea insofar as he constitutes the essence of a finite mind, has the idea to *some extent*. Yet if we take *quatenus* to mean 'because,' then we have Spinoza claiming that God is P *because* he is infinite and is not P *because* he is explained through the essence of a human mind, in which case we still have the contradictory claim that God is both P and not P. To have any hope of making sense of Spinoza, then, we should ignore these dictionary definitions and look for ways in which we can interpret *quatenus* as a logical term of art.

In a textbook Spinoza owned, by the Leiden logician, Franco Burgersdijck, there is a very brief explanation of *quatenus* as a logical term.²⁶ It appears in a discussion of what Burgersdijck calls "restrictive enunciations," of which he gives the example: "Man feels, *quatenus* he is an animal."²⁷ In this example, *quatenus* can again be taken to mean 'because.' But Burgersdijck goes on to say that in a syllogism such enunciations, called 'exponibles' by the Scholastics, should be rewritten into clearer forms. Supposing that Spinoza took *quatenus* in this textbook sense gives some impetus to Mogens Laerke's analysis, to which we now turn.

Laerke, noting that Spinoza uses *quatenus* at least 444 times in the *Ethics* (in addition to many uses of neighboring expressions such as *eo ipso* and *eatenus*), calls it "a conjunction, which we call a 'reduplicative particle' after the *Summa Logicae* of Ockham."²⁸ He refers to a chapter in which Ockham discusses the expression *in quantum*.²⁹ Ockham distinguishes various ways in which *in quantum* and related reduplicative particles can be used.³⁰ Such particles signal the hidden presence of propositions that lie implicit in complex propositions. Ockham calls these hidden propositions the "exponents" of the complex propositions. Thus, a proposition of the form 'S *in quantum* it is R is P' implicitly contains a pair of

²⁵Johannes Servilius, *Dictionarium triglotton*. Spelling as in original.

²⁶On Burgersdijck and his influence on Spinoza, see Wiep van Bunge et al., eds., *The Bloomsbury Companion to Spinoza*; Freudenthal, "Spinoza Und Die Scholastik"; and Adolf Trendelburg, *Historische Beiträge Zur Philosophie*, 317–25.

²⁷Burgersdijck, *Institutionum Logicarum*, 1.28.5.1.

²⁸Laerke, "Deus quatenus", 261, my translation.

²⁹Guillelmi de Ockham, *Summa Logicae*, 2.16. See William Ockham, *Theory of Propositions*, 125–31, for an English translation.

³⁰Ockham, *Summa Logicae*, 2.16.

propositions: 'S is R' and 'S is P.' The different uses of the reduplicative particle concern which other exponents are contained. In some reduplicative uses, called 'expressions of concomitance,' a further exponent is 'everything R is P.' In others, called 'expressions of cause,' there is another exponent again: 'everything R is P because it is R.' However, in *all* of these uses, one exponent will be 'S is P.' Thus, the *secundum quid ad simpliciter* inference from 'S in quantum it is R is P' to 'S is P' is formally valid.

Ockham also identifies an alternative use of such particles—the "specificative."³¹ His discussion of this use is difficult to understand, but through a careful reading, Bäck draws from it the rule that:

An S is P *in quantum* M (specificative) if and only if
 an S is P, and that S is M, and the M that is S is P,
 and being M is primary for being P (more so than being S is).³²

This bi-conditional also allows us to make the *secundum quid ad simpliciter* inference formally.³³

Thus, we cannot rescue Spinoza from contradiction if, following Laerke's suggestion, we take *quatenus* to function as a reduplicative particle akin to Ockham's *in quantum*. Ockham had his own strategies for avoiding *secundum quid ad simpliciter* inferences, but these appear in a different part of the *Summa*, seem distant from Spinoza's way of thinking, and do not help to make any sense out of his use of *quatenus*.³⁴

Another possibility is to interpret *quatenus* not as an Ockhamite reduplicative, but rather as an expression that involves what some logicians called 'restrictive enunciation.' This was of particular interest to logicians closer to Spinoza's time.³⁵ Amandus Polanus von Polansdorf explains it as follows:

A reduplicative restricted enunciation is one whose subject or predicate is limited either by genus or part or accident. Thus, "Man as [*quatenus*] animal, senses." The subject of this enunciation is limited by genus. "Man as [*quoad*] soul is immortal." [The subject of] this enunciation is limited or restricted by part. "Christ as [*quatenus*] Mediator is less than the Father, indeed than himself"; "Fire *qua* hot not *qua* dry is warming"; "Wine as long as [*quatenus*] consumed in moderation, conduces to health": These enunciations are limited or restricted by their accidents.³⁶

³¹Ockham, *Summa Logicae*, 2.16.

³²Bäck, *On Reduplication*, 233.

³³John Buridan, by contrast, denies that *secundum quid ad simpliciter* inferences hold for specificative expressions, which he regards as cases of "improper" reduplication (Buridan, *Tractatus de Consequentibus*, 4.4.5/ *Treatise on Consequences*, 159). What Buridan and his commentators have to say about *secundum quid ad simpliciter* inferences seems in line with what Polanus and Jungius, discussed below, have to say. See Bäck, *On Reduplication*, 204–5.

³⁴Ockham, *Summa Logicae*, 3.4.13; and Bäck, *On Reduplication*, 189–204.

