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*A Critique of Suárez and Descartes
on Formal Distinction and Mental Distinction*

Jan Dejnoška

May 2, 2020

For Raul Corazzon

Francisco Suárez (1548–1617) lived at the height of the Renaissance and was a contemporary of Shakespeare. But he belonged to the scholastic revival, and was in fact the last great medieval philosopher. He was the culminating flower of the tradition of Aquinas, Scotus, and Ockham. He was a Jesuit and closest to Aquinas. He had a huge impact throughout Europe, which Christian Wolff popularized and increased. For many, Suárez *was* metaphysics.

René Descartes (1596–1650) was the first great modern philosopher. Suárez had a major impact on Descartes, especially on the topics of this paper. Descartes read Suárez, citing *Metaphysical Disputations* (Descartes 1970 / 1642: 107). John P. Doyle says, “More than likely, Suárezian metaphysics was that first learned by Descartes from his Jesuit teachers at La Flèche” (Doyle 1995: 13). John A. Mourant says, “Descartes is said to have carried a copy of the *Disputationes* with him during his travels” (Mourant 1967: 31). In any case, Descartes follows Suárez so closely on the ontological distinctions that my criticisms of Suárez apply to Descartes as well.

In his “On Various Kinds of Distinctions” (de Variis Distinctionum Generibus), which is Disputatio 7 in his monumental *Disputationes Metaphysicae*, Suárez admits real distinction, modal distinction, and mental distinction, but rejects formal distinction. I accept his real distinction and modal distinction. But I shall argue against mental distinction and in favor of formal distinction. I hold that his mental distinctions ought to be formal distinctions, and that his

modal distinctions are in fact a kind of formal distinction. Like every philosopher, he also needs to be updated. Much of the update is due to Frege, Moore, Russell, and Wittgenstein. Thus this paper is primarily original and critical as opposed to scholarly. I shall argue that regardless of their relation, all ontological distinctions are objective and mind-independently based on reality.

For Suárez and Descartes, everything has either a real identity, a modal identity, or a mental identity. For the only kinds of ontological distinction they admit are real, modal, or mental. The logical opposite of real distinction is real identity, the logical opposite of modal distinction is modal identity, and the logical opposite of mental distinction is mental identity. The logical opposite of formal distinction is formal identity, and the logical opposite of distinction in reason may be called identity in reason, or rational identity. Thus this paper belongs to “no entity without identity” ontology, or more precisely, to entity if and only if identity (*ens et unum convertuntur*) ontology. It is an independent companion paper and sequel to my “Being Qua Identity in Russell’s Ontologies” (2018). The distinctions are also the ontological foundation—the truth-grounds—of the whole-part containment entailments of substance tradition relevance logic. But I do not discuss only the necessary *a priori* containment of modes and attributes in a substance, or of genus in a species. I also discuss dreamed, imaginary, and fictional objects; logical, geometrical, and corporate entities; and borderlines, holes, and privations.

Mental identities are often called rational identities, but that can lead to confusion. Mental distinctions exist only in the mind. They are generally understood to be created by the mind, as opposed to distinctions that are discerned and discovered in reality. Mental distinctions are not to be confused with distinctions in reason. Distinctions in reason are intellectually discernible nonmental differences among things. Distinctions in reason are discerned, not created. They are

called distinctions in reason only because they are not real distinctions. They are not real distinctions because while the entities are different, at least one logically cannot exist without the other. On the whole-part relevantist containment theory of logical inference, that is in turn because one entity logically contains the other, or because the entities overlap (are not wholly distinct). In any case, distinctions in reason would appear to include modal distinctions and formal distinctions as main and arguably overlapping sub-types. The existence of distinctions in reason is supported by the correspondence theory of truth. On that theory, judgments are true or false based on what is the case in reality. Thus if it is true that there are distinctions discerned in reality, there is a basis in reality for them. In contrast, the basis in reality of a mental distinction is in the mind. It is their creation by the mind that is their basis in reality. Note that real distinctions are technically distinctions in reason too. For they are discernible and discoverable in reality too. But they are not *merely* distinctions in reason. For they are also real distinctions, meaning that either entity logically can exist without the other.

Timothy J. Cronin says “we must be most cautious in interpreting the scholastic terms which are found in...Descartes.... [W]e must heed the warning which Descartes has given us. He warns us that he pays no attention to the way in which particular terms have been used in the schools, for, since his position is wholly diverse from theirs, it would be most difficult to use the same term in the same meaning” (Cronin 1966: 11). But I think any such differences will make no significant difference to the present critique. Since Descartes basically admits the same distinctions as Suárez, and basically says the same thing about formal distinction, my remarks on Descartes will be brief.

In part 1, I argue for formal distinction. In part 2, I argue against mental distinction.

1. Formal Distinction

It is well known that formal identity is intended to be intermediate between real identity and merely mental identity. Suárez argues against the very concept of formal identity. His argument is based on the law of excluded middle. I will state the argument in my own way. (1) Either an identity is real or it is not. There is no third option, due to the law of excluded middle. (2) But if an identity is not real, then it can only exist in the mind. *Tertium non datur*: there is only what is real and what is mental. (This does not detract from the fact that we can admit real minds and real mental contents in the real world.) (3) Therefore either an identity is real or it is mental. There is no halfway house between real and purely mental distinctions. Suárez says:

There are no classes of being besides real and mental entities, as we gather from Aristotle, *Metaphysics*, Book 5 [1017a22–b9] and Book 6 [1027a19–26]. For, since these two imply a direct contradiction, no medium between them can be excogitated.

Secondly, whatever beings exist in the actual order prior to mental activity are either really identified or really diverse, as otherwise there would be a middle ground between “the same” and “other,” which is contrary to Aristotle....

Accordingly all objects which we conceive as two entities are either really the same or are really other. If they are really other they are really distinct. If they are really the same they cannot be distinct in the real order antecedently to intellectual advertence, as it is impossible for a thing to be simultaneously the same and other in the real order. (Suárez 1947 / 1597: 22, see 32)

He says ten pages later:

21. Besides modal, real, and mental distinctions, no further distinction is possible.

I submit, finally, that besides real, modal, and mental distinctions there is no other which is not common to these, or is not comprised in them. I am led to make this statement because of some authors who add a formal distinction, such as intervenes between man and animal [meaning species and genus], and this they divide into mutual distinction, as between animal and rational [where man is defined as rational (difference) animal (species)], and non-mutual distinction, as between animal and man. Some also propose an essential distinction, as between man and horse [which are or have different essences], and a potential distinction, as between the parts of a continuum [following Aristotle]. Similar distinctions are multiplied, but it seems to me without necessity. (Suárez 1947 / 1597: 32, Suárez's emphasis of section title)

I have nine objections to Suárez's argument against formal distinction.

First, the argument mistakes a merely psychological (merely mental) opposite for a logical opposite. Thus the law of excluded middle (I assume it is a truth of logic) simply fails to apply here. The law states that for every object and every property, either the object has the property or it does not. Those are the only two alternatives, if the law is true. They are called logical opposites. Trivially, logical opposites must be both mutually exclusive and jointly exhaustive. That is, in every logically possible case, exactly one logical opposite must obtain, no

more and no less. But real identity and merely mental (“rational” identity are not logical opposites. They are mutually exclusive kinds of identity, but they are not jointly exhaustive. They are only psychological opposites, like white and black, or love and hate. The logical opposite of white is not black, but non-white. Non-white includes not just black, but many other things, like red, green, colorless, and invisible. The logical opposite of love is not hate, but non-love. Non-love includes not just hate, but many other things, like fear, anger, and emotionlessness. And the logical opposite of real identity is not mental identity, but non-real identity. Non-real identity includes not just mental identity, but on the face of it many other kinds, like identities in reason and what appear to be its (arguably overlapping) sub-types, modal identity and formal identity.

Second, the argument begs the question. Mental identity is the logical opposite of real identity only if it is already assumed that there are and can be no other sorts of identity.

Third, Suárez himself admits a halfway house between real identity and mental identity. Namely, he admits modal identity. For he admits modal distinctions. And a modal distinction is neither a real distinction (a distinction between really / wholly distinct things each of which logically can exist even if the other does not exist) nor a merely mental distinction (that exists only in the mind), but has a basis in reality. If so, then a modal distinction can only be a distinction in reason as I defined that term above. And on the face of it, all distinctions in reason are formal distinctions with a foundation in reality. And a foundation in reality is the same thing as a basis in reality. Thus it appears that all modal distinctions are formal distinctions. But I shall argue shortly that not all formal distinctions are modal distinctions (since modal distinctions are one-sided, while some formal distinctions involve mutual dependences).

Fourth, the argument is too broad. It throws out the baby with the bath water. That is, it

rejects not only formal identity, but modal identity as well, and even their genus, identity in reason, which is the logical opposite of distinction in reason. And if modal distinction and distinction in reason are all right, then what is wrong with formal distinction? Is there a problem unique to its definition that the definitions of modal distinction and of distinction in reason do not share? Is its definition not good enough to use, or not as good to use as theirs are? I shall define formal distinction shortly, and modal distinction later.

Fifth, Suárez misunderstands the whole role, function, and scope of the law of excluded middle. To use the words of Joseph Butler, the law says, “Every thing is what it is, and not another thing” (Butler 1749: preface § 39). That applies to all objects across the board, not just to really distinct ones. Even objects that are distinct only in reason, formally distinct, and / or modally distinct ‘are what they are, and not another thing’. All objects are identical with themselves and different from all other objects. That concerns identity in general, as such, or simpliciter, and not kinds of identity such as real identity, identity in reason, formal identity, or modal identity. Every object has the properties it has, and for every object and every property, either the object has the property or it does not. At any rate, that is what the law of excluded middle asserts. And perhaps I am the only one to note the reason: properties are themselves objects in the wide sense. They too are what they are, and are not other things. That is why properties are mutually exclusive and jointly exhaustive in their application to objects. At any rate, that is what the law implies and presupposes.

Sixth, Aristotle admits formal distinctions between all kinds of overlapping things, and sees no conflict with the law of excluded middle. Aristotle uses formulae (“little forms”) to solve the problem of informative identity. Coriscus in the Agora and Coriscus in the Lyceum are one in

substance but distinct in formula (*Physics* 219b). Likewise for teaching and learning, and for “the road from Thebes to Athens and that from Athens to Thebes” (*Physics* 202b). Suárez is well aware of such texts in Aristotle, but tries to explain them away (Suárez 1947 / 1597: 25). But the texts say “formula;” and on the face of it, we cannot create any of these distinctions as we please.

Seventh, even if Suárez were right about the law of excluded middle, and everything must be either in the mental order or the real order, formal distinction would belong to the real order. For its real basis belongs to the real order, and its real basis is the truth-ground (“truth-maker”) of the statement or judgment that the formal judgment exists. Of course, our discerning the formal distinction, and any intellectual activity involved in that, would belong to the mental order.

Eighth, even if Suárez were right that formal distinction belongs to the mental order, it would still belong to the real order, because the whole mental order belongs to the real order. We do create or make up fantasies, and we do make choices. But it is an objective, mind-independent fact about the real world that we do these things. We do not create or make up that fact. We discern it. We ourselves are in the real world, and we do all these things in the real world. And we cannot change or make up the essence of anything. We cannot change an imaginary centaur into a mental distinction (if there were such a thing) any more than we can change Socrates into the number two. And the reason is that they are essentially, in fact categorially, different.

The two main scholastic characterizations of formal distinction are positive. Aquinas says that a formal distinction “has a foundation in the thing (*fundamentum in re*);” and Scotus says that “a formal distinction (*distinctio formalis a parte rei*)... holds between entities which are inseparable and indistinct in reality, but whose definitions are not identical” (multiple cites). Here “indistinct” means not ‘vague’ or ‘unclear’, but ‘not really distinct’ in the sense of real

distinction. These formulations seem logically equivalent. I sense no tension between them. In fact, Scotus's formulation seems to be a logical analysis of Aquinas's, where the entities are within a thing, that is, are logical or rationally discernible constituents of a larger whole.

Ninth, a mental distinction is not a distinction, for the very same reason that a wooden decoy duck is not a duck, a fake diamond is not a diamond, a created, made up story is not a true story, and a heathen converted to Christianity is not (or is no longer) a heathen. (The first and last examples are due to Jerry Fodor.) For distinctions can only be discerned. There cannot even be an example of a genuine distinction that is created or made up, except in the shallow sense in which we can make up new compositions of things whose distinctions we can only discern. There is a vicious infinite regress argument here of created compositions out of created compositions; at some point there must be something we discern. I also invite you simply to try and see for yourself. If it is a distinction that is intelligible and makes sense, it will have a basis in reality of some sort. For example, centaurs are half horse and half human, while unicorns are horses with horns. And those constituent concepts did not come from nowhere. But what would a distinction that is not like that be like? It boggles the mind. Suárez does offer an example of a mental distinction, and I shall discuss it later. Briefly, I shall argue that it is a false example, and is really just another discerned distinction in reason. This is the distinction between Peter as logical subject and Peter as logical predicate. Here too we must distinguish the discerned logical distinction itself from any intellectual activity of discerning it, and from our choice of which way to regard Peter in a certain statement or judgment. That we choose the way is just a red herring, a false distraction from the real issue. Frege got it right as early as *Begriffsschrift*. Suárez never did. Still, it was a nice try. At least it has a false plausibility. More precisely, a false plausibility is not

a plausibility, but a false appearance of plausibility is a genuine false appearance. And a red herring is a red herring.

This concludes my nine objections to Suárez's argument based on the law of excluded middle. But there is more to say about formal distinction, and even about Suárez. I proceed to discuss more deeply what a formal distinction is.

Often we can best tell what something is by looking at the argument for it. And I think that is the case here. Allan B. Wolter explains Scotus's main argument for formal distinction as follows:

Scotus...argued that if something has the native ability to produce different conceptions of itself in the mind, each concept reflecting a partial but incomplete insight into the thing's nature, then the distinction must be in some sense actual. Put in another way, there must be some "formalities" in the thing (where form is understood as the objective basis for a concept and "little form" or formality [*formalitas*] as an intelligible feature or aspect of a thing that is less than the total intelligible content of a thing)...If a thing is virtually two things inasmuch as it is able to be grasped in two mutually exclusive ways, this nonidentity of intelligible content must be prior to our actually thinking about the thing, and to that extent it exists as a reality (*realitas*) or in other words, objectively. (Wolter 1967: 431)

I accept the argument as sound. I also accept Scotus's second argument for formal distinction, again as Wolter explains it, but omit it here (Wolter 1967: 431). For more on formal distinction,

see the excellent Grajewski (1944).

