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Metaphysical Disputation 40, “On Continuous Quantity” section 2
tr. Robert Pasnau

Section 2. Is bulk quantity a thing distinct from material substance and its qualities?

1. Before we look into the essential nature and distinct kinds of continuous quantity, we should make the case for it as a true and real being. The best way to do this is to set out its difference from other things, which is our intention in this section. Here we will deal chiefly with bulk quantity (*quantitate molis*), which we experience in bodies and call *quantitative body*. Although it is only one species of continuous quantity, as we will see below,¹ still in a certain way it includes the others. It is also more readily sensed, and the present difficulty appears more clearly in it – hence it is right to pay it special attention.

[The Nominalist View]

2. The view of some, then, especially the nominalists, is that bulk quantity is not a thing distinct from substance and its material qualities. Instead, each of these beings has through itself the bulk and extension of parts that is in bodies. A being is called *matter*, for instance, inasmuch as it is a substantial subject, and is called *quantity* inasmuch as it has extension and distinction of parts, and the same is said analogously of forms and

SECTIO II
UTRUM QUANTITAS MOLIS SIT RES
DISTINCTA A SUBSTANTIA
MATERIALI ET QUALITATIBUS

1. Antequam essentialem rationem quantitatis continuae, et distinctionem specierum eius inquiramus, oportet supponere eam esse veram et realem entitatem, quod non possumus commodius declarare, quam explicando distinctionem eius ab aliis rebus, quod in hac sectione intendimus. In qua praecipue agimus de hac quantitate molis, quam in corporibus experimur et corpus quantitativum appellamus, quod licet tantum sit una species quantitatis continuae, ut infra videbimus, tamen quodam modo includit caeteras, ac sensibilius est, et in eo magis apparet praesens difficultas, et ideo specialiter in eo applicanda est.

Prima sententia nominalium refertur

2. Est ergo aliquorum sententia, praesertim nominalium, quantitatem molis non esse rem distinctam a substantia et qualitatibus materialibus, sed unamquamque earum entitatum per seipsam habere hanc molem et extensionem partium quae est in corporibus; sed illammet entitatem vocari materiam, verbi gratia, quatenus est substantiale subiectum, vocari autem quantitatem quatenus habet partium extensionem ac distinctionem; idemque proportionaliter dicunt de formis et

¹ Aristotle lists lines, surfaces, bodies, time and place (*Cat.* 6, 4b22), all of which Suárez takes up in sections 5-9.

material qualities. Hence they introduce into each material composite as many quantities as there are really distinct material beings – quantities that can interpenetrate just as those beings can. This is the view of [Peter] Aureol ... and of [William of] Ockham, in IV *Sent.* q.4 and *Quod.* IV qq.29-33 and *Quod.* VII q.25 and at greater length in his *Treatise on the Body of Christ* chs.17 and following, and in his [*Summa*] *Logicae*, in the chapter on quantity; and of Gabriel [Biel], II *Sent.* dist. 10; [John] Major, II *Sent.* d.12 q.2; Adam [Wodeham], IV *Sent.* q.5; Albert of Saxony, I *Phys.* q.7. But although these authors clearly enough deny the real distinction between quantity and substance, they do not say clearly enough whether they have *any* actual distinction *in re*, at least modal, based on the thing's nature, or whether there is only a purely conceptual distinction (*rationis rationatae*). For they frequently speak in such a way that they seem to posit no distinction *in re*. On the other hand, when they say that sometimes a material substance can remain without its quantity (for so they maintain regarding the body of Christ in the sacrament of the Eucharist), they seem to admit some distinction grounded in the thing's nature.

3. The foundations for this view are, [first], that a distinction between things should not be introduced or asserted without reason or compelling necessity. But here there is no reason or necessity, or no effect from which a real distinction between quantity and matter (for instance) can be sufficiently drawn. Therefore.

The minor is proved, because if there were some effect, it would be, above all, the real distinction or situation of the substance's parts. For from the fact that a thing is understood to have one part outside another, both in its being and in place, quantity is straightaway understood.

qualitatibus materialibus. Unde inferunt in unoquoque composito materiali tot esse quantitates quot sunt entitates materiales realiter distinctae, quae ita possunt sese penetrare, sicut ipsaemet entitates. Ita sensit Aureol., apud Capreol., In II, dist. 18, a. 2; et Ockham, In IV, q. 4, et Quodl. IV, q. 29, usque ad 33, et Quodl. VII, q. 25, et latissime in tractatu de Corpore Christi, c. 17, et seq., et in Logica, c. de Quantit.; Gabriel, In II, dist. 10; Maior, In II, dist. 12, q. 2; Adam, In IV, q. 5; Albert. de Saxonia, I Phys., q. 7. Quamquam autem hi auctores satis expresse negent distinctionem realem quantitatis a substantia, an vero in re habeant aliquam distinctionem actualem ex natura rei, saltem modalem, vel tantum rationis ratiocinatae, non satis declarant; frequentius enim ita loquuntur, ut nullam distinctionem in re ponere videantur. Dum vero aiunt posse aliquando materialem substantiam sine sua quantitate manere (ita enim de corpore Christi in sacramento Eucharistiae sentiunt), videntur admittere distinctionem aliquam ex natura rei.

3. *Fundamenta praecedentis sententiae.*—
Primum.— Fundamenta huius sententiae sunt, quia rerum distinctio introducenda vel asserenda non est sine ratione aut necessitate cogente; hic autem nulla est ratio vel necessitas, nullusve effectus ex quo possit sufficienter colligi realis distinctio inter quantitatem et materiam, verbi gratia; ergo.

Probat minor, quia si quis esset effectus, maxime realis distinctio, aut situatio partium substantiae, nam, hoc ipso quod res intelligitur habere unam partem extra aliam, et in entitate sua et in loco, iam intelligitur quantitas.

