

## THE PROBLEM OF INDIVIDUATION IN THE MIDDLE AGES

### Introduction

The problem of individuation—what, if anything, explains the individuality of the individual—was extensively discussed throughout the Middle Ages, from Boethius to Suárez and beyond. There was general consensus on the nature of the problem, though not on its solution: many features of individuals are at least plausible candidates for the role of principle of individuation, but each also faces serious objections; much ingenuity was spent in refining solutions in order to avoid objections that had undermined earlier proposals. The result was a thorough and deep understanding of the problems and puzzles surrounding individuality and individuation, unsurpassed in the history of philosophy; I can hardly begin to suggest its richness and complexity here.<sup>1</sup>

In what follows I'll concentrate not on fine points of historical detail but on the logic of the debate as understood by mediæval philosophers themselves. First, though, we need to get a fix on the problem in its wider metaphysical context (§1), which will provide an analysis of the individual into a concrete substantial composite of matter and form, possessed of accidents, so that individuation occurs either through some or all of its accidental features (§2), or through its substantial features, namely through form or matter or both (§3), or through some noncategorical feature (§4)—or whether the problem as formulated should be rejected in favor of the view that the individuality of the individual is metaphysically primitive (§5).

### 1. Sameness and Difference

Philosophers in the Middle Ages held that puzzles about individuation were a particular case of a set of more general questions surrounding the notions of sameness and difference, the answers to which are a part of the theory of identity:

[1] What makes something the thing it is?

<sup>1</sup> Readers interested in more detail about many of the particular theories described here may find it profitable to consult the entries in the recent anthology *Individuation in Scholasticism: The Later Middle Ages and the Counter-Reformation, 1150–1160*, edited by Jorge Gracia, State University of New York Press 1994. For the earlier period Gracia has written his own historical account: Jorge Gracia, *Introduction to the Problem of Individuation in the Early Middle Ages*, Catholic University of America Press 1984.

- [2] What makes something the kind of thing it is?
- [3] What makes something the same as others of the same kind?
- [4] What makes something different from others of the same kind?
- [5] What makes something different from others of different kinds?

These questions could be raised about items at any level of metaphysical generality: individuals, species, genera, categories. (Even a philosopher who rejected the real independent existence of, say, species, had to explain how individuals were specifically the same as or different from one another.) The answers to [1]–[5] are interrelated, and the theoretical notions at work in both questions and answers—sameness and difference, kinds and membership, principles—must be deployed in a way continuous with their use elsewhere in metaphysics.

There was general consensus on the answers to some of these questions, no matter the level at which they may be raised. Typically the answers to [2], [3], and [5] involve the possession of *form*, perhaps as part of something's nature. A species is subordinate to a given genus if its nature contains the generic form, which is combined with a differentiating factor (in this case a formal principle known simply as the *differentia*) in the species. Two species belong to the same kind if each has the generic nature in question, and the species belonging to distinct nonsubordinate genera differ in virtue of possessing different generic forms. Likewise, an individual such as Socrates is human in virtue of possessing a certain form, namely humanity, as part of his nature, which is combined with a differentiating factor in Socrates. The two individuals Socrates and Plato belong to the same species since each has the specific form of humanity, and Socrates differs from Brunellus the Ass because each has a different specific form (humanity and asinity). There was sharp disagreement over some of the details of these answers—do Socrates and Plato each have the identical form of humanity? are species essentially different from their genera?—but that should not obscure the widespread agreement on the shape the answers should take.

There was a similar degree of accord in answering [1] and [4] at most levels of generality. A species is made to be what it is by the combination of the generic nature with the *differentia*, which is said to divide the genus and constitute the species. Two coordinate species of the same genus differ from one another essentially, each constituted by distinct *differentiae*. While the details were disputed, the overall story was not.

There was no agreement, however, on how to answer [1] and [4] in the case of individuals, although the answers were generally taken to be linked: whatever makes Socrates what he is also makes him different from other humans. At their most careful, mediæval philosophers distinguished three

related ways in which [1] could be interpreted:

- [1a] What makes a given individual an individual?
- [1b] What makes a given individual this very individual?
- [1c] What makes an individual to be one?

These questions of individuality, identity, and unity are connected but call for different answers. Now [1a] is the “problem of individuation” proper, demanding an account of the individuality of the individual. An answer to this question must explain what, if anything, makes Socrates an individual at all. But [1b], on the other hand, asks what makes Socrates to be the very individual he is—what makes him Socrates rather than Plato—and so is in part a matter of Socrates’s identity rather than his mere individuality, and can largely be set aside for now.<sup>2</sup> Finally, [1c] understands individuality as a distinctive kind of unity, namely numerical unity, which is not possessed by nonindividuals such as heaps and masses.<sup>3</sup> Whether an account of the nature of individuality also explains the individuality of an individual is an open question; mediæval philosophers typically had little informative to say in answer to [1c].

There was widespread agreement that an adequate answer to the problem of individuation—[1a] as described above—should specify some feature(s) of Socrates to explain his individuality. That is to say, Socrates’s individuality should be explained in terms of features intrinsic to Socrates: his individuality is independent of other things and the relations in which he stands to them; were other things to come into being or pass away, or change in their relationship to Socrates, it nevertheless seems implausible to think his individuality would be affected. If everything but Socrates were destroyed, he would remain individual. Hence his individuality must be

<sup>2</sup> If Socrates’s identity involves individuality, an answer to [1b] will entail an answer to [1a], but not conversely. In addition, since humans are persons, we may further distinguish [1b] into the two questions: What makes Socrates a person? and, What makes Socrates Socrates? Many philosophers in the Middle Ages thought that a single answer covered all these questions: Socrates’s soul, which is the individual substantial form of his body, explains his individuality (since as a form it makes him an individual substance), identity (since someone is an individual if it possesses a soul), and personhood (since Socrates is whoever has this very soul). But this answer applies only to ensouled individuals at best, not merely to individuals as such. Therefore, the sense in which Socrates’s soul explains his individuality must not turn on any special features of its being his soul, but rather on something else—the character of the souls as a substantial form, for example. I shall therefore put questions of personal identity aside.