Scotus's definition or analysis of formal distinction is complex, having three main logical constituents. A formal distinction is between two objects that are (1) not really distinct, but (2) differ in some formal aspect that (3) has a foundation in reality. I think the third constituent, foundation in reality, subdivides into three further logical constituents: 'foundation', 'in', and 'reality'. But I think the third constituent is cognitively simple in the sense that its sense can be conveyed only by intuitive examples. If we admit distinctions in reason at all, or even real distinctions, we may call our discerning them "intellectual intuition," for lack of a better term. Russell would analyze intellectual intuition as acquaintance with universals.

The argument that a distinction is a distinction in reason if and only if it is a formal distinction is simple. A distinction is discernible in reality if and only if it has a foundation in reality. Since these two properties are different, the distinction between distinction in reason and formal distinction is itself both a distinction in reason and a formal distinction with, surely a foundation in reality in formal distinction. For the reason why a distinction is discernible in reality is surely its foundation in reality. But the distinction between distinction in reason and formal distinction is not a modal distinction.

All modal distinctions are both distinctions in reason and formal distinctions, but the converse is not true. For modal distinctions are one-sided in their logical dependence. The distinction between a three-sided and a three-angled plane figure is in reason and formal, but it is not modal. The distinction between a plane figure and a triangle is all three: in reason, formal, and modal.

Intuitively, the concepts of distinction in reason and formal distinction are different. But

their definitions also have different logical constituents. We may define distinction in reason as, “Things are distinct (only) in reason just in case (1) they are discernibly different, yet (2) at least one logically cannot exist if the other does not exist.” That definition is logically equivalent to: “Things are distinct (only) in reason just in case (1) they are discernibly different, and (2) at least one logically must exist if the other does exist.” Here the two negations have vanished from logical constituent (2). Strictly speaking, this is not a case of Wittgenstein’s vanishing double negation, where “It is not the case that it is not the case that P” is logically equivalent to “P.” For this case does not have the strict form, $\neg\neg P \equiv P$. But the two negations logically hang together just as much as they do in $\neg\neg P$, and we can drop them out of the list of logical constituents of distinction in reason. Of course, the reason for the logical equivalence of these two definitions is the well known general interdefinability of the modalities: necessity, possibility, impossibility, and contingency. But in any case, the logical constituents of formal distinction are quite different. As we saw earlier, things are formally distinct just in case they are (1) not really distinct, but (2) differ in some formal aspect that (3) has a (3a) foundation (3b) in (3c) reality. We may equate discernible difference with difference in some formal aspect, and equate the presence of logical dependence with the absence of real distinction. But nothing in the definition of distinction in reason equates with the third constituent of formal distinction: having a foundation in reality. On the face of it, the third constituent is implied by the constituent of discernible difference, and it is also implied by the correspondence theory of truth; but it is not expressly included in the concept of distinction in reason. And that is just why the concepts of distinction in reason and formal distinction are not identical, but are distinct in reason and formally distinct.

Perhaps a comparison of Suárez with Frege may help give the big picture on Suárez’s

argument against formal distinction. Suárez admits two realms in his ontology, the real and the mental. Formal distinctions would be an intermediate third realm for him, and he has none. Frege has a major update of this. Frege admits a physically real realm and a mental realm. But he also admits a third realm of entities that are neither physical nor mental, but are abstract entities in the sense of being objective but noncausal. (They are not always nontemporal; the axis of the earth is temporal.) Unlike minds and ideas, they are objective (public and mind-independent). Unlike bodies, they are noncausal, imperceptible, and can be grasped (discerned, distinguished, singled out, identified) only by the reason. It is just in this third realm that formal distinctions and all distinctions in reason, including modal distinctions, would belong. And it is hard to imagine anyone who more vigorously upholds the law of excluded middle than Frege. Indeed, Frege is an example of how to apply the law of excluded middle, and Suárez is an example of how not to. Frege admits all sorts of overlapping objects that are in effect formally distinct (Frege 1974 / 1884: 28–29, 32–33, 34). The concrete object the earth and the abstract object the earth’s axis are an excellent example (Frege 1974 / 1884: 35). There can be no axis of the earth if there is no earth. (For Frege, “abstract” means not timeless, but noncausal.) Yet who upholds the law of excluded middle more strictly than Frege does, with his “ideal language” theory of logic?

Descartes independently confirms my view that all modal distinctions are formal distinctions. Caterus says that Descartes rejects Scotus’s “formal and objective distinction, which is intermediate between a real distinction and a distinction of reason” (Caterus 1970 / 1642: 8). (Note that Caterus appears to equate distinctions in reason with mental distinctions.) Descartes replies that “the formal distinction which the learned Theologian claims to draw from Scotus...*in no way differs* from a modal one, and applies only to incomplete [i.e. logically dependent]

entities.... Thus, for example, *there is a formal distinction* between the motion and the figure of the same body.... (Descartes 1970 / 1642: 22, my emphases, see 22–23). Surely this applies to Descartes’s and Suárez’s modal distinctions alike. Note that Descartes has nothing to say about mutual dependences here; I shall return to mutual versus one-sided dependences later.

Despite his own excluded middle argument, Suárez seems not to reject formal distinction so much as to find the term both redundant and equivocal in the writers before him (Suárez 1947 / 1597: 21, 27, 32). Of course, all the distinctions are more or less equivocal across the medieval writers. And Suárez’s redundancy criticism makes superficial sense. I myself already showed that all modal distinctions are distinctions in reason and formal distinctions, and that all and only distinctions in reason are formal distinctions. But all the definitions are different. And I reject Suárez’s redundancy criticism for modal distinctions and formal distinctions not only because they are defined differently, but because they even differ in scope. Formal distinction is a deeper and more general classification than modal distinction. As we saw, all modal distinctions are formal distinctions, but not all formal distinctions are modal distinctions. Of course, we can so widen the term “mode” that every logical constituent is a “mode” of the object it is a constituent of. That has the merit of not having to provide any further specification of what a mode is. But by the same token, we deviate from both the ordinary meaning and the usual technical meaning of “mode.” This is not how Suárez or Descartes would use the term. Of course, we are free to introduce new and better definitions of our own. But is the wider use really any better or clearer than the old narrower use for one-sided dependences? Are modes of being now ways of being? And if so, are my own qualified objects modes (Dejnožka 1987)? But qualified objects are ways of presenting things, not ways of being things, unless you mean ways of “being” things.

Likewise, modal distinction can be widely defined as any one-sided logical dependence among different objects, and this assigns a reasonably clear and specific meaning to the term. But to do this is to rob the term “mode” of any positive specific content of its own. Why even use the term? Why not just speak of nonmutual logical dependences? The word “mode” is said in many ways. (Suárez discusses several, 1947 / 1597: 28–32). But surely each way has a more specific meaning than just ‘logical dependent’. I shall leave it to the reader to sort things out further.

Let us return to the difference in scope. Recall that all real distinctions are distinctions in reason, meaning they are discernible to the reason, though of course they are *also* real distinctions, so that they are not distinctions *only* in reason. But no real distinction can be a modal distinction. For really distinct things are mutually independent, while modally distinct things have a one-way dependence (between a thing and its mode), or are at least defined in terms of one-way dependences (in Descartes, two dependent modes of the same thing are modally distinct in his second sense). I suppose we ought to introduce a term for things that are dependent in *at least one* direction, and also a term for things that are (mutually) dependent in *both* directions. Of course, both would be kinds of distinction only in reason.

We may even say that Suárez accepts the formal distinction, though only “virtually or fundamentally” (Suárez 1947 / 1597: 26). We may somewhat humorously say that he formally rejects virtual distinctions, but virtually accepts formal distinctions.

Suárez virtually gives me everything when he says:

Solution of the Question

16. Notwithstanding, I think it is true without qualification that there is among

created things a certain actual distinction which is found in nature prior to any activity of the mind, and that such distinction is not so great as the distinction between two altogether separate things or entities. This distinction, to be sure, could be designated by the general term “real,” inasmuch as it is truly verified in reality, and is not merely an extrinsic denomination issuing from the intellect. However, to differentiate it from the other, namely the major real distinction, we can call it either a “distinction from the nature of the case,” thus applying to this imperfect distinction a term that is in common use, or more properly a “modal distinction.” For, as I shall explain, this distinction is invariably found to intervene between a thing and its mode.

The term “formal distinction” is not much to my liking, as it is excessively equivocal. It is frequently applied to things really distinct, inasmuch as they are essentially distinct if they differ specifically; such objects have different formal unities, and hence differ formally. Even individuals of the same species may be said to be formally distinct, inasmuch as their individual formal unities are distinct, as we said above. Indeed, even in the Trinity paternity and filiation, which are really, though not essentially or numerically distinct, can be said to be formally distinct in the objective notions of their relations—a kind of distinction not found outside this mystery.

Thus a formal distinction is of wider extension, and can be greater than the distinction from the nature of the case, of which we are speaking. From another point of view it can be a lesser distinction, and this is the more common

acceptation, for it is frequently applied to formalities as conceived in a state of precision by our minds. In this latter case the distinction does not exceed the level of a mental distinction. (Suárez 1947 / 1597: 26, his section heading emphasis, note omitted)

I have trouble seeing any difference between Suárez's distinction from the nature of the case and Scotus's distinction having a foundation in reality. Suárez holds that all and only modal distinctions are distinctions from the nature of the case. He holds that formal distinctions, as understood in various writers, are in one sense wider and greater than distinctions from the nature of the case, and in another sense lesser (he does not say narrower). He finds formal distinctions wider in that the term is used equivocally in ways in addition to that of describing modal distinctions, and greater in the way that applies to the divine Trinity. He finds them lesser in that the term is applied to formalities as precisely conceived by us, that is, in precisely formulated mental distinctions. I can understand and accept that he dislikes the equivocal use of the term "formal distinction" across the many writers he has read. But it seems clear to me that formal distinctions, as Wolter's Scotus understands them, are just Suárez's distinctions from the nature of the case. And on that understanding, formal distinctions are wider than modal distinctions because they include mutual dependence distinctions in reason. In fact, except for real distinctions, Disputatio 7's entire section entitled "The Signs or Norms for Discerning Various Grades of Distinction in Things"(Suárez 1947 / 1597: 40–46) may as well be entitled "Proposed Norms for Grades of Formal Distinction," as far as I can see.

There should be no doubt that my critique of Suárez applies to Descartes as well. For as

we saw, Descartes holds the same view as Suárez. Descartes says, “[T]he formal distinction which the learned Theologian claims to draw from Scotus...*in no way differs* from a modal one, and applies only to incomplete entities.... Thus, for example, *there is a formal distinction* between the motion and the figure of the same body.... (Descartes 1970 / 1642: 22, my emphases, see 22–23).

2. Mental Distinction

Again, Suárez admits three kinds of ontological distinctions: real, modal, and mental. He holds they are mutually exclusive and jointly exhaustive as follows. A real distinction is between two real things, that is, things that logically can exist independently of each other. Such a distinction can only be real. The only other distinction in the real order is that between a real thing and its mode(s), such as its genus and species; and this is the modal distinction (Suárez 1947 / 1597: 32–33). We may say that the whole scientific classificatory hierarchy of real things is objective and belongs to the real order. All other distinctions are mental.

It might be objected that my critique is based on the modern theory of ideas as purely and merely mental, called the *via moderna* (new way), which basically began with John Locke. But the traditional theory of ideas is that they are not purely mental, and have some sort of formal or other significant relationship to things in the real order. This is called the *via antiqua* (old way), goes back to Aristotle if not earlier, and is the basis of the mental language argument, which I shall discuss later. My reply is very simple. If ideas are purely mental, then my arguments against mental distinctions apply without further ado. But if ideas are not purely mental, then what seem to be mental distinctions are to that extent formal distinctions, or distinctions in reason at the

very least. (Again, for me formal distinctions and distinctions in reason are logically equivalent.)

Actually, things are a little more complicated than that. For the *via antiqua* admits both sorts of ideas, the purely mental and the not purely mental. Thus the difference between the *via moderna* and the *via antiqua* is really that the *via nova* admits *only* purely mental ideas, while the *via antiqua* admits and distinguishes both. Purely mental distinctions are called distinctions of the “reasoning reason,” while not purely mental distinctions are called distinctions of the “reasoned” reason. The gerund “reasoning” suggests to me that the mind actively creates the distinction, while the past tense “reasoned” suggests to me that the mind merely discerns or discovers an already existing distinction. And Suárez confirms that those are the traditional connotations (Suárez 1947 / 1597: 18). But we cannot conclude anything based on connotations or verbal suggestions. For that would be a kind of “ontological argument”—a bootstrapping or question-begging argument—for the existence of these distinctions. Thus we must investigate further and look for the arguments, if any.

Suárez holds that among the distinctions often considered to be mental distinctions, some are purely and merely mental, while others have a foundation in reality, or are at least considered to have a real foundation. He finds it “highly improper” and “equivocal” to call the latter mental distinctions, but finds things a little more subtle and complicated even than that. He says:

Mental distinctions are **usually considered** to be of two kinds. One, which **has no foundation in reality**, is **called** a distinction of the reasoning reason (*distinctio rationis ratiocinantis*), because it arises exclusively from the reflection and activity of the intellect. The other, which **has a foundation in reality**, is **called**

by **many** a distinction of the reasoned reason (*distinctio rationis ratiocinatae*), **although this is a highly improper term and can be equivocal**. For this kind of distinction **can be understood** as pre-existing in reality, prior to the discriminating operation of the mind, so as to be thought of as imposing itself, as it were, and to require the intellect only to recognize it, but not to constitute it. In this **acceptation** of the term the distinction would be **called** mental rather than real **only** because it is not so great, and in itself is not so evident, as a real distinction, and hence would need attentive inspection by the mind to discern it. (Suárez 1947 / 1597: 18, Suárez's italic emphasis, my boldface emphasis)

We can see from the boldfaced words that Suárez seems to be very careful to admit only the first kind of mental distinction, the distinction of the reasoning reason, and to reject calling the second kind of distinction a kind of mental distinction “highly improper,” though still having a certain sort of justification, or at least a justification in a manner of speaking. But for me distinctions of the reasoned reason are, right on their face, clearly distinctions in reason as opposed to mental distinctions, and to that extent formal distinctions with at least some foundation in reality. If they are not purely and merely mental, what else can they be? In fact, Suarez comes right out and says they “can be understood as pre-existing in reality, prior to the discriminating operation of the mind, so as to be thought of as imposing itself, as it were, and to require the intellect only to recognize it, but not to constitute it.” And what is the significant difference between “can be understood as” and “are”? I think he means “can” simply in the sense of admitting that yes, we can (indeed correctly) understand them as being that way. Note that his justification for calling

them mental distinctions at all is rather wan: it is “only” that a distinction of the reasoned reason “is *not so great, and in itself is not so evident*, as a real distinction, and hence would need *attentive* inspection by the mind to discern it.” In other words, they are merely harder to find, single out, or discern. But it seems to me that nonetheless, they are just as much *there* in the real order to *be* discerned, and that is the definitional test, the key point, the heart of the matter. That distinctions of the reasoned reason are lesser, less real, or less significant than real distinctions, and / or harder to identify or discern, does not entail in the least that they are not in the real order, much less that they are mental. Compare Aristotle’s ten or so metaphysical categories. Only substances are primarily real, and the only real distinctions are between real substances. But all the other categories are of things (properties, relations, and so on) in various secondary and derivative senses. And distinctions among all the secondarily real things are not mental, but secondarily real. We do not create them, we discern them. Suárez admits many of them as modal distinctions. I would admit all of them as distinctions in reason and as formal, categorial distinctions.