But a material substance has each of these through itself, nor does it need quantity for that as a really distinct accident. Therefore there is no necessity for such quantity. The minor is proved with respect to the first part (the parts being distinct in being) because each being is distinct from another through itself, and so likewise partial beings are distinct through themselves. From this the second part [of the minor, re. the parts being distinct in place] is also clear, because things distinct in being can also be established in distinct places, in reality. For there is no contradiction in this.

4. From here I make a second argument. If quantity is a thing distinct from substance, then God could separate it, and conserve the material substance without that quantity. But a substance so conserved would be quantified. Therefore it is impossible for quantity to be a thing distinct from such a substance.

The inference is clear, first because if a substance retains quantified existence without that being [i.e., quantity], then there is nothing that such being could confer on it. Second, a formal effect cannot remain without its form. So if quantified existence remains without that distinct quantity, then [quantified existence] is not its formal effect. Therefore it is not anything [at all].

The major is clear from what was said earlier about distinctions in general [DM 7], and because no essential dependence can be imagined between those two things such that one cannot be conserved without the other, and because if God conserves a really distinct accident without a substance, then much more could he conserve a substance without any really distinct accident.

Utrumque autem harum habet materialis substantia per seipsam, neque ad ea indiget accidente quod sit quantitas realiter distincta; ergo nulla est necessitas talis quantitatis. Probatur minor quoad priorem partem de distinctione entitativa, quia unaquaeque entitas per seipsam est distincta ab alia; ergo similiter entitates partiales seipsis distinguuntur. Et hinc etiam patet altera pars, quia quae in entitate sua distinguuntur, in re possunt etiam in diversis locis constitui; nulla enim est in hoc repugnantia.

4. *Secundum.*— Unde argumentor secundo, nam si quantitas est res distincta a substantia, ergo poterit Deus eas separare, et substantiam materialem sine illa quantitate conservare; sed substantia sic conservata esset quanta; ergo impossibile est quantitatem esse rem distinctam a tali substantia.

Consequentia patet, tum quia si substantia retinet esse quantum sine illa entitate, ergo nihil est quod ei possit conferre talis entitas. Tum etiam quia effectus formalis non potest manere sine forma; ergo si esse quantum manet sine illa quantitate distincta, ergo non est effectus formalis eius; ergo neque ipsa aliquid est.

Maior vero patet ex dictis supra de distinctionibus in communi, et quia nulla potest fingi essentialis dependentia inter illas duas res, ut non possit una sine alia conservari, et quia si Deus conservat accidens realiter distinctum sine substantia, multo magis poterit conservare substantiam sine quolibet accidente realiter distincto.

The minor is proved, because that substance would have distinct parts, since things that were distinct could not coalesce into one simple being. It would also have the union of those parts, because it could not be divided into all of its parts. It would also, finally, have the local position of its parts, both for the reason given above, and also because it could remain unmoved locally – for what would be incompatible with its remaining unmoved? But these alone characterize a quantified thing. Therefore.

5. Third, while conserving in a material substance every accident really distinct from that substance, God can make that thing be not quantified. Therefore substance does not have this effect due to any really distinct accident, but at most due to some mode that is by nature distinct.

The inference is clear, because since no form can actually be in its subject and inhere in it without its formal effect, the substance could not retain that accident without being quantified.

The antecedent is proved, because God can shrink a two-foot body into a one-foot place without corrupting any being. Thus a two-foot quantified thing would be made one-foot without the corruption of any thing, and for the same reason it could be further shrunk to half a foot, and finally could be entirely shrunk to a point, in which case it would then not be quantified.

6. Fourth, Ockham argues that since substance of itself is receptive of contrary qualities (and indeed this is most distinctive of it, according to Aristotle's *Categories* in the chapter on substance), it follows that no distinct thing that is quantity intervenes between a substance and its qualities. For if it did then it would be all the more receptive of contraries,

Minor vero probatur, nam illa substantia haberet partium distinctionem, quia non possunt, quae distincta erant, in unam simplicem entitatem coalescere; haberet etiam earum unionem, quia non posset esse divisa in omnem suam partem; haberet denique localem partium situm, tum propter rationem superius factam, tum etiam quia posset localiter immota manere; quid enim hoc repugnat? Haec autem solum sunt quae rem quantam reddunt; ergo.

5. *Tertium.*— Tertio, quia conservando in substantia materiali omne accidens realiter ab illa distinctum, potest Deus efficere ut illa res non sit quanta; ergo non habet substantia hunc effectum ab aliquo accidente realiter distincto, sed ad summum ab aliquo modo ex natura rei distincto. Consequentia est evidens, quia cum nulla forma possit actu esse in < suo > subiecto eique inhaerere sine suo effectu formali, non posset retinere substantia illud accidens, quin esset quanta. Antecedens probatur, quia potest Deus corpus bipedale redigere ad pedalem situm absque corruptione alicuius entitatis, et ita quantum bipedale fiet pedale absque ullius rei corruptione, et eadem ratione potest rursus illud redigere ad semipedalitem, ac tandem potest totum redigere ad punctum, in quo statu iam non erit quantum.

6. Quarto argumentatur Ockham, quia substantia per seipsam est receptiva contrariorum qualitatum, immo hoc est maxime proprium illi, teste Aristotele, in Praedicam., c. de Substantia; ergo non mediat inter substantiam et qualitates res distincta, quae sit quantitas; alias etiam illa esset susceptiva contrariorum ex maiori

since it would receive them in itself more immediately [than substance would].

[The Realist View]

7. The contrary view is the consensus among theologians and philosophers. St. Thomas [Aquinas] holds it..., and [John Duns] Scotus..., Durand [of St. Pourçain], Richard [of Mediavilla], [John] Major, and other doctors commonly in IV *Sent.* d.12; [John] Capreolus..., Hervaeus [Natalis]..., Giles [of Rome]..., Albertus Magnus..., [Paulus] Soncinas, and others with regularity. Aristotle too strongly suggests it, for in *Metaph.* III text 17, and at length in books XIII and XIV he expressly proves that quantity is not substance, and he proves against the Pythagoreans that the dimensions of quantity cannot in reality be separated from matter or substance, because they are its accidents. Also in *Physics* I, text 13, he says that substance and quantity are not one, but many, and all over the place he distinguishes quantity from substance just as he does quality, as is clear from the same place just cited, and from the *Categories*, and from *Metaphys.* VII text 8, where he says: “Length, breadth, and depth are kinds of quantities, but not substance. For quantity is not substance but rather that to which these first inhere.” Also, in *De anima* II, text 65, he says that substance is sensible *per accidens*, whereas quantity is sensible *per se*. And in *Physics* I, text 33, he says that substance is not divisible through itself, but through quantity. And we will refer to other passages below. Also, Averroes and other interpreters hold the same view in the passages cited.