<sup>3</sup> The construal of individuals as unities was derived from Aristotle, *Metaphysics* 5.6 1015<sup>b</sup>15ff. It may also have seemed natural given the literal sense of the Latin *individuum* (“undivided”).

grounded on internal features rather than on anything external to him.<sup>4</sup> In mediæval terms, the individuality of an individual is an absolute feature rather than a relative one.

A solution to the problem of individuation, then, will propose some constituent element of the individual to be the source of its individuality—the principle responsible for its being an individual, that is, the “principle of individuation.” Principles stand to causes as genus to species: causes are only one kind of principle (*Metaphysics* 5.1 1013<sup>a</sup>17); unlike causes, for example, principles need not be really distinct from their effects. The mediæval notion of ‘principle’ differs from the modern understanding of principles as paradigmatically exemplified in rules or laws, such as the Principle of Inertial Motion or the Principle of Non-Contradiction.<sup>5</sup> Insofar as principles are taken as metaphysical constituents of beings, then, and not as rules or laws, a principle is the ground or source of some feature possessed by its subject. Form and matter are the principles of material substance in this sense; essence and accident are principles of substances; transcendental divisions of being, such as potency and act, are principles of beings in general. Hence the mediæval debates over individuation sought to identify the principle (if any) of an individual’s individuality.

The candidates for such a principle can for the most part be readily identified. Socrates, for instance, is an individual material substance, *i. e.* a being essentially composed of matter and form; he possesses essential as well as accidental properties. The principle of individuation could thus be some accidental property; if nonaccidental, it could be matter, or form, or both. In addition, Socrates also possesses some noncategorical features, such as his very being or existence (*esse*) itself, or his relation to human nature in general (not his individualized human nature). These candidates for the principle of individuation largely exhaust the field. Too, there were philosophers who rejected the demand for such a principle, holding that individuality is a primitive and unanalyzable feature of things. We’ll take

<sup>4</sup> Socrates’s parents brought him into being and in doing so brought an individual into being. They are causally responsible for Socrates but not the ground of his individuality: they made an individual, but they did not make that individual to be an individual.

<sup>5</sup> In fact the modern use of the term ‘principle’ for rules and laws stems directly from the mediæval technical sense described here—inertia, for example, was originally conceived as a quality imparted to an object that was the source of its continuing motion as its internal principle; only gradually did people come to identify inertia not as an intrinsic feature of an object but rather as a kind of phenomenon, a way objects behaved rather than a property of objects themselves.

up each of these proposals in turn for the case of material substances.<sup>6</sup>

## 2. Accidental Individuation

The first proposal, historically as well as analytically, is that accidents individuate substances. After all, we ordinarily identify Socrates by pointing to accidental characteristics—describing what he looks like, where he is standing, what he is doing, how he is dressed, and the like. (We might identify Socrates from a crowd of otherwise nonhuman animals by his essential feature of being human, but that’s specific differentiation and not individual differentiation.) Now identifying Socrates through his accidents allows us to discern or distinguish Socrates from Plato. This clearly has an epistemic function, namely finding some mark whereby we can tell which one is Socrates and which Plato. In itself the epistemic function need not have anything to do with the metaphysical issue, which is what makes Socrates an individual at all, as opposed to our being able to tell which individual he is. They may nevertheless be related. The most secure way to discern Socrates from Plato is to pick out the feature that makes him an individual, and thereby an individual distinct from Plato. The fact that an answer might do double duty for both epistemic and metaphysical questions doesn’t impugn it as an answer to either.

Furthermore, there are strong reasons for thinking that individuation has to take place through accidents. Socrates and Plato are essentially the same; each one is and must be human, fully and completely human. They do not differ at all on this score. If anything distinguishes them, it must be a nonessential feature or set of features, *i. e.* accident. Essential features distinguish kinds of things, accidents distinguish individuals within a given kind.

These reasons supporting the proposal that accidents individuate substance are commonsense, plausible, and powerful. We find it already in Boethius, and its appeal was so strong over the next seven centuries that one scholar has called it the “Standard Theory of Individuation” in the early Middle Ages.<sup>7</sup> Versions of it were endorsed by Boethius, John Scottus Eriugena, Anselm, and many other philosophers. It usually took one of

<sup>6</sup> The problem of individuation can also be raised for (1) immaterial or at least non-material substances, such as angels or perhaps separated human souls; (2) God; (3) matter or stuffs, as for example water or gold; (4) aggregates and collections. Here I shall concentrate on individual material substances, such as Socrates.

<sup>7</sup> Jorge Gracia, *Introduction to the Problem of Individuation in the Early Middle Ages*, Catholic University of America Press 1984, 125.

two forms, not always clearly distinguished. We see them cheek-by-jowl in Boethius's presentation in his *De Trinitate* 1.24–31:<sup>8</sup>

Now the variety of accidents produces numerical difference. Three men differ neither by species nor genus but by their accidents—for even if we were to separate all accidents from them by the mind, the places for each are nevertheless different, which we cannot in any way make one: two bodies will not occupy the same place, and place is an accident. And so the men are numerically many, since they become many through their accidents.

An individual might be constituted in its individuality through all its accidents. Boethius says the “variety” of accidents produces numerical difference. This could mean that whereas accidents of themselves are common,<sup>9</sup> no numerically distinct individuals have exactly the same accidents. Each is the individual it is in virtue of having its own unique bundle of accidents. Clearly, if this is to be a metaphysical principle of individuation rather than a contingent happenstance that no individuals do have all the same accidental characteristics, it has to be underwritten by some version of the Principle of the Indiscernibility of Identicals:  $(a = b) \Leftrightarrow (F)(Fa \equiv Fb)$ .<sup>10</sup> Of course, even adopting this controversial principle, it is hard to see how the conjunction of common accidents produces or results in an individual instead of uniquely characterizing something that is already individual. Perhaps awareness of this difficulty led Boethius to his second proposal.