But things are a little more subtle and complicated even than that. Suárez also admits the distinction of the reasoned reason “in another sense” (Suárez 1947 / 1597: 18). He says:

With the meaning of the term thus explained according to its etymology, I wish to point out that such a distinction is not the true mental distinction we are dealing with at present, but coincides with a **distinction from the nature of the case**, of which we shall treat in due course. **In another sense**, however, there **can be** question of a distinction of the reasoned reason, because actually and formally it is

not found in reality, but has its origin in the mind; a distinction of the reasoned reason, because it arises **not entirely** from the sheer operation of the intellect, but from the **occasion offered by** the thing itself on which the mind is reflecting. Hence the foundation that is held to exist in nature for this distinction is **not a true and actual distinction** between the things regarded as distinct; for then **not the foundation but the distinction itself** would precede mental operation. Rather the foundation must be either the **eminence** of the object which the mind thus distinguishes (with a distinction that many **call virtual**), or at any rate it must be **some reference to other things** which **are** truly distinct in the real order, and **with respect to which** such a distinction is excogitated or received. (Suárez 1947 / 1597: 18, my boldface emphasis)

Let me try to sort this out. The first sentence rejects the distinction of the reasoned reason as not being a “true mental distinction.” Again, I agree, and classify it as a distinction in reason as opposed to a mental distinction. But then he seems to be saying in the rest of the text that the distinction of the reasoned reason is some sort of halfway house which is neither truly a mental distinction nor truly a real distinction. And that immediately suggests that it is some sort of a formal distinction after all. For if it is not purely and only mental, then to the extent that it is not, it is a discerned distinction in reason. Only purely and merely mental distinctions are mental distinctions. But it is not clear whether Suárez would agree. Let us examine what he says in the rest of the block-indented quotation just above.

Suárez offers two options for understanding a distinction of the reasoned reason. On

either option, the distinction “arises not entirely from the sheer operation of the intellect, but from the *occasion offered by* the thing itself on which the mind is reflecting.” Option (1) is that it is a “virtual” distinction founded not on the object itself, but only on its “eminence.” This option clearly recalls, though not exactly word for word, his earlier talk about distinction of the reasoned reason as “not so great, and in itself...not so evident, as a real distinction.” For the distinction is not “true and actual,” but merely “virtual,” and is not even based on the object itself, but only on its “eminence.” Option (2) is that it is an indirect distinction that is not “true and actual” itself, but makes reference to (or is discerned via) another distinction that *is* “true and actual,” that is, *is* a real or, perhaps, at least a modal distinction. This too suggests that a distinction of the reasoned reason is “not so great, and in itself is not so evident, as a real distinction.” For it is not “true and actual,” but indirect and derivative, hence secondary. Note that each option is a different specification of what it is to be a “not so great” distinction. And just as the generic concept of being a lesser or less significant distinction is consistent with being discerned in the real order and does not at all entail being purely or merely mental, so both of these specifications of the generic concept are consistent with being discerned in the real order, and do not at all entail being purely or merely mental. In fact, if anything, the generic concept and its two species all entail the opposite. By the way, the fact that Suárez specifies two options does not entail that they are the only possible options. On the face of it, being a lesser distinction is a determinable that logically can have indefinitely many determinates or species. But all this is talk on a very general level.

Some examples of both (1) virtual and (2) indirect distinctions of the reasoned reason might help our intellectual intuitions here, or perhaps better, might simply help make clear what Suárez has in mind by distinguishing these options. I will provide my own examples, since he

does not, certainly not in this particular text. The same examples may serve for both options. For we can try to understand any example of a distinction of the reasoned reason on either of the two options, (1) virtual or (2) indirect. And it might turn out that one example might be better understood on option (1), and another example better understood on option (2). Accordingly, I will offer six examples, and will discuss all of them first on option (1), and then on option (2). My examples might not be especially Suárezian, but I think my arguments would apply *mutatis mutandis* to any examples he might like better. They should be close enough.

My first example is geometrical. What could be an “occasion” of discerning a distinction based on the “eminence” of a thing? Perhaps on some occasion, the three sides of a triangular patio stone stand out more eminently to me than its three angles. Perhaps that is because I am focusing my attention on proving a theorem about the sides. Or perhaps, per Gestalt theory, the sides simply stand out more, are simply more naturally attention-grabbing, than the angles. Perhaps the sides are roughly jagged and would be the “foreground” for any observer, pushing the angles into the “background” of attention. Now, whatever the nature of the eminence of the three sides, surely the distinction between the three sides and the three angles precedes any mental operation. It is discerned in the stone. By the way, Descartes would consider this a modal distinction as opposed to a mental distinction term (Descartes 1969 / 1642: 244–24, *Principles*, principle 61). And as far as I can see, all modal distinctions are distinctions of the reasoned reason in the general sense of the term, regardless of how Suárez uses his terminology.

Even in Euclidean plane geometry, sides are not angles, and angles are not sides. It takes two sides to form an angle. Even the locations of the sides and the angles of a closed plane figure are different. For an angle is or starts at the point where two sides end and connect. The only way

the distinction would be mental is if the idealist theory of geometry is true. In fact, even the patio stone and its sides and angles would be mental, hence only mentally distinct, on Berkeleyan idealism. But surely patio stones are real substances for Suárez. Thus on option (1), the virtual distinction, where the sides of the patio stone are more eminent than the angles, the side-angle distinction would seem founded on the reality of the stone.

My second example is due to Frege and Russell. Suppose, perhaps per impossibile, that the logicist project of reducing arithmetic to logic is totally successful, and numbers are classes of classes. Two is the class of dyadic classes, and so on. If so, on the face of it, two would stand out more eminently as a number than as a classes of classes, even though it is both. The positive integers are eminently (essentially stand out as being) even or odd; classes are not conceived or regarded at all as being even or odd. Classes stand out as having wider or narrower memberships; numbers are not even conceived or regarded as having memberships. The class of dyads clearly has more members than the class of triads. If the world contains ten things, then there are clearly more dyads of them than triads of them. But how could the number two have a wider membership than the number three? The very question seems categorially ill-formed. But if logicism is true, and numbers *are* classes of classes, then the number two *is* wider than three, and the class of dyads *is* even. But surely it is appropriate to say that two is eminently even and the class of dyads is not, and that the class of dyads is eminently wider than the class of triads, and the number two is not. And if logicism is true, then surely the distinction between numbers and classes of classes is discerned and discovered, as opposed to created by our minds. No matter what we think, it is objectively true that two is an even number, and that there are more dyads than triads. The only way this could be a mental distinction is if the idealist theory of logic and

arithmetic is true. And surely Frege laid that option to rest, regardless of whether his logicism succeeds. I cannot repeat Frege's many arguments against psychologism here.

My third example is Quine's. It is based on what Quine calls referential opacity and Russell calls propositional attitude. The number of planets is nine. But nine is necessarily greater than seven, while the number of planets is not necessarily greater than seven. (Logical necessity is meant.) Thus this example includes both a logically necessary fact and a logically contingent fact. On the face of it, both facts are discernible discoveries, and not creations of the mind. Nine's being greater than seven is a mathematical discovery, while the number of planets is an astronomical discovery. We may say that the number nine is eminently necessarily greater than seven, and that the number of planets is eminently contingently greater than seven.

My fourth example is Frege's. It concerns referential opacity too, but comes entirely from the realm of the logically contingent. The Morning Star and The Evening Star, which we may call objects of perception or thought, are in some sense both the real thing in the real order, the planet Venus. The first is eminently seen in the morning, and the second is eminently seen in the evening. They can be seen by millions of people and even photographed. There is not even a hint of mental distinction here.

My fifth example is of a nose that is part of a face. A face would not be the face it is unless its nose were the nose it is. But the distinction between nose and face is not mental. Nor is it a real distinction, unless you cut the nose off and thus give it a logical capacity for independent existence. (Concededly, there is another and arguably more correct sense in which it *is* a real distinction, precisely because we logically *can* cut a living nose off and then destroy either it or the remaining face. But traditionally, attached living organs are not considered to be separate

substances, but living parts. This goes to the nature of organic substance. But arguably we should think the same of a nose on a marble bust. And that goes to the physical integrity of natural macro-objects in general.) A nose that is part of a face is mind-independently a proper sub-part of the face. You would have to be an idealist like Berkeley to find anything mental in the distinction. And our nose is often more eminent than our mouth, eyes, or face as a whole. It literally sticks out further. This is not to mention *Cyrano de Bergerac* or *Pinocchio*.

Sixth, the subtle distinctions we make in a complex aroma or taste are independent of the mind. We do not create them, but discern them. They can be publicly verified and scientifically investigated. Think of chefs and wine tasters. Are they really just making their expertise up, or it is based on the food and wine? And the garlic in the aroma of garlic ginger chicken can be more eminent than the ginger or the chicken. It can be quite overwhelming.

This concludes my list of six examples of distinctions of the reasoned reason as viewed on option (1). To sum up, the “eminence” of a part would seem to be its standing out in some way. In Gestalt theory of perception, the eminent object is the one our minds naturally place in the foreground of our attention. This is not necessarily the spatial foreground of some landscape I am looking at, but just whatever we naturally single out most. This sort of natural eminence is naturally relative to the observer or thinker. You cannot expect an animal blind or deaf from birth to find eminent what others do. If anything, non-natural eminence, such as our focusing on the sides of a triangle because we wish to prove something about them, is even more relative to the observer or thinker, since it is by choice. But to call a distinction “mental in a sense” we freely choose what to regard as eminent in a thing is not only a non sequitur, but just wrong on the face of it. Even assuming that our free and reasoned choice to focus on a nose is mental, the nose

itself is not mental. We could not even choose to focus on it unless we could already discern it as distinct from the rest of the face. What matters to the classification of the nose-face distinction is that in the natural biological order, which is part of the real order, the nose is only part of the face. For the whole face includes more. And this logical containment of the nose as a proper sub-part shows that the distinction is not mental but formal. For it has a foundation in completely mind-independent reality.

We may call it the *logical fallacy of eminence* to think otherwise. That is, if some object is eminent before our minds, and even if the *eminence* is essentially mental, meaning essentially relative to the mind's focus, then it is a logical fallacy to infer from this that the object itself (say the nose), which is in the real order, is only mentally distinct from the objects in the real order that are not eminent before our minds (the face, or the rest of the face). For if it were not already there to be discerned as distinct, and if it were not already discerned as distinct, then we could not choose to focus on it. Likewise for all the examples. In all of them, the fallacy of eminence is based on the category confusion of a mental act with the object of the act. The ontological locus of an eminence is often only in the mental act. If we choose to focus on or attend to something, that certainly belongs to the mental act. But that free choice is not logically possible without a prior distinction in the real order there to *be* focused on or attended to. Our focus on a nose may be purely mental, But the distinction between nose and face is not mental at all. And our focus may also be naturally and involuntarily caused by a large nose, a loud or wrong note in a string quartet, or a pungent flavor in a soup. The surprise or violation of our natural or habitual expectations is mental. But the nose, note, and flavor are not. And it is absurd and virtually self-contradictory to hold that a distinction is purely mental if it is in any sense based in reality.

Suárez himself assays classificatory distinctions such as genus and species as modal distinctions. and even admits that they may be called formal. Definitions of species by genus and difference are, of course, analytic. But they are theoretical definitions based on empirical science. And while there may be no one true classification, still scientific classifications are not creations of the mind, but are objectively reasonable (Butchvarov 1970: 6–11; see 1989: 75–79, 99–100, 118–19. The acts of weighing and balancing of the properties of being a whale and the properties of being a fish, so as to classify whales as mammals and not fish, are. But that whales are better classified as mammals than as fish is based on many non-mental, mind-independent facts. Even vague and controversial classifications are not mental in any sense, For classifications are not mental acts of cognition, but the abstract objects of classificatory acts. Here the term “object” may seem wrong or odd, since we normally think of classifications as being *of* objects, not as being objects themselves. But its use here is quite correct in act-object theory of cognition.

One might object that my view is too extreme. I am holding that a distinction is in reason and nonmental if it is in any part or in any sense based on reality. My reply is that this is just part and parcel of Moore’s realism. Distinctions, too, are discerned objects of acts. But if I am wrong, and there are “hybrid” distinctions that are neither wholly mental nor wholly real, my reply would be that they are formal distinctions precisely because they are intermediate between mental distinctions and real distinctions. They would be just what we were looking for, when we were looking for formal distinctions.

Hybrid distinctions would belong to a third realm, the hybrid realm. That could not be Frege’s third realm, which is purely and totally objective. Instead, a hybrid realm would be a logically emergent realm. Emergent properties are properties which belong to a whole, but not to

its parts. That should be very satisfactory to all the philosophers whose main pre-philosophical, common-sensical, and scientific starting point in philosophy of mind is that our ordinary perceptions are a blend or hybrid mixture of what is out there and what our minds construct.

This concludes my discussion of distinctions of the reasoned reason on option (1). I proceed to option (2). Here the distinctions are understood as not being real distinctions themselves, but as being indirectly discerned via, and in that sense relative to, and based on, real distinctions. This basing is their foundation in reality. Again, a real distinction is always between things either of which logically can exist without the other.

The astronomy example may be the best and easiest one to start with, and perhaps the only one we need, since we can extrapolate to the other examples. The Morning Star and the Evening Star are not really distinct, insofar as both really are the same planet, and a planet cannot exist independently of itself. They just look like they could be two different celestial bodies each of which logically could exist if the other did not. Of course, it logically could have turned out that they were two really distinct planets, say Venus and Mars. But this logical possibility is only zetetic possibility, or logical possibility relative to our evidence or our investigation. At the same time, the Morning Star and the Evening Star are not distinct only in our minds. They can be photographed, and their distinction is not based merely on how we mentally interpret the photographs. For our mental interpretation of the photographs is not a matter of arbitrary or free choice, Instead, the distinction between the Morning Star and the Evening Star, and consequently also our interpretation of their photographs, are based on their space-time location relative to our location. And these locations are not only wholly distinct, but their identification is based on our observation of really distinct stars and planets. Thus the relativity is not to our minds, but to

“other things which are truly distinct in the real order” (Suárez 1947 / 1597: 18). The “reference to other things which are truly distinct in the real order, and with respect to which such a distinction is excogitated or received” (Suárez 1947 / 1597: 18) is simply how the solar system happens to be set up. And this is why there is nothing mental about the distinction between The Morning Star and the Evening Star. Similarly, *mutatis mutandis*, for all the other examples.