³⁵Bäck, *On Reduplication*, 357; and Ashworth, *Language and Logic*, 80.

³⁶"Enunciatio reduplicativa restringens, est cujus subjectum vel praedicatum limitatur genere vel parte vel accidente aliquo: ut, *Homo quatenus animal, sentit*: Haec enunciatio est limitata genere subjecti. *Homo quoad animam est immortalis*: Haec enunciatio limitata seu restricta est parte. *Christus quatenus Mediator est minor Patre, imo & seipso*. *Ignis qua calidus non qua siccus, calefacit*. *Vinum quatenus moderate sumitur, prodest ad confirmandam valetudinem*: Haec enunciations sunt limitatae seu restrictae accidente" (Amandus Polanus von Polansdorf, *Syntagma Logicum*, 285).

This seems to imply that by adding a restriction to a subject-term, one can form a *new* subject-term whose *suppositum* is something somehow less than the *suppositum* of the original subject (this does not necessarily mean that the new *suppositum* is a *part* of the first—more on this below). This implication is made explicit by Joachim Jungius, whose account is otherwise close to that of Polanus:

Reduplication either repeats the prior subject *or puts forth a name different from it*. The first is called reduplicative, the latter specificative by barbaric philosophers. Others more elegantly call the one uniform or one-named or similar, and the other biform, double-named, or dissimilar.³⁷

Thus, in applying a specificative to a name, one produces a *new* name, distinct from the first, to which the predicate can apply.

This ‘double-name’ type of enunciation is enough to block formal inferences *secundum quid ad simpliciter*. If the predicate ‘P’ is attached to ‘S,’ with the latter functioning as one name, while the predicate ‘not P’ is attached to ‘S *quatenus* R,’ with the latter functioning as another name, then there is no *formal* compulsion to apply both predicates to ‘S.’ Whether such an inference can be *materially* made will depend on whether the *supposita* of the two names are identical. Now, finally, we have the grounds for a reply to Bayle: Spinoza can predicate P of God and not-P of God-*quatenus*-he-is-R without formal contradiction, since there is no formal contradiction in predicating contrary things of two distinct subjects. To get to a contradiction, Bayle must make a *material* inference *secundum quid ad simpliciter*. This requires justification he does not provide; for instance, to show that the *supposita* of the two names, ‘God’ and ‘God *quatenus* he is R,’ are identical.³⁸

In what follows, I shall develop this line of reply on Spinoza’s behalf by outlining the logical theory it requires. I shall also suggest how Spinoza could have come to the required logical theory by consulting the work of Burgersdijck, Polanus, Jungius, and the like. I will then show how a different logical theory from a work far more prominent in Bayle’s milieu—the Port-Royal Logic—threatens to undermine this line of reply. Other works accessible to Spinoza, however, contain sufficient material for a counterattack against the Port-Royal Logic.

4. BURGERSDIJCK AND THE PORT-ROYAL LOGIC

Spinoza’s way into the required logical theory might have been through the notion of *participium*, presented by Burgersdijck. Burgersdijck gives the following case in his metaphysics textbook: “Air that is humid is hot.” Here, he explains, ‘is hot’ is

³⁷Jungius, *Logica Hamburgensis*, 11.38, emphasis added. Translation from Bäck, *On Reduplication*, 365.

³⁸One might object that Bayle does provide such justification: on the assumption that only substance can be the true subject of predication, and from Spinoza’s assertion that there is only one substance, we can conclude that any name serving as the subject of any true predication must have the one substance as its *suppositum*. However, the matter is not so simple. What Bayle precisely claims is that substances *rather than accidents* are the proper subjects of predication. But if Spinoza allows into his ontology entities that are neither substances in the strictest sense, nor accidents in Bayle’s sense, then these are not debarred from being the *supposita* of subjects of proper predication. I briefly explore this metaphysical possibility below.

predicated not simply of 'air,' nor of 'humidity,' but rather of 'humid air.'³⁹ The metaphysical status of 'humid air' is not entirely clear, but the *logical* status of 'humid air' would seem to be that of what, in his logic textbook, Burgersdijck calls a *participium*. *Participia*, Burgersdijck argues, are neither logical names, nor logical verbs.⁴⁰ They are not logical names, since they can be tensed (for example, we can have 'air that was humid,' 'air that will be humid'), while standard Aristotelian doctrine holds that names, unlike verbs, cannot be tensed. Yet *participia* are not verbs either, since it is another standard Aristotelian doctrine that verbs can be combined with names to make true or false pronouncements.⁴¹ 'Air that is humid' cannot be used in that way ('water,' for instance, is a logical name, and 'water air that is humid' is nonsense). However, Burgersdijck goes on to say, in a complete enunciation a *participium* plays the role of a name, not that of a verb.⁴² Perhaps, then, terms of the form 'S *quatenus* R' are *participia* in Spinoza's implicit logic.