In the passage cited above, Boethius suggests that an individual might be constituted in its individuality by only some of its accidents—in particular, by “place”: its spatio-temporal location. On the former suggestion the conjunction of common accidents was guaranteed to result in an individual by the Indiscernibility of Identicals; on the suggestion at hand, the principle that place is unshareable—as we would say, that two bodies cannot occupy the same place at the same time—underwrites the individuality of

<sup>8</sup> Sed numero differentiam accidentium uarietas facit. Nam tres homines neque genere neque specie sed suis accidentibus distant; nam uel si animo cuncta ab his accidentia separemus, tamen locus cunctis diuersus est quem unum fingere nullo modo possumus; duo enim corpora unum locum non obtinebunt, qui est accidens. Atque ideo sunt numero plures, quoniam accidentibus plures fiunt.

<sup>9</sup> If accidents are of themselves individual then their inherence might produce an individual subject, but the problem has been relocated rather than solved: what accounts for the individuality of an accident? Here it seems question-begging to assert that an accident simply is an individual, that is individuality is primitive and unshareable, because we do ordinarily speak of different substances having the “same” accident.

<sup>10</sup> This principle has had no shortage of criticism raised about its general applicability, at least regarding the right-to-left entailment.

a material object.<sup>11</sup> So stated, this mediæval view has obvious affinities with the modern identification of individuals with space-time worms (the path traced out in the four-dimensional space-time continuum). Identifying place as the principle of individuation is appealing in its simplicity and in its conformity to commonsense intuition.

There are philosophical difficulties with each proposal. Each depends in direct way on a substantive metaphysical assumption that needs further support and argument. The first needs to explain how conjoined common accidents can produce individuality, the second how we identify places. Despite these difficulties, however, the view that individuation occurs in some fashion through accidents dominated the early Middle Ages.

Yet a devastating objection against accidental individuation was put forward by Peter Abelard in the twelfth century, one that was taken to be fatal to the enterprise of individuating substances by their accidents. Abelard pointed out that any such view would make accidents “prior” to substance, that is, would make Socrates depend in his being on accidental features rather than on substantial ones.<sup>12</sup> This is not a mere terminological point. Accidents are features *of* something. They characterize their subjects in one way or another. And, precisely because they are accidental, their subjects are what they are independent of whatever accidents they possess. Yet if Socrates’s individuality derives from accidents, then what it is to be Socrates depends on the accident or accidents that are the principle of individuation—but that is just to say that they aren’t accidental to Socrates but essential to him.

Abelard’s objection can be reformulated in a powerful way without the mediæval apparatus: the individuality of an individual cannot be due to

<sup>11</sup> There are additional problems, special to the aristotelian tradition, associated with identifying spatio-temporal location as the principle of individuation. For spatio-temporal location is an extrinsic accident, not constitutive of the being of a thing and defined relationally. But the relational definition of place, when combined with the principle that place individuates, has the consequence that whenever one thing moves the individuality of everything changes. Rejecting the relational theory of spatio-temporal location would be a significant modification of aristotelianism. Yet even accepting an absolute view of space and time wouldn’t avoid the problem, for then whenever a thing moves it becomes a new and different individual, since its absolute position has changed. Perhaps an answer can be generated on the grounds that these objections depend not on spatio-temporal location as a principle of individuation at a time but over time.

<sup>12</sup> Peter Abelard, *Logica ingredientibus* 1.01 §26 (text from my edition in preparation): Illud quoque stare non potest quod indiuidua per ipsorum accidentia effici uolunt. Si enim ex accidentibus indiuidua esse suum contrahunt, profecto priora sunt eis naturaliter accidentia...

some feature that depends upon or is derived from the individual itself. Features of an individual cannot ground the individual's individuality without being a constitutive part of the individual. To see the force of Abelard's objection, apply it to the modern identification of individuals with space-time worms. Abelard would hold that the path traced in the four-dimensional space-time continuum either itself constitutes an individual (in which case any path arbitrarily selected would do), or, if not, illegitimately relies on the individuality of the individual who is tracing out the given path: we look to see what places *Socrates* occupies at distinct times, thereby appealing to his individuality. And this we cannot do.

No medieval philosophers argued seriously for accidental individuation after Abelard proposed his objection.<sup>13</sup> Instead, they drew the moral that the principle of individuation had to be a characteristic that was an essential constituent of the individual, belonging to some part of the individual's substance: its form, its matter, or the combination of the two.

### 3. Substantial Individuation

#### 3.1 Individuation by Form

In addition to the reasons given in §2 for thinking that the principle of individuation has to be located in the substantial features of the individual, there are three compelling reasons for thinking that it must be a formal principle. First, forms are inarguably part of the essence of a substance. Since an individual's individuality must be essential to that individual—at least part of what it is to be *Socrates* is to be an individual—form is a good candidate for the role.

Second, individuality itself might be construed as a form, much as rationality, and like rationality it might be a constitutive form entering into the essence of something. Whereas rationality enters into the genus *animal* to produce the species *rational animal*, an individual form enters into the species to produce a given individual.<sup>14</sup> Thus in *Socrates* we could find

<sup>13</sup> Abelard's objection says nothing against the epistemic claim that we discern or distinguish individual through their accidental features, of course, which most philosophers (including Abelard) continued to endorse.

<sup>14</sup> The form would have to be individual: *Socrates's* individuality would not be the same as *Plato's* individuality. If it were common, as 'individuality' suggests, then we would still have to explain how the presence of the common form could produce an individual—which was the problem in the first place. However, the individuality of the form, despite the term 'Socrateity', need not explain the personhood of the individual as well (see [1b] above). I'm going to ignore this complication in my discussion.



a series of nested substantial forms: substantiality, corporeality, animality, humanity, Socrateity.

Third, identifying individual forms as the principle of individuation provides uniformity in the metaphysical account of the categories. The genus would be related to the species in much the same way the species would be related to the individual. The essence of each lower element along a categorial line in the Tree of Porphyry would be constituted by the feature that formally differentiates it from the higher element: the genus is contracted to the species through the specific differentia, the species to the individual by the individuating differentia.

There are other advantages to formal individuating principles. For one, it facilitates the identification of an individual (personal) soul as the form of the body. Form also unifies matter, as shape makes a lump of bronze into a statue. Finally, form is usually taken as the principle of intelligibility—understanding is the grasp of forms—giving a handy explanation of how we find ourselves in a world of individuals.