We may call thinking otherwise the *logical fallacy of ontological locus*. It is a companion to the fallacy of eminence on option (1). The fallacy of locus is to infer that just because a distinction is not *itself* a real distinction, but is merely based on an indirect reference or relation it has to some *other* distinction that *is* a real distinction in the real order, it is not located in the real order, but only in the mind.

We had to figure out that The Morning Star and the Evening Star are both Venus. And figuring out belongs to the mental act. But that was zetetic or investigational. It was a voyage of discovery, not a creation we made up. For The Morning Star and Venus are not acts, but objects of acts, just as much as Venus itself is, even if they are objects of (acts of) perception or thought in a way that Venus is not. They are ways of presenting things, and Venus is not. But they are in the very same photographs that are photographs of Venus. They are distinct only in reason from Venus, and from each other. Arguably they are modally distinct in Descartes’ second sense. For their existence logically depends on existence of Venus, but the existence of Venus does not logically depend on them. Venus logically could move out of the solar system altogether, and then where would the Morning Star and the Evening Star be? They would no longer be. They are modes of Venus in the sense of being modes of presentation of Venus. Whether that counts as a Cartesian mode I leave up to the Cartesian scholars. But I suspect that Cartesian modes are, or at

least often are, modes of presentation.

If it is asked how the Morning Star and the Evening Star can be Venus, and yet cease to exist if Venus leaves the solar system, my reply is that this sort of being is not that of strict identity, but of being in the sense in which a veridical (or even illusory) object of perception or thought “is” an object in itself. That is still good enough for the distinction to be a distinction in reason, since it is based on the real order of the solar system as explained earlier. I credit Butchvarov with discovering the non-identitative sense of “being” in which an object of perception or thought can “be” an object in itself (Butchvarov 1979). But we need not be committed to Butchvarov’s specific theory of objects and entities to speak of “being” in this new, deep, and vital sense.

Suárez explains his views further (1947 / 1597: 19–21). But if he is trying to explain how mere mental distinctions can nonetheless have any foundation in reality in any sense, then this is like trying to square the circle, or eat his cake and have it too. And he seems well aware of that, even as he tries to find any plausibility or sense he can in the words and views of earlier thinkers.

Suárez also discusses a way to describe distinctions of the reasoned reason, based on the notion of an inadequate concept. We may as well call this option (3). He says:

5. These two kinds of mental distinction, though variously explained by different authors, may conveniently be described as follows. The distinction of the reasoning reason is ordered to one and the same adequate or simple concept of an object solely through a mental repetition or comparison of the object. Thus Peter is distinguished from himself either according to subject and predicate, when he is

predicated of himself, or according to the term and subject of a relation, when he is said to be the same of himself. In these and like mental distinctions the concept of Peter remains unchanged and is adequate, and there is made only a certain repetition and comparison of it.

The other kind of mental distinction [the distinction of the reasoned reason] arises from inadequate concepts of one and the same thing. Although the same object is apprehended in each concept, the whole reality contained in the object is not adequately represented, nor is its entire essence and objective notion exhausted, by either of them. This occurs frequently when we conceive an object in terms of its bearing on different things, or when we represent it in the way we conceive these different things. Hence such a distinction invariably has a foundation in fact, even though formally it will be said to spring from inadequate concepts of the same thing. Suárez 1947 / 1597: 19)

As far as I am concerned, the “foundation in fact” suffices to make distinctions of the reasoned reason formal distinctions on option (3). But there are some questions of interpretation. For one might plausibly use the term “adequate” with opposite results, and say an inadequate concept is one that *fails* to get us beyond the mental realm and penetrate to the real order, while an adequate concept is one which *succeeds* in describing something in the real order. But clearly Suárez is not thinking that way at all. Thinking of our ideas as a barrier or veil between us and the real world, to be successfully penetrated or not, is not part of the *via antiqua*, but of the *via moderna*.

What does “adequate” mean for Suárez? How much adequacy is sufficient adequacy for a

distinction to be a merely mental distinction of the reasoned reason? The main idea seems to be that an adequate concept is a concept that represents “the whole reality contained in the object,” and exhausts (contains) “its entire essence and objective notion.” In other words, to be adequate is to represent the object completely and perfectly. I am reminded of a Navy commander I once knew who said to his sailors, “I am easily satisfied by perfection.” That is, “You are adequate if you are perfect.” And we can agree that perfection implies adequacy. Of course, the ordinary application of the term “adequate” is in situations that are satisfactory but (often far) less than perfect. But here it is a technical term. My own pedagogical suggestion is to look to the “equate” in “adequate.” For Suárez and the medievals, an adequate concept is one whose content equates to the nature, or perhaps to all the properties, both essential and accidental, of the object.

If so, then it is easy to see why Suárez would think that mere repetition of an adequate concept keeps us in the mental realm, and that Peter as subject and Peter as predicate are distinct only in the mind. That would be a plausible view. But *any* mere repetition of any concept, adequate or not, is an empty tautology, and is in that sense not about the world. Vagueness or haziness as subject ought to be just as mentally distinct from vagueness or haziness as predicate as Peter is. If so, then adequacy of the repeated concept is only a sufficient condition of mental distinction, not a necessary condition. And it is really not even a sufficient condition. For the mere repetition of the concept, the tautology of the identity judgment, is all that counts.

A further problem with Suárez’s conception of an adequate concept is that of concept possession. When do we ever have an adequate concept of anything? That is, when do we ever know an object completely and perfectly? Perhaps we could have adequate knowledge of a simple object, or following Russell, of a sense-datum which is completely as it appears to be. But

beyond such surely very limited exceptions to the general rule, the clear implication is that only omniscient knowledge of the object will do. In short, only God could have adequate concepts of all objects. And I think Suárez agrees that strictly speaking, that is the case, and thinks that the adequacy of our concept of Peter is merely sufficient for the mental distinction in question. Or perhaps the example of Peter is merely hypothetical: *if* the concept of Peter is adequate, *then* the distinction would be mental. Surely Suárez is committed to holding at least that much.

Yet another problem is that Suárez is locating the logical subject-logical predicate distinction in the mind. Yet being an ultimate logical subject, that is, an entity that predicates can be predicated of, but which cannot be predicated of anything in turn, is generally thought to be an essential feature of particulars in the real order. And the whole hierarchy of predicates, the whole classificatory scheme starting from substances like Peter and going up through species and genus all the way to the metaphysical categories, is deemed by Suárez himself to be so many modal distinctions which belong to the real order. In fact, the whole modal hierarchy, together with the real distinctions between substances at the bottom level, *is* the real order.

One more problem is that if Peter is a particular substance, then he is an ultimate logical subject, and there is no such thing as Peter as predicate, not even as a way of talking or thinking about Peter. For Peter as predicate is categorially ill-formed. We would be reduced to the artificial (and still ill-formed) “Peter peterizes,” like Quine’s “Pegasus pegasizes.” Of course, modern classical logic’s “x is identical with Peter (or Pegasus)” is fine. Thus we can define “peterizes” or “pegasizes” as well-formed expressions of modern classical logic. But this does not help Suárez’s account of mental distinction. For “Hazy mist M hazicizes” would be just as well-formed defined as “x is identical with hazy mist M.” And surely our concept of a hazy mist

is inadequate. We cannot have complete and perfect knowledge of inherently vague objects.

These problems may or may not have adequate solutions. But in any case, the concept of adequation is accepted by Aquinas, Scotus, and Ockham alike, and by Robert Grosseteste, Walter Burley (Burleigh), and others. Descartes says an adequate concept is one that completely and perfectly represents the object (Descartes 1970 / 1642: 22–23, 97–99). Thus, just as you might expect, “there is none but God who knows He has adequate cognition of all things” (Descartes 1970 / 1642: 97). We limited humans can have adequate knowledge only about a few limited things. And even then we can *never* know we have it, since there *always* logically can be more that we do not know about the thing (Descartes 1970 / 1642: 97). Thus all human concepts are either inadequate or not known to be adequate. But Suárez does not say that this *always* occurs. He only says “This occurs *frequently*” (Suárez 1947 / 1597: 19, my emphasis). Thus his sense of the term “adequate” might not be exactly the same as Descartes’s. Indeed, the senses *cannot* be the same if the scopes of reference are different. Perhaps Suárez means only *sufficiently* adequate for a distinction to be one of the reasoning reason. But he does not say that. Spinoza offers a third view. For Spinoza, “we cannot have an adequate idea without being conscious that the idea is adequate. If we know, we necessarily know that we know” (MacIntyre 1967: 537). Let us not be concerned further about the details of the concept of adequation; our idea of an adequate idea is adequate for the present discussion. Suffice it to say that *The Oxford English Dictionary* lists the third meaning of “adequate” as ‘fully answering to, or representing’; the first example says ‘perfectly represent’.

Of course, for any redundant identity such as “Peter is Peter,” the indiscernibility of identicals ensures complete adequation in a Donnellanian attributive sense (Donnellan 1966). I

mean that the concept of Peter is such that whatever properties Peter as subject may have, and regardless of whether we know them all, Peter as predicate has exactly those properties too; or at least Peter simpliciter does. But the same can be said of hazy mist M. A vague object is exactly as vague as it is, and has exactly whatever properties it has.

Suárez's whole representation-part representation, complete-incomplete, adequate-inadequate distinction between concepts looks very much like the difference between a logically proper name and a description in Russell, and between a phenomenon and a noumenon in Kant. For Russell, we can genuinely name a thing if and only if we are fully acquainted with it; and the only things like that are our sense-data. Everything else can only be described, and described only in part. For Russell, we may say that a full description is logically possible, but never achieved in practice, since it would require omniscience on our part. For Kant, we are directly presented with ordinary things as publicly given phenomena. And as mere presented phenomena, we may know them fully or at least adequately in the ordinary sense of that term. But we can never know noumena, the things in themselves that may or may not be hiding behind the barrier or veil of phenomenal appearances. Suárez's inadequate concepts, Russell's descriptions, and Kant's descriptions of phenomena, even if they are veridical as far as they go, all give limited and incomplete knowledge of real things at best.

And none of this implies that our distinctions are mental. For whenever we distinguish things, we distinguish the objects of our mental acts of cognition, not the acts themselves. Even when we distinguish between our acts, or between our act and the object of our act, these are themselves objects of higher-level acts. Note that Russell's sense-data are as mind-independent as anything can be. And arguably the same can be said of Kant's phenomena, certainly if we

apply Moore's realist theory of acts to Kant.

Even the ordinary, pre-philosophical view is that distinctions based on inadequate or incomplete concepts are nonmental. If I look at an apple, I can only see the front surface. I cannot see inside the apple. If I cut it open, I can see only a new front surface. I may have no scientific knowledge of its physical structure. Thus my concept of the apple is very incomplete indeed. But it is not mental. Other people can see the front surface. It can be photographed. And we can scientifically study not only the surface, but the whole apple, by X-rays, CAT-scans, and the like.

But logically equivalent and even tautological distinctions, whether they are based on adequate concepts or not, are mind-independent too. It is not up to us whether Peter as subject is distinct from Peter as predicate. It is not even up to us whether Peter is identical with Peter. Thus even distinctions of the reasoning reason are not mental distinctions, but distinctions in reason. In fact, they are really distinctions of the reasoned reason, since they are discerned, not created. I grant that doubtless Suárez never thought that those distinctions were up to us in the sense that we had a free choice, and could have chosen otherwise. Mental distinctions are more of a default alternative for him. That is, if he finds that a distinction cannot be real, then he deems it mental by default. My criticism here is that he should have thought about free choice more.

It might be objected that we cannot choose our mental emotions or beliefs either. Aristotle calls them passions because we are their passive recipient. We do not volitionally cause them, but experience them as efficient effects. They are discerned or at least discernible. (Freud is right that in some sense there is unconscious mind; we are often unaware of our love, anger, or deep beliefs (delusion); and we often misidentify our conscious emotions and beliefs (illusion). They are not created by us consciously, nor do they seem created by us unconsciously. They seem

to have a causal basis in reality—things like our bio-chemical nature in the case of love, and our discerned perceptions in the case of belief.

But all that only supports my critique. For it is part of my metaphysics that even minds and their mental contents are, in a certain very obvious sense, mind-independent. If minds exist at all, then it is a mind-independent objective fact about the real world that they exist. (Of course, they are not independent of themselves, but then nothing is independent of itself.) Thus if there were any mental distinctions, even freely created distinctions of the reasoned reason, they would be mind-independent in the same very obvious sense that minds themselves are mind-independent. But even so-called mental distinctions are not created fancies. They are discerned.

The very concept of a cognitive distinction between two things as different that is actively created by the intellect seems incoherent. How could I create a cognitive distinction? I cannot create something I have no prior idea or concept of. Phidias the sculptor can only create a statue he already has some idea of. If he just randomly chips away at a block of marble, then either he is functioning like an automaton, or he has at least the idea of a random (aleatoric) marble creation in mind. But how can you create a cognitive distinction without already having it in mind?

In effect, Suárez also tries a fourth way out. Option (4) is that the distinction of the reasoned reason is *formally* mental. He says, “formally it is not found in reality, but has its origin in the mind” (Suárez 1947 / 1597: 18). Here he is trying to eat his cake and have it too. He is trying to make the distinction of the reasoned reason both mental and yet discerned as opposed to created, by shifting the ontological locus of its very form from the real order to the mind. But a form or essence is what a thing is. And that is mind-independent. Forms or essences are discerned, not created. The nature of a thing is always in the real order. Even the form or essence

of emotion or belief is what it is independently of anything we can think or create. We cannot create what love or belief is any more than we can create what Peter as subject or Peter as predicate is. This is not to mention that on the *via antiqua*, the form of an idea of horse is formally identical with the form of real horses. And likewise the form of the idea of Peter as subject would be formally identical with the form of real Peter the particular substance that cannot be a property of anything. And how could the forms of these ideas be freely created by us if they are formally identical to the forms of real things? Did we freely create those too? For Aristotle, they are like impressions stamped on our minds by our perceptions of the real order. Why would the form of Peter as subject be any different from the form of horse in this regard?

The whole point of a mental distinction is that freely created or not, it exists only in the mind. So to speak, only God's mind could create the real world, the real order, or anything that is not mental. Genuinely mental distinctions and mental identities can have no foundation in reality at all. They can be fancifully inspired by reality at best. But based on the arguments in this paper, there is no such thing as a purely mental cognitive distinction. Even the distinction between a horse and a horn in a unicorn is nonmental. Only their juxtaposition is chosen.

