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A Jesuit Debate about the Modes of Union:

Francisco Suárez vs. Pedro Hurtado de Mendoza

Jean-Pascal Anfray

Abstract. In this paper, I examine a neglected debate between Francisco Suárez and Pedro Hurtado de Mendoza about the unity of composite substances (i.e., hylomorphic compounds of matter and form). There was a consensus among the Jesuits on the fact that the per se unity of composite substances requires something in addition to matter and form. Like most Jesuits, Suárez and Hurtado further agree on the fact that this additional ingredient is not a full-blown thing, but a “mode of union.” However, while Suárez claims that the union is achieved through a single mode, Hurtado maintains that it is necessary to postulate two distinct modes of union, one modifying form and another modifying matter. I argue that this disagreement actually reflects an important ontological debate about the nature of the items that serve as the cement of things and that it eventually leads later Jesuits like Rodrigo de Arriaga to conceive of union as a polyadic or “straddling” mode.

I. Introduction

In the part of his philosophy course dedicated to physics, the Jesuit Richard Lynch (1610–1676), a former student of Pedro Hurtado de Mendoza (1578–1641), asks the following question: “Is the union connecting the essential parts of a natural body one and simple or rather multiple?” He goes on to devote three full sections to its examination, settling in favour of the claim that the union is simple.¹ Lynch is taking a stance in a well-established

¹ Richard Lynch (Lynceus), *Universa philosophia scholastica, tomus secundus complectens Physicam, sive scientiam de corpore naturali* (Lyon: Philippe Borde, Laurent

scholarly controversy among the Jesuits. This controversy largely opposed Francisco Suárez's (1548–1617) thesis that there is a single mode of union to Hurtado's claim that it is necessary to posit two modes. As Hurtado remarks at one point, this debate was foreign to medieval scholastics and characteristic of the “moderns” (*neoterici*).² At first sight, the debate seems to hinge on a purely technical point that makes little sense to a contemporary reader. However, it actually results from an important clash of metaphysical principles concerning the nature and unity of a composite substance.

Late medieval and early modern discussions about the nature of composite substances generally included two questions. The first question was whether a thing endowed with a per se unity composed of real parts is identical to all those parts taken together. The second question concerned the nature of the union found among the parts of a per se unity. These two issues are closely linked. Both questions are about per se unities and so-called “physical wholes.” These include both essential and substantial wholes, viz., the hylomorphic compounds of matter and form, and integral wholes, viz., wholes composed of material parts, like a piece of clay or a quantity of water. These two kinds of unities are contrasted with two other types of unities: accidental and aggregative. Per se unities differ from these other two by

Arnaud, Claude Rigaud, 1654), lib. II, tract. 8, chap. 4, 47a: “An unio nectens partes essentiales corporis naturalis sit una simplexque, vel potius multiplex.” The discussion runs over the next three chapters (47a–52a).

² Pedro Hurtado de Mendoza, *Universa Philosophia*, fifth edition (Lyon: Louis Prost, 1624) (hereafter *UP*), Physica, disp. V, sec. 7, §135, 209a: “Hanc quaestionem nulli ex antiquis attigere, e nostris neotericis partim huic partim illi subscribunt opinioni.” P. Suarez I met. disp. 13, sect.9, num.13: “docet probabilius esse in compositis omnino materialibus unam tantum esse unionem.”

having stricter conditions for existence. In particular, the parts of such wholes need to satisfy a certain condition for the whole to make up a per se unity. The search for such conditions can be seen as a way of answering what Peter van Inwagen calls, the “Special Composition Question,” and can be described as the search for the principle that unifies parts into a single, complex object.³

In what follows, I will deal only with essential wholes or composite substances. One may defend the view that the whole is really identical to its parts (the “Parts-Whole Identity thesis” or PWI in what follows). A defender of PWI is a reductionist with respect to the ontological status of a composite substance. Any reductionist is under pressure to accept the claim that a composite substance supervenes on the mere existence of its matter and substantial form, a result that threatens the per se unity of composite substances. The

³ See Peter Van Inwagen, *Material Beings* (Ithaca, NY: Cornell University Press, 1990). For the notion of a principle of unity, see Mark Johnston, “Hylomorphism,” *Journal of Philosophy* 103 (2006): 652–98. The latter presents the problem in the following way: why does the obtaining of some relations, like being glued together in the case of the pieces of a model airplane, single out physical objects; while the obtaining of others, like being six feet from someone, fail to do so? According to Johnston, form is the principle of unity. Other neo-Aristotelians share this view. See Kit Fine, “Things and Their Parts,” *Midwest Studies in Philosophy* 23 (1999): 61–74; and Kathrin Koslicki, *The Structure of Objects* (Oxford: Oxford University Press, 2008). The latter differs from Johnston in assuming that form is somehow also a part of the composite object. One central difference with the authors that I examine in this paper concerns their view that the substantial form is a part of the hylomorphic compound but is not its principle of unity.

reductionist's task is that of stating the conditions that matter and form need to satisfy in order for the composite substance to exist, without jeopardising PWI.

Reductionism of some sort was the majority view among the Jesuits. But matter and form need to satisfy an additional condition: for the composite substance to exist, they must be joined together by a "mode of union." Most Jesuits thus adhered to a qualified reductionism, where PWI is satisfied provided one adds a mode of union to matter and form. While a mode of union was recognised as an indispensable ingredient, its nature and operation as a uniting bond were a matter of contention. This sets the stage for the debate on the number of modes, which centres on the question: how many modes of union are required to achieve the unity of a composite substance? As I said, there were two main camps: the majority, associated with Suárez, answered "one"; while a minority, of which Hurtado de Mendoza was the leading figure, replied "two."

As I indicated above, this debate is foreign to medieval scholastics. The first reason for this is that even if modes were not completely unknown to medieval scholastics, Suárez contributed decisively to the development of the ontology of modes.⁴ This debate is another

⁴ See Stephen Menn, "Suárez, Nominalism, and Modes," in *Hispanic Philosophy in the Age of Discovery*, ed. Kevin White (Washington DC: The Catholic University of America Press 1997), 226–56; and Robert Pasnau, *Metaphysical Themes, 1274–1671* (Oxford: Clarendon Press, 2011), 244–75. The ontology of modes has been the object of extensive studies by Ulrich Leinsle, among others: *Das Ding und die Methode: Methodische Konstitution und Gegenstand der frühen Protestantischen Metaphysik* (Augsburg, 1985); "Schwester 'Formalitas' oder Bruder 'Modus'? Mastri im Streit um modale Entitäten," in *Rem in Seipsa Cernere. Saggi sul Pensiero Filosofico di Bartolomeo Mastri (1602–73)*, ed. Marco Folivesi (Padova: Il Poligrafo, 2006), 363–97.

illustration of the importance of modes for understanding the ontology of the early modern scholastics. But it also is highly interesting as a debate about the mode of union in particular, because it shows the tensions that arise within a broadly Aristotelian framework from attempts to make room for metaphysical ties or bonds among things that are neither substances nor accidents and that relate things without being reducible to relations falling in the category of predicamental relations.⁵

In section II, I will outline the competing answers provided by Scotus and Ockham to the twofold problem of the reducibility of a composite substance to its essential parts, and of the conditions that need to be satisfied in order for matter and form to make up such a composite. In section III, I will turn to the qualified reductionist thesis (shared by Suárez and Hurtado), according to which a composite substance is identical to its essential parts insofar as they are united by a mode of union. I will analyse the notion of mode and its ontological status as a dependent entity. In section IV, I will present the debate between Suárez and Hurtado on the number of modes of union. I will show that it hinges on the way in which one must cope with two constraints imposed by an Aristotelian ontology: (A) no mode inheres in more than one subject; and (B) every mode inheres in some subject. Finally, in the concluding remarks of section V, I will mention some alternative solutions among the Jesuits, in particular the one presented by Arriaga involving the rejection of (A).

⁵ The secondary literature on our topic is not that developed. See the historically still valuable study by A. Boehm, *Le “Vinculum Substantiale” chez Leibniz: Ses origines historiques* (Paris: Vrin, 1962). On PWI, see Pasnau, *Metaphysical Themes*, §28.5; and Deborah Brown and Calvin G. Normore, “On Bits and Pieces in the History of Philosophy,” in *Composition as Identity*, ed. A. J. Cotnoir and Donald L. M. Baxter (Oxford: Oxford University Press, 2014), 24–43.