Boethius seems again to have been the first to propose this view, this time in his logical rather than theological works:<sup>15</sup>

If it were permitted to contrive a name, I would call that certain singular quality, unshareable by any other subsistence, by its own contrived name so that the form of my proposal might be clarified. For let the unshareable distinctive property belonging to Plato be called Platonity—for we could name that quality *Platonity* by a contrived name, in the way in which we call the quality *man* ‘humanity’. Hence this Platonity belongs to only one man, and not to any given man but to Plato alone. Humanity, on the other hand, belongs to Plato and to anyone else who falls under the term. Accordingly, since Platonity is suitable to the one Plato, it happens that the mind of someone hearing the term ‘Plato’ turns to one person and one particular substance.

Boethius doesn’t explicitly say that the singular quality Platonity functions

<sup>15</sup> Boethius, *Greater Commentary on Aristotle’s “De interpretatione”* 2.07 137.3–16: Nam si nomen fingere liceret, illam singularem quandam qualitatem et incommunicabilem alicui alii subsistentiae suo ficto nomine nuncuparem, ut clarior fieret forma propositi. Age enim incommunicabilis Platonis illa proprietates Platonitas appelletur. Eo enim modo qualitatem hanc Platonitatem ficto uocabulo nuncupare possumus, quomodo hominis qualitatem dicimus humanitatem. Haec ergo Platonitas solius unius est hominis et hoc non cuiuslibet sed solius Platonis, humanitas uero et Platonis et caeterorum quicumque hoc uocabulo continentur. Unde fit ut, quoniam Platonitas in unum conuenit Platonem, audientis animus Platonis uocabulum ad unam personam unamque particularem substantiam referat.

as a differentia of the species, but the text is naturally read this way.<sup>16</sup> Nor was he alone. In the later Middle Ages, important representatives of all three religious traditions proposed form as the principle of individuation: Averroës, Godfrey of Fontaines (and Duns Scotus according to some of his disciples<sup>17</sup>), and Yedayah Bedersi, who wrote a special treatise on the subject. Philosophers who identified human personal souls as the principle of individuation also fell into this camp.

Despite such wide-ranging ecumenical support, there was a serious obstacle to form as the principle of individuation. Socrates and Plato are different individuals, to be sure, but they are not essentially different. They are essentially the same, that is, each is essentially human. Were the individual form to enter into the species as the differentia enters into the genus, Socrates and Plato would be different not merely in number but also in kind, so that each would be a species—which is false.<sup>18</sup> Yet that is what it would be for individuation to occur by means of a form that partially constitutes an individual's essence.

<sup>16</sup> In the twelfth century Pseudo-Joscelin reads Boethius this way (GS §85), as does Petrus Helias in his discussion of indexicals (taken from MS Paris, Bibliothèque Nationale lat. 15121-B fol. 129va2–5 = MS Paris, Bibliothèque de l'Arsenal lat. 711 fol. 143va7–11): "A pronoun does not determine any quality of the thing that it determines or signifies, and this is the difference between a noun and a pronoun, since the names 'Plato' and 'I' [spoken by Plato] signify the same thing. 'Plato' signifies the very thing with a quality, that is, in respect of that quality from which the name 'Plato' has been given. And this singular quality, as Boethius says, makes Plato individual and can be given the contrived name Platonity. But the pronoun 'I' has not been given on the basis of any quality [for then it could not pick out different speakers]." Helias is claiming that the difference between proper names and indexicals is at least partially given by the difference between personhood (which includes individuality) and mere individuality. Whatever we may think of this objection, he clearly interprets Boethius as proposing an individualizing differentia.

<sup>17</sup> Scotus is sometimes read as proposing a special form, the *haecceity* (literally 'thisness'), as the principle of individuation. Yet he explicitly denies that the individual differentia is a form in his *Ordinatio* 2 d. 3 p. 1 qq. 5–6 n. 180, where he asserts that the individual reality "is never taken from an added form, but precisely from the ultimate reality [or actuality] of the form," concluding in n. 188 that it is "neither matter nor form nor composite." A better reading of Scotus is available in §4.2 below.

<sup>18</sup> There are associated problems. A specific differentia divides the genus into two coordinate species, whereas there may be indefinitely many individuals under a given species, for example. Nor can it easily be maintained that the division of the species into its individuals was an instance of the determinable-determinate relation, like the division of color into its shades, since that does not proceed by way of form but instead via modes—a suggestion Scotus will exploit.

### 3.2 Individuation by Matter

The other candidate for substantial individuation is matter. Broadly speaking, this is the standard theory of individuation throughout the later Middle Ages, despite attacks from philosophers as able as Duns Scotus, Durand of St. Pourçain, Suárez, and others. Though championed by many, it is most famously associated with Thomas Aquinas, and it is his version of the theory I shall discuss.

Part of the staying power of the view that matter is the principle of individuation, in addition to its apparent Aristotelian heritage (*Metaphysics* 7.3), is that it powerfully appeals to common sense. Two pennies may be alike in all their geometric properties (their formal features); none of these are what make them two, but rather that the very same geometric properties are present in different matter. The individuality of the composite seems to derive directly from the individuality of the matter it includes. If we reshape the penny, it may completely lose its previous form, but remain an individual under its new form. The explanation for how this can happen can't appeal to any formal features, since by hypothesis these have all changed. The only factor left seems to be matter.

Things are not always quite so simple. Aquinas distinguishes two kinds of forms: those including matter in their definition, and those not. The form 'humanity' includes matter in its definition, since it is rational animality; since animals are physical objects, matter must be involved in some fashion. On the other hand, the forms of immaterial objects clearly do not involve matter; more exactly, certain forms need not be enmattered to exist. Now forms occurring in material objects can be viewed either as the form of the whole object (*forma totius*), in which case the form is the complement to the matter of the object, or as the form of part of the object (*forma partis*), specifying only the formal principle of the object, in which case the form is the complement of the material principle.