[In Support of the Realist View]

8. This view should absolutely be maintained. For although it cannot be sufficiently demonstrated by natural reason, still its truth is shown convincingly

ratione, quia immediatius illa in se susciperet.

Secunda et communis sententia

7. Contraria sententia est communis theologorum et philosophorum; tenet illam D. Thomas, III, q. 7, a. 2, et In IV, dist. 12, q. 1, a. 1, ubi idem tenet Scotus, q. 2, et In II, dist. 2, q. 9; Durand., Richard., Maior, et alii doctores communiter in illa dist. 12, IV *Sent.*; Capreolus, loco supra citato; Hervaeus, Quodl. I, q. 15; Aegid., Theorem. 36 et seq. de Corp. Christi; Albertus Magnus, I *Phys.*, tract. II, c. 4; Soncin., V *Metaph.*, q. 19, et alii frequenter. Et multum favet Aristoteles, nam in III *Metaph.*, textu 17, et latius lib. XIII et XIV, ex professo probat quantitatem non esse substantiam, et contra pythagoricos probat dimensiones quantitatis non posse reipsa separari a materia seu substantia, quia sunt accidentia eius. Et I *Phys.*, text. 13, ait substantiam et quantitatem non esse unum, sed multa, et ubique ita quantitatem distinguit a substantia, sicut qualitatem, ut patet ex eodem loco citato, et ex lib. *Praedic.*, et VII *Metaph.*, text. 8, ubi ait: *Longitudo, et latitudo, et profunditas, quantitates quaedam sunt, sed non substantia; quantitas enim non est substantia, sed magis cui haec primo insunt.* Item II de *Anim.*, text. 65, ait substantiam esse sensibilem per accidens, quantitatem autem per se. Primo etiam *Phys.*, textu 33, ait substantiam non esse per se divisibilem, sed per quantitatem. Et alia loca inferius referemus. Idemque sentiunt Averroes et alii interpretes dictis locis.

Approbatum sententia reipsa distinguens quantitatem a substantia

8. *Prima probatio verae sententiae.*—Atque haec sententia est omnino tenenda; quamquam enim non possit ratione naturali sufficienter demonstrari, tamen ex

from principles of theology, and especially on account of the mystery of the Eucharist. From this, natural illuminated reason also understands this truth to be more in keeping and in conformity with the natures of things [cf. n.11 below].

So the first argument for this view is that in the mystery of the Eucharist God separated quantity from the substance of the bread and wine, conserving it, and converting the bread and wine into his blood and body. But he could not have done that if quantity were not by its real nature distinct from substance. Nor could a modal distinction have sufficed, since substance cannot be a mode of quantity, as is self-evident. So quantity would have to be a mode of substance, but a mode is not separable from the thing of which it is a mode in such a way that it could exist without it, as was shown above [DM 7]. Therefore quantity is not only a mode, but a thing distinct from substance.

9. The nominalists reply by denying that the quantity of the bread's substance remains in the Eucharist after consecration, since the intrinsic extension and locational presence of the parts of the bread's substance do not remain. Rather, they say that what remains is the quantity of the whiteness and of the other remaining qualities, and they grant that this quantity is distinct from the bread's substance. For they do not affirm across the board that every quantity is the same as substance; rather, each quantity is the same as that thing which is proximately quantified by it. As a result, they admit there are multiple quantities in the same composite: one for substance, one for whiteness, one for heat, and so on for other material qualities; and also one for matter, and another for form, if it is material.

principiis theologiae convincitur esse vera, maxime propter mysterium Eucharistiae. Ex quo etiam ipsa naturalis ratio illustrata intelligit ipsis etiam naturis rerum esse veritatem hanc magis consentaneam ac conformem. Prima ergo ratio pro hac sententia est quia in mysterio Eucharistiae Deus separavit quantitatem a substantiis panis et vini, conservans illam, et has convertens in corpus et sanguinem suum; id autem fieri non potuisset, nisi quantitas ex natura rei distingueretur a substantia. Neque sufficere potuisset distinctio modalis, quia substantia non potest esse modus quantitatis, ut per se notum est; deberet ergo quantitas esse modus substantiae; at vero modus non est ita separabilis ab illa re cuius est modus ut sine illa esse possit, ut in superioribus ostensum est; ergo quantitas non est tantum modus, sed res distincta a substantia.

9. *Nominalium responsio.*— Respondent nominales negando quantitatem substantiae panis manere in Eucharistia post consecrationem, quia non manet intrinseca extensio et situalis praesentia partium substantiae panis, sed manere dicunt quantitatem albedinis et aliarum qualitatum ibi manentium, et hanc quantitatem concedunt distingui a substantia panis. Non enim universe affirmant omnem quantitatem esse idem cum substantia, sed unamquamque quantitatem cum illa re quae proxime per illam est quanta. Quo fit ut plures quantitates in eodem composito admittant, unam substantiae, et aliam albedinis, et aliam caloris, et sic de caeteris qualitibus materialibus; immo et unam materiae, et aliam formae, si materialis sit.

10. But this reply clashes from the start with the consensus view of the theologians. They hold that, after the consecration, the quantity of the bread's substance remains – and indeed that that is the subject of the other accidents remaining there, as was discussed in more detail in the third book of the third part [of the *Summa* commentary], disp. 56. This can also be proved from the effects that we experience in those consecrated appearances, which it is impossible to save without many and continuous miracles. The first and chief of these is that the consecrated host is so quantified and extended in its place that it cannot naturally be in the same place at once with, or be penetrated by, another consecrated host, or any other body. But this could not arise solely from the quantity of whiteness or other qualities. Therefore.