Burgersdijck has little to say on the logical function of *participia*. But, unlike in his discussion of restrictive enunciations,⁴³ he does not claim that, in syllogisms, enunciations involving *participia* should be rewritten by drawing out exponents. Thus, even if he treats restrictive enunciations in an Ockhamite fashion, his theory allows for another sort of logical term that can be treated more in the fashion in which Jungius treats specificative or double-name expressions. Spinoza certainly read Burgersdijck, and it is plausible that he knew the works of Polanus and Jungius. Thus, he had access to a theory according to which *quatenus* could function to create a new name—a new logical subject—from another name, in a way that does not formally license *secundum quid ad simpliciter* inferences from predications of one name to predications of the other name.

By contrast, the Port-Royal Logic, which Spinoza also owned, suggests a different way of handling such enunciations. It contains a theory of relative pronouns.⁴⁴ It is possible to treat *quatenus* expressions as relative pronouns, though the Port-Royal Logic focuses on French expressions using *qui*, *lequel* etc. One can read the Port-Royal Logic theory here as aiming to explain the same class of expressions that earlier logicians had identified as reduplicative, specificative, and restrictive enunciations.

The Port-Royal Logic divides uses of relative pronouns into two sorts: the "explicative" and the "determinative."⁴⁵ An example of an explicative in the Port-Royal Logic is, "Men, who have been created to know and love God."⁴⁶ Although

³⁹"calor non est in humiditate ut in subjecto, sed in aqua humida" (Burgersdijck, *Institutionum Metaphysicarum*, 2.17.20). Citations refer to Book, Chapter, and Section.

⁴⁰"Participium, etsi per se neque nomen sit; quia adsignificat tempus; neque verbum, quia additum nomini, non facit orationem veram aut falsam: in enuntiatione tamen fungitur officio nominis, non verbi" (Burgersdijck, *Institutionum Logicarum*, 1.24.11.6).

⁴¹Burgersdijck, *Institutionum Logicarum*, 1.24.11.6.

⁴²Burgersdijck, *Institutionum Logicarum*, 1.24.11.6.

⁴³Burgersdijck, *Institutionum Logicarum*, 1.28.5.1.

⁴⁴Antoine Arnauld and Pierre Nicole, *Logique*, 2.7.

⁴⁵Arnauld and Nicole, *Logique*, 2.7, 117.

⁴⁶The *quantity* of the sample proposition is not relevant to the point being made. Another example given is a singular proposition: "Alexander, who was the son of Philip, defeated the Persians" (Arnauld and Nicole, *Logique*, 2.7, 117).

this is not a complete proposition, it is held to express what is called an ‘incidental proposition,’ whose subject is simply ‘men’; this would be ‘Men have been created to know and love God.’ The total proposition, for example, “Men, who have been created to know and love God, should also love one another,” is thus really a conjunction of two propositions with ‘men’ as the subject. Incidental propositions are thus akin to ‘exponents’ in earlier logical theories. Treating *quatenus* as an explicative relative pronoun formally licenses, by the drawing out of an exponent, the inference from ‘S *quatenus* R is P’ to ‘S is P.’

The Port-Royal Grammar, diverging slightly from the Port-Royal Logic on this point, claims that a relative pronoun introduces an incidental proposition that becomes part of the subject or predicate of the main proposition.⁴⁷ This sounds more promising in terms of avoiding *secundum quid ad simpliciter* inferences. ‘God, who is R₁, is P’ might then avoid contradiction with ‘God is not P,’ or with ‘God, who is R₂, is not P,’ since the logical subject of ‘is P’ would then be distinct from that of ‘is not P.’ One subject would include the incidental proposition ‘God is R₁’ while the other would not. Unfortunately, the presentation in the Port-Royal Grammar is somewhat confused. The example given, slightly modified, is: “God, who is invisible, created the world.”⁴⁸ It is suggested that the incidental proposition is the subject of the main proposition. But the main proposition is then construed as ‘God created the world,’ which appears to have simply ‘God’ as a subject and no sign of the incidental proposition. There is not enough material in the Port-Royal Grammar to develop a proper semantic theory of relative pronouns, although there is a promising start of something that could help Spinoza.

Returning to the Port-Royal Logic, the other type of relative pronoun is the ‘determinative.’ Unlike the explicative, a determinative pronoun in an expression of the form ‘S, who is R’ does not introduce the incidental proposition ‘S is R.’ Thus, for instance, the proposition, ‘Men who are pious are charitable,’ does not contain the incidental proposition, ‘Men are pious,’ since ‘who are pious’ is a determinative rather than an explicative expression.⁴⁹ In asserting this proposition, “the spirit joins together the idea ‘pious’ with that of ‘men,’ and having thus made a total idea, judges that the attribute ‘charitable’ applies to this total idea.”⁵⁰ The pronominal phrase then seems to produce a new logical subject. This looks similar to the theory of double-names and thus appears promising for Spinoza.

It turns out, however, that while determinatives do not imply the same incidental propositions that explicatives do, they do imply incidental propositions of another sort. In the incidental proposition introduced by a determinative, “the attribute is not predicated of the subject to which the ‘*who*’ relates.”⁵¹ Nevertheless, there is an incidental proposition in which a different attribute is predicated of that

⁴⁷Arnauld and Claude Lancelot, *Port-Royal Grammar*, ch. 9.

⁴⁸Arnauld and Claude Lancelot, *Port-Royal Grammar*, 99.

⁴⁹Here the quantity might matter; the Port-Royal Logic gives no examples of determinatives applied to *singular* subjects. But in the explanation of determinatives given below, we will see that there is no reason in principle why determinatives cannot be applied to singular subjects.