Thus Suárez's own example of the distinction of the reasoning reason is not mental. Peter as subject and Peter as predicate are distinct in reason as opposed to mentally distinct. Even the repetitive, tautological self-identity of Peter is a nonmental identity. For Frege, self-identity is a relation, and is more generally a function that maps values onto arguments. (Properties and relations are functions that map truth-values onto arguments.) Self-identity is exactly like any other function in being the mind-independent basis of public objective truths, in this case truths such as "Peter is self-identical with Peter." (see Frege 1967a / 1893: 40). In Frege's notation, the

self-identity function would be written “ $\xi = \xi$ ”, where “=” names the function and “ ξ ” marks the argument-places. In a more recent notation, the self-identity function would be written “ $I(x,x)$ ”, where “ I ” names the function and “ x ” marks the argument-places.

This Fregean update of Suárez on self-identity is part of the general update of Suárez offered in the present paper. It supersedes Suárez’s argument that:

If [a] statement [of self-identity] is taken relatively and formally, as it is understood in Aristotle, and as it ought to be understood in accord with common doctrine, it implies only a mental relation. For there can be no real relation of “the same” [thing] to itself, since there must be a true opposition between a relation and its term; but there can be no opposition between “the same”[thing] and itself (Suárez 1947 / 1597: 62)

The ground has shifted. In Frege, such differences make no difference. All functions are equally well-defined in terms of their arguments and values, and all have the same ontological status as mind-independent abstract entities. This is not to mention that formal self-identity is essential self-identity and thus mind-independent. Even relative identity would be a mind-independent fact, certainly if Geachian relative identity is meant. It is an objective fact that this statue is (made from) the same clay as that different (earlier) statue. My own view is that absolute identity is distinct only in reason from relative identity, with a foundation in reality in absolutely different objects; but that is another story (if it is not self-evident).

Suárez himself goes on to admit that there is such a thing as real self-identity:

But without any comparison or intellectual fiction a person is said to be the same as himself fundamentally or negatively, since he is not diverse or divided from himself. (Suárez 1947 / 1597: 62; see 62–67)

Of course, as Frege points out, the history of philosophy is rife with confusions about identity.

If (per impossibile) there were any mental distinctions, Suárez would be right to hold that they need not have mental relata (Suárez 1947 / 1597: 19). The particular substance Peter as subject would not be a mental relatum as far as I can see. Conversely, there can be real distinctions between mental things. Two minds are the obvious example. For Descartes, minds are really distinct mental substances. My tooth pain and my emotion of love are both essentially and really distinct as well. Either logically can exist if the other does not. Again, even minds and their mental contents are mind-independent parts of the real world. My pain is not independent of *my* mind. But that is simply because it is in my mind, and pains cannot be “homeless.” My pain is mind-independent of every *other* mind. And it is what it is independently of what even *I* think or feel it is. I cannot invent, create, or make up the distinction between my tooth pain and my love. I can only observe it. They are passions in Aristotle’s sense. I am their passive recipient.

The hue, saturation, and brightness of a sensation of color are essentially different from each other, and the distinctions between them cannot be created by the mind, but only discerned. Likewise, the sharpness, throbbing quality, and intensity of a pain are essentially different from each other, and the distinctions between them cannot be created by the mind, but only discerned. In general, essential differences between aspects of a thing cannot be created except by creating the whole thing along with its aspects. For acts of will are logically contingent, and essential

differences are not. This may be called the essentialist argument against the possibility of mental distinction. Note that logical subject and predicate are essentially different logical roles. Of course, a pain can lessen, and we can change what we regard as logical subject. Such changes are logically contingent, and we can make some of them. But our topic is distinctions, not changes. Even the aspects of a change I create are essentially different, such as slow, large, and definite.

All essential distinctions are distinctions in reason. And all distinctions in reason are essential distinctions. Essentially identical different things can differ as to their accidents. In fact they must, if they are not to run afoul of the identity of indiscernibles. But accidental differences are discerned empirically, not by pure reason alone. And that is why all distinctions in reason are essential distinctions, or at least logically necessary (in the wide sense of *a priori*) distinctions.

The essentialist argument entails that what Suárez calls mental distinctions are in fact not in the mind, but in extramental reality, and that they are not created by the mind, but are only discernible to and discoverable by the mind. For every aspect of a thing has an essential nature, even if it is logically contingent (logically accidental) that the thing has it.

I have two further arguments that are original only in my applying them to distinctions. As general arguments, they are well known. First, if any distinctions are mental, then they violate Moore's arguments for act-object realism in "A Refutation of Idealism" (Moore 1903). And second, they violate Wittgenstein's private language arguments in *Philosophical Investigations* (Wittgenstein 1968 / 1945–1949). It is perhaps wise not to say more than that, since this is not a paper on Moore or Wittgenstein. At any rate, that is largely what I mean by updating Suárez.

If Moore and / or Wittgenstein are right, and if my application of their arguments to the ontological distinctions is right, then (once again), Suárez's mental distinctions are in fact

distinctions in reason, meaning that they are distinctions in reality that are discernible to and discoverable by the reason. And that amounts to their being formal distinctions with a foundation in reality. This applies to distinctions of the reasoning reason and distinctions of the reasoned reason alike.

On the face of it, the same goes for Suárez's modal distinctions. On my application of Moore and Wittgenstein, Suárez's real distinctions are distinctions in reason too, and thus formal distinctions with a foundation in reality too. For they too are discernible to and discoverable by the mind. But they are not *merely* distinctions in reason. For they are also real distinctions.

Moore and Wittgenstein are not in conflict about the mind-independence of any *objects* of perception or thought, but only on whether *acts* of perception or thought are mental or just public talk that is taught and learned. And if their theories of identity are in conflict with my application of their arguments for realism, that is their problem. On Wittgenstein as a realist, see my (2003: ch. 7, sect. 3).

But we need not rely on Moore and Wittgenstein to reject mental distinctions. In fact, I only mentioned them just now. And Suárez has an in-house dilemma, that is, a dilemma internal to his ontology. And that dilemma will be my final argument against him.

More precisely, Suárez has a specific dilemma that rests on a second, more general dilemma. The second, more general dilemma is that there are two main options for explaining how we can teach and learn public languages. They are called the private language argument and the mental language argument. The private language argument is explicit in Frege, Russell, Wittgenstein, and Quine (Dejnozka: 1995; 1991), and is based on modern theory of ideas (via moderna). The mental language argument is at least implicit in Aristotle and Aquinas, and is

based on traditional theory of ideas (via antiqua).

The private language argument can be stated as follows: (1) Spoken and written language is social. (2) Mental ideas are essentially private and incommunicable across persons. (3) Therefore ideas are not identifiable across persons. (4) Therefore social language cannot communicate mental ideas either as connotations or as denotations, and must communicate mind-independent connotations and denotations.

Aristotle and Aquinas would accept premisses (1) and (2). But since they reject conclusion (4), they would reject premiss (3).

The mental language can be stated as follows: (1) Spoken and written language is social. (2) Social language communicates our private mental ideas of things. (3) Ideas cannot be what they are independently of the things they are ideas of, since they are identifiable as the ideas they are only by means of what they are ideas of. (4) Therefore my private idea, say, of horse is and must be *formally* identical with all private ideas of horse in other minds, and also with all horses in the world, where horses are the real basis for teaching and learning public words like “horse.”

Of course, we publicly talk about formal identities too. Thus formal identities themselves cannot be merely mental. For otherwise they would be essentially private and incommunicable across persons. There would be a vicious infinite regress of private formal identities of private formal identities. Therefore my private idea of formal identity is and must be *formally* identical with all private ideas of formal identity in other minds, and also with all formal identities in the world, where formal identities in the world are the real basis for teaching and learning public words like “horse.” At any rate, that is the only way the mental argument can succeed. Descartes is willing to allow exact likeness, or even just being “*able to fulfill the function* of an exact

counterpart,” as opposed to strictly “identical quality” (Descartes 1970 / 1642: 53, my emphasis). I myself would not require *formally* identical ideas, and would allow just *sufficiently* identical ideas for public language. But even sufficient identities would be formal in the broad sense of having a foundation in reality. I had thought I was being original, but I discovered on March 30, 2020 that Scotus has a similar view. Peter C. Vier says,

“Scotus...does not place knowledge in a strict similarity between thing and concept, or in an exact reproduction in the intellect of the object known. It is *sufficient* that there be “likeness through imitation, such as is the likeness between an idea and its object...” (Vier 1951: 36 citing *Quodl.* q. 13, n. 12; XXV, 526a, my emphasis)

But Scotus’s view specifies that it is *likeness through imitation* that must be sufficient, while I merely require sufficient identity *simpliciter*, which is far more general, and is not tied to any specific theory of cognition. Note that for Scotus, “*Simple* apprehension may be compared with the image produced by an object in a mirror. The mirror represents the object as it is, and may be said to be a true image of the object” (Vier 1951: 52–53, my emphasis). Indeed, “image-likeness [is] *adaequatio*” (Vier 1951: 37, Vier’s emphasis). But a simple apprehension is not a judgment of truth. A judgment is complex. It requires a division of, and a composition of, subject and predicate (Vier 1951: 33–34).

Since Frege, Russell, and Wittgenstein would accept premiss (1). But since they reject conclusion (4), they would reject premiss (3) and therefore also premiss (2).

Thus the general dilemma is that we cannot tell which argument, the private language argument or the mental language argument, is the true or at least the better explanation of how public language is possible. As the saying goes, one philosopher's modus ponens is another philosopher's modus tollens. Each side starts from plausible premisses and begs the question against the other.

Suárez's specific dilemma is even worse. He belongs to the mental language tradition, and is implicitly committed to rejecting the private language argument. But he cannot accept the mental language argument either, since he rejects formal identity. And that is because he rejects formal distinction. For formal identity and formal distinction are each definable as the negation of the other. Thus his dilemma is that he cannot use *either* argument to explain how public language is possible. He does admit that his modal distinctions are basically formal distinctions, but this will not help him here. For the mental language argument concerns formal identities of same-level forms, not genus and species.

Descartes is in similar, if not identical, case. Descartes says:

By the *objective reality of an idea* I mean that in respect of which the thing represented is an entity, **in so far as that exists in** the idea.... For whatever we perceive as being as it were in the objects of our ideas, exists in the objects themselves objectively.

4. To exist *formally* is the term applied where the same thing exists in the object of an idea in such a manner that the **way** in which it exists in the object is **exactly like** what we know of it when aware of it; it exists *eminently* when,

though not indeed of **identical** quality, it is yet of such amount as to be able to fulfill the **function of an exact counterpart**. (Descartes 1970 / 1642: 52–53, Descartes’s italic emphasis, my bold emphasis)

Of course, the terms “way” and “function” have virtually the same meaning. In any case, Descartes is in effect showing that the mental language argument does not need formal identity (strict literally and numerically identical forms) to succeed, but can make do with exact likeness or even just an ability to function like an exact counterpart. We might say that in a word, it requires adequation. Again, even I would not require *formally* identical ideas, and would allow *sufficiently* identical ideas for public language. But even my sufficient identities would be formal in the broad sense of having a foundation in reality. And surely the same must be said of Descartes’s exact likenesses and exact counterparts. For otherwise we are facing a vicious infinite regress of sufficient identities, exact likenesses, or abilities to function as exact counterparts, exactly like the earlier vicious regress of formal identities. For we talk in public language of sufficient identities, exact likenesses, and abilities to function too.

Descartes also says that “ideas are themselves forms” (Descartes 1970 / 1642: 105). That is not going to help him here. He seems to mean their formal reality of being mental, private, and in particular of “representing something”(Descartes 1970 / 1642: 105), that is, their formal reality of being mental ideas that have an objective reality. In any case, for him they have that formal reality and objective reality regardless of whether they “are themselves forms.” Thus the private language argument- mental language argument standoff will not change at all. Exactly the same problem will arise about the formal identity of my *idea* of a horse with the form of a real horse,

that arises about the formal identity of the *objective reality* of my idea of a horse with the form of a real horse.

It might be objected that the mental language theorist can strike back at Frege. On the mental language argument, our private mental ideas of a Fregean function are formally identical (or sufficiently identical, or exactly like each other) across our minds. And this includes the identity function and the self-identity function. But then the corresponding distinctions are mental distinctions, since they differ from the identities only by a negation. Thus Peter as subject is only mentally distinct from Peter as predicate after all. (Of course, Peter simpliciter has a real identity as a substance.) Thus my criticism of Suárez's example of Peter's self-identity begs the question against mental language theory.

My reply is that formal identities of private mental ideas across minds is not enough for the mental language argument to explain how public communication about functions, not to mention ontological distinctions, is possible. For my idea of a function (or, for that matter, of any ontological distinction) must not only be formally identical with your idea, but also with functions (or ontological distinctions) in the world. This is exactly like public talk of horses. Not only must our ideas of horse be formally identical, but they must be formally identical with horses in the world too. In fact, it is the formal identity of horses that grounds the formal identity of your and my private mental ideas of horse. Where else could it come from? How else could we know our ideas are formally identical across minds?

The truth is that the law of self-identity, $(x)Ixx$, is just as well-formulated and well-defined as any other law of logic, such as the law of excluded middle, and that all functions and laws of logic are discernible to the reason, with a foundation in reality in logical universals, if

there are such universals. Certainly this view would be congenial to Frege and the early Russell. And it is the objector who is begging the question against Frege and Russell concerning functions in the world, and who needs those functions for the mental language argument to succeed in the first place.

The objector might continue that in any case, Peter cannot be really distinct from himself, since neither Peter nor himself logically can exist independently from each other. In fact, there is no “each other,” since they are the same person. And since Peter is really identical with himself, the distinction between Peter and himself, if there is a distinction at all, can be a mental distinction. My reply is another update of Suárez. The pronominal function (he, she, it), which is represented in formal logic by use of the same variable (x, y, z), as in Ixx or $(x)x = x$, is a *stipulation* that the same object is being referred to. And it is this stipulation that grounds the Donnellanian attributive adequation I described earlier. There are different *occurrences* of the same variable, or different *tokens* of the same *type*. But tokens occur in the real world on the printed page or in uttered speech, and they are really distinct. And there is no distinction at all between Peter and himself, due to the stipulative nature of the pronominal reference of the pronoun “himself.” Here our logical theory conforms perfectly to our ordinary intuitive data. It is just what we would expect.