The minor is proved, because the qualities with their proper and (so to speak) entitative extension are penetrable, both by each other and by the quantity of the bread's substance. For they did exist together with that substance in the same location. Therefore for the same reason they are penetrable in the same location by any other qualities, and by any substance, assuming nothing else is [there]. Therefore either it should be said that it is not incompatible for the consecrated appearances of themselves to exist at the same time and place as another body, but that God alone, by his special power, prevents it so that the mystery is not made apparent – or it should be confessed that some thing remains in the consecrated accidents that is incompatible [with this] by its nature, and impenetrable in place by other substances. But this can be nothing other than the quantity of the substance, on account of which one corporeal substance is naturally impenetrable in place by another. Therefore.

10. *Refutatur.*— Verumtamen haec responsio imprimis repugnat communi sententiae theologorum, qui censent manere, post consecrationem, quantitatem substantiae panis, immo et illam esse subiectum aliorum accidentium ibi manentium, ut latius tractatum est in III tomo tertiae partis, disp. LVI. Potestque probari ex effectibus quos experimur in illis speciebus consecratis, quos impossibile est salvare sine multis et continuis miraculis. Primus ac praecipuus est, quia hostia consecrata ita est quanta et extensa in suo loco, ut naturaliter non possit in eodem simul esse aut penetrari cum alia hostia consecrata, aut cum quovis alio corpore; hoc autem provenire non potest ex sola quantitate albedinis, vel aliarum qualitatum; ergo. Probatur minor, quia qualitates cum sua propria et (ut ita dicam) entitativa extensione penetrabiles sunt, tam inter se quam cum quantitate substantiae panis; simul enim cum illa erant in eodem situ; ergo eadem ratione sunt penetrabiles in eodem spatio cum quibuscumque aliis qualitibus, et cum quacumque substantia, si nihil aliud est. Ergo vel dicendum est species consecratas ex se non repugnare simul esse in quocumque loco cum alio corpore, sed Deum solum speciali virtute id impedire ne mysterium patefiat, quod satis absurdum est, vel fatendum est manere in accidentibus consecratis rem aliquam ex natura sua repugnantem, et loco impenetrabilem cum aliis substantiis. Haec autem nulla alia esse potest nisi quantitas substantiae, ratione cuius una substantia corporea est naturaliter impenetrabilis loco cum alia; ergo.

11. From this derives the natural argument from which it is necessary in bodies for this thing that we call quantity to be distinct from substance. For we see in material substance that many things extended in themselves are so conjoined among themselves as to intimately interpenetrate and exist together in the same space without any mutual repugnance. We also see that one corporeal substance and one integral part of that same body are repugnant to each other in the same space, in such a way that they cannot interpenetrate. Therefore it is necessary for this effect and this repugnance to come from some thing distinct from substance and qualities, inasmuch as these alone do not have that repugnance to one another.

12. The authors of the contrary view can say that this repugnance of bodies or of the parts of bodies to one another in the same space arises from the quantity of matter, which has a nature such that it does not repulse being penetrated in the same space by the quantity of the form or of the material qualities, whereas it does repulse being penetrated by the quantity of some other matter. So these authors will deny that this quantity of matter is distinct from the substance of that matter, but they will say that the substantial parts of the matter have of themselves this bulk and density on account of which they exclude each other and extend in space. In this they establish some difference between the quantity of matter and of material forms (both substantial and accidental). All the latter are actuating actualities, and on this account are subtler than matter and more penetrable both by themselves and also by material potentiality. In contrast, although matter can be penetrated by its actualities, still, since it is denser with respect to its potentiality, its parts of themselves are impenetrable in place. This reply and

*Quae sit naturalis necessitas asserendi
quantitatem quae sit res distincta a substantia
corporea et eiusdem qualitibus*

11. Atque hinc sumitur naturalis ratio, ob quam necessaria est in corporibus haec res quam vocamus quantitatem a substantia distinctam. Nam videmus in substantia materiali multas res in se extensas esse ita inter se coniunctas ut intime penetrentur simulque in eodem spatio existant absque ulla repugnantia inter se. Rursusque videmus unam substantiam corpoream et unam partem integram eiusdem corporis repugnare alteri in eodem spatio, ita ut non possint sese penetrare; ergo necesse est ut hic effectus et haec repugnantia proveniat ab aliqua re distincta a substantia et qualitibus, quandoquidem hae solae inter se non habent illam repugnantiam.

12. *Obiectioni respondetur.*— Dicere vero possunt auctores contrariae sententiae hanc repugnantiam corporum vel partium corporalium inter se in eodem spatio provenire quidem ex quantitate materiae, quae hanc habet naturam, ut cum quantitate formae vel materialium qualitatum non repugnet penetrari in eodem spatio; cum quantitate vero alterius materiae repugnantiam habeat. De ipsa ergo quantitate materiae negabunt isti auctores distinguere a substantia ipsius materiae, sed dicent partes substantiales materiae per seipsas habere hanc molem et crassitiam ratione cuius sese excludunt et extendunt in spatio. Et in hoc constituent differentiam aliquam inter quantitatem materiae et formarum, tam substantialium quam accidentalium materialium, quod hae omnes sunt actus actuantes, et ex hac parte subtiliores sunt quam materia, et penetrabiliores tum inter se, tum etiam cum potentia materiali. At vero materia, quia per modum potentiae crassior est, ideo, licet cum suis actibus penetrari possit, tamen partes eius per se

view, so developed, cannot be easily given a clear refutation, staying at the level of pure natural reason.