⁵⁰Arnauld and Nicole, *Logique*, 2.6, 114.

⁵¹“l’attribut de la proposition incidente n’y est pas affirmé du sujet auquel le qui se rapporte” (Arnauld and Nicole, *Logique*, 2.7, 118).

subject. What sort of attribute that is is made clear by an example: "Judges who are honest deserve praise."⁵² Here "it is not being said that there is any judge on Earth who possesses this perfection," namely, honesty. Yet there is nevertheless an implicit incidental proposition to the effect that it is *possible* for some judge to possess this perfection.⁵³ Thus, phrases like 'spirits that are square' and 'spirits that are round,' in which 'that' functions as a determinative, are said to express false incidental propositions. Given this, 'judges who are honest deserve praise' should be analyzed as something like: 'It is possible that judges are honest, and if they are then they deserve praise.' To say that judges who are honest deserve praise is to say of judges that they can deserve praise by at least one means: being honest.

The Port-Royal analysis of relative pronouns therefore always licenses formal *secundum quid ad simpliciter* inferences of one sort or another, and both sorts would be enough to validate Bayle's critique of Spinoza. If we subject 'God *quatenus* he constitutes Judas's mind is treacherous' to the Port-Royal analysis, then we get an incidental proposition either to the effect that God is treacherous or to the effect that God *could* constitute Judas's mind, and if so, God is treacherous. In the first case, we have everything we need to generate Bayle's absurdities. In the second case, we must ask, 'does God constitute Judas's mind?' If so, we again reach Baylean conclusions. If not, we have failed to say that anything at all is treacherous, which surely cannot be Spinoza's intention in using expressions of the form 'God *quatenus* he is R is P.'⁵⁴

Thus, the Port-Royal Logic is a problem rather than a help for Spinoza. What it presents is a way of *analyzing away* the sort of *participia* or specificative terms that might otherwise block *secundum quid ad simpliciter* inferences.

The Port-Royal Logic does have a section discussing what its authors refer to as the fallacy of *secundum quid ad simpliciter*.⁵⁵ But this turns out to be a different sort of fallacy, involving restricted generalization rather than reduplicatives. The first example given is the argument: The human body is the most beautiful (body); everything that is beautiful must belong to the gods; thus, the gods must have human form.⁵⁶ To this, the authors reply that the human body is beautiful only with respect to bodies. The fallacy, then, is to ignore an implicit restriction on the generality of 'most beautiful': in the first premise, it means only 'most beautiful of bodies,' whereas the conclusion would require it to mean 'most beautiful tout court.' The same goes for the second fallacy, taken from Cicero's *On the Nature of*

⁵²Arnauld and Nicole, *Logique*, 2.7, 118. I have simplified the example for ease of exposition. The original reads: "les juges qui ne font jamais rien par prière et par faveur, sont dignes des louanges".

⁵³For some discussion of how possibility and necessity are treated in the Port-Royal Logic, see Maria van Der Schaar, "Locke and Arnauld," 334–35.

⁵⁴Or if we do interpret him this way, we have arrived at the 'acosmist' reading of Spinoza, according to which the existence of finite things, i.e. God *quatenus* this or that finite mode, is strictly denied. In a later work, I hope to argue that one historical explanation for the development of the acosmist interpretation is the forgetting of the logical tradition of Polanus and Jungius and the increasing dominance of the scheme of the Port-Royal Logic. I provide a list of sources discussing the acosmist reading in n. 1 above.

⁵⁵Arnauld and Nicole, *Logique*, 3.19.5.

⁵⁶In that form, the argument does not even appear valid. Presumably, the second premise should be 'everything that is *most* beautiful must belong to the gods.'

the Gods, in which it is argued that God cannot possess any of the known virtues, since they all imply properties that it makes no sense for God to have (e.g. intelligence serves for discovering what is unknown, but nothing is unknown to God).⁵⁷ The fallacy here is “There can be in God no virtues *like those of men*: thus there can be no virtues in God.”⁵⁸ Again, the implicit restriction on the generality of “no virtues” in the premise is ignored to get to the conclusion. In both cases, the extension of a subject is taken as wider than it in fact is, because an important class-restriction is ignored.

This treatment of *secundum quid ad simpliciter* has no obvious application to Spinoza’s case, nor to the Aristotelian case of the man who is white with respect to his teeth. In Spinoza’s case, adding ‘*quatenus* he is R’ to ‘God’ is not a class-restriction; ‘God *quatenus* he is R’ and ‘God’ might denote different entities, but it is hard to see how ‘God’ could denote a class of which ‘God *quatenus* he is R’ denotes a proper subclass. God is one thing, not a class of things. Likewise, ‘Socrates with respect to his teeth’ does not denote a proper subclass of ‘Socrates.’ Thus, the discussion of *secundum quid ad simpliciter* in the Port-Royal Logic is of no relevance to Spinoza’s case, nor to some classic Aristotelian cases. Meanwhile, applying its analysis of relative pronouns to *quatenus* clauses could undermine any attempt to block Bayle’s *secundum quid ad simpliciter* inference by the use of such clauses. Should Spinoza have been discouraged by this?