II. Scotus and Ockham on the Unity of the Composite Substance

The problem of the unity of a composite substance could not be raised within the version of the Aristotelian framework that we find in Thomas Aquinas, according to which a hylomorphic compound is a basic entity, only one part of which is fully actual (form) while the other is a pure potency (prime matter).⁶ The problem could only arise for non-Thomistic thinkers who grant that both matter and form enjoy some kind of actuality of their own, independent of their existence in a hylomorphic compound.⁷

Scotus argues that the per se unity of a material substance entails that it is something over and above the sum of its parts, its constitutive forms and matter and their relations. His argument is based on the idea that the whole has properties that cannot be ascribed to any of its parts and is thus numerically distinct from the sum of its parts. Thus, a composite substance can be generated or corrupted even if neither its form nor its matter is generated. Similarly, a whole has “proper passions,” i.e., specific, emergent, properties that cannot inhere in either of its parts.⁸

⁶ See Aquinas, *Sententia libri de anima*, II, chap. 1, ed. Leonina XLV/1, 71a.

⁷ An anonymous reviewer objected that the mere actuality of matter and form is insufficient to generate the problem. Thus, if substantial forms cannot exist apart from matter, the joint existence of both ingredients guarantees the existence of the composite substance. In reply, if both matter and form are actual, then one could still ask whether they compose a per se unity rather than an accidental being composed of two co-located entities.

⁸ On this argument, see in particular Richard Cross, *The Physics of Duns Scotus: The Scientific Context of a Theological Vision* (Oxford: Clarendon Press, 1998); Richard Cross, "Ockham on Part and Whole," *Vivarium* 37 (1999): 143–67. For a general treatment of Scotus

Thus, a composite substance requires an additional component beyond its constituent parts. Scotus excludes the possibility that this extra element is the relation between form and matter, because a relation is an accident and thus cannot bring about a per se unity. Rather, this extra element must be some absolute form. But this form cannot be a further component, on pain of launching an infinite regress. For if one needs a second form in order to obtain a unified whole from a given matter and form, then it is necessary to posit a third form to bind the new form to the previous components, and so on.⁹ Thus the composite entity as the “form of the whole” (*form totius*) is not on a par with the form as a part of the whole (*forma partis*). It is, rather, the quiddity or essence of the composite substance. Scotus, however, concedes that the composite substance emerges when its substantial components are suitably related, so that the relation of union is a necessary condition for the per se unity of a composite substance.¹⁰

Ockham, and the Nominalists after him, reject Scotus’s anti-reductionism and embrace PWI. The composite substance is numerically the same as the sum of its substantial parts:

on parts and wholes, see Thomas M. Ward, *John Duns Scotus on Parts, Wholes, and Hylomorphism* (Leyden/Boston: Brill, 2014), esp. chaps. 3 and 4.

⁹ John Duns Scotus, *Ordinatio*, III, d. 2, q. 2, n. 80; ed. C. Balíc, *Opera Omnia* (Vat.), (Vatican: Typis Vaticanis, 1950–) IX, 152; John Duns Scotus, *Quaestiones super libros Metaphysicorum Aristotelis (In Metaph.)*, VIII, q. 4, n. 17–8; ed. T. Noone et al., *Opera philosophica*, (St. Bonaventure NY: Franciscan Institute, 1997–2006).

¹⁰ Scotus, *Ordinatio* III, d. 2, q. 2, n. 86, Vat. IX, 155: “‘esse’ quidem totius necessario concomitatur unio partium et e converso, nec tamen illa unio est illud ‘esse’, quia unio est respectus et ‘esse’ illud est absolutum [...]. Et ita potest hic esse quod tota entitas totius sit absoluta, licet necessario praeexigat vel coexigat unionem partium absolutarum.”

I say that, beyond the parts that are matter and form, there is no third entity distinct from these. So a composite is neither matter, nor form, but matter and form together, united and conjoined.¹¹

Ockham's main argument against Scotus's *forma totius* takes the form of a dilemma: this *forma totius* is either a new form or the composite of matter and form. The former case entails an infinite regress of forms, while the latter entails that the hypothetical new form is unnecessary. Scotus had argued that PWI entails that there is no difference between the unity of a composite substance and a mere aggregative unity, like that of a heap of logs. Ockham replies that the components of a per se unity, matter and form, have an essential complementarity that distinguishes them from any other kind of composition. Moreover, Ockham denies the existence of proper passions or specific, irreducible properties of the whole. This rejection is based on a reductionist principle, which Ockham formulates thus:

A subject is always as simple as the accidents that are received in it. And thus no accident having parts of the same nature can be primitive with respect to the whole, but any real operation and passion which can belong to the composite belongs to it through the parts to which they belong primarily (*per partes quibus primo conveniunt*), for instance understanding, willing, sensing through the soul; laughing, walking down and similar properties through the body.¹²

¹¹ Ockham, *Summa Philosophiae Naturalis* I.19, in *Opera Philosophica*, ed. S. Brown (St. Bonaventure NY; Franciscan Institute: 1984), vol. VI, 206.

¹² Ockham, *Quaestiones variae*, q. VI, a. 2, in *Opera Theologica*, ed. G. Etzkorn et al. (St. Bonaventure NY; The Franciscan Institute: 1984) VIII, 217.

The properties that belong to things of a kind *K* are just as simple or complex as kind *K* itself. Thus, the properties of a composite substance are complex properties that can be traced back to properties of its substantial parts.

The main challenge to this reductionist view is providing an account of why the mere existence of the parts does not guarantee the existence of the whole. Thus, in the case of an accidental unity like a house, the mere existence of the parts (bricks, beams and tiles) does not guarantee the existence of the house; they must be connected in a certain way for the house to exist. Similarly, composite substances can come into and go out of existence. A central assumption of the Aristotelian framework is indeed that there is genuine generation and corruption, which is basically understood as the fact that a substantial form begins and ceases to inform pre-existing prime matter.

Ockham provides two accounts of the existence of a composite substance. The first account invokes relations as the additional requirements. As Richard Cross notes, this account itself comes in two versions. In the first version, a whole is identical to the sum of its parts related by an appropriate relation.

Therefore it is evident that the whole is nothing but all its parts; not always, but only when they are co-located, or ordained or united in the required way. Diverse wholes indeed require diverse unions of parts. Sometimes it is required that the parts are simultaneously co-located; sometimes that they are indistant so that there is no intermediate thing between them; sometimes there can be some intermediate thing but a right order is required, as a plurality of men makes up one people.¹³

In the case of the composite substance, the appropriate relation consists of the co-location of matter and form. This first account, however, cannot deal with certain cases, such as the

¹³ Ockham, *Sum. Phil.* I. 19, OPh VI, 208.

theological case of Christ during the *triduum*. For during this time interval, the rational soul and the body that made up Christ's human nature both continued to exist and were co-located; the composite, however, ceased to exist. To deal with cases of this sort, Ockham admits that an irreducible relation of union is required in addition to the substantial parts.¹⁴

But this first account, in which the whole is identical to the parts and their relation of co-location, entails that the composite substance is an accidental unity. In order to counter this unwelcome consequence, Ockham suggests a second account, according to which matter and form are united through the lack of a real relation of distinctness. In other words, union is the default option and a negative state of affairs; appearances notwithstanding, it is the distinctness of the components that is the positive state of affairs requiring an explanation and an additional ingredient. This solution has the advantage of making union ontologically parsimonious but at the cost of being *ad hoc*. Although this account does not seem to have influenced later developments, it is interesting insofar as it stresses the fact that the debate about the unity of a composite substance can be framed in ontological terms: is the fact of the union as such ontologically committing or not? Ockham's second account is an attempt to find an answer that is ontologically non-committal.

Later Nominalists follow the same line of argument. Thus, in his *Sentences* commentary, Gregory of Rimini justifies PWI in the following way:

Although the entities of parts are not the whole, as the parts of man are not a man, still these parts are a man not in whichever way, but only insofar as they are united and mutually perfecting themselves. Now, although they are not always united, when it is

¹⁴ Ockham, *Quaest. variae*, q. VI, a. 2, OPh. VIII, 208–9.

the case, they are not united through some new entity, but by themselves, for their union is not a new entity superadded to them.¹⁵

Gregory of Rimini's version of PWI emphasises that the fact that the parts are united is a necessary condition for the existence of a per se unity. What differentiates the situation in which matter and a substantial form exist from the situation in which a composite substance exists is the fact that this matter and this form are united. But this fact does not involve any additional entity (*entitas*) over and above the parts. On the contrary, it results immediately from the existence of matter and form arranged in a given way. To use D. M. Armstrong's phrase, the fact of union is an "ontological free lunch."¹⁶ However, a feature of ontological free lunches is that they yield permissive ontologies that do not differentiate between integrated objects and various gerrymandered objects corresponding to mereological sums. Thus Gregory of Rimini tries to steer a middle path between a deflationary account of composites and recognition of an intrinsic difference between the circumstances in which the parts make up a composite substance and the circumstances in which they do not. The question of whether such an attempt is successful is beyond the scope of this essay.¹⁷

¹⁵ Gregory of Rimini, *Lectura super Primum et Secundum Sententiarum*, , III, *Super Primum dist.19–48*, ed. D. Trapp and V. Marcolino, (Berlin: W. De Gruyter, 1984), I, d. 24, q. 1, a. 1, 25–6.