What kind of matter is "included"? Here Aquinas treads carefully: if we speak of an animal, not just any matter will do; animals are not composed of, say, granite blocks. Rather, they are composed of flesh and blood and bones. The particular arrangement of the flesh and blood and bones defines the kind of animal: four-legged, winged, possessing a tail, two stomachs, and the like. This 'arrangement' is specified in the form: it determines the kind of animal in question. The pattern of material composition is thus part of the form of the whole. The arrangement of flesh and blood and bones correlated with a particular kind is what Aquinas calls "undesignated matter." It is in some sense general: flesh and blood and bones that have been organized into an arrangement of two legs, two arms, erect posture, opposable

thumbs, and so forth, is common to Socrates and Plato. This specification works at the level of the species. Such characteristics are common to all men naturally, though some may lack parts through accident, disease, deformity, or the like. In order to get the individual of a species in which the form includes matter, there must be in addition what Aquinas calls “designated matter” (*materia signata* or *materia designata*). For distinct individuals such as Socrates and Plato are distinguished by Socrates having *this* flesh and blood and bones, whereas Plato has *that* flesh and blood and bones. Hence designated matter, which is the very matter combined with the form to constitute the composite, is the principle of individuation in the case of material substances.

This straightforward account founders on a key question. What makes matter “designated”? Whether we speak of pennies or people, it looks as though we have to identify some particular stuff independent of the form. (Otherwise the principle of individuation would involve form.) Worse yet, in the case of at least some objects, their matter is in fact a nonindividual stuff, *e. g.* copper in the pennies. Flesh and blood themselves aren’t stuff-like, but they are physically discrete units, organized into the shape of limbs and organs: human bodies are structured and articulated—in a word, they possess form.

Aquinas offers two separate responses to this objection. First, he proposes that the principle of individuation is quantified matter. We can think of designation as taking place through dimensive quantity: the pennies are two through the two physically distinct bits of copper that are (separately) informed. Likewise, human limbs are those potential body parts that are here rather than there. The articulation of the limb—what sets it apart from being a stuff – is for Aquinas either merely apparent or due to the presence of partial forms that are superseded by the form of the composite.

This answer was sufficiently promising for many later philosophers to keep tinkering with its details. To keep it from collapsing into an account of accidental individuation, where the accident singled out for individuation is quantity (and perhaps location), several philosophers argued that the quantitative dimensions applied to matter were not accidents but consequent upon the actuality of the matter in question: matter, even as stuff, exists in physically discrete lumps and heaps. The later inherence of substantial form simply adds further actuality to the matter. The attempt to work out the details of this reply, though, faced a serious objection. Even if we could make sense of noncategorical quantities of matter, wouldn’t that render the inherent substantial form accidental to the composite it supposedly brings into being? Much ingenuity was spent in trying to avoid this

result.

Aquinas's second response was to allow individuation to take place through quantified matter, but not through any determinate dimensions. After all, an individual does not change or lose its individuality with every change in matter, however slight; Socrates's trimming his toenails does not bring successive new individuals into existence. But the problem with this line of thought is immediately apparent. Everything that exists has some dimensive quantity. We cannot, it seems, explain the individuality of the individual by pointing out this rather obvious fact (which in any event seems a consequence rather than a source of individuality). Aquinas himself may have come to see the force of this objection; in his later works he drops all talk of dimensive quantities, be they definite or indefinite.

Nevertheless, Aquinas's followers and others continued to try to work out theories of material individuation. The intuitive appeal of this view remained despite the theoretical objections it faced. Besides, what other candidates were there once accidents and form were discounted by the objections discussed above? One striking possibility was left: to combine form and matter as a joint double principle of individuation. Aquinas's contemporary Bonaventure tried to work out the details of this novel approach, similar in some respects to that advanced much later by Suárez.

### 3.3 Individuation by Form and Matter

Bonaventure<sup>19</sup> identifies the metaphysical principles of matter and form intrinsic to a thing as jointly necessary to account for the individuality of the individual, and, when such principles produce a substantial unity, to entail the distinctness of the individual from all else. He presents his view as follows:<sup>20</sup>

Individuation arises from the actual conjunction of matter with form, and from this conjunction each appropriates the other to

<sup>19</sup> See my discussion of Bonaventure's theory of individuation in Gracia's anthology (cited in n.1), from which this presentation is derived.

<sup>20</sup> Bonaventure, II *Sent.* d.3 pars 1 art.2 q.3 resp. (tom. II 109b–110a): Individuatio consurgit ex actuali coniunctione materiae cum forma, ex qua coniunctione unum sibi appropriat alterum; sicut patet, cum impressio vel expressio fit multorum sigillorum in cera, quae prius est una, nec sigilla plurificari possunt sine cera, nec cera numeratur nisi quia fiunt in ea diversa sigilla. Si tamen quaeras, a quo veniat principaliter; dicendum, quod individuum est hoc aliquid. Quod sit hoc, principaliter habet a materia, ratione cuius forma habet positionem in loco et tempore. Quod sit aliquid, habet a forma. Individuum enim habet esse, habet etiam exsistere. Exsistere dat materia formae, sed essendi actum dat forma materiae.— Individuatio igitur in creaturis consurgit ex duplici principio.

itself—just as it is clear that when an impression or stamping of many seals on wax which previously was one takes place, neither the seals can be made many without the wax, nor is the wax enumerated except because diverse seals come about in it. Still, if you were to ask from which [individuation] comes principally, it should be stated that an individual is a this-something. That it is *this*, it has more principally from the matter, by reason of which the form has a location in space and time. That it is *something*, it has from the form. An individual has being (*esse*) and also has existence (*existere*). Matter gives existence to the form, but form gives actual being (*actum essendi*) to the matter. Therefore, in the case of creatures, individuation arises from a double principle.

In short, Bonaventure rejects the suggestion that either principle might be prior to the other; each provides a necessary component of individuality: matter locates the form in space and time, form actualizes the potencies latent in matter. Yet how can matter ‘locate’ the form if the form is not already individualized, and how can form ‘actualize’ the matter if the matter is not already individualized? By identifying a double principle of individuation, Bonaventure seems to inherit all the problems associated with each traditional solution.