5. THE LIMITATIONS OF THE PORT-ROYAL LOGIC

Spinoza might have found comfort in recognizing that the Port Royal Logic is, in any case, deficient. Its analytical apparatus cannot easily handle a variety of linguistic phenomena that previous logicians had associated with restriction. These are, as Ashworth recounts,

alienation, in which a term is used improperly in an extended or metaphorical sense; remotion, where the reference of one term is destroyed by another, as in ‘irrational man’; and diminution, where only a part of each object denoted by the subject-term is in fact referred to, as in “An Ethiopian is white with respect to his teeth.”⁵⁹

Here is how Polanus describes *alienation*:

Alienating determination is the term for an adjective attached to a word in a statement, which sweeps away the proper meaning of that word and leads the mind to comprehend something else. Thus it is called *distracting determination*. So where one says, “I saw a painted Cicero,” the adjective “painted” is an *alienating* or *distracting determination*, because it shows that it is not the real Cicero that is to be understood but only the one in the picture. Likewise with “This is false gold,” or “A painted dog does not bite,” or “A marble lion mauls no-one.”⁶⁰

⁵⁷References to Cicero’s *On the Nature of the Gods* are by Book and Chapter numbers.

⁵⁸Arnauld and Nicole, *Logique*, 3.19.5, 242, emphasis added.

⁵⁹Ashworth, *Language and Logic*, 92.

⁶⁰“*Determinatio Alienans*, est nomen adjectivum alicui voci in enunciatione adjectum, quod prorsus evertit propriam vocis illius significationem & ad aliam rem comprehendendam, mentem abducit. Vocatur etiam determinatio distrahens: ut si quis dicat, *Ego vidi Ciceronem pictum*. Hic enim nomen adjectivum pictum est determinatio alienans vel distrahens, quae ostendit non esse intelligendum Ciceronem verum, sed duntaxat ejus picturam. Sic, *Hoc est aurum falsum. Canis pictus non mordet. Leo marmoreus neminem discerpit*” (Polansdorf, *Syntagma Logicum*, 281).

Since 'A painted dog does not bite' is logically equivalent to 'a dog that is painted does not bite,'⁶¹ the way to analyze it by the principles of the Port Royal Logic is to take 'that is painted' as either explicative or determinative. Taking it as explicative makes the original statement equivalent to 'A dog does not bite,' which is not what is meant. Taking it as determinative renders the original statement as 'A dog can be painted, and if it is then it does not bite.' That sounds strange. Should we say of some real dog that it 'could be painted,' meaning not that a painting could be made of it, nor that paint could be applied to it, but rather that it could itself *be* paint on canvas? This certainly is not what is meant by the original statement, which does not aim to convey a thesis about the metaphysical possibility of dogs being paintings.

We can, of course, dismiss the linguistic phenomena of alienating determination as mere surface grammar, undertaking to analyze all such statements into a form like 'A painting of a dog does not bite.' However, the failure of the Port-Royal Logic to handle such cases points to a more general deficiency. Spinoza might have become aware of this deficiency while reading Johannes Clauberg's *Logica Vetus et Nova*, another book that he owned. Clauberg proposes that "the subject determines how the predicate can be, and contrariwise the predicate determines how the subject can be."⁶² This explains why: "if it is stated: 'the dog guards the building,' the predicate does not permit that the subject, the word 'dog' [*canis*], can denote the heavenly body. It must denote the animal that barks."⁶³

Spinoza uses the same analogy himself (drawn perhaps from the *Sophistical Refutations*).⁶⁴ Perhaps he read Clauberg and realized that there was something wrong with the axiom of the Port-Royal Logic, namely, that "the extension of the predicate is restricted to that of the subject, so that it denotes nothing more than that part of its extension that corresponds to the subject."⁶⁵

What the authors of the Port-Royal Logic mean is that any true proposition of the form 'S is P,' with S as the subject and P as the predicate, could be read as an identity statement to the effect that the things denoted by S—what is called S's "extension"—are identical to those denoted by P—P's "extension." For the identity to hold, as for instance in the case of 'snow is white,' the extension of the predicate must be implicitly restricted so that 'white' does not denote all white things but only the white things denoted by 'snow.' This theory faces some difficulties, but perhaps these can be overcome.⁶⁶ But in Clauberg's example the predicate is *not* restricted by the extension of the subject. On the contrary, its application to the subject changes the subject's ordinary extension. Applying 'guards the building' or 'is the brightest star in the sky' to *canis* produces a different logical subject in

⁶¹The example is reminiscent of Aristotle's *Categories*, 1a2–3.

⁶²"tale est subjectum, quale permittitur esse a praedicato; & contra, tale est praedicatum, quale permittitur esse a subjecto" (Clauberg, *Logica*, 3.6, 277).

⁶³"si dicatur, canis est aedium custos, praedicatum non permittit, ut subjectum, canis, signum caeleste denotet, sed bestiam latrantem" (Clauberg, *Logica*, 3.6, 277).

⁶⁴E IP17S; *Sophistical Refutations* IV, 166a16–17.

⁶⁵Arnauld and Nicole, *Logique*, 2.17, 161.