¹⁶ David M. Armstrong, *A World of States of Affairs* (Cambridge: Cambridge University Press, 1997), 12–3.

¹⁷ But this account can be compared with some contemporary treatments of the part-whole relation. Thus Ross Cameron rejects the attempt to treat the principle of unity as another component of the object and writes: "We don't need to recognize a new, mysterious way in which something can be a part: we just need to recognize the multitude of ways in

III. Qualified Reductionism: PWI with a Mode of Union

Suárez sides with the reductionist view by accepting PWI in general:

According to the third opinion, which is the most commonly received, the composite substance in reality is neither really nor modally distinct from its essential parts taken together and united, but is at most distinct in reason and through our mode of conceiving and our way of speaking. [...] And this opinion is true.¹⁸

According to Suárez, then, there is a distinction of reason between the composite substance and its constitutive parts. However, he does claim that besides matter and substantial form, it is necessary to posit their union as a metaphysical extra ingredient. But he also holds that the union is not a thing but a mode, or more precisely, it is a “substantial mode”:

A composite substance is distinct in reality from matter and form taken together or in aggregation, insofar as it includes both and adds a real substantial union between them, which is something distinct in reality from the matter and form and their aggregate, not as some really distinct thing, but as a real mode (*DM XXXVI.3.8*).

Matter and form enjoy a kind of ontological independence and are thus substances, for, since the composite is a substance, it can be composed only of substances (*DM XXXIII.1.5*). Suárez qualifies this claim by adding that they are incomplete substances. Although it is metaphysically possible for any form to exist independently of any matter and for any matter

which parts can be involved in grounding the existence of a whole.” (Ross P. Cameron, “Parts Generate the Whole, but They Are Not Identical to It,” in *Composition as Identity*, ed. Aaron J. Cotnoir and Donald L. M. Baxter (Oxford: Oxford University Press, 2014), 105.).

¹⁸ Francisco Suárez, *Disputationes metaphysicae*, in *Opera Omnia*, ed. C. Berton (Paris: Vivès, 1858–, 26 vols), XXXVI.3.6, xxv–xxvi (hereafter *DM*, quoted by disputation, section and paragraph number).

to exist independently of any given form, they are nevertheless imperfect and essentially complementary.¹⁹ Thus matter lacks specific functions and powers to operate, whereas form lacks an ontological basis on which it can activate its various functions and powers.²⁰ The essential complementarity of matter and form ensures that their union results in what Suárez calls an *unum per se*, i.e., a complete substance endowed with its own nature.²¹ By contrast, it is impossible to get an *unum per se* out of complete substances.

Suárez justifies the necessity of introducing a further element beyond the metaphysical parts by arguing that the mere existence of matter and form does not secure the existence of the composite substance: some further conditions have to be met. First, it seems that not just any form can be united to any matter, but that the matter must be suitably arranged. For instance, the existence of a horse seems to require a matter of a certain quantity, while the existence of a fly requires a matter of much less quantity. Suárez acknowledges this as a naturally necessary condition. But since God could conserve form and matter without any further accidents and still unite them, he concludes that it is not a metaphysically necessary

¹⁹ On incompleteness of matter and form in Hurtado, see *UP*, Phys., disp. V, sec. 4, §59 (1624: 200a).

²⁰ See here D. Perler's illuminating account in Dominik Perler, "Suárez on the Unity of Material Substance," *Vivarium* (forthcoming).

²¹ *DM* IV.3.8; XXXVI.2.8. Suárez classifies this reciprocal incompleteness as a kind of transcendental relation that is actualized through the mode of union. See *DM* XLVII.3.11. This essential complementarity allows a reductionist to answer the charge that it transforms the composite substance into an aggregative whole. On this, see D. Heider, "Suárez on Material Substance: Reification of Intrinsic Principles and the Unity of Material Composites," *Organon F* 15 (2008): 423–38.

condition (*DM XV.6.5*). He further claims that a form cannot be united to spatially distant matter. The existence of the composite substance requires the spatial proximity and even co-location of matter and form. Co-location is thus a (metaphysically) necessary condition of the composite substance's existence.²² Nevertheless, this mode of union cannot be reduced to a relation of co-location between matter and form, but adds something to it. Suárez justifies this claim by using the argument of Christ's human soul and body during the *triduum*.

But that something is really added to this aggregate is shown because the aggregate of these parts can exist in nature while the whole does not exist. Thus during the three days, the aggregate or collection of Christ's body and soul existed, while his humanity did not exist then. And they could both exist not only in distant places, but also in proximate places and even in the same space, while the whole composite substance would not have existed if this presence were local only. Therefore, the composite substance as such adds something in reality to the aggregate of both parts: something separable from them, and hence distinct from them (*DM XXXVI.3.8*).

The supernatural case of Christ's rational soul and body existing in the same place (Christ's tomb) while being separated shows that a given matter and a given substantial form can both exist in the same place without being actually united. Therefore, that through which they are united adds something to co-location.²³

²² *DM XV.6.4*: "For who could understand that a substantial form locally distant from a body constitutes a substance which is essentially (*per se*) one? This composition, then, comes to be through an intimate union which is not, of course, local presence but something distinct from that, and yet it necessarily requires local presence."

²³ In *DM XIII.8.9*, Suárez gives the example of an angel existing in the same place as some matter without composing a composite substance with it. He concludes that intimate

This extra something is what Suárez calls a mode of union:

But that what this composite adds to both parts is nothing else than a substantial union is proven from the fact that without this union, it is impossible that the whole substance arises Conversely, once this union is posited, the whole results immediately from both parts, even if everything else is suppressed. Therefore the whole substance adds this union to the aggregate of its parts. Finally ... this union is not a distinct thing, but only a real mode (*DM XXXVI.3.8*).

The mode of union is a necessary and, together with the essential parts, jointly sufficient condition for the existence of the composite substance. As with any other mode, union is separable from them and they can exist without it. However, this added something is not a distinct *res*. According to Suárez's theory of distinctions, a real distinction between two *res a* and *b* occurs when both *a* and *b* can exist independently of each other, at least in most cases.²⁴ That is, mutual separability is the "sign" of a real distinction between two *res*. By denying

presence is distinct from union and only a necessary condition for the existence of the composite substance.

²⁴ There are some cases of real distinction without existential separability. Thus, God and creatures are really distinct, but creatures cannot exist without God. The faculties of the soul are really distinct from its substance because they result from distinct acts of production, and yet there are places where Suárez claims that the faculties cannot exist and operate separately. See Dominik Perler, "Faculties in Medieval Philosophy," in *The Faculties: A History*, ed. Dominik Perler (Oxford: Oxford University Press, 2015), 130; Tad Schmaltz, *The Metaphysics of the Material World: Suárez, Descartes, Spinoza* (Oxford: Oxford University Press, forthcoming), §2.2.1.

that the union is a *res*, Suárez means that it cannot exist without the matter and form it unites, so that it has a twofold ontological dependence on them. Suárez defines modes as follows:

Accordingly, there are in created entities certain modes affecting these entities, and their nature seems to consist in their not being themselves sufficient to constitute a being or entity in the real order of things, but they are intrinsically directed to the actual modification of some entity without which they are quite incapable of existing (*DM* VII.1.18).

The category of *res* includes both substances and real accidents. Although real accidents naturally inhere in substances their inherence is not metaphysically necessary, as the case of the Eucharist shows—here, in the orthodox Catholic view, the substance of the consecrated bread is replaced by the substance of Christ’s body and the sensible accidents of bread subsist without inhering in substance. Although there is no consensus as to whether these accidents subsist by themselves or by inhering in quantity, the various accounts agree in recognising that actual inherence in a substance is not a defining feature of all accidents. By contrast, modes are strictly dependent on the things they modify and cannot belong to a different subject. The non-mutual separability of a *res* from its *modes* is a general claim that applies to all modes. Suárez’s first example of a mode is the inherence of quantity in a substance.