Bonaventure’s wax-example suggests that the problem of individuation should be treated as having three component parts: (a) how can form actualize the potencies of matter without itself being individualized? (b) how can matter give existence to the form without itself being individualized? (c) how does the conjunction of non-individualized matter and non-individualized form produce a determinate individual? Now (a)–(b) depend on the relation of form and matter understood as act and potency, whereas (c), the ultimate ground of (a)–(b), depends on the difference between what we might call local and global explanations of individuation.<sup>21</sup>

With regard to (a): Form actualizes potencies that are latent in matter, whether active or passive. That is, the matter which is to be the matter for the form must already possess a potency for the form. This requirement is non-trivial; not all matter is immediately equipped to be the matter for a given form—the matter of Socrates is not immediately fit to be informed by the form of a wine-glass, for example, although his matter could be broken

<sup>21</sup> By a ‘local’ explanation of individuation I mean an explanation of the individuality of an individual in terms of proximate principles or causes of that individuality. These principles may also require individuation. A ‘global’ explanation of individuality identifies principles (proximate or remote) that do not require individuation. Global explanations entail local explanations, but the converse does not hold.

down far enough into its constituents so that this might be possible. Thus the matter which is to be the matter of the form is already structured as required by the form, and hence must in some sense already contain the form, at least in potency. The organic matter destined to be the matter of Socrates possesses the active potency to develop into a body informed by rationality, and in standard conditions it will do so unless prevented. This is a potency for specific form. Yet just as the generic active potency to sing that is present in a singer may be actualized by singing a baritone aria, so too this generic active potency present in some organic matter is actualized by vivifying the organic matter with rational life, and this is precisely what it is for Socrates to exist. Socrates is no more than the actualization of the generic or specific active potency of given organic matter. Since actualization does not constitute any formal difference, there need be no individual form. Therefore, form may actualize the determinate specific potencies which are latent in matter without itself being individualized.

With regard to (b): The matter entering into the composite, before it is informed, does not possess the determinate actuality given it by the form that is to inform it; it may, however, possess actuality from other forms, imperfect or incomplete *esse* sufficient for spatio-temporal location. If we imagine organic matter organized into the structure of a human body, although not yet informed, then there is as yet no ‘individuality’ to the matter: it is not a *per se* being, but a mere accidental unity, a collection of organic parts. That such an uninformed body is not a unity is shown by its speedy dissolution. The parts may have local unity, as shown by the fact that they are distinguished into blood, bones, flesh, organs, and the like, which allow the ‘body’ to have determinate spatio-temporal location, but in the absence of form these are temporary and partial unities.<sup>22</sup> Hence the unity and individuality of matter is relative to form, and that with respect to a given form matter functions as a ‘stuff’ rather than as an individual, even if the same matter possesses other forms with respect to which it is a concrete unity.<sup>23</sup> Matter is a ‘stuff’ by its nature since it is in

<sup>22</sup> Put another way, there is something arbitrary about singling out any matter as the matter of the form in the absence of the form that gives the matter complete *esse*. The same point emerges with more clarity if we consider a lump of wax shaped into not one but two distinct seals. Prior to being informed, the wax is no more one than two, and there is no way to distinguish its parts, since the potency to be shaped into a seal is homogeneously present throughout. If the lump of wax is first divided so that there are two lumps distinct by spatio-temporal location, and then each lump receives the form of a different seal, the two lumps of wax are still one by the unity of homogeneity or continuity.

<sup>23</sup> In II *Sent.* d. 15 art. 1 q. 2 *ad* 4 Bonaventure writes that “the later and more posterior

potency, awaiting the determinate actualization given by the form. Hence when form actualizes the potencies latent with the matter, that matter is a ‘stuff’ with respect to the form rather than an individual. Thus form does not presuppose the individuality of matter (quite the opposite), and the non-individuality of matter with respect to the form does not preclude the matter giving spatio-temporal location to the form.

With regard to (c): Generic form and stuff-like matter are therefore combined to account for the individuality of a composite of form and matter. Form is not individual, but possessed generically (and perhaps virtually) in the potencies of matter, and the actualization of such potencies gives *esse* to the matter. Equally, the matter is not individual as regards the form in question, but an indeterminate stuff that may nevertheless have spatio-temporal location (and other characteristics as well) such that its potencies can be actualized and the form given existence and location.

Bonaventure’s solution to the problem of individuation, then, is a local explanation of individuality. It is possible, in the case of any given individual, to locally explain its individuality. The explanation, citing the intrinsic principles of matter and form, will have recourse to logically and perhaps temporally prior entities which themselves may be individual composites of matter and form. The individuality of Socrates is due to Socrates being a composite of *this* form in *this* matter. That Socrates has *this* form is a consequence of the determinate generic potencies possessed by a lump of extrinsically individuated matter that localizes the form; that Socrates has *this* matter is a consequence of the *esse* given to a lump of matter by the actualization of its potencies. The possession of a determinate generic potency, such as the potency to be human rather than a lion, and the localization of one form rather than the other in space and time, depends on the characteristics already possessed by the ‘lump’ of matter: to have the potency for one form rather than another the ‘lump’ must be an organized and structured collection of legs, arms, hands, and the like, or at least the nutritive and developmental collection of abilities possessed by the zygote or embryo; the possession of the given potencies will determine which forms can be put into act. Hence the individuality of Socrates depends on the characteristics of an individual complex composite of form and matter, one which is in potency to further actualization. The individuality of any composite of form and matter is explained through the characteristics of prior individual composites of form and matter. The individuality of these

the form, the more noble it is, for those [composites] anterior to it are material with respect to the posterior” (*antiora sunt materialia respectu posteriorum*).



prior composites is itself not explained but assumed for the purposes of the explanation.

The drawback to this account should be obvious: there is no global explanation of individuality. The classical problem of individuation boils down to the problem of existence—at least, insofar as the problem of individuation can be given sense at all, and is not simply confused. For Bonaventure, individuality is a metaphysically relative feature of the world: what it is to be individual depends on the relative position a thing occupies in the series of potencies and their correlative actualizations, how a given parcel of stuff has a sufficiently high degree of local organization relative to other stuffs that it may be called ‘individual’. And that seemed too high a price to pay. But if the principle of individuation is neither matter nor form nor both together, what could it be?