⁶⁶One some of the difficulties, see Peter Geach, *Reference and Generality*, 52; and Greg Carlson, *Reference to Kinds in English*, 2.3.2, 44–45. Replies to Geach are found in Terence Parsons, "The Doctrine of Distribution", 69; and Dutilh Novaes, *Formalizing Medieval Logical Theories*, 1.1–3.

each case. Applying ‘painted’ to ‘dog’ creates a new logical subject—‘painted dog’—which is distinct from the subject ‘dog.’

These latter cases, which cannot be easily handled by the principles of the Port-Royal Logic, can be easily handled with specificatives (in the Polanus/Jungius sense) or *participia* in Burgersdijck’s sense. ‘Dog that guards the building’ (or ‘*quatenus* it guards the building’) and ‘dog that is painted’ (or ‘*quatenus* it is painted’) can alike be regarded as expressions that play the logical role of names without naming the same object as ‘dog’ on its own. Once we allow that subject-terms can be modified by predicates, there appears no reason not to allow that they can be modified by specificative terms, including *quatenus* modifiers. Rejecting the Port-Royal theory, the logical function of *quatenus* can then be spelled out as follows. The *participium*, specificative expression, or double-name, ‘S *quatenus* R,’ introduces a logical subject distinct from that named by ‘S.’ What we say of S *quatenus* R we need not say of S, and what we say of S *quatenus* R₁ we need not say of S *quatenus* R₂, where R₁ ≠ R₂. In this way, the logical difficulties Bayle found in Spinoza’s theory can be made to disappear: God *quatenus* he constitutes Judas’s mind is treacherous does not imply that God *quatenus* he constitutes Peter’s mind is treacherous, nor that God is treacherous.

This theory can be built from the logical resources of Polanus, Jungius, Burgersdijck, and others of the period. Adding ‘*quatenus* R’ to a S *reduplicates* the subject; that is to say, it creates a new subject-term whose *suppositum* might be different from that of S. But this is not to say that Spinoza simply read his use of *quatenus* off these theories. The examples of Polanus and Burgersdijck, discussed above, can all be interpreted with *quatenus* meaning ‘to the extent that.’ ‘Air *quatenus* humid is hot’ can mean ‘Air is hot to the extent that it is humid’; ‘Man *quatenus* animal senses’ can mean ‘Man senses to the extent that he is animal’; ‘Wine *quatenus* consumed in moderation conduces to health’ can mean ‘Wine conduces to health to the extent that it is consumed in moderation.’ This means that there is no good reason not to subject these propositions to the analysis of the Port-Royal Logic, treating the *quatenus* phrase as determinative: ‘Air can be humid, and if so it is hot’ etc. We have seen, however, that there are cases resistant to the Port-Royal analysis, such as the one given by Clauberg. Thus, we can return to the analysis of Polanus et al., refusing to treat *quatenus* as equivalent to ‘to the extent that,’ and thus preventing propositions involving it from inviting the Port-Royal analysis. ‘S *quatenus* R’ does not mean, ‘S, to the extent that it is R’ or ‘S, because is R,’ or anything else implying something like ‘S is P’ as an exponent. Instead, Spinoza can take the treatment of *quatenus* in the pre-Port-Royal discussions of restrictive terms as *exhausting* its logical role. In at least one of its senses, *quatenus* is just a word we apply to a name to form a new name. What it produces is something semantically simple, not something that can be analyzed into exponents or incidental propositions.

As Martin Lin and Alexandre Matheron argue, each singular thing—each subject of ordinary predications—is for Spinoza a Deus-*quatenus*.⁶⁷ I have not

⁶⁷Matheron, *Individu et communauté chez Spinoza*, 291; and Lin, “Spinoza’s Metaphysics of Desire,”

been concerned here to explain the nature of the ontological relation between the substance named 'Deus' and the various things named 'Deus *quatenus*' My primary concern has been to point out that Spinoza had logical resources to draw upon in using *quatenus* in this way: to form new names which then supposit in propositions for entities not strictly identical to the *suppositum* of the original name. In this way, we can rebut Bayle's objection that Spinoza's statements formally entail contradictions. Whether 'God *quatenus* R₁ is P' entails 'God is P' or 'God *quatenus* R₂ is P' will depend on the material or ontological relations among the *supposita* of 'God *quatenus* R₁,' 'God *quatenus* R₂,' and 'God.' This reduplication of names is, I submit, the core of the art into which, as Melamed claims, Spinoza elevated "respects analysis."⁶⁸ A few comments on the ontological issues are, however, in order.

6. ONTOLOGICAL IMPLICATIONS

I propose to refer to the *supposita* of the names formed using *quatenus* as "qua-substances," adapting some terminology from Kit Fine.⁶⁹ Here is how Fine describes the genesis of what he calls a "qua-object":

Given any object *x* and description (property) ϕ possessed by *x*, we shall suppose there is a new object *x qua* ϕ or *x under the description* ϕ . Thus if *x* is Socrates and ϕ the property of being a philosopher, then the new object is Socrates qua philosopher; while if *x* is Mrs. Thatcher and ϕ the property of being a Prime Minister, then the new object is Mrs. Thatcher qua Prime Minister.⁷⁰

Fine appears to hold that '*x qua* ϕ ' will fail of reference unless *x is* ϕ , or falls under the description ϕ , so that if '*x qua* ϕ ' refers then '*x is* ϕ ' is true. But this does not have to follow; Aristotle's example, "An Ethiopian qua his teeth is white," does not imply that an Ethiopian is his teeth. To treat predications made of '*x qua* ϕ ' as implying the incidental proposition '*x is* ϕ ' or anything like this is to revert to something like the Port-Royal analysis. On the view I am ascribing to Spinoza—the view arrived at by taking literally Polanus's theory of restriction, Jungius's explanation of specificatives, and Burgersdijck's analysis of *participia*—'*x qua* ϕ ' simply functions as a name. It implies no incidental proposition, not even '*x is* ϕ .'