Inherence is a mode because it depends on the quantity and affects it in such a way that it determines the way the quantity exists, viz., as an inhering accident. Other non-theological examples of modes are the inherence of a quality in a subject; the union of a substantial form with matter; shape; local presence (*ubi*) and local motion; action, passion, and more generally dependence on something else (*DM* VII.1.18). Suárez claims that although substances and real accidents have essences, these essences are incomplete. For instance, being a horse requires having a body of a suitable size, having four legs in order to move and run, and so on. But a horse’s specific and individual essence is indeterminate with respect to its particular

shape, for instance. In other words, subjects are not completely determined by themselves, but need additional modes.²⁵ A thing's essence can thus be compared to a determinable that is further completed by a series of determinants, which are its modes.

The precise ontological status of modes is ambivalent. There are two lines of interpretation. One may be tempted by a deflationist account to equate modes with the ways things are. Such ways would not require an ontological addition to substances and accidents. This interpretation would nicely fit with Suárez's endorsement of PWI in the passage quoted above. However, it is not without problems, especially when applied to modes of union. For it seems that there is no difference between the deflationary interpretation of modes and an account like the one proposed by Gregory of Rimini, where the composite substance exists provided matter and form exist in the appropriate way. And yet, Suárez explicitly criticizes the Nominalists and sees his account in terms of a mode of union as a rival account.

Moreover, the deflationary reading faces difficulties given Suárez's own characterisation of modes:

I assume that in created things, beyond their entities which are substantial or radical, so to speak, there are found some real modes, which are something positive and affect the entities by themselves, giving them something that is outside their whole essence *qua* individual and existing in reality (*DM* VII.1.17).

Here, Suárez contrasts *entities* with modes and treats entities as more or less equivalent to *res*. When discussing inherence as a mode of quantity, he says that it modifies quantity without adding a "new entity" to quantity (*ibid.*). Admittedly, the deflationary reading could still be defended by insisting that only *res* are full entities, whereas modes are mere determinations.

²⁵ *DM* VII.1.19; Pasnau, *Metaphysical Themes*, 271–3.

But this interpretation is confronted with the fact that modes are said to be “something positive.”

In addition, Suárez holds that modes can be understood as things in a broad sense, provided one understands a thing as that which is not nothing.²⁶ More decisively, there are passages where existence is ascribed to modes:

In modal distinction, just as the mode is distinct in reality from the thing itself of which it is a mode, so it has some proper existence (*aliquod esse proprium*) appropriately distinct from the existence of the thing itself Again, just as the mode is something existing in reality, so it can be said to have some entity, insofar as this word signifies anything that is not nothing. But the nature and condition of this entity is such that it is not able to constitute by itself (*primo ac per se*) a real being (*ens reale*), but must necessarily be connected to and identified with some being, which it affects and modifies. For this reason, it is called, not a thing, but a mode of a thing (*DM XLVII.2.8*).

Thus, insofar as modes determine things, they have their own existence and can thus be treated as entities. A mode has its distinct existence by adding determinations to a thing. This gives support to an ontologically stronger account according to which modes are a genuine

²⁶ *DM VII.1.19*. Suárezian modes must somehow be distinct from the things they modify. Thus, properties like being (essentially) complete or incomplete, necessary or contingent, are not modes because they are not separable from the essences they qualify. By contrast, inherence is a genuine mode since the *res* it modifies can exist without it. See Schmaltz, *The Metaphysics of the Material World*, §2.2.2.

feature of the world, and thus the world contains two kinds of real entities—independent *res* and dependent modes.²⁷

Suárez's account of the nature and ontological status of modes quickly became common among the Jesuits and was endorsed by Pedro Hurtado de Mendoza. According to him, modes contribute to determining things that are in themselves indifferent with respect to a range of properties. More precisely, he defines a mode as being an actual determination of such a thing.²⁸ For instance, Peter can be sitting in Rome or standing elsewhere. Peter *qua* substance is indifferent with respect to shape and location (*ubicatio*). By contrast, shape and location are determinations that cannot exist separately from Peter.²⁹ The dependence of

²⁷ Thus I agree with Pasnau's reading (*Metaphysical Themes*, 255 and 269–75); see also Schmaltz, *The Metaphysics of the Material World*, §3.2.2.

²⁸ Pedro Hurtado de Mendoza, *UP* II, sec.5, §71 (1624: 739a–b): “communiter dicitur, *modum esse qui nec divinitus potest esse sine re, cuius est modus*. ... Ratio autem a priori est, quia modus per suam essentiam est actualis determinatio rei indifferentis, et exercitium actuale potentiae tribuens actu suam denominationem.” According to Hurtado, modes essentially determine a thing and this determination is associated with a determinate denomination. But modes are not necessarily received as forms in a subject. For instance, hypostatic union as a mode unites the divine Word with Christ's humanity, but the divine Word is not a material cause of hypostatic union. See *UP*, *Metaph.*, disp. II, sec. 5, §73 (1624: 739b).

²⁹ *UP*, *Metaph.*, disp. II, sec. 5, §58 (1624: 737b): “Duo genera entium reperio: alterum potest in rerum natura divinitus existere sine hoc accidente determinato, sine hoc loco, sine hac figura, ut Petrus sine albedine, sine ubicatione Romae, sine sessione, alterum ita

modes is such that a mode of a given thing can neither be transferred over to another thing nor exist apart from its subject. In other words, modes are strongly dependent on their subject.³⁰ Finally, modes are real. Indeed, Hurtado describes them as real beings and things (*res*). But their entity is borrowed from the things they contribute to determine: “a mode is a real being (*ens reale*) ... a mode is a thing; it is called a mode because it seems to introduce less a new entity than a new determination of a pre-existing entity.”³¹

Like Suárez, Hurtado is a proponent of a qualified PWI, with a mode of union. He rejects the non-reductionist account defended by Scotus and some Thomists. And although he subscribes to a broadly reductionist view, he rejects the strict PWI, a view he attributes to Cajetan and the Nominalists. He argues that the mere existence of matter and form does not necessitate the existence of the composite substance. He considers two variants of the reductionist thesis. According to the first, the existence of the composite substance is nothing over and above the existence of form and a suitably disposed matter—i.e., matter endowed with accidents disposing it to being united with form. In reply, he argues that the composite substance could survive the loss of these accidental dispositions. A further objection is that it cannot account for the union of a rational soul with matter, given the rational soul’s

affigitur alicui rei singulari, ut sine illa nequeat divinitus consistere, ut actio vitalis Petri non poteste esse in Paulo.”

³⁰ *UP*, *Metaph.*, disp. II, sec. 5, §65 (1624: 738b): “Secundo infertur ex dictis: modum qui simul existit, quin denominet actu rem aliquam, nec per potentiam absolutam posse illam denominare.”

³¹ *UP*, *Metaph.*, disp. VI, sec. 2, subsec. 1, §13 (1624: 789a): “modus simpliciter est ens reale ... modum esse rema: vocari autem modum, quia non tam videtur afferre novam entitatem, quam novam determinationem entitatis praeexistentis.”

independence from matter.³² Hurtado argues against a second version of the reductionist view, according to which the composite substance is nothing over and above the form and matter plus a relation of spatial co-location. Rather than arguing like Suárez on the basis of the supernatural case of the *triduum*, Hurtado grounds his rejection of this position in the fact that co-location presupposes location, which is a mode of the composite substance and therefore logically posterior to the existence of the whole. Furthermore, the same composite substance can survive a change of location. Finally, the per se unity of the material substance cannot be grounded in an accidental feature such as location.³³ The latter arguments are not compelling, however, since Hurtado's opponent might object that what grounds the composite is the generic co-location of its form and matter and not their sharing of a particular location. But the first argument stands, provided location is primarily a mode of the material substances and only derivatively of matter and form.

³² *UP*, Phys., disp. V, sec. 1, subsec. 1, §7, 193a–b: “Nec potest dici esse formam tanquam actum in potentia, addere supra utramque solas materiae dispositiones. Primo, quia de potentia absoluta possunt uniri materia, et forma sine his dispositionibus Secundo, quia dispositiones sunt accidentia praecedentia unionem ipsam. Tertio, quia accidentia fiunt per alterationem, unio vero per generationem substantialem; tandem, quia existente materia cum suis dispositionibus potest animus rationalis conservari sine unione, qui a materia disposita nullam habet dependentiam.”