As for the distinction between Peter as subject and Peter as predicate, the update is that the subject “Peter,” the predicate “[x] is identical with Peter,” and the predicate “[x] is self identical with Peter,” are not mentally distinct, but discernibly distinct in reason. “Peter” refers to Peter, while the predicate “[x] is identical with Peter” refers to a logical complex consisting of two logical constituents, Peter and the identity relation (Ixy). And the predicate “[x] is self

identical with Peter” refers to another logical complex consisting of two logical constituents, Peter and the self-identity relation (I_{xx}). Just like the identity function I_{xy} , the self-identity function I_{xx} is well-defined, well-formed, and discernibly different from all the infinitely many other functions in what may be called the objective order of logic. And that grounds any formally identical private ideas of self-identity across minds.

Unlike horses, logical functions are not really distinct. Unlike horses, they are interdefinable. But neither are they mentally distinct. The test is that they are discovered, not created, by the mind. Frege has shown the absurdity of psychologism in logic and arithmetic alike (Frege 1974 / 1883; 1967 / 1893). We cannot just create our own logical and arithmetical truths and distinctions. Peter is not self-identical due to an act of our creative will. For we cannot make Peter *not* identical with himself, any more than we can make $2 + 2 = 5$. With Frege, logic has come a long way. I cannot repeat his arguments against psychologism here.

What about vague empirical objects? All or nearly all perceived and even physical macro-objects are vague, certainly at the microphysical level, as Quine makes plain (see Quine 1981: 100–101; 1975: 125–29; . The objection here is, how can vague objects be formally identical across minds and physical objects? Note that the objection seems to support the private language argument against the mental language argument; there is no doubt we can ordinarily perceive public vague objects.

My reply is that we can fall back on sufficient identity (of ideas of vague objects with each other and with vague objects in the world) for communication purposes. And as to self-identity, I am fond of saying that a vague object is exactly as vague as itself. The paradox (seeming contradiction) of being ‘exactly vague’ is removed by the stipulative character of

pronominal repetition. By the way, the trivial identity of any repetition by name or pronoun is grounded in the equally trivial principle of the indiscernibility of identicals. But with respect to the ontology of logic, it is not a trivial matter at all. It took Frege's genius to see that self-identity is a public, objective function among infinitely many other public, objective functions that publicly, objectively map public, objective values onto public, objective arguments, and that all functions are identifiably, discernibly different from each other in virtue of mapping different values onto different arguments, and that therefore no function is created by us. And unlike Suárez's argument against formal distinction, Frege's theory of function identity and difference is *correctly* based on the law of excluded middle. Note that the identity function and the self-identity function are formally distinct with a foundation in reality in the identity function. More specifically, they are modally distinct in the sense that self-identity is dependent on identity as a logical constituent, and not the other way around. Of course, all functions are timeless for Frege, so that neither exist without the other in the default sense that neither can cease to exist at all.

That strictly speaking, Frege's functions cannot stand in the identity relation, and can only stand in the analogous relation of equivalence (same mapping), does not detract from this point. That is an oddity due to his odd theory of the unsaturated or incomplete nature of functions. Drop the odd theory, and you drop its consequence that functions cannot stand in the identity relation. But even if we keep the odd theory, we can still keep the main point. For then equivalence will be the relation among functions that stands in the place of the relation of identity among objects. Just as Frege says, extensional functions that map the same values onto the same values are *not different* functions (see my 2003: 113–14, citing Frege 1970 / 1894: 80). It is just that due to an oddity of language we cannot *say* they are identical—unless we drop the odd theory that

functions are incomplete or unsaturated, and therefore cannot be named by the subject-terms of an identity statement. That is, even the odd version of Frege's point is only technically odd, and is worlds better than Suárez's argument against formal distinction based on excluded middle.

When Suárez picked Peter as subject and Peter as predicate as an example of mental distinction, he picked the best example he could find. If that is not a mental distinction, then what is? Indeed, even Frege holds that we can freely choose what to regard as the logical subject and the logical predicate in a judgment, in effect simply by changing the verb tense from active to passive (Frege 1967 / 1879: 12). But that is a very different point that has nothing to do with the objectivity of the thought (proposition) expressed by the judgment and all of its logical constituents, as guaranteed by the private language argument, which applies to sense and reference alike. And that is just why Frege's theory of functions is so devastating. Frege destroys the best example of mental distinction Suárez gives. Again, if that is not mental distinction, or distinction in language or logico-linguistic function (subject versus predicate), then what is?

Pronominal variables not only must refer to the same referent, but they must express the same sense as well. There is and can be no difference in sense of "x" in the two occurrences of "x" in "Ixx", any more than of "Peter" in the two occurrences of "Peter" in "Peter = Peter." Nor is there a difference in sense of "Peter" across the subject-term "Peter" and the predicate term "is identical with Peter." There is no "mental distinction" in the sense of the two occurrences of "Peter" because there is no distinction at all. The only distinction is the one between logical subject and logical predicate, and that is in a language as publicly communicable as Peter is. But even if there were a difference in sense, Suárez still could not give it as an example of a mental distinction. For public communication is of public senses and public

references alike. And here we run into Frege's theory of sense as public, objective connotation, and the private language argument that supports it. This is not to mention that, just like pronominal reference, pronominal expression of sense is *stipulated* to be the same. That is precisely the pronominal function, both for pronoun "it" and for variable "x".

It might be objected that as purely hypothetical, subjunctive conditional point, per impossibile, there *were* a difference in sense of "Peter" in the subject term "Peter" and the predicate term "is identical with Peter," then Suárez *could* appeal to the mental language argument and argue that this is a mental distinction. My reply is that again, purely as a matter of stipulation, there *is* no difference in sense. Thus the objection cannot get off the ground, even aside from the evidently public character of sense. See Frege (1967 / 1893) on all these issues on self-identity, and many other works of his, but not (1974 / 1884), since he wrote it before making his sense-reference distinction and his function-object distinction.

We may provisionally resolve the private language argument versus mental language argument dilemma by noting that their conclusions are distinct only in reason. For they are logically equivalent logical analyses of the same phenomena of public communication. In effect, the public senses and references of the former are logically analyzed as sets of formally identical private ideas and things in the world by the latter. The conclusions are formally distinct with a foundation in reality in the *portion of reality* that the former logically parses (conceptually slices) into public senses and references, and the latter into sets of formally identical ideas and things. If so, then it seems intuitively plausible to infer further that the foundation in reality is really the public senses and references, each of which is being divided into sets of indefinitely many ideas. For the public senses and references are not only the larger, simpler units, but are also the

phenomenologically presented objects (in a wide sense of “object” which is emphatically not Fregean) of thought and, in the case of references to ordinary bodies, perception. Thus they presumptively comprise the portion of reality. For example, when we talk about The Morning Star, we take ourselves to be talking not about a set of formally identical mental ideas and the Morning Star, but simply about the thing that we see up in the sky; and we take our talk to be the same in sense and reference alike. I do not take my sense to be my private idea and your sense to be your private idea. I take our sense to be public and the same. Again, the sameness of sense is phenomenologically presented just as much as the sameness of reference. It could be wrong, but it is presumptively correct, since it is what we are given. Of course, by “phenomenology” I mean Continental phenomenology, not British empiricism, which strangely restricts presented things to sense-data like colors and shapes.

The trio of arguments against psychologism or mental language theory— (1) the private language argument, (2) Moore’s argument that the object of a mental act is itself nonmental, and (3) Frege’s argument that the objects of arithmetic (and many other objects) are not created, but objectively discerned—are logically independent of each other. Arguments (2) and (3) do not even mention language. Arguments (1) and (2) do not even mention mental creationism. And arguments (1) and (3) do not even mention the act-object distinction. But all three arguments work together to establish the same antipsychologist conclusion.

Concerning the issue of whether there are any mental distinctions, there seem to be two dialectically opposed core arguments at bottom. The first is the one I accept, which I am giving just now. (It will take three paragraphs.) There are no mental distinctions because any mental acts of creation, voluntary or not, and, on a deeper and more general level, regardless of whether of

they are mental distinctions or of other products of our imagination or fantasy, are logically contingent. I mean not just that the *act* of my creating a mental something is logically contingent, but also that the created *object* of the act—the mental something—is logically contingent. The object is logically contingent for the very simple reason that I logically might not have created it. In fact, this point is far more general than that. Any object I create, mental or not, be it an imaginary unicorn or a real marble statue, is logically contingent because my creating it is logically contingent. And it would not have existed if I had not created it. Even if you and I agreed on a plan to create a marble statue together, and you ended up creating it without me, the statue would exist even though I had not created or helped create it. But this particular statue we had in mind would not exist if you, or someone who knew that plan, had not created it. In any case, we may say that in general, “Human being Smith created object O” is a logically contingent statement; and if that statement is true, then object O’s existence is logically contingent too. Free choice or voluntary acting has nothing to do with it. If someone held a gun to my head, or even if I accidentally tripped and fell and created a mess, it is a logically sufficient condition of that particular mess’s being logically contingent that my accidental creation of it was logically contingent. Not all acts are deliberate, or purely deliberate. I may choose to open my eyes and look in a certain direction, and I may have even put a coffee cup there for me to look at; but what I then see—the object of my act of perception—is not up to me. The issue in the next paragraph is whether we can create, freely or not, logically necessary objects.

I admit infinitely many logically necessary objects (the numbers of arithmetic alone are infinitely many). But not everyone does, so I will frame this next point hypothetically. If there were such a thing as a logically necessary object, is there any sense in which it could be created?

Its creation would have to be as timeless as it is, since there is no time at which it would not already exist. Here I would take ‘before time’, as in ‘creation before time existed’, to be a form of timelessness, if it were not for the fact that it is a basically self-contradictory oxymoron. Let us hypothetically assume that God exists (I am an agnostic) and that only he could create a logically necessary object. Some say God created the world before time existed, and that time started when the world started, and even that God created time when he created the world. So perhaps he could have created the numbers before time, too, But again, I find ‘before time’, though grammatically well-formed, basically self-contradictory. Also, I do not see how the creation of the numbers could be a free choice, or even be due to an accident, like tripping and falling. After all, they are logically necessary. Now, we noted that not all acts are freely chosen. But surely all of *God’s* acts are freely chosen. For he is all knowing and all powerful. And that is why I hold that even God logically cannot create a logically necessary being, For if it is logically necessary, then he logically would have no free choice about creating it. If he created it in any sense, it could not be freely, since he would have been compelled by logical necessity to do so. The sense in which anyone logically can freely agree or consent to, much less “choose,” a logical necessity is empty indeed. Thus I agree with the view that God cannot violate logical necessities. For a stock example, God logically cannot create a rock so heavy he cannot lift it. Of course, God logically can still do all logically possible things, and we can still emotionally choose to accept or submit to the way things necessarily are.

But if my argument is right so far, then God logically cannot create logical dependences or more generally logical relations either, since all logical dependences and more generally all logical relations are logically necessary. (Some logical relations are of logical independence.)

Therefore distinctions like the distinction between Peter as subject and Peter as predicate cannot be created, freely or not, and regardless of whether they would be mental or real distinctions.

They cannot be created because they are logical relations, and logical relations are logically necessary. I mean not that Peter himself is a logically necessary being, but that if Peter exists, then the distinction between Peter as subject and Peter as predicate is a logical relation, and it logically cannot be created, by us or by God, and even regardless of whether it is mental.

Likewise, a triangular patio stone is a logically contingent being; but if it does exist, then it is logically necessary that it have three sides if and only if it has three angles; and that is not a fact we logically can choose to create. But all mental distinctions are actively created by the mind in which they exist. That is the whole point and even meaning of “distinction of the reasoning reason.” Therefore there can be no such thing as mental distinction between logically related things. Of course, unicorns and centaurs can still be mentally distinct. There is no logical relation between the unicorns and centaurs I think of. But for that very reason, it would be better to say they are really distinct in the sense that if they did exist, they logically could exist independently of each other.

The opposing argument is structurally congenial to, if not implied by, Suárez and Descartes. There are only the real order and the mental order, or if you please, only the mind-independent order and the mind-dependent order. And distinctions in the real order must either be real or at least have a foundation in the real. But a distinction that we create in our own minds is not only mind-dependent but mental, and can only exist in the mental order. And we create the distinction between Peter as subject and Peter as predicate in our minds. Therefore it is a mental distinction, regardless of whether it is a distinction between logically related things, and

regardless of whether we or even God logically could have chosen otherwise, assuming the existence of Peter.

Superficially and (so to speak) formally, the two opposed arguments are in a standoff. As we say, one philosopher's modus ponens is another philosopher's modus tollens. But I think the arguments are of very unequal merit. On the face of it, logical necessities are mind-independent objective facts. Logical necessities are also timelessly true, while any mental creations of mine happen at a certain time. Indeed, any logical necessities would logically pre-exist, in the timeless sense of "exists," any creations of mine. As far as I can see, the opposing argument simply begs the question against these obvious facts, and simply assumes that we mentally create the distinction between Peter as subject and Peter as predicate. That the distinction is not in the real order because it is not a real distinction is a non sequitur. Even Suárez and Descartes admit modal distinctions are in the real order, and precisely because they are logical dependences!

The best dialectical defense of the second argument might be to cash out mental distinctions as formally identical logically possible mental ideas across all logically possible minds across infinite time, including the infinitely remote past. But how would that be any different from cashing out the idea of a horse the same way according to the mental language argument? And just as my idea of horse must be formally identical across not only all ideas of horse but also all real horses, for public communication about horses to be possible, so my idea which is my mental distinction between Peter as subject and Peter as predicate must be formally identical across not only across all ideas of that distinction but the real Peter as subject and real Peter as predicate as well. But then even if (*my* idea of) that distinction *is* merely mental and exists only in my mind, it must *also* be formally identical to the distinction between Peter as

subject and Peter as predicate in the real Peter in the real order—just as my idea of horse is merely mental in my mind, but must *also* be formally identical to the form of real horses. For otherwise public communication would be impossible. For we cannot compare private ideas across minds. Thus even if the distinction in my mind is mental, the formally identical distinction in Peter is not. Thus mental distinction is bearded in the very den of mental language theory. Even if a distinction is a mental distinction in our minds, it cannot be *only* a mental distinction.

This also tips the balance in favor of the private language argument and against the mental language argument. My final resolution of the dilemma is that their rival assays are only formally distinct with a foundation in reality in horses, and in Peter. I have no wish to commit the fallacy of appeal to authority, but I suspect that Aristotle would agree. For more on the mental language argument, see my (2018: 17–20), based on several medieval scholars.