#### 4. Noncategorical Individuation

##### 4.1 Existence

Some philosophers thought that the way out of the dilemma sketched in §3 was to identify some noncategorical feature of the individual as the principle of individuation. One proposal, associated with Avicenna, Aquinas, and others, was that something becomes individual through its existence (*esse*). The immediate appeal of this view is obvious. Socrates’s existence is his alone, clearly unshared and unshareable by anyone else.

Yet the problems faced by such a proposal are also obvious. We can ask whether Socrates exists without committing ourselves to the answer. Equally, we can even individuate possible non-actual beings; Socrates’s twin brother is not his sister. If existence includes possible existence as well as actual existence, though, what feature (common to actual and merely possible being) is it in virtue of which something is supposed to be individual?

The most promising attempt to resolve these difficulties was put forward by Duns Scotus, who combined a theory of actuality with the conception of a noncategorical individual differentia to produce a sophisticated and subtle account of the individuality of an individual. Accordingly, I shall spend some time setting out his account.

##### 4.2 The Individual Differentia

Duns Scotus<sup>24</sup> holds that in each individual there is a principle that

<sup>24</sup> See my discussion in “Duns Scotus on the Common Nature and the Individual Differentia” in *Philosophical Topics* 20 (1992), 51–76, from which this account is derived.

accounts for its being the very thing it is and a formally distinct principle that accounts for its being the kind of thing it is; the former is its individual differentia, the latter its common nature. These two principles are not on a par: the common nature is prior to the individual differentia, both independent of it and indifferent to it. When the individual differentia is combined with the common nature, the result is a concrete individual that really differs from all else and really agrees with others of the same kind. The individual differentia and the common nature thereby explain what Scotus takes to stand in need of explanation: the individuality of Socrates on the one hand, the commonalities between Socrates and Plato on the other hand.

The individual differentia produces this primary diversity, and hence involve no general or categorial features in itself. Two consequences follow from this. First, the individual differentia does not affect or alter the formal content of the nature at all. Second, there is no way to spell out the content of an individual differentia in general terms; each must be thoroughly individual in its own right, and therefore completely different from one another—they must be what Scotus calls “primarily diverse.” Furthermore, from the claim that the individual differentiae involve no general or categorial features, we may conclude that the individual differentia is not quidditative.<sup>25</sup> Hence individual differentiae do not fall under the categories; they are what he elsewhere calls ‘ultimate differences’: non-categorial items, inherently diverse, that are combined with categorial items to produce difference and diversity.<sup>26</sup> In addition to individual differentiae, the

<sup>25</sup> This thesis seems a trivial consequence of the claim that individual differentiae are not categorial. Of course, they are clearly ‘quidditative’ in the extended sense that they determine something to be an individual, but individuality, as Scotus has asserted above, is not a ‘whatness’ of anything: it is no form.

<sup>26</sup> See for instance Duns Scotus, *Ordinatio* I d. 3 p. 1 q. 3 n. 131: “A differentia is called ‘ultimate’ because it does not have a differentia, since it is not resolved into a quidditative concept and a qualitative [concept], determinable and determining; rather, there is merely a qualitative concept of it, just as the ultimate genus merely has a qualitative concept.” The argument that ultimate differentiae do not include being and fall outside of the categories runs as follows. Suppose an ultimate differentia falls under a given category. Then it has a definition, namely its genus plus a differentia; but this contradicts the definition of “ultimate differentia.” Yet we must either posit ultimate differentia, by an infinite-regress argument, or claim that there are items which are infinitely (metaphysically) complex. For then, given any differentia, we shall always be able to resolve it further into a genus and a differentia. Now circularities are clearly not acceptable here; a circularity would cause the whole system of categories to collapse. While there is nothing, perhaps, metaphysically wrong with supposing that the chain of differentiae is infinite—it even preserves the intuition that

transcendental differences that separate the ten categories from one another and specific differentiae that are irreducibly simple are also ultimate differentiae. Furthermore, the fact that individual differentiae are primarily diverse entails that there is no informative general statement about any individual differentia. Scotus seems to treat the individual differentia as a theoretical black box: a given individual differentia is that which produces a given individual from an uncontracted nature, and no more can be said about it.<sup>27</sup>

Scotus is careful to argue that this doesn't entail that the individuals constituted by distinct individual differentiae are thereby rendered primarily diverse (nn. 184–186). The individual differentiae are impossible, in the sense that only one can be present in combination with the nature at a time, but the presence of the nature that the individual differentiae contract gives the individuals an element of real sameness that allows them to be grouped into species and genera.

Scotus holds that the contracted nature is an *intrinsic mode* of the uncontracted nature. Socrates's individual differentia, the Socratizer, modalizes human nature in an individual way, namely as Socrates—or, more exactly, as Socrates's human nature. This individual modalization of the uncontracted nature is diverse from any other such modalization, *e. g.* that brought about by Plato's individual differentia. A contracted nature is just as much a mode of an uncontracted nature as a given intensity of whiteness is a mode of whiteness, or a given amount of heat is a mode of heat. It is no accident that Scotus regularly speaks of an “individual degree” (*gradus individualis*). Based on Scotus's account of modes and the modal distinction in *Ordinatio* I d. 8 p. 1 q. 3 nn. 138–140, we can reconstruct his account of individuality as follows. First, something cannot exist without its intrinsic mode. There is no real heat that is not some given degree of heat, no real whiteness that is not whiteness of some given intensity. So too the uncontracted nature cannot exist as such, but only exists through its individuals, which exhaust its being. Moreover, distinct intrinsic modes of a reality seem

the categories fundamentally classify all there is—in point of fact it lays Aristotelian science and knowledge to waste. Therefore, ultimate differentiae must be outside of the categorial scheme.