³³ *UP*, Phys., disp. V, sec. 1, subsec. 1 §8, 193b: “Nec potest affirmari unionem addere supra materiam, formam, et dispositiones, propinquitatem localem: primo, quia mutato composito ex uno in loco in alium non mutatur unio Secundo, quia prius natura forma materialis unitur materiae quam habeat ubicationem Tertio, quia ubicatio est accidens, quod non potest facere unum per se.”

IV. The Mode of Union and the Debate over its Number

According to Suárez and other Jesuits, the union between form and matter, which is required for the existence of the composite, is a substantial mode. This means that it is a mode that qualifies a substance. Through the substantial mode of union, unity of the composite substance is achieved. It is a relational mode insofar as it refers to the existence of the terms that are united through it.³⁴ The matter-form unity is a kind of transcendental relation. According to Suárez, a distinguishing feature of such a relation is that, in contrast with categorical relations like similarity, it does not supervene on the existence of the foundation and the terminus of the relation. It requires an additional element, here a special mode of union. Another distinguishing feature of transcendental relations is that they do not merely relate their terms but also involve the exercise of a productive power.³⁵ For instance, similarity does not produce two white things that are similar. By contrast, the mode of union really brings about the union of matter and form, just like the mode of inherence really brings about the union of an accident and a subject. Thus, Suárez compares the mode of union to a *nexus* between form and matter (*DM* XV.6.10). Hurtado also defines union as a nexus

³⁴ On union as a relational mode, see *DM* XXXIII.1.28: “omnis unio, hoc ipso quod tantum est quidam modus rei quae unitur, videtur esse in se diminutae entitatis et quasi respectivae.”

³⁵ Or “*reale munus exercere*,” as Suárez writes; see *DM* XLVII.4.10–1.

between two things³⁶ or a “bond (*vinculum*) and formal composition of two parts.”³⁷ A mode of union is thus a kind of cement or metaphysical glue that is necessary for really distinct things to be united.

While there is thus general consensus among the Jesuits concerning the notion of a mode of union, the agreement ceases when it comes to the analysis of its nature. As I noted in the introduction, the main disagreement concerns the number of modes of union.³⁸ According to Suárez, it is a single mode of union that achieves the unity of the hylomorphic compound. Hurtado, on the other hand, claims that there are two modes.³⁹ This purely numerical

³⁶ *UP*, Phys., disp. V, sec. 7, subsec. 1, §109, 105b: “Unio enim ex conceptu unionis est nexus, et compositio duorum extremorum.” Arriaga gives the same definition; see *Cursus philosophicus*, Phys., disp. IV, sec. 1, sub. 1, §1 (Antwerp: 1632) 293a: “Unio dicitur nexus ille quo ex duabus rebus, e.g. ex materia et forma, resultat unum compositum.”

³⁷ *UP*, Phys., disp. V, sec. 2, §43, 198a: “Natura unionis, quae est vinculum et formalis compositio partium producta per actionem distinctam.”

³⁸ The question of whether there is only a single mode or two modes was discussed by Suárez. But it is only with Hurtado de Mendoza that it becomes an object of scholarly dispute. However, Antonio Rubio (1548–1615) identifies three topics concerning the mode of union: (i) whether matter and form are united by a mode of union; (ii) what this mode is; (iii) how many such modes there are (*quotuplex sit*); see Antonio Rubio (Ruvius), *Commentarii in octo libros Aristotelis de Physico Auditū sive Auscultatione* (Lyon: Jean Pillehotte, 1611 [1st ed. Madrid, 1605]), lib. I, tract. 2, q. 6, §53, 168.

³⁹ In the following analysis of the debate, I will rely on a simplifying assumption shared by the disputants, namely, that the matter form relation of union is a dyadic relation. Actually, it is a multi-grade relation, with one term on one side (form), given the disputants’

difference results from different reactions to two principles that potentially conflict with each other. The first applies to modes as a principle for accidents, borrowed from the theory of relations:⁴⁰

(A) No mode can belong to more than one subject.

The second claim seems perfectly natural, given the dependence of modes on their subjects:

(B) A mode of union belongs to some subject.

From these two claims one can derive the conclusion that there is a single mode of union, which is received in a single subject. Alternatively, it is possible to maintain that each mode belongs only to one subject but that there are two modes of union that belong to two distinct subjects—matter and form. Suárez defends the first option, at least as far as non-human material substances are concerned, whereas Hurtado takes the second.

Richard Lynch, an opponent of the two-mode thesis, gives a clear presentation of the main argument for dualism:

common rejection of the plurality of forms doctrine, and a variable plurality of terms on the other side (matter). See *UP*, Phys., disp. V, sec. 7, §105, 205b: “Nullus dubitat unionem tenentem se ex parte materiae esse compositam e partibus integralibus unitis continuatione; sicut quaelibet res extensa.” Dropping this simplifying assumption would complicate matters and lead to the examination of the mode of union in integral wholes. I make another simplifying assumption by not taking account of the mutability of the material parts of a composite substance and the ensuing mutability of the mode of union.

⁴⁰ On the rejection of categorical relations construed as polyadic accidents, see Sydney Penner, “Why Do Medieval Philosophers Reject Polyadic Accidents?,” in *The Metaphysics of Relations*, ed. Anna Marmodoro and David Yates (Oxford: Oxford University Press, 2016), 55–79.

The union of a natural and substantial composite is received and sustained in both terms (*extrema*). But one [union] cannot be received or sustained in two terms; therefore, etc.

The major of the argument is proved. First because there is no more reason why union should be received in one of the terms rather than in the other, if indeed it truly unites and affects both. Second, because otherwise it would not perfect both terms.⁴¹

The minor premise of the argument corresponds to claim (B). The major premise is equivalent to the claim that both matter and form are subjects of the union:

(D1) Both the matter and the form are the subjects of the mode of union.

Lynch deduces (D1) from this the fact that:

(D2) There is no more reason for the mode of union to inhere in the matter rather than in the form, or in the form rather than in the matter.

He adduces two justifications for (D2). First, matter and form are really united. This means that being united is not a mere extrinsic denomination like “being known” or “being loved,” attributed to a subject only insofar as it is the terminus of a relation inhering in another subject. Therefore, matter and form are real subjects of the relational mode of union. The other argument is based on the mutual incompleteness of matter and form: when they are

⁴¹ Richard Lynch, *Universa Philosophia*, II, Phys., tract. VIII, cap. 5, §43, 49b: “Unio compositi substantialis, et naturalis in utroque extremo recipitur, et sustentatur: at una realiter recipi nequit, aut sustentari in duobus extremis: ergo etc. Maior argumenti probatur, tum quia non est potior ratio, cur in uno, quam in alio extremorum recipiatur unio; siquidem utrumque vere unit et afficit; tum etiam, quia alias utrumque extremorum non perficeret.”

actually united in a composite substance they acquire a new perfection, which entails a real change in both.⁴² From (A), (B), and (D1) we may deduce the following dualist conclusion:

(D3) The existence of a composite substance requires two modes of union: one in the matter, the other in the form.

It should be noted that the dualist's inference of (D2) from (D1) works only if one further assumes that the subject of union can be either the form or the matter or both the matter and the form, but not a *tertium quid*, as the composite substance itself.