13. Still, this view can be disproved quite sufficiently, in part by natural reason and in part by the associated mystery. For the quantities of form and quality either are or are not truly quantities, univocally with the quantity of matter. If not, then they are called quantities by a kind of analogy, because they are so coextended with the quantity of matter that only matter is understood to be quantified through itself, and the others through it, to the extent they are extended in it. If these authors say the first, as in truth they seem to say, then they establish without argument that difference between the quantity of matter and form, since it belongs to the nature of true quantity to confer the bulk of a quantified thing. Moreover they do not save the mystery, for we see that the quantity of whiteness does not have such a nature as to expel another body from the same place, and to make those parts of whiteness impenetrable in the same place.

If, on the other hand, they were to say the second, then their answer would be sounder if they took their stand in natural reason alone. For the mystery [of the Eucharist] could in no way be saved, except by imagining a constant miracle. For it is necessary that they admit that no true quantity remains in the consecrated accidents, and consequently nor any thing that makes those accidents impenetrable in place both by other bodies and by their integral parts among themselves. It is also the case that if no true quantity remains, then those accidents will not remain assembled among themselves, or in some third thing. Also, those qualities will not be able to be naturally intensified, because they would be in no subject. All these clash with experience, the saving of which will necessitate invoking individual

sunt loco impenetrabiles. Atque haec responsio et sententia sic explicata non potest facile evidenter impugnari, sistendo in pura ratione naturali.

13. Nihilominus tamen partim ratione naturali, partim adiuncto mysterio, sufficientissime improbatur. Nam, vel quantitates formae et qualitatum sunt vere ac univoce quantitates cum quantitate materiae, vel non, sed tantum dicuntur quantitates per quamdam proportionem, quia nimirum coextenduntur quantitati materiae, ita ut sola materia intelligatur per se quanta, reliqua per ipsam, quatenus in illa extenduntur. Si primum dicant hi auctores, ut revera videntur dicere, sine ratione constituunt illam differentiam inter quantitatem materiae et formarum, cum de ratione verae quantitatis sit conferre hanc molem rei quantae. Et deinde non salvant mysterium, nam videmus quantitatem albedinis non habere illammet naturam expellendi corpus aliud ab eodem loco, et reddendi ipsas partes albedinis impenetrabiles in eodem loco. Si autem dicerent secundum, magis quidem consequenter loquerentur, stando in sola ratione naturali; mysterium tamen nullo modo salvari posset, nisi fingendo continua miracula. Quia necesse est fateantur nullam veram quantitatem manere in accidentibus consecratis, et consequenter neque rem ullam quae illa reddat loco impenetrabilia, tam cum aliis corporibus, quam cum suis partibus integralibus inter se. Accedit etiam quod si nulla vera quantitas manet, non manebunt illa accidentia inter sese colligata, neque in uno tertio. Item, non possent qualitates illae naturaliter intendi, quia in nullo essent subiecto; quae omnia repugnant experientiis, ad quas salvandas erit necessarium fingere singula miracula. Tandem etiam in ratione naturali est satis voluntarie dictum materiam solam habere quantitativam extensionem per se et per puram entitatem substantialem suam; alia

miracles. Finally, it is said willingly enough in natural reason that only matter has quantitative extension per se and through its pure substantial being, whereas everything else that inheres in matter is quantified per accidens and without its own quantity.

14. The second principal argument is taken from the same mystery [of the Eucharist]. For under the consecrated appearances is the body of Christ the Lord with its natural quantity, and yet it does not have the extension of its parts ordered to place, as is clear from the faith. Therefore the actual extension of the parts of the substance ordered to place is not the quantity of the substance. Therefore it is another thing intervening between substance and that extension ordered to place.

Theologians, with few exceptions, consider the major premise certain, and I have argued on that side at length.... The chief argument is that locational extension is nothing other than the presence in place that a body has in its space. This presence arises from the partial presence of its individual parts, and so too it is extended and quantified per accidens, as we will say below. But this presence is not quantity itself, as seems self-evident. For quantity remains always the same, even if a body changes its presence and the location of its parts ordered to a place – that is, even if it sits down or stands up, or stops here or there.

15. Suppose they say that quantity is not the actual occupation of place or space, but is that extension that a quantified body has of itself, on which account it is suited to occupy this or that space and to have this or that location of its parts, and that that extension is not a thing distinct from substance.

vero omnia quae in materia insunt, esse quanta per accidens et absque propria quantitate.

14. *Secunda probatio verae sententiae.*—
Secunda ratio principalis ex eodem mysterio sumpta est, quia sub speciebus consecratis est corpus Christi Domini cum sua naturali quantitate, et tamen non habet extensionem partium suarum in ordine ad locum, ut ex fide constat; ergo actualis extensio partium substantiae in ordine ad locum non est ipsa quantitas substantiae; ergo est alia res media inter substantiam et illam extensionem in ordine ad locum. Maior est certa apud theologos, paucis exceptis; eamque late confirmavi III tom., disp. XLVIII, sect. 1, et disp. LI, sect. 2, ubi etiam aliis argumentis naturalibus ostendi actualem extensionem corporis in ordine ad locum non esse quantitatem corporis. Praecipue quia situalis extensio non est aliud quam praesentia localis quam corpus habet in suo spatio; quae praesentia consurgit ex partialibus praesentiis singularum partium, et ideo etiam ipsa extensa est et quanta per accidens, ut infra dicemus; haec autem praesentia non est quantitas ipsa, ut videtur per se notum, nam quantitas permanet semper eadem, etiamsi corpus praesentiam mutet et situm partium in ordine ad locum, id est, etiamsi sedeat vel stet, vel hic aut illic sistat.

15. Quod si dicant quantitatem non esse ipsam actualem loci seu spatii occupationem, sed esse extensionem illam quam in se habet corpus quantum, ratione cuius aptum est hoc vel illud spatium occupare, et hunc vel illum situm partium habere, illam vero extensionem non esse rem distinctam a substantia, si hoc

If they say this, I further ask whether Christ in the sacrament has this extension, which can be called an aptitudinal ordering to place. If he does, then they falsely say that the body of Christ lacks quantitative extension in the Eucharist. If he does not, then beyond the absurdity of that body's lacking its own quantity in the Eucharist, it follows against the nominalists' own view that this extension is distinct by its own nature from the substance of the body of Christ and its qualities. And since it was shown that it is also distinct from actual extension in place, the result is an extension that falls between substance and actual extension and distinct from them by its own nature, an extension that is quantity. If they allow this, then it will do no good for that extension to be a mode distinct by its own nature from substance and separable from it, and not to be a distinct thing, since their arguments work equally against each view, and other arguments prove that it is not only a mode, but also a distinct thing.