Lin suggests that when Spinoza uses terms like "affections" and "modes" he means to refer to what I call "qua-substances."⁷¹ In this case, what really exists will consist of substance and qua-substances. Meanwhile, the various descriptions that go *into* the *quatenus* expressions—the 'R' in 'S *quatenus* R'—will themselves name nothing that exists 'truly in Nature' or 'outside the intellect.' These descriptions—accident-terms as distinct from subject-terms—refer only to our ways of identifying the various qua-substances (the modes). This somewhat accords with the nominalist attitude Spinoza appears to take towards universals, although

⁶⁸Melamed, "Metaphysics of Substance," 50.

⁶⁹Fine, "Acts, Events, and Objects," 97–105. For a comparison of Fine's theory with some of those discussed here, see Bäck, *On Reduplication*, 489–93.

⁷⁰Fine, "Acts, Events, and Objects," 100.

⁷¹Lin, *Being and Reason*, ch. 6.

I do not wish to place too much weight on this point.⁷² What is important here is that it allows Spinoza to have a range of subjects of predication without violating Bayle's maxim that predications must be properly made of substance rather than accidents. Qua-substances, we can reply, are neither substances—at least not in the full sense—nor are they accidents. The maxim does not pronounce on the possibility of predications being made of qua-substances.

What, however, is the ontological relation between qua-substances and substance? One tame proposal is that qua-substances are simply 'parts' of substance. In this case, 'God *quatenus* R' is a case of what Ashworth refers to as "diminution" in the quotation above; it refers to a 'part' of God, and a formal inference from 'God *quatenus* R is P' to 'God is P' will amount to a mere fallacy of composition.⁷³ But Spinoza states quite unambiguously that if substance had parts, they would be, per impossibile, finite substances rather than qua-substances: "by 'part of substance' nothing can be understood besides 'finite substance,' which (by IP8) involves a manifest contradiction."⁷⁴ It could be argued that there is another way of using 'part,' according to which qua-substances *can* be rightly called parts of substance. But it is up to the proponent of this reading to spell it out.⁷⁵

Another option, in line with some recent trends in analytic metaphysics, is to treat qua-substances as non-basic entities, which stand in some relation of ontological dependence or groundedness to the one substance.⁷⁶ Lin takes Spinoza's modes in this way.⁷⁷ Others might prefer to speak of partial or qualified identity.⁷⁸ A detailed interpretation of Spinoza's metaphysics requires the nature of this relation to be adequately explained. Here I am content to make the point that, whatever his metaphysical theory might be, according to Spinoza's implicit *logical* theory we refer to qua-substances by applying *quatenus*-modifiers to a name for substance. The logical relation between 'S' and 'S *quatenus* R' is explicable in terms of a theory of name-reduplication; whatever metaphysical relation matches this logical relation remains, for my part, an open question.

Finally, we come to the problem of substance seeming to be in contradictory respects. This is only a worry if 'S *quatenus* R is P' entails 'S is R.' But Spinoza is no more committed to allowing this inference than to allowing the *secundum quid ad simpliciter* inference. For him, 'S *quatenus* R' functions simply as a name. Unlike in the Port-Royal Logic, 'S *quatenus* R is P' does not contain any incidental proposition of the form 'S is R' or 'S could be R' (nor, unlike other theories, does

⁷²E IIP40S1.

⁷³This is not to say that logicians found it easy to say precisely what made part-to-whole inferences *materially* valid in some cases and not in others. See, e.g. Peter of Spain's attempts to grapple with the puzzle, related in Bäck, *On Reduplication*, 174–80.

⁷⁴E IP13S. Some analysis of Spinoza's argument can be found in Melamed, *Spinoza's Metaphysics*, 47–48; Bennett, *Study*, §20.2; and Carriero, "Monism in Spinoza," 38–59.

⁷⁵Melamed, for instance, declares some agreement with Jonathan Schaffer's reading of Spinoza's monism, which involves reference to parts, but contends that "Schaffer is using 'part' in a sense significantly different from Spinoza's" (Melamed, *Spinoza's Metaphysics*, 48n146).

⁷⁶See, e.g. Schaffer, "On What Grounds What."

⁷⁷Lin, *Being and Reason*, ch. 6.

⁷⁸See Baxter, "The Discernibility of Identicals."

it generate any incidental proposition of the form 'R is P').⁷⁹ Thus, the problem of contradictory respects does not arise for Spinoza, so long as he limits the function of 'quatenus R' to restricting the subject S and yielding a new name.