In order to grasp the way Suárez deals with this general argument, it is necessary to distinguish the case of non-human material substances from the special case of the human composite. The former are endowed with material forms “educated” from the potency of matter. Characteristically, such forms exist only when they are received by matter, i.e., they

⁴² *UP*, Phys., disp. V, sec. 7, subsec. 2, §132, (1624: 208b): “perfectio, quando recenter advenit subiecto, illud immutat ...: at terminus in ratione termini non mutatur per eum modum, cuius est terminus.” Incidentally, this second justification allows the dualist to account for the supernatural case of the hypostatic union of Christ with human nature. Indeed, in this case Hurtado acknowledges a single mode of union in human nature. The asymmetry is justified by the fact that Christ's nature is not made more perfect through its union with human nature. See *UP*, Phys., disp. V, sec. 6, subsec. 3, §102, (1624: 205a): “In unione hypostatica secus contingit, sufficit enim modus sese tenens subiective ex parte humanitatis, et terminative intrinsece ex parte Verbi; quia sola humanitas perficitur illa unione, quia vero Verbum non est perfectibile per unionem creatam, ideo illud non attingit tanquam subiectum”; Lynch, *Universa Philosophia*, Phys., tract. VIII, cap. 5, §43, 49b.

do not exist apart from the hylomorphic compound.⁴³ Their actual existence requires their inherence (*inhaesio*) in matter, in which the causality of matter consists. To this material causality corresponds the causality of form, which consists in its bestowing specific functions and powers on matter.⁴⁴ The paradigm examples are plants and animals. A human being is a different case, since it is composed of matter and a substantial form that is immaterial and thus that cannot be educed from matter. This substantial form naturally subsists by itself.⁴⁵

⁴³ On the difference between *forma materiae* and *forma materialis*, see Benet Perera (Pererius) (1536–1610), *De communibus omnium rerum naturalium principiis et affectionibus* (Paris, 1579), V.21, 338. Pererius clearly lists the main features of material forms and of their eduction from the potency of matter: (i) they are produced through material dispositions; (ii) they can only arise out of matter; (iii) they depend on matter for their existence and cannot (naturally) subsist in a distinct matter; (iv) they depend on matter for their operations; and finally (v) they can be neither conceived nor defined apart from matter. On the historical background to the doctrine of *eductio formarum*, see Cross, *The Physics of Duns Scotus*, chap.2.; and Helen Hattab, "Suárez's Last Stand for the Substantial Form," in *The Philosophy of Francisco Suárez*, ed. Benjamin Hill and Henrik Lagerlund (Oxford: Oxford University Press, 2012), 101–18.

⁴⁴ Material and formal causality are modally distinct from matter and form respectively, since form and matter can exist without exercising their material, respectively formal, causality. See *DM* XIII.9.1.

⁴⁵ *DM* XXXIV.5.30–4. See Aquinas, *Summa theologiae*, I.75.2 in corp. Aquinas argues for the soul's proper subsistence from the fact that it is the proper subject of intellectual acts. But the soul is also a part of the composite substance and thus is not a perfect substance. On the historical roots of this modified hylomorphism in Aquinas, see Jeffrey E.

Although the rational soul is united to the human body, it does not essentially depend on it (*DM XV.2.10*). It is a case of what Suárez calls a “pure union” (*DM XV.6.8*).

In the general case of non-human material bodies, Suárez accepts (A) and (B).

However, he rejects (D1) and with it (D3), because he rejects (D2). He asserts a monist thesis:

(M) Matter and form in a composite substance are united by a single mode of union.

He discusses this problem in a passage from Disputation XIII on the material cause, where he argues that a single mode of union is sufficient and is located in the form:

On this difficulty, I confess that it is doubtful whether in the composition of matter and form matter has a proper mode of union, distinct from the union of the form. ... The negative answer is probable, because for the union of two terms that are immediately united with one another one simple mode of union is sufficient. And it is possible to assign a special reason in virtue of which such a mode should belong more to form and be really identical with it, rather than to matter. Therefore, it is not necessary to multiply many modes of this sort. ... It is proved that this mode belongs to form rather than to matter: because the whole efficiency of a natural agent has its formal and proximate term in educating or uniting this form to matter; therefore, whatever it produces anew, is in form as in a formal terminus of action, but is in matter only as in a subject. Thus it does not unite matter to form by directly bringing about a special mode in matter, but only by uniting form itself to matter and bringing about in it an information, union or inherence. ... For matter is the substrate of the agent's action and of the coming and receding of forms. Hence with respect to its entity and any of its intrinsic modes, it

Brower, *Aquinas's Ontology of the Material World: Change, Hylomorphism, and Material Objects* (Oxford: Oxford University Press, 2014), §11.4–5 and 12.

remains unaltered and it is altered and changed because of a privation or of a receding or newly incoming form (*DM* XIII.9.13).

In this passage, Suárez claims that there is a mode of union in form that is sufficient to account for the unity of the material substance. Using an argument from parsimony, he further argues that there is no need to postulate a further mode of union in matter. The material forms of non-human material substances are educed from matter's potency through the action of an agent that acts as an efficient cause. Suárez claims that in such cases, the production of the form is identical to its union with matter.⁴⁶ In order to establish the first point, he introduces an asymmetry between matter and material forms. The act whereby a material form is produced is not distinct from its inhering in a matter to which it is united. An analogy with artifacts helps to explain this: the form of a clay statue (which consists in a particular shape) begins to exist by informing its matter, the clay. Thus, the mode of union is identical to the mode of production and consists in its essential inhering (*inhaesio*) in matter (*DM* XIII.9.11). Conversely, matter is a mere substrate that remains identical through the various forms that are educed from it.

Suárez infers from this that there is some reason to attribute union to form rather than to matter. He then concludes in favour of (M), by arguing that it is unnecessary to multiply the modes of union:

The major is proved because any mode of union is a bond between two terms. Hence it signifies a relation to each, without which it could not exist. Therefore, any mode of union whatsoever unites two terms of which it is the union; therefore, one [mode] is sufficient to connect such terms. And thus we said above that the union of form to

⁴⁶ *DM* XV.2.15; 3.10; 4.5; see Hattab, "Suárez's Last Stand for the Substantial Form,"

matter can neither exist nor be conceived in reality without the connection with and dependence upon not only the form, but also matter. And thus if we bracket by the intellect any other mode identified with matter, we conceive by the sole union of form to matter that matter and form are perfectly united with each other and that matter exercises its entire causality on the form; therefore a double mode of union is not necessary, but one is sufficient (ibid.).

Here Suárez insists on the special nature of the mode of union insofar as it provides a bond or nexus between united things. The idea here is that if there is a mode of union u in A that unites A to B , then it is impossible that u exists in A without B being united to A . Moreover, Suárez claims that it is superfluous to postulate a distinct mode u' in B to ground this fact about B . Further, the additional mode would introduce a contradiction. For if union presupposes two really distinct modes in matter and form, then it would be possible for the mode in matter to subsist while the mode in form is destroyed. But then matter and form would be simultaneously united and not united.⁴⁷

The case of the human composite presents Suárez with a special difficulty. The rational soul subsists by itself, independently of matter. This entails that the act whereby the form is created is distinct from the act through which it is united to matter, and hence that the mode of union is a distinct mode. But then there is no reason why one should attribute union to form rather than to matter. Moreover, the monist thesis seems to be incompatible with the disparate natures of matter and the rational soul; the latter is a spiritual nature that is indivisible and non-extended, whereas the former is divisible and extended. If there were a

⁴⁷ Hurtado himself formulates this argument on behalf of the monist. See *UP*, Phys., disp. V, sec. 7, subsec. 1, §107–8 (1624: 205b).

single mode, it would have to participate on these contrary natures and have incompatible properties.

This problem leads Suárez to emphasize that the mode is a kind of way (*via*) that has a double dependence to its terms, without identifying a subject of this union:

To this one should say that this mode of union is a sort of medium or chain between the form and the matter, and it, therefore, touches and affects both in some way and, hence, depends on both in its coming to be and in its being. As a result, this mode of the rational soul, although it is in its own entity something spiritual, nevertheless participates in the conditions of a material thing because it both completely depends upon matter and is in its own way extended along with matter, although it lacks extension on the side of the soul (*DM XV.3.11*).

Union is “that through which” (*quo*) matter and form exercise their respective causality, i.e., informing matter by specifying it and grounding form:

Hence, it is no contradiction that the same union, insofar as it is from the form, is the path, as it were, or principle by means of which the form causes the whole composite and, insofar as it is from the matter, is the principle by means of which the material form depends on matter in its own being. For that union is the joining of the two, namely, of the matter and of the form, and, therefore, when the union is such that there is also an inherence, it can at the same time be the road, so to speak, both of the matter to the form and of the form to the matter. ... But it is no contradiction that the same union both stems from the form as informing the matter and is such a connection of the form with the matter that by means of it the form is sustained by the matter. And thus the very same union, insofar as it is from the form, is the medium or principle by means of which the form actualizes the matter and constitutes the composite, and in this way it is said to be the causality of the form. But, insofar as through it the form adheres to the

matter and is sustained by it, it is the dependence of the same form upon the matter (*DM* XV.6.10).