16. But perhaps they will say that the natural aptitude a body has to extensively occupy and fill space is the very integrity of a material substance, and that this adds no thing to substance nor any real mode distinct of its own nature, and [that it is distinct] only according to reason and our manner of conceiving. That thing is called *substance* inasmuch as it exists on its own, and is called *quantified* inasmuch as it is apt to occupy extended place, and that aptitudinal extension or aptitude to local extension is called *quantity*. A distinction of reason suffices to establish the distinct category of quantity (just as we will say below of *duration* or *when* and of other categories). And so they will ensure both that the quantity of the body of Christ remains in the sacrament of the altar, and that it is not distinct from substance.

(inquam) dicant, interrogo ulterius an Christus in sacramento habeat hanc extensionem quae dici potest aptitudinalis in ordine ad locum. Nam si habet, falso ipsi dicunt carere corpus Christi extensione quantitativa in Eucharistia; si vero non habet, praeter illud absurdum, quod corpus illud carebit in sacramento propria quantitate, sequitur ad hominem contra nominales extensionem illam esse distinctam ex natura rei a substantia corporis Christi et qualitatibus eius; cumque ostensum sit esse etiam distinctam ab actuali extensione in loco, fit dari inter substantiam et actualem extensionem in loco extensionem mediam distinctam ex natura rei ab illis, quae sit quantitas. Quod si hoc admittant, frustra dicent illam extensionem esse modum ex natura rei distinctum a substantia et separabilem ab illa, et non esse rem distinctam, cum rationes eorum contra utrumque aequae procedant, et rationes aliae probent non solum esse modum, sed etiam rem distinctam.

16. *Effugium occluditur.*— Sed fortasse dicent illam naturalem aptitudinem quam corpus habet ut extensive occupet et repleat locum, esse ipsamet integritatem substantiae materialis, nullamque rem illi addere, neque modum realem ex natura rei distinctum, sed tantum secundum rationem et modum concipiendi nostrum, illam rem vocari substantiam, quatenus per se est; vocari autem quantam, quatenus est apta ad occupandum extensum locum, et illam extensionem aptitudinalem seu aptitudinem ad extensionem localem vocari quantitatem, eamque distinctionem rationis sufficere ad constituendum diversum praedicamentum quantitatis; sicut dicemus infra de duratione seu quando, et aliis praedicamentis. Atque ita salvabunt et quantitatem corporis Christi manere in sacramento altaris, et non distingui a substantia.

17. Against this evasion, we can make the ad hominem objection that now the nominalists are not philosophizing about quantity, but instead are calling locational extension in place quantity, which is quite absurd. No less absurd is what follows from that, that the body of Christ in the Eucharist lacks its own quantity. The direct objection, however, is that as a result of this kind of account quantity is in fact removed from things, and only substance is said to be apt per se to have that local extension. Further, the distinction of reason, if there is no distinction in reality, seems invented more in order to save the way we talk than to place in reality the true quantity that ancient philosophers placed in substance as its own accidental form, no less than quality is. These arguments are plausible, although the only one that is decisive is the one taken from the impenetrability of dimensions, as was explained in the above discussion.

18. This is confirmed briefly, for if the quantity of substance is in this way the same as substance, I ask whether it is the same as the matter, or as the material form, or as the whole composite. It is not the same as the matter alone, nor as the form alone, since each by its nature is so composed in its being as to be apt to be extended in place in virtue of its parts. It can also not be said to be the same with both – otherwise those two quantities of matter and form would spatially interpenetrate. You will say that this is not unacceptable, since those quantities are partial, and from them arises a single whole quantity, which alone is impenetrable by the further whole quantity of substance, and not by the quantity of its qualities. But for starters that composition of many partial [quantities], which stands as actuality and potentiality, is unintelligible and plainly incompatible with accidental form. Further, in a human being there is no

17. Contra hanc autem evasionem, ad hominem quidem obiicere possumus quia nominales non ita philosophantur de quantitate, sed ipsam situalem extensionem in loco quantitatem vocant, quod est satis absurdum. Nec minus est quod ex illo sequitur, videlicet, corpus Christi in Eucharistia carere sua quantitate. Simpliciter vero solum occurrit ad obiiciendum quod iuxta illum modum explicandi revera tollitur quantitas ex rebus, et sola substantia dicitur per sese apta ad illam extensionem localem; illa vero distinctio rationis, si nulla est in re distinctio, magis videtur inventa ad salvandum modum loquendi, quam ad ponendam in re veram quantitatem, quam antiqui philosophi posuerunt in substantia tamquam propriam formam accidentalem eius, non minus quam qualitatem. Quae argumenta sunt probabilia, illud vero solum est efficax quod ex impenetrabilitate dimensionum sumitur, et in priori discursu explicatum est.

18. Et confirmatur breviter, nam si quantitas substantiae est illo modo idem cum substantia, interrogo an sit idem cum materia, vel cum forma materiali, vel cum toto composito. Non cum materia sola, nec cum forma sola, quia utraque est natura sua ita composita in sua entitate, ut apta sit extendi in loco secundum partes. Nec etiam potest esse idem cum utraque; alias duae illae quantitates materiae et formae sese loco penetrarent. Dices id non esse inconveniens, quia illae quantitates sunt partiales, et ex illis conflatur una integra quantitas, quae est sola impenetrabilis cum alia integra quantitate substantiae, et non cum quantitatibus qualitatum. Sed imprimis illa compositio ex multis partialibus, quae se habent ut actus et potentia, est inintelligibilis et plane repugnans formae accidentali. Deinde in homine non est illa compositio ex quantitate corporis et animae, et tamen est tam completa

composition of the quantities of body and soul, and yet the corporeal quantity is as complete and impenetrable by other bodies as it is in other natural things. Finally, if one considers the quantity of matter precisely with respect to its force, that matter is extended in such a way that its parts are impenetrable by each other and seek their own partial locations. The same is true for the quantity of material form (substantial or accidental): that with respect to its force, the parts of such a form have the same extension and impenetrability by each other. Therefore it is a fiction to say that this incompatibility is rooted in the composite quantity.