I do not wish to leave the impression that the objectivity of the Peter as subject-Peter as predicate distinction was first discovered by Frege. If anything, it is Suárez who held a view that was unusual and considered extreme even in the middle ages. Vier says:

Whenever Scotus discusses truth he insists on its objectivity. He does not consider the intellect as a merely passive faculty in the process of knowledge; yet he never goes to the extreme of maintaining that the intellect creates truth. For him, as for the Scholastics in general, true knowledge is essentially a relation. To be true, the act of knowledge **must conform with the objective state of affairs**, i.e., **it must express the relation existing between subject and predicate in reality**. In fact, as an act of knowledge is unthinkable without an object of knowledge, so likewise

a relation apprehended in any act of knowledge **is incomprehensible except on the basis of an objective relation between subject and predicate....**

Although a relation may occasionally exist in the intellect independently of a real relation, Scotus always insists that **even such a *relatio rationis* is ultimately based on a virtual relation in the objective order.** (Vier 1951: 34–35, Vier’s italic emphasis, my bold emphasis)

Of course, Suárez is basically in tune with the tradition on the distinction of the reasoned reason, which at bottom is basically objective and even formal for him. It is only the distinction of the reasoning reason in general, and the distinction between Peter as subject and Peter as predicate in particular, which is mental for him. And perhaps he is not so unusual or extreme even there. He did not invent the distinction of the reasoning reason himself, but took it from the tradition.

What are the significant differences, if any, between Descartes’s treatment of modal distinctions in principle 61 of *Principles of Philosophy* and his treatment of distinctions in thought (mental distinctions) in principle 62 (Descartes 1969: 244–45)? They are very similar. All the dependences are one-sided. They merely go in opposite directions. Why would the direction have anything to do with whether they are modal or mental? Should not all of these distinctions be modal, or else all of them mental? Specifically, should not they all be modal? For they are all logical relations. How could *any* logical relation depend on or exist *only* in the mind? I am sorry if I am preaching to the choir at this point, but I must complete the full discussion.

The surface difference is that modal distinctions are about things and their ‘modes’, and distinctions in thought are about things and their ‘attributes’. Descartes’s examples of modes of

bodies are shape and motion, and his example of an attribute of bodies is duration. Broadly speaking, we would call all of these properties today. So, what is the difference? Descartes says the difference is that we can conceive of things without modes, but cannot conceive of modes without things, while we can conceive of attributes without things, but cannot conceive of things without attributes. In each case the dependence is one-sided, but goes in the other direction. This picture is helped by Descartes's positive characterizations of modes and of attributes. Modes are mere states of things. It is plausible to think that states of things cannot exist unless the things exist, and that things can exist without having (or being in) the particular states they happen to have. Attributes are essential properties, and every thing has exactly one (of course, there can be genus-species complexity). It is plausible to think that things cannot exist without their essential properties, and that attributes can exist in things other than the thing in question. (A horse cannot exist without being a horse, but there can be more than one horse.) But the underlying difference that seems to be emerging here is that modes are *particular* properties (often called tropes), while attributes are in some sense *universals*. Modes are as particular as the things that have them, while attributes are or can be common to many. A mode is a 'this'. (Descartes says, "this mode.") An attribute is a 'what'. Now, particular properties and universal properties are distinct only in reason. A universals can be analyzed as a class of particular properties. Statements about a universal and statements about the corresponding class of particular properties will be logically equivalent. Thus it seems that an attribute can be analyzed as a class of modes. Of course, there is a big difference between essence (attribute) and accident (mode). But that seems merely a difference between sufficiently *general* property and sufficiently *specific* property respectively.

Look at Descartes's examples. It is logically contingent (accidental) whether a body is

moving in this particular way or that, or is at rest. (Whether motion is absolute in Newtonian space or relative Einsteinian space does not matter here.) But on a more general level, how can a body fail to be mobile, that is, logically *capable* of moving about? And while a body logically need not have this particular shape or that, say square or round, how can a body fail to have *any* shape, not even a vague one? Likewise for duration. A body need not have this particular duration or that, say five minutes or ten years. But how can a body fail to have any duration at all? It emerges that particular motions, shapes, and durations are all modes, while general mobility, shape, and duration are all attributes. It emerges further that all of Descartes examples are good if, and only if, you specify ‘particular property’ or ‘universal property’ with sufficient particularity or generality.. And it emerges still further that modes are themselves distinct only in reason from attributes.

More precisely, if I am right, then are modes themselves modally distinct from attributes, or are they distinct only in thought (mentally distinct) from attributes? Waiving my philosophical arguments against mental distinctions, what would Descartes say in-house? He does not raise this higher-level question. I think the scholarly answer would be that since these are broadly speaking genus-species distinctions, as in the case of square and round as species of the genus shape, then Suárez, if not also Descartes, would be logically committed to finding them modally distinct, and therefore in the real order. For Suárez holds that genus-species distinctions are modal (Suárez 1947 / 1597: 32, quoted earlier). Suárez even has an implicit argument for this. A genus consists of a species plus a difference. Thus “This distinction is [in the] real [order], because the whole [the genus] includes something [either the species or the difference] which the part [the other of the species or the difference] does not” (Suárez 1947 / 1597: 35).

If the distinction between mode and attribute is one between particular property and universal property, as in the case of particular motions and motion in general, and of particular durations and duration in general, then not only does it look a lot like the distinction between (specific) species and (general) genus, but it also looks a lot like the distinction between Peter as (particular) subject and Peter as (universal) predicate. Of course, the only instance of peterizing can be Peter. But there are infinitely many universals that can only have one instance, such as even number between three and five. And in any case, all these distinctions look like part of the real order, as opposed to stuff we (or our unconscious minds) simply made up. As the saying goes, you can't make this stuff up! Where would we even get the ideas from? Language? Then where did we get the language from? And how could we use it so consistently across speakers? How could we even compare our meanings, except against discerned aspects of the real order?

In any case, it all comes down to whether we discern the distinction or actively create it. So let us go through this list of six items: particular (1) motions, (2) shapes, and (3) durations, and the universals (4) mobility, (5) shape, and (6) duration, and simply ask if we discern or actively create the distinctions between (1) and (4), (2) and (5), and (3) and (6), as well as the distinctions between them and the things that have them. Do they exist only in our minds? Is not a pebble round, and does it not have a shape, prior to any intellectual activity of ours? What about the distinction between its being round and its having a shape? If no one existed, would it still not be round and have a shape? If we photograph it, does not the photograph show its shape? Berkeley would say that even a photo is only an idea in a mind. Would you say that? It would not work well with Moore or Wittgenstein, or with Continental phenomenology or common sense.

My conclusion is that all these are modal and formal distinctions, and more generally

distinctions in reason. The directionality of the dependence, or even whether the dependence is one-sided or mutual, matters not at all.

One might object on behalf of Descartes as follows, using the terms “item” and “feature” broadly. The directionality in either direction is always due to one item’s being a substance and the other not. If a particular feature (a mode) logically depends on a substance, well and good. The substance is more real, and the dependence can and must be part of the real order. And that dependence is just what Descartes calls a modal distinction. But if a substance logically depends on an essential feature (an attribute), we simply cannot have that. For (once again) the substance is more real than any of its features. Indeed, a substance is defined as that which can exist independently (of anything except God). Thus the dependence of a substance on its own feature cannot be part of the real order. And if it is not real, then it can only be mental. (That is the only other option for Descartes.) Thus the dependence is just what we call a mental distinction. And there we have Descartes’s distinction between modal distinctions and mental distinctions.

My reply is that this structural reasoning is well and good as far as it goes, at least if we accept the assumptions or theses of the substance tradition. And it may well be why Descartes draws the distinctions he does. But there is more, even to the substance tradition, than that. Namely, all substances need essences. They all need to be something of some kind. For Descartes, every substance has exactly one essential attribute, which is to be a body or a mind. Thus a substance can, does, and must logically depend on its attribute. For its attribute is what it is. And that simply cannot be something we created or made up in our mind. In general, there is no logical dependence we can simply create or make up. Even God cannot freely create a logical dependence, unless you think God can violate the laws of logic. Again, can God create a rock so

heavy he cannot lift it? But then the distinction between a substance and its attribute can only be discerned in reason. It cannot be merely mental, since it is essentially founded on the essential real order. And it cannot be real, since it is not a distinction between two substances, but only a distinction between a substance and its essential attribute. And since it is essentially founded on the essential real order, it is also a formal distinction.

This objection and reply are both “in house,” that is, within the substance tradition. If we are outside that tradition, then of course the ontological distinctions need rethinking accordingly.

I was asking if Descartes’ distinction between modal distinctions and mental distinctions is itself modal or mental. (It cannot be real, since it is not between real substances.) The more general question is this: Suárez and Descartes admit a threefold distinction among real distinctions, modal distinctions, and mental distinctions. But what sort of distinction is that threefold distinction? Is it real, modal, or mental? The dilemma is that it cannot be any of them, but must be formal. And we have been looking for formal distinctions that are not modal.

The dilemma is as follows. Real distinctions are between real things (substances), and no distinctions are real things. Thus the threefold distinction cannot be a real distinction. But if the threefold distinction is modal, then by definition it involves a one-sided dependence between a substance and one or more of its features. Thus we would need at least one of the three sorts of distinctions to be substances, and the other sort(s) of distinction(s) to be their features. But again, no distinction is a substance. In fact, no distinction is a feature either. And if the threefold distinction is mental, then we created it. We made it up ourselves. But then real distinctions and modal distinctions are not part of the real order any more than mental distinctions are. For if the threefold distinction is mental, then we created the very distinction between them and mental

distinctions ourselves. The very distinction between them and mental distinctions would be merely mental.

This dilemma and its resolution show inadequate reflexive consideration, or lack of self-reflection, on the part of Suárez and Descartes. I do not see that they even raise questions about kinds of distinctions between different kinds of distinctions. Yet there is no doubt that if there are any different kinds of distinctions at all, then there are higher-level distinctions between kinds of distinctions, or “meta-distinctions,” as well. And these too need to be classified as to what kind they are.

The distinction between real distinctions and modal distinctions can itself be neither real nor modal, but must be formal, for the reasons just indicated. These two kinds of distinctions are essentially different kinds. But their distinction cannot be real, since real distinctions are always between substances, and neither real distinctions nor modal distinctions are substances. And they cannot be modally distinct either, since modal distinctions are always between a substance and a non-substance, and once again, neither real distinctions nor modal distinctions are substances.

One might object, based on Kant, and completely reversing my own view, that the whole synthetic *a priori* categorial structure of the world is unconsciously imposed by us. My reply is that this gives me everything important. For that whole structure is, paradoxically, mind-independent in the crucial sense here, even if its ontological locus is the mind. Namely, if it is unconscious, then it is independent, with respect to its structure if not to its existence, of the conscious mind. For an unconsciously imposed structure is logically prior to any conscious intellectual activity of ours. It is logically prior to our mental activity for the simplest of reasons. They cannot be products of our intellectual activity because they cannot be acted on at all. For

Kant, the whole ontological structure of the world is like a pair of glasses we can never take off, not even if we try to create it, destroy it, change it, doubt it, or even just talk or think about it. It is the fixed and unalterable and in that sense mind-independent limit of my world.

Of course, that is only an in-house criticism of Kant. I am assuming that his theory is true in order to show that it is self-defeating on the issue of mental distinctions. I am bearding him in his own den. I reject Kant's theory in any case, for Fregean, Moorean, and Wittgensteinian reasons. What a fantastic coincidence that we all happen to make up exactly the same categorial distinctions in our unconscious minds! Granted, in traditional mental language theory, all private ideas of horse are formally identical across minds and also across horses in the world. But we have nothing like that here. Kant's things in themselves are unknowable noumena. For Kant, it is unknowable whether a horse in itself is formally identical with my idea of horse. Thus, if all ontological distinctions are mental distinctions, who can tell if *any* of your distinctions are the same as mine, or even the same in one mind over time?

Even worse, if all ontological distinctions are imposed by the mind, then regardless of whether the imposition is a choice of ours or not, and regardless even of whether we are conscious of it or not, they would be logically contingent logical distinctions, in the wide sense of "logic" that includes synthetic as well as analytic *a priori* judgments. For "Distinction D is unconsciously imposed by Smith's mind on Smith's experience" is a logically contingent statement if there ever was one. And if that statement is true then distinction, D itself would be logically contingent too. For anything created or caused by a logically contingent unconscious imposition is logically dependent for its existence on the existence of that logically contingent imposition. Thus distinction D could not be a logical relation after all. It could not even be *a*

priori, and that would contradict the initial hypothesis that it is. It could only *seem* to be *a priori*. To be *a priori* is, by definition, to be knowable independently of experience. On Kant's theory, the categories are *presented* independently of experience, precisely because they are imposed on experience. But precisely because they are imposed on experience, and because things in themselves are unknowable, the categories' actual application to things in themselves is not knowable *at all*, much less *independently of experience*. And *that* is why they are not *a priori*. They are not *knowable* independently of experience. This point is strictly per the definition of "*a priori*." But it is also consistent with the standard theory of knowledge as justified true belief, and with the standard theory of truth as correspondence to fact. If those theories are correct, and I think they are, then the reason why Kant's synthetic *a priori* categorial judgements are not really *a priori* after all may be further analyzed as being that their correspondence to facts in themselves is unknowable. This is not at all to deny that our minds do much deep, unconscious imposing on our experience. It is only to require that true distinctions correspond to fact.

Merely legal borderlines might be a plausible basis for mental distinctions between the regions that are divided by such borders. Frege mentions marking off a portion of the earth's water and calling it the "North Sea" (Frege: 1974 / 1884: 34). Certainly the rectangular border of Colorado is not in the real order. There is no such rectangle in nature. And there is a perfectly ordinary sense in which we create or invent such boundaries. My reply is that the borders of the North Sea and of Colorado are indeed not features of the real order. They are not themselves features of nature. No natural scientist could discover such borderlines or investigate them. In a perfectly ordinary sense, they are arbitrarily created by us. They are always arbitrary with respect to the natural order. They are not always arbitrary with respect to the political or social order, and

that order is public and objective, and can be investigated by political or social scientists. But there is also an ordinary, pre-philosophical sense in which the political or social order does not belong to the natural order. This might be a matter of degree. It might be argued that the social order of ants or bees is more natural, and less a matter of free choice, than the human social order. And it is human nature to be social. As Aristotle says, “Man is a social animal.”

Let us compare merely legal borderlines to the line that is the axis of the earth. The axis of the earth is objective, mind-independent, and can be scientifically investigated, but it cannot stand in causal relations or be perceived (see Frege: 1974 / 1884: 35). Legal borderlines cannot stand in causal relations or be perceived either. We casually say that we see and even photograph merely legal borders, but that is not literally true. Regardless of whether legal borderlines are perfect one-dimensional geometric lines or are merely “close enough for government work,” we do not see the borderlines themselves. All we see are welcome signs, guard posts, border checkpoints, buoys, or other boundary markers. In this respect, *merely* legal borderlines are unlike the Rio Grande and the shoreline of the Gulf of Mexico, which are part of the official border of Texas, and which can be seen and photographed in a perfectly ordinary sense. Yet the division of the North Sea from the English Channel, and the rectangular border of Colorado, cannot be identified independently of perceptible reference points in, that is, features of, the natural order. Like the axis of the earth, merely legal borders cannot be seen, and are abstract in the sense of being noncausal. But merely legal borders can be publicly surveyed, and they can be mapped on public maps. In fact, their very identity is based in the identity of indefinitely many objective, publicly perceptible survey points. And that rules out mental distinctions. Merely legal borderlines are not objects of perception, but only objects of thought. And we create them. But

they are not mental in the crucial sense. Their identity is not dependent on the identity of minds, but on the identity of objective, perceptible geographical features. Not only that, but the merely legally defined, geographically distinct regions we demarcate as the North Sea and Colorado can be scientifically investigated (see Frege: 1974 / 1884: 34). Indeed, the North Sea and Colorado are not mentally distinct because they are really distinct. Either logically can exist without the other. And mental distinctions cannot be determined by court order, Congressional vote, international treaty, or war. Something objective and publicly identifiable must be at stake.