Formal and material causality are not two distinct modes. We could illustrate this by saying that the mode of union is a bond with two opposite poles: one pole is material causality, the other formal causality. Without the mode, these two causalities would not be actual, which is why it is prior to them as “that in which” (*in quo*), in contrast with matter and form, which are prior to their respective causalities as “that from which” (*a quo*). As a consequence, the role of material and formal causality is considerably weakened, for they are reduced to being aspects of the mode of union, which thus plays the central role in Suárez’s account of the composite substance.⁴⁸

What precedes might suggest a conception of the mode of union as an entity which (i) depends on both matter and form and yet (ii) does not inhere in either. Indeed, given (A), the mode of union could not belong collectively to matter and form. But one option seems to be to restrict (B).⁴⁹ However Suárez never retreats from (B) and maintains that the common

⁴⁸ Hattab, “Suárez’s Last Stand for the Substantial Form,” 114–5, rightly emphasizes this consequence of Suárez’s theory of union. This is in tune with Suárez’s understanding of substantial form as an internal efficient cause.

⁴⁹ Rubio, also a monist, seems to go farther than Suárez in this direction by distinguishing between inhering and adhering modes, in an analogy with the role of points as unifiers of continuous wholes. A point joining two lines does not inhere in either, but adheres to both. By analogy, one could say that a single substantial mode of union adheres to both matter and form. See Rubio, *Commentarii*, lib. I, tract. 2, q. 6, §68, 176; for a commentary, see A. Boehm, *Le “Vinculum Substantiale” chez Leibniz*, 76–80. However, the analogy might not apply straightforwardly, for Suárez takes points to be *res* rather than modes.

mode of union inheres in a single subject. Thus, the mode of union binds matter and form by inhering in form as in a subject and reaching out to the other as to a terminus.

Hurtado's dualist view is based on his objections to the monist view. The background assumption of his defense of the dualist thesis is his distinction (*pace* Suárez) between union and production. He argues that the generation of man brings about union as a result, and therefore that production and the union are distinct.⁵⁰ This distinction holds not only in the special case of the human composite but in any material composite. He argues against Suárez's identification of the production of a material form with its union to matter by claiming that it leads to the absurd consequence of the action of production being its own terminus.⁵¹ On the contrary, he maintains that the generation and reception of a form by matter does not entail their union.⁵²

⁵⁰ *UP*, Phys., disp. V, sec. 2, §39, (1624: 197b): "Probatur antecedens in unione animi rationalis, quae unio per se ipsa est ratio uniendi, quia se unit extremis, et extrema inter se, et tamen per se ipsam non dependet a materia, nec per se ipsam producit, sed per actionem a se ipsa distinctam, ergo ratio uniendi distinguitur realiter a productione formae materialis Ipsa unio causatur: non ut *quo*, quia per illam nihil causatur, ergo ut *quod*, quia est terminus causatus per passionem."

⁵¹ *UP*, Phys., disp. V, sec. 2, §42, (1624: 197b): "generatio compositi terminatur ad unionem materiae et formae, tamquam ad terminum formalem, sed per te unio materiae et formae, est ipsa productio formae, et illa productio facit compositum, quia non est alia, a qua fiat, ergo illa actio terminatur ad se ipsam producendam."

⁵² *UP*, Phys., disp. V, sec. 3, §53, (1624: 199b): "tota enim causalitas materiae consistit in generatione formae, et non in unione. Quin non est improbabile, posse de potentia absoluta formam dependere a materia, et illi non uniri."

Accordingly, there is a distinction between two kinds of material and formal causality, which differ in their effects. This distinction is blurred by the fact that Hurtado uses the same terms *materializatio* and *informatio* to designate these two kinds of material and formal causality.⁵³ The first kind of material causality is related to the form as its effect (*F-materializatio* as we might call it), while the second is related to the composite (*C-materializatio*). *F-materializatio* consists in matter being a subject that receives its perfection from form.⁵⁴ *F-materializatio* is *not* the mode of union.⁵⁵ By contrast, *C-materializatio* is identical to the mode of union.⁵⁶ The corresponding distinction between the two aspects of

⁵³ For the clarifications and some of the textual references in this paragraph I am indebted to the insightful comments of an anonymous reviewer.

⁵⁴ *UP*, Phys., disp. XI, sec. 7, §52 (1624: 293b): “Subiectum hic capitur pro causa materiali, seu receptiva motus. Quae debet et esse intrinsece communicata effectui, et esse vere principium, et causa physice in illum influens. Unde causa materialis debet esse distincta realiter a suo effectui; quia nihil potest in se influere physice, aut a se dependere. ... Causa materialis est passiva, id est; quae patitur, et recipit perfectionem, aut imperfectionem, sui effectus.”

⁵⁵ *UP*, Phys., disp. V, sec. 3, §46 (1624: 198a): “Ex dictis sectione praecedente evidenter infertur, unionem non esse causalitatem materiae in formam. ... Ergo unio non est causalitas materiae.”

⁵⁶ *UP*, Phys., disp. V, sec. 3, §50 (1624: 198b): “huic sententiae [unionem scil. Non esse causalitatem materiae] refragari videtur communis opinio, asserens unionem esse causalitatem materiae. Respondeo...veram esse communem opinionem, et intelligendam de causalitate materiae in compositum...” The contrast between the two kinds of *materializatio* is clearly stated in another passage: “De receptione seu materializatione duplex est ineunda

formal causality is less straightforward. Arguably, form exercises its causality by imparting its perfection and formal effect to matter. But in the course of the discussion on the union of matter and form, Hurtado seems to contrast the two dimensions of *materializatio* with a single *informatio* with respect to the composite (*C-informatio*), which coincides with the mode of union.⁵⁷

C-informatio and *C-materializatio* are two modes through which (*quo*) respectively form is united to matter and matter to form. From this, Hurtado concludes that the union of matter and form consists of these two modes which contribute to the intrinsic perfection of matter and form.⁵⁸ This allows him to infer that union is received in two subjects, matter and form, as in (D1). In the human composite, Hurtado argues further that information and materialisation have incompatible natures (spiritual and material). This precludes the claim

via. Prima materializatio est causatio formae materialis, per quam materia prima influit in formam, quae consistit in generatione formaliter passiva Materializatio secunda est in compositum, quae est formaliter unio materiae, et formae, de qua in praesenti disseritur. Est igitur haec materializatio *modus ille unionis, qui se tenet ex parte materiae illam perficiens tanquam subiectum, tendensque in formam tanquam in terminum materiae.*” *UP*, Phys., disp. V, sec. 4, §56–7 (1624: 199b).

⁵⁷ *UP*, Phys., disp. V, sec. 4, §54, (1624: 199a): “modus ille unionis se tenens ex parte formae, et illam perficiens ut subiectum, respiciensque materiam tanquam terminum formae.”

⁵⁸ *UP*, Phys., disp. V, sec. 4, §58–9 (1624: 199b–200a): “Ex his manifeste deduco: Primo unionem materiae et formae essentialiter includere informationem et materializationem, et praeter haec nihil aliud habere... Secundo deduces, unionem esse perfectionem intrinsecam materiae et formae, quia utraque est ens incompletum et imperfectum.”

that they are merely rationally distinct. From this, he concludes more generally that information and materialisation are “two partial unions” that are really distinct.⁵⁹

To a contemporary reader, this position seems odd. And it must be conceded that Hurtado’s replies to monist arguments against the dualist thesis are not all convincing. To the argument that the dualist multiplies modes unnecessarily, Hurtado replies that if there is a single mode of union, either in matter or in form, one of the united elements would be merely a terminus of union and not a subject and thus would not be perfected through union. Thus, the addition of a second mode is not superfluous.⁶⁰ His answer to the charge that dualism entails paradox is less convincing: Hurtado merely accepts the possibility that one of the two modes ceases to exist, in which case the union becomes “less perfect.”⁶¹ In short, any composite thing must have a composite union in order to achieve the perfection of each component. One could also object that if there are two modes of union then there should be

⁵⁹ *UP*, Phys., disp. V, sec. 7, subsec. 2, §120, (1624: 207a–b): “Dico igitur informationem et materializationem esse duos modos realiter distinctos ... in homine materializatio et informatio distinguuntur realiter, patet consequentia; quia idem modus non potest esse spiritualis et materialis, nisi ratione distinctarum partium. Efficacia huius argumenti sumitur ex dictis”; sect. 4 : “unionem compositi naturalis recipe in utroque extremo tamquam in subiecto.”

⁶⁰ *UP*, Phys., disp. V, sec. 7, subsec. 1, §115 (1624: 206b): “Ad confirmationem respondeo materializationem uniri materiae ut subiectum, et formam ut terminum, requiri autem informationem, qua forma uniatur ut subiectum.”