19. There is then in a material composite a single simple being with respect to its essential composition, really distinct from the whole substance and from those qualities that have their own reality (which I say on account of shape, which is just a mode of quantity). It is this being that gives rise formally to corporeal bulk, on account of which bodies occupy an extended place and are naturally interpenetrable by each other. It is also through this being that other things that do not have their own quantity can be penetrated (so to speak), and can either be the subject of such a being (as matter can), or be in the same proximate subject as that entity at the same time (as material qualities can). And all these exist at once with each other because they are somehow conjoined with the same quantity. It is by means of this that they have extension, and only by reason of this that they are incompatible with any other corporeal thing in the same space.

[Reply to the Arguments for Nominalism]

20. Here are the responses to the arguments for the contrary view. To the first [n.3], the minor premise is denied.

quantitas corporea et impenetrabilis cum aliis corporibus, sicut in aliis rebus naturalibus. Denique si praecise consideretur quantitas materiae ex vi illius, ipsa materia ita est extensa, ut partes eius sint inter se impenetrabiles petantque diversos situs partiales, et idem est de quantitate formae materialis, sive substantialis sive accidentalis, quod ex vi eius partes talis formae habent eandem extensionem et impenetrabilitatem inter se; ergo figmentum est quod dicitur, hanc repugnantiam oriri ex quantitate composita.

19. Est ergo in materiali composito una entitas simplex quantum ad essentialem compositionem, et realiter distincta a tota substantia et a qualitatibus propriam realitatem habentibus (quod dico propter figuram, quae solum est modus quantitatis), a qua entitate provenit formaliter haec moles corporea, ratione cuius corpora occupant loca extensa et inter se sunt naturaliter impenetrabilia, et cum hac entitate possunt penetrari (ut sic dicam) aliae res quae propriam quantitatem non habent, et quae possunt vel esse subiectum talis entitatis, ut materia, vel esse simul in eodem subiecto cum illa entitate ut in subiecto proximo, ut qualitates materiales; et ideo haec omnia inter se simul sunt, quia cum eadem quantitate aliquo modo coniunguntur, et mediante illa extensionem habent et solum ratione illius habent repugnantiam cum quacumque alia re corporea in eodem spatio.

Fundamentis contrariae sententiae fit satis

20. *Primo.*— Ad fundamenta contrariae sententiae respondetur. Ad primum quidem negando minorem; iam enim satis declaratum est quae sint in ordine naturae

For it was already explained well enough what the sufficient signs of this distinction are, in the orders of nature and grace, and what effect is found in corporeal substances, on account of which such an entity is necessary. That will be more clear from the following sections, where we will set out more fully the distinctive formal effect of quantity, since every form exists in virtue of its formal effect.

To the form of the argument, however, I grant that in matter and material form there are entitative parts distinct in themselves (something I will show below). I also grant that those parts can be set apart spatially, even if they are understood to exist by divine power without any really distinct quantity – just as two angelic substances can also be separated spatially. But I deny that a thing is quantified by the precise fact of its parts being in distinct spatial parts. Rather, a thing is quantified as a result of its parts' necessarily, of themselves, calling for such spatial extension. For it is one thing to be able to be in distinct places, which holds even of two incorporeal things, and another to be unable naturally but to be in distinct places, which is not the case for two angels. Therefore the first does not require quantity, and so can apply to parts of matter even if they are deprived of quantity. The latter, in contrast, entirely requires quantity. Hence if the parts of matter were to exist without quantity, they could exist indifferently either in the same place or in different places. That they are so disposed as necessarily to require by nature distinct locations, this then is the result of quantity. As for why matter has this disposition through a thing distinct from itself, rather than through itself, this is clear *a posteriori* from the signs and effects listed above. *A priori*, there is no other reason than that the functions of matter, form, and quantity are fundamentally diverse, and so require diverse beings. Also, just as matter of

et gratiae sufficientia signa huius distinctionis, et quisnam effectus inveniatur in corporalibus substantiis, propter quem sit talis entitas necessaria; idque magis constabit ex sequentibus sectionibus, ubi amplius declarabimus proprium effectum formalem quantitatis; omnis enim forma est propter suum effectum formalem. Ad argumentum autem in forma, concedo esse in materia et forma materiali partes entitative distinctas per seipsas, quod infra ostendam; concedo etiam illas partes posse locis disiungi, etiamsi intelligantur esse sine quantitate distincta realiter, per divinam potentiam; sicut etiam duae substantiae angelicae possunt locis separari. Nego tamen rem esse quantam ex hoc praecise quod partes eius sint in distinctis spatiis partialibus, sed ex hoc quod necessario postulent ex se talem extensionem in spatio. Aliud est enim esse posse in diversis spatiis, quod duabus rebus etiam incorporeis convenit; aliud vero est naturaliter esse non posse nisi in diversis spatiis, quod duobus angelis non inest; igitur illud prius non requirit quantitatem, et ideo convenire posset partibus materiae, etiamsi quantitate privarentur; hoc vero posterius omnino requirit quantitatem. Unde si partes materiae sine quantitate essent, indifferentes esse possent, vel in eodem ubi, vel in diversis. Quod ergo sint ita dispositae, ut necessario requirant ex natura rei situs diversos, id provenit ex quantitate. Cur autem hanc ipsam dispositionem habeat materia per rem a se distinctam et non per seipsam, a posteriori constat ex indiciis et effectibus supra enumeratis; a priori vero non est alia ratio, nisi quia munera materiae vel formae et quantitatis sunt primo diversa, et ideo requirunt entitates diversas. Item quia, sicut materia per se nec est formata, neque alba, etc., ita neque est per se quanta, quia est limitata ad solam suam potentialitatem: forma vero substantialis etiam est limitata

itself is neither formed, nor white, etc., so neither is it quantified of itself, because it is limited to its own power alone. Substantial form is also limited to its effect and substantial nature, and the same is true analogously for qualities.