All this provides a welcome clarification of the ontological status of so-called corporate entity as well. I argue elsewhere that businesses, social clubs, nations, and other legal persons are not literally persons, but are nonetheless complex real entities in the real order, somewhat like real watches or real ecosystems (Dejnožka 2007). Like the North Sea, we decide their merely legal boundaries, including not only the borders of any land they own, but their people and their tangible and intangible assets. But we do not merely imagine corporate entities or make them up. We do not merely mentally distinguish them in our minds. Their identity is not dependent on the identity of minds, but on the identity of perceptible features such as their people and (usually) tangible assets. The people and tangible assets are really out there. The people are really doing things with the assets. Corporate entities and their doings can be scientifically investigated, at least by social scientists. Much like the molecules and currents of the North Sea, the people and equipment of corporate entities can even be investigated by natural scientists. In fact, Colorado *is* a corporate entity, not just a land mass. It is a flourishing and real political state with merely legal rectangular borders. To infer that the State of Colorado is a state of mind because we arbitrarily decide its merely legal boundaries is a non sequitur of the first magnitude. In fact, Colorado and

California cannot be mentally distinct because they are really distinct. Either logically can exist without the other. Again, social, political, and even natural scientists can investigate them. They are complex hybrid entities that exist in the social, political, and natural orders alike.

Another plausible candidate for mental distinctions might be privations or absences. Suárez discusses the ontological status of privations in Disputation 54 (Suárez 1995 / 1597: sect. 3). My reply is that much like the axis of the earth, borderlines, and corporations, privations are generally understood to be identifiable only in terms of objective, publicly identifiable features of the natural order. Holes are privations (absences) of matter that exist in, and cannot be identified independently of, the material they are holes in (Casati 1994). Deafness and blindness are privations (deprivations) of natural capacities. We do not merely imagine privations or make them up. They do not exist only in the mind. There really are holes. We can fall into them. People really are deaf or blind. The only way we can create privations is to dig holes, poke out eardrums, stab eyes, and so on. Those are not mental acts. They are physical acts. Scientists can investigate the natural properties of privations like holes, deafness, and blindness. Going back a bit, we might say that logicians like Frege publicly investigate the universal logical properties of things, such as whether Peter as predicate is a logical compound of Peter as subject and the identity relation.

Finally, what about distinctions among all the imaginary objects, hallucinated objects, dreamed objects, fictional objects, and so on? Surely all distinctions among such objects are mental, since surely the objects themselves are mental. My reply is that this was asked and answered. Per Moore and Wittgenstein, these are public, mind-independent objects. Otherwise we could not cognize them in acts or discuss them. Also, we can identify them only in terms of

simpler components with which we are acquainted, and which are discovered, not created (compare Descartes 1969 / 1642: 146 with Moore 1903).

This concludes my arguments against mental distinction. But there is more to say.

I dislike the phrase “prior to intellectual activity” because even though Suárez applies it clearly and correctly, it can still cause confusion in mental act theory on cognizing the distinctions. Real distinctions and modal distinctions in the real world prior to any intellectual activity of ours, would exist if no minds existed at all, and would exist even if, per impossibile, minds were logically impossible. Not so for our discernments of them. Our discernments of them are themselves intellectual activity. But the very same could be said for mental distinctions, if there were any. They too would exist prior to any intellectual activity, at least of *other* minds. They could not exist independently of themselves, or of the mind they are in. But nothing can exist independently of itself, or of a thing that it is logically dependent on. And all acts are mental activity by definition.

Even in the so-called merely passive discerning of a feature of a thing in the real order as different from the thing it is a feature of, there are at least two mental acts involved: the act of abstracting the feature from the thing, and the act of cognition itself. These acts are distinct in reason. I cannot abstract a feature without cognizing it. But I can cognize some things without abstracting them. Even in the case of apprehending a real distinction between two real things, both of which I cognize without abstracting them (as opposed to singling them out), there must be at least four acts that are distinct in reason from the apprehension. There must be an act of abstracting the abstract concept of real thing, an act of abstracting the abstract relation of real distinction, and two acts of singling out, one for each of the two real things. These four acts are

posterior to the real distinction in the real order, but prior to our discerning that distinction. Note that if there were mental distinctions, much the same four acts would be required: abstracting the concept of *relatum* and the concept of mental distinction, and singling out the two things.

Is this mere semantics or word play? Are purely cognitive acts of discernment really active in any sense? Is the mind really doing anything, or making anything happen? The question is subtle and difficult. One quick answer, which is really no answer, is that it all depends on your philosophy of mind in general, and on your theory of mental acts in particular. Another quick answer, which I think is good as far as it goes, is that in a perfectly ordinary senses of “does,” cognizing things is something we and / or our minds do. Nor does it just passively happen, in the sense in which one billiard ball moves when it is struck by another. No, we are definitely doing something, even if it is no more than singling a thing out, fixing or focusing our attention on it, separating it in perception or thought from the background, or more simply and generally, from anything else. Yes, we are definitely doing something, however little. Neuroscientists, take note.

If only to get our bearings on the general conceptual map of the mind, it may help to give a brief sketch of the traditional two main kinds of mental act: acts of the will and acts of the understanding. In traditional mental faculty theory, there are only two basic faculties, the will (volition) and the understanding (cognition) (see e.g. Descartes 1969 / 1642: 232, *Principles*, principle 32). Thus there are only acts of the will and acts of the understanding. I view the theory as merely classificatory and basically correct as far as it goes. What third kind of faculty is there, or could there be? Yet the logical possibility of a third faculty cannot be ruled out *a priori*. Faculty is a logical determinable logically capable of having infinitely many logically possible determinates. This is a little like Spinoza’s God. We can know only two of God’s attributes,

thought and extension; but God has infinitely many other attributes that we cannot know.

Regardless of our final or considered theory of mind, we have to start from somewhere. That means starting from our initial data. This data is not only what is given, but it is also our evidence on point. And it is the purpose of any theory to preserve or “save the appearances” to the extent possible, and what is more, to explain the data. One such datum is free will. Descartes says “it is so evident that we are possessed of a free will that can give or withhold its assent, that this may be counted as one of the first and most ordinary notions that are found innately in us” (Descartes 1970 / 1642: 234, *Principles*, principle 39). Physicalists, take note. As scientific as they like to think themselves, perhaps no one tries to disregard basic data as much as they do.

On its own level, which is at the very least how our minds are phenomenologically presented to us, how can anyone argue against traditional faculty theory? We appear to will some things. We appear to understand some things. Some of our acts of will are not based on any significant understanding of anything. They are nonrational, even foolish acts. And some of our acts of understanding do not lead to or otherwise involve any acts of will. We understand many things without doing anything about them. Thus the will and the understanding appear to be logically independent faculties. It appears that neither acts of will nor acts of the understanding are a sort or kind of the other. The main question that was traditionally debated was instead whether either faculty is *primary* over the other, and if so, which one. Presumptively, neither is a subsort of the other, and neither is even logically dependent on the other. But is either more basic or important than the other in any sense? This appears to devolve to a question of value. Some hold that there is nothing as good as a good will (Kant), that the will is always directed to the good (Aristotle, Henry of Ghent, Scotus), and that good things are good only because God wills

them (Scotus, Ockham). Others (Aquinas) hold that an act of willing is good if and only if it is based on a cognition that its object is good. Windelband gives a judicious introduction to such questions (Windelband 1979 / 1901: 328–37). But the ethical question is not our question here. I mention it only to give the big picture.

The question of how the will and the understanding interact depends on what the will and the understanding are. If we have sophisticated theories of both, we will doubtless have sophisticated theories of their interactions too (see Windelband 1979 / 1901: 328–37 on the medievals). I propose the following as an initial theory which seems correct as far as it goes.

I hold that acts of the will and acts of the understanding are in fact mutually logically dependent, and are therefore distinct only in reason. In simplest terms, we cannot will a thing without thinking of it. Even an unconscious willing of a thing would require an unconscious singling of it out. And as just explained, when we single something out, we are doing something.

We casually speak of having a blind will, or of striking or flailing out blindly, that is, without any understanding being involved. But will implies choice, choice implies reason (think of the principle of sufficient reason), and having a reason implies cognizing at least the reason. If the striking out is random (undetermined) or physically determined (efficient cause), then it did not happen as an act of will (free choice). And we speak of pure cognition, of merely thinking or happening to think about something without doing anything. We can merely suppose or consider a thought (a proposition) without even so much as employing or performing what Frege would call the forces and Austin would call the illocutionary acts of assertion, question, or command. Descartes in effect recognizes forcial or illocutionary acts (Descartes: 1969 / 1642: 232, principle 32; see 1970 / 1642: 169), and rightly holds that the will is involved in a judgment as opposed to

a mere supposition or contemplation (Descartes 1969 / 1642: 233, principle 34). But as I was just explaining in other words, even a mere act of supposing, even a so-called purely intentional (cognitive) act is still an act, at least in act theory of cognition. We are in some sense definitely doing something, however little, when we single something out. And we are doing even more if we abstract it. We may say that both singling out and abstracting are kinds of parsing, in a wide sense of “parsing” that also includes Husserlian ontological bracketing (suspending consideration of whether a thing exists). But in “creating” a so-called mental distinction, we are not at all doing what we do when we create, say, the idea of a unicorn out of the ideas of horse and horn. As far as I can see, creating a mental distinction between Peter as subject and Peter as predicate is no more and no less active than discerning a real distinction or a distinction only in reason. And I think Descartes would be the first to tell us that (Descartes 1969 / 1642: 146). At least, mental distinctions are not on his laundry list of mental creations, such as imaginative and fantastic “sirens and satyrs” (Descartes 1969 / 1642: 146). Logical subjects and logical predicates are not wild fantasies, unless you think logic is a land of fairy tales. As Frege says, we are free to choose what to regard as the logical subject and as the logical predicate in a thought. But that is the only choice. There cannot be a thought that does not have both. Of course, even sirens and satyrs are not “entirely new,” but are composed of objects we discern—“objects yet more simple and more universal, which are real and true” (Descartes 1969 / 1642: 146). But unlike the ontological distinctions, we can freely compose their creation in any way we wish out of any simpler objects we wish. We can even tell a story about a round square. I think it is clear that this is not what is going on in any of the ontological distinctions.

My conclusion is that all the ontological distinctions are founded on reality and are

discerned, not created. But the discernment of all of them also involves at least some minimal intellectual activity; and discernment itself is a basic mental activity in its own right. Even discernment is discerned in acts of discerning discernment. And we can freely choose what to discern, in the ordinary sense of choosing what to regard or disregard in our perception and thought. Of course, if I look in a certain direction under certain ordinary conditions, I cannot help but see the coffee cup in front of me.

Why would anyone think any ontological distinctions are mental in the first place? My last example is from my own thinking. Many years ago, I studied the psychology of intelligence. I came to feel that there is no distinction in the world between kinds of intelligence and kinds of talent or ability. Yet I felt that the concepts were different. For when I thought of intelligence I did not think of talent, and vice versa. Thus I felt that the distinction was only between concepts in my mind, and what could concepts in my mind be but mental? Based on my arguments in this paper, I reject my earlier essay of intelligence and ability as mentally distinct, and now hold that they are distinct in reason. Yet I can see even now the great intrinsic plausibility of such essays. I myself accepted that essay immediately and without question. It was not only the best essay I could think of at the time, but it was the only essay I could think of. No wonder, then, that so many of the greatest thinkers from Aristotle on held that all sorts of things, such as numbers and distinctions, must be mental. For they had reasons for thinking those things could not be in the real order of nature; and where else could they be but in the mind? It took the genius of Frege and Bolzano before him to argue for a third realm of entities that are mind-independent, public, and objective, yet are not causal or concrete in any reasonable sense. (Frege assays numbers and the axis of the earth as abstract particulars.) Of course, Plato in effect located the distinctions in the

real order with his theory of timeless, intelligible real forms. All his ontological distinctions may be called formal in the sense that they are between his forms; and we may even hold that they are timeless relational forms themselves. All of them may even be called real distinctions in the sense that all his forms are real. He could scarcely locate any timeless, intelligible distinctions of any kind, ontological or not, in the mind. For he holds that ideas of sense are fleeting (impermanent), changing (in flux), and barely intelligible “shadows” of real forms. Granted, his ideas implicitly must be minimally intelligible, or we could not think or speak of them at all. And logically that would allow and require them to have minimally intelligible distinct forms. But minimally intelligible formal distinctions among ideas would not be at all like the ontological distinctions we are discussing. That Plato also calls forms ideas does not detract from this. When he calls forms ideas, he merely means that they are intelligible objects of the understanding.

Conclusion

Suárez is very close to, yet also very far from, what I consider to be the true classification of the ontological distinctions. He admits real distinctions, modal distinctions, and mental distinctions, and he rejects formal distinctions. In contrast, I admit real distinctions and distinctions in reason, and I reject mental distinctions. I admit modal distinctions as one-sided distinctions in reason, and I hold that all distinctions in reason, whether modal or of mutual dependence, are formal distinctions with a foundation in some part of the real order. All that makes us far apart. But we are closer than one might think. For he distinguishes real distinctions between real things (substances) from distinctions between items that are not real things, but are still in the real order. His terms for these two kinds of distinction are respectively “the distinction

between two altogether separate things or entities,” and mere “distinction from the nature of the case,” “or more properly a ‘modal distinction’,” where each of these two sorts of distinction is “a[n] actual distinction which is found in nature prior to any activity of the mind” (Suárez 1947 / 1597: 27). Again, his modal distinctions are a kind of formal distinction. Frege and Aristotle are examples of how to use the law of excluded middle, and Suárez is an example of how not to. Suárez’s famous argument against formal distinction is based on a deep misunderstanding of the law of excluded middle. But even then, he is not so much against formal distinction as against the term’s redundancy and its often equivocal use. Indeed, when he criticizes the term “formal distinction” as redundant, he admits its applicability by that very fact.

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