7. CONCLUSION

Spinoza does not, on this reading, advance at all beyond the traditional solution to the problem of *secundum quid ad simpliciter*, namely, that of treating such inferences as material rather than formal. It is clear enough that 'God *quatenus* infinite is P' implies 'God is P,' whereas 'God *quatenus* this finite mind is P' does not imply 'God is P.' Thus, the inference in the first case cannot be formal in Albert of Saxony's sense; it does not hold when the premise is replaced by another proposition of the same form. The inference is, rather, material; it holds by virtue of the metaphysical relations among the things named. It is far beyond my purpose to explain how we have knowledge of such metaphysical relations according to Spinoza. What I do hope to have shown is that all Spinoza needs to resist Bayle's *logical* objections is a theory of *quatenus* expressions that prevents them from being analyzed away into incidental propositions having for their subject only the term to which the *quatenus* clause was attached.

Bayle was clearly familiar with the Port-Royal Logic; he refers to it in his dictionary.⁸⁰ I find it likely that in his criticism of Spinoza he had in the back of his mind the Port-Royal theory of restrictive terms, which rules *secundum quid ad simpliciter* inferences (except those involving fallacies of class-restriction) to be 'formally' valid. For Spinoza, by contrast, such consequences will be material rather than formal, and the material consequences must be decided at the level of metaphysics, not at the level of bare logic. Bayle's logical criticism does not then constitute a good reason for rejecting Spinoza's metaphysical theory; rather, it is only by knowing what is the case metaphysically speaking that we can know whether Bayle's inferences to absurd and contradictory conclusions are valid.

With the Port-Royal analysis out of the way, and adopting the earlier theory according to which *quatenus* operators produce new subject-terms, we can test some of Spinoza's claims for their implications. Take the following passage:

God, not *quatenus* he is infinite, but *quatenus* he is explained by the human mind, that is, *quatenus* he constitutes the essence of the human mind, has this or that idea. And when we say that God has this or that idea, not *quatenus* he constitutes the nature of the human mind, but *quatenus* he has along with the idea of the human mind the idea of another thing, then we say that the human mind perceives partially or inadequately.⁸¹

To avoid the inference from 'God *quatenus* (he constitutes the essence of a) human mind has this or that idea' to 'God has this or that idea,' we must treat 'God *quatenus* human mind' and 'God' as naming two distinct *supposita*. On the interpretation proposed by Lin, 'God *quatenus* human mind' will name a human mind. But then, 'God *quatenus* human mind along with the idea of something

⁷⁹Various theories with that implication are discussed throughout Bäck, *On Reduplication*.

⁸⁰E.g. at note M in the entry "Pascal" (Bayle, *Dictionnaire*, 2.740).

⁸¹E IIP11C.

else' will be the name for a human mind having an inadequate idea. If this names a distinct *suppositum* again from 'God *quatenus* human mind,' then it will follow that when a human mind comes to have inadequate ideas, or ceases to do so, a new dependent entity comes into being. Is that Spinoza's metaphysical theory? It is implied by some Spinoza interpreters. Curley, for instance, proposes that when Spinoza speaks of the eternity of the mind, he "does not mean that *I* can entertain any hope of immortality."⁸² The reason is that what is eternal is a mind with no inadequate ideas, whereas *my* mind—the one currently hoping for eternity—is riddled with them. The two entities are distinct.

The point of the logical interpretation given here is that questions like these are a matter for metaphysical investigation. Whether we can coherently hold that 'God *quatenus* my mind plus the idea of something else is P' and 'God *quatenus* my mind on its own is not P' is a matter of material rather than formal consequence. We need to know enough about the *supposita* of the various names to know which inferences are valid; we cannot read this knowledge off the forms in our language. In blocking Bayle's *secundum quid ad simpliciter* inferences, we also deprive ourselves of any way of reading significant formal consequences off Spinoza's use of the *quatenus* modifier.

I have tried to think, with an eye to historical context, how Spinoza might have conceived of the semantics of *quatenus* so as to avoid Baylean conclusions. Other Spinoza commentators can claim with justice that I have taken the long way around to what they have been saying all along: Spinoza avoids the Baylean conclusions by making different predications of God in different respects, and that God in one respect cannot be strictly identical with God in another respect.⁸³ This is, anyway, a traditional Aristotelian way of rejecting formal *secundum quid ad simpliciter* inferences. But the Port-Royal Logic gives one example of a theory that does not allow that Aristotelian move. I believe it is therefore important for any defender of Spinoza to motivate the rejection of the Port-Royal theory and the retention of an alternative theory.

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⁸²Edwin Curley, *Behind the Geometrical Method*, 86.

⁸³Bennett attempts to explain Spinoza's "respects analysis" by invoking the device of "locational adverbs," which he explains in turn by way of an analogy with how *temporal* adverbs are used according to one logical theory of tensed predications (Bennett, *Study*, §23.4). As I see it, he reaches for a lantern more obscure than the room he seeks to illuminate. But I do not thereby deny that his account might, once the obscurities are penetrated, be equivalent to my own. For some discussion of the difficulty of understanding tensed predications in terms of locational adverbs, see Geach, "Some Problems about Time," 302–17.

In citing from the *Ethics* I use the following abbreviations:

App	Appendix
A	Axiom
C	Corollary
D	Definition
Def. Aff.	Definitions of the Affects
Dem	Demonstration
Expl	Explanation
Gen. Def. Aff.	General Definition of the Affects
L	Lemma
P	Proposition
Pref	Preface
S	Scholium

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