21. To the second [n.4], there are those who deny that God can conserve corporeal substance without quantity. This claim has in no way been proved, however, and below I will reject it [DM 40.4.18-28], since it arises from a false assessment of the formal nature and effect of quantity. So, then, with this case allowed, I deny that the substance or matter would be quantified. To the argument, I grant that the substance would have distinction, composition, and union of its parts. I also grant that the parts of that substance could be conserved by God in distinct locations, as the argument made there proves. But all these do not suffice for the substance to be quantified, unless it has the corporeal bulk on account of which it repulses other bodies at the same place, and its parts naturally repel each other from the same space. A substance deprived of quantity would not have this, since it could be penetrated at the same place by other bodies just as much as an angelic substance could, and its parts could indifferently be in the same place and in distinct places, as was said.

You will say that then such a substance would not differ from an angel's substance. The response is that they differ in many ways. For that substance, as I have said, would be composed substantially of parts, not just essential parts but material and integral ones, on account of which it is fit (and its nature calls) for the corporeal bulk of quantity. Angelic substance, on the other hand, is indivisible, and not fit for quantity.

ad suum effectum et rationem substantialem, et idem est cum proportione de qualitatibus.

21. *Secundo.*— Ad secundum, non desunt qui negent posse Deum conservare substantiam corpoream sine quantitate; quorum opinio nullo modo probanda est, eamque infra reiiciemus; procedit enim ex falsa existimatione de formali ratione et effectu quantitatis. Admisso ergo illo casu, nego tunc fore substantiam vel materiam quantam. Ad probationem autem concedo habituram tunc illam substantiam partium distinctionem, compositionem et unionem. Concedo item posse partes illius substantiae cum distinctis ubi conservari a Deo, ut ratio ibi facta probat; haec tamen omnia non sufficiunt ut substantia sit quanta, nisi habeat hanc molem corpoream, ratione cuius et aliis corporibus repugnat in eodem situ, et partes eius sese pellunt naturaliter ab eodem spatio, quod non haberet illa substantia quantitate privata; nam aequae posset cum aliis corporibus penetrari in eodem situ ac substantia angelica, et partes eius indifferenter esse possent in eodem ubi, et in diversis, ut dictum est. Dices: ergo non differret tunc talis substantia a substantia angeli. Respondetur differre quam plurimum. Nam substantia illa, ut dixi, composita esset ex partibus, non tantum essentialibus, sed materialibus et integrantibus substantialiter, ratione quarum et est capax, et natura sua postulat corpoream quantitatis molem; angelica vero substantia est indivisibilis, et incapax quantitatis.

22. To the third [n.5], I deny the assumption, because it is impossible in a material substance for every really distinct accidental form to be conserved, without its remaining quantified, as the argument rightly proves. But even if God were to interpenetrate two bodies in the same place, he would not make them non-quantified, nor would he make one quantified thing out of two. Instead, while preserving the distinction of their quantities, he would establish them in the same space. So in this way, although God might establish a two-foot body in a one-foot space – not through condensation but through interpenetration of parts – he would not make that body less quantified, nor shrink two parts into one, but would co-locate those parts in the same space, which is quite different. The response is the same for any reduction of a quantified body, however great, into the smallest of spaces in which there is any extension, through the interpenetration of parts. As for the reduction of the whole quantified body into an indivisible space, however, here there is controversy over whether this is possible. To me, however, there is no doubt about the affirmative side, if one accepts the mystery of the Eucharist, as I have said.... But I deny that a substance so established in an indivisible space would not be quantified, for the body of Christ is quantified even in the sacrament, even though it also exists at an indivisible point. The reason for this, as I have said, is that quantity is not *actual* extension in space, but *aptitudinal*, and a body can retain this even if it is not actually in an extended space, as I have discussed in detail elsewhere regarding the body of Christ.

23. The response to the fourth [n.6] is that substance is receptive of contraries as the first subject, whereas quantity is the proximate subject.

22. *Tertio.*— Ad tertium nego assumptum; impossibile est enim ut in substantia materiali conservetur omnis forma accidentaliter realiter distincta, quin maneat quanta, ut argumentum recte probat. Quamvis autem Deus penetret duo corpora in eodem loco, non reddit illa non quanta, nec ex duobus quantis facit unum quantum, sed servata distinctione quantitatum constituit ea in eodem spatio. Sic ergo, licet Deus corpus bipedale constitueret in spatio pedali, non per condensationem, sed per partium penetrationem, non redderet illud minus quantum, neque duas partes in unam redigeret, sed in eodem spatio eas collocaret, quod longe diversum est. Eademque responsio est de quacumque reductione corporis quanti quantumvis magni ad brevissimum spatium, in quo sit aliqua extensio, per partium penetrationem. De reductione autem totius quanti ad indivisibile spatium, controversia est an sit possibilis; mihi tamen pars affirmans indubitata est, supposito mysterio Eucharistiae, ut dixi in tom. III, III p., disp. LII, sect. 3. Nego tamen substantiam sic constitutam in spatio indivisibili non fore quantam, nam corpus Christi quantum est etiam in sacramento, licet sit etiam in punto indivisibili. Et ratio est quia, ut dixi, quantitas non est actualis extensio in spatio, sed aptitudinalis, et hanc retinere potest corpus, etiamsi actu non sit in spatio extenso, ut ibi late tractavi de corpore Christi.

23. *Quarto.*— Ad quartum respondetur substantiam esse susceptivam contrariorum, ut primum subiectum, quantitatem vero, ut proximum.