⁶¹ *UP*, Phys., disp. V, sec. 7, subsec. 1, §116 (1624: 206b): “negatur sequi illud absurdum: nam si maneret sola informatio, exempli gratia, manerent quidem extrema unita non perfecte, sed imperfecte, alterum ut subiectum, alterum ut terminum.”

some third mode to unite them, which would either open up an infinite regress of additional pairs of modes or lead to the admission of one common mode of union. Replying to a similar objection, Hurtado holds that matter and form need nothing else beyond these two modes in order to unite. To illustrate this, Hurtado's modes of matter and form can be compared with two slotted bricks that match perfectly, in which the complementary slots correspond to the modes.⁶²

In spite of its shortcomings, Hurtado's dualist position is more consistent with claims (A) and (B) and the Aristotelian account of relations. In particular, whereas Suárez ends up with an account of union that is barely consistent with the requirement of inherence in a subject, Hurtado straightforwardly maintains that modes of union are just like any other modes, namely, that they both depend and inhere in a subject. He compares union as a transcendental relation to ordinary categorical relations.⁶³ In categorical relations, the relation

⁶² *UP*, Phys., disp. V, sec. 7, §129 (1624: 208a–b): “Rogas, utrum illi modi invicem uniantur? Non, neque opus est, nisi ut per illos uniantur extrema.”

⁶³ *UP*, Phys., disp. V, sec. 7, §123 (1624: 207b): “Secundo probatur, exemplo relationis praedicamentalis, quae in sententia communi distinguitur a fundamento et termino, ut a me ponitur unio: relatio solum inest fundamento, quod refert: termino autem non inest ... ergo unio, qua materia unitur, ut subiectum, solum inest materiae, et non termino, nempe formae. Probo consequentiam, quia unio est relatio transcendentalis materiae ad formam, non secus ac paternitas est patris ad filium.” Hurtado envisages the objection that union is an internal relation, a relation intrinsic to both terms, in contrast to an external relation like paternity. In his reply, he distinguishes an intrinsic term from a subject: “contra, id probat terminum unionis esse intrinsecum, non tamen probat terminum esse subiectum: nam retento

inheres only in the subject of the relation's foundation, not in its term. It is only through a distinct converse relation that the term can also be the subject of this distinct relation. Hurtado insists on the fact that (A) holds necessarily when the terms of the relation are intrinsically related.⁶⁴ According to his account, the same holds with respect to union, which thus requires a pair of complementary relational modes.

V. Concluding Remarks

At this point, the debate between Hurtado and Suárez seems to have arrived at a stalemate. Interestingly, neither seems to have considered two other options. The first consists in attributing the mode of union to the whole composite.⁶⁵ In this view, the whole composite substance would be the subject of the mode of union. This solution has the advantage of making (M) fully consistent with (A) and (B), without having to embrace the dualist account. Moreover, it allows us to understand how, in the case of the human composite, a single mode may have a material and a spiritual nature, since human nature is also composite. This solution has a major drawback, however, for it introduces a vicious circularity by making union dependent on a subject—the composite substance—that is ontologically reduced to its

conceptu relationis ut sic, differt unio, quia connotat intrinsecum terminum, alia vero relatio extrinsecum, quin terminus unionis sit subiectum illius.”

⁶⁴ *UP*, Phys., disp. V, sec. 7, §125 (1624: 207b): “Itaque repugnantiam [i.e. unam rem esse in duobus subiectis] constituo non in subiectis: sed quia unum refertur intrinsece ad aliud.”

⁶⁵ At some point, Tad Schmaltz suggested this reading as a possible interpretation of Suárez. But his own interpretation is a version of the view that the mode of union is a modification of the substantial form. See Schmaltz, *The Metaphysics of the Material World*, §2.3.2.

substantial parts and the mode of union (given qualified PWI). Conversely, it seems that only a defender of a non-reductionist account of composite substance could consistently uphold this view. This is corroborated by the fact that Gabriel Vázquez (1549–1604), who suggests that the mode of union may have the composite human nature as its subject,⁶⁶ was also a proponent of a non-reductionist account of composite substance.⁶⁷

Another option is to fully maintain the necessary inherence of modes (B) but allow for modes having more than one subject, i.e., polyadic modes. Neither Hurtado nor Suárez was prepared to accept this, but Rodrigo de Arriaga (1592–1667) pursues this strategy. According to Arriaga, a single mode of union is simultaneously inherent in matter and form as its two subjects.⁶⁸ He gives the following as proof of his claim:

⁶⁶ Gabriel Vázquez, *Commentariorum ac disputationum in tertiam partem Sancti Thomae tomus primus* (Antwerp: Pierre and Jean Bellerus, 1621), disp. 18, c. 3, n. 31, 171b: “Si vero unio sumatur non pro modo illo naturae humanae, sed pro conventu et consortio eorum, quae in compositione concurrunt, et substantialiter uniuntur, formaliter non est aliud, quam relatio uniti, quae posterior videtur praedicto illo modo naturae humanae.”

⁶⁷ Vázquez, *Commentariorum ac disputationum in tertiam partem*, disp. 19, c. 2, §12–3, 175a. It should be noted that this opinion is usually ascribed to Vázquez, but he does not devote much space to it.

⁶⁸ Rodrigo Arriaga, *Cursus philosophicus*, Phys., disp. IV, sec. 2, subs. 1, §47, 299a: “licet quaelibet unio partialis respiciat aliquid ut terminum, et aliquid ut subiectum, unio tamen totalis ut totalis formaliter utrumque extremum respicit ut subiectum et utrumque ut terminum.” On Arriaga’s theory of relations, see Sydney Penner, “Rodrigo de Arriaga on Relations,” *The Modern Schoolman* 89 (2012): 25–46.

The first part is proven concerning the [subject of] reception [of union], because there is no reason why we should posit it in one subject rather than in another: each is equally united to the other and each is substantially incomplete and needs the perfection that is communicated by union; therefore this [union] is in each, as in a subject of reception.⁶⁹

Like Hurtado, Arriaga accepts (D1) and infers (D2) from it. But he rejects (D3) because he reads (D1) very differently as the claim that numerically the same mode of union is received by two subjects. This entails a denial of (A) and the admission of a polyadic or “straddling” mode of union. Arriaga justifies this by insisting that the necessity of positing a relation and its converse in the ordinary case comes from the fact that the subject and the terminus are spatially distant. By contrast, when the two terms are co-located, as is the case in the substantial union of matter and form, it is possible for one and the same mode to inhere in two subjects.⁷⁰

⁶⁹ *Cursus Philoosphicus*, Phys., disp. IV, sec. 2, subs. 4, §118, 308a: “Probatur quoad primam partem de receptione, quia non est ulla ratio cur specialius eam ponamus in uno quam in altero: utrumque enim aequaliter unitur alteri, et utrumque incompletum est substantialiter, egetque perfectione ab unione communicanda, ergo haec est in utroque, ut in subiecto receptionis.”

⁷⁰ *Cursus philosophicus*, Phys., disp. IV, sec. 2, subsec. 2, §§56–7, 300a. Penner has remarked that in Suárez there is an argument against polyadic accidents based on the idea that they would have to be multi-located, which is assumed to be incompatible with their nature. See Suárez, *DM* XLVII.6.4; for an analysis, see Sydney Penner, “Why Do Medieval Philosophers Reject Polyadic Accidents?,” 75–8.

This complete reversal of Hurtado's dualist position imposes a revision of a central tenet of the Aristotelian analysis of relations.⁷¹ But it seems to be the only viable option for someone who wants to maintain that in order to make up per se unities out of distinct components it is necessary to add a metaphysical cement that binds them together. Thus, the debate between Suárez and Hurtado de Mendoza provides a good illustration of the fact that early modern scholastic thinkers did not merely rehearse medieval views but introduced original discussions and philosophical novelties that sometimes required a fundamental revision of the broadly Aristotelian framework. What initially appeared to be a purely formal and technical debate involves deeper issues such as the structure of composite substance and the analysis of relations.⁷²

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⁷¹ In a section added to the 1624 edition of his *Universa philosophia*, Hurtado discusses a position that seems to be Arriaga's own. He reacts against Arriaga's use of considerations of ontological parsimony as a reason not to multiply the modes of union, by noting that in the case of the intrinsic mode of location (*ubicatio*) it is necessary to ascribe distinct *ubicationes* to distinct co-located entities (matter, quantity, and the various accidents of the material substance). See *UP*, Phys., disp. V, sec. 7, subsec. 3, §142–3 (1624: 210a).

⁷² I wish to thank Tad Schmaltz for his comments and careful reading. Earlier versions of this paper were read at conferences at the ULB (Bruxelles) and the Collège de France (Paris). I thank the audiences for the discussions.