<sup>27</sup> This does, however, suggest a useful way to think about individual differentiae purely in terms of their function. The individual differentia of Socrates is that which produces the individual Socrates from the common nature man. Hence Socrates's individual differentia is the ‘Socratizer’, which is primarily diverse from Plato's individual differentia as the ‘Platonizer’, and so on. This may be why Scotus does not bother to distinguish the two readings of the claim that an individual differentia makes something to be what it is (see [1b] and [1c] above).

to be different modes separated by primarily diverse distinguishing factors. That is, whiteness<sub>10</sub> and whiteness<sub>17</sub> are not quidditative realities apart from the whiteness that each modalizes, and there is no identifiable factor other than the brute fact of their diversity by which to characterize them as distinct shades of whiteness. Just as Socrates and Plato the individuals they are due to their individual differentiae, which are primarily diverse, so too are two shades of whiteness or two degrees of heat. The uncontracted nature is related to the contracted nature as a reality to a modalized reality, where the individual differentia brings about the modalization.

According to Scotus's account, then, the individuality of an individual is ultimately a matter of how the common nature actualizes itself. This is an intrinsic mode of the nature, not a formal feature, so it neither affects the essential qualities of the individual nor renders it a distinct species. His solution therefore has affinities with several others we have canvassed, though avoiding their particular problems.

There are difficulties with Scotus's account, to be sure—perhaps the most noteworthy being that he does not in fact explain individuality at all: he describes what metaphysical element is necessary to resolve the problem, namely the individual differentia construed as an intrinsic mode, and gives us no further clue as to the nature of this non-categorical entity. Nor were all philosophers inclined to accept Scotus's extravagant ontology.

### 5. Primitive Individuality

Some philosophers rejected the demand for a principle of individuation as ill-founded: Peter Abelard, William of Ockham, and Jean Buridan each maintain that no principle or cause accounts for the individuality of the individual, or at least no principle or cause other than the very individual itself, and thus there is no metaphysical problem of individuation at all—individuality, unlike generality, is primitive and needs no explanation. Furthermore, they offer two kinds of support for this view. First, each argues that there are no non-individual entities, whether existing in their own right or as metaphysical constituents either of things or in things, and hence that no real principle or cause of individuality (other than the individual itself) is required. Second, each gives a semantic interpretation of what appear to be metaphysical difficulties about individuality by recasting the issues in the formal mode, as issues within semantics, such as how a referring expression can pick out a single individual. In what follows I'll describe Buridan's particular version of the nominalist rejection of the problem.

Buridan<sup>28</sup> holds that universals are nothing but words, specifically that they are general referring expressions belonging to Mental Language (the non-conventional natural language of thought): “the universal is a term or concept in the mind by which we conceive simultaneously and indifferently many things existing as singular outside the soul, and that concept is posterior to those singular things since it is objectively caused by them” (*Questions on Aristotle’s “Physics”* I q. 7). Universals are ‘really’ distinct from singulars in the way in which concepts are ‘really’ distinct from that of which they are the concepts. Since the universal term signifies many individuals, it may refer to those individuals; ‘individual’ and ‘universal’ are alternate ways of conceiving exactly the same things.<sup>29</sup> Since there are no non-individual real entities, questions such as “whether in substances the species is contracted to the individual by a substantial or accidental differentia,” which is the subject of his *Questions on Aristotle’s “Metaphysics”* VII q. 17, are simply confused if taken with regard to real entities; they require instead a semantic interpretation (fol. 52va):<sup>30</sup>

This ‘contraction’ is not with respect to the things signified [by the concept], putting all concepts aside, since then man or animal or body or substance *etc.* would exist as singular, just as Socrates and Plato do, for man is nothing other than Socrates or Plato. Therefore, since man or animal is a thing existing as singular, then if everything else were put aside it is clear that it would not require any contraction such that it would exist as singular. And so it must be said that contractions of this sort have to be understood with respect to concepts or terms which are significative of things. . . A

<sup>28</sup> See my discussion of Buridan’s theory of individuation in Gracia’s anthology (cited in n. 1), from which this presentation is derived.

<sup>29</sup> Put another way, the universal term or concept may be ‘identified’ with any one of its instances as that which the universal term or concept signifies; Buridan admits this usage, although properly speaking the relation is not identity but signification. What precisely a given universal term or concept supposits for is a function of the sentential context in which it appears. For example, the term ‘man’ in the sentence “Every man is running” distributively refers to each and every individual man.

<sup>30</sup> *Ista contractio non est quantum ad res significatas circumscriptis conceptibus, quia ita singulariter existit homo vel animal aut corpus aut substantia et caetera, sicut Socrates vel Plato, quia nihil aliud est homo quam Socrates vel Plato. Cum ergo homo vel animal sit res singulariter existens, etiam si omnia alia essent circumscripta manifestum est quod non indiget aliqua contractione ad hoc quod singulariter existat. Oportet ergo dicere quod huiusmodi contractiones habent intelligi quantum ad conceptus vel terminos significativos rerum. . . Ita etiam terminus qui est species diceretur contrahi ad terminum singularem per additionem differentiae restringentis terminum specificum ad supponendum pro illo solo pro quo supponit terminus singularis.*

term which is a species would be said to be contracted to a singular term by the addition of a differentia restricting the specific term to refer to only that to which the singular term refers.

The metaphysical question of contraction is reinterpreted as a semantic question about the restriction of reference. So too for all metaphysical questions.

The extent to which we find such techniques of semantic ascent plausible will have a lot to do with how attractive we find Buridan's claim that individuality is primitive. One question that has to be faced is how we acquire singular concepts—that is, how singular referring expressions (which Buridan calls “discrete terms”) become part of the vocabulary of Mental Language. Buridan holds that a singular concept is only acquired by direct contact with the individual, by means of direct acquaintance:<sup>31</sup>

Nothing is a singular concept unless it is a concept of a thing in the manner of existing in the presence and within the prospectus of the knower, insofar as that thing were to appear to the knower just as by an ostension picking it out, and in that manner of knowing some call ‘intuitive.’ It is true that by memory we conceive a thing as singular by the fact that we remember it to have been within the prospectus of the knower, and it was known in such a manner.

The only way to possess concepts that are discrete terms in the vocabulary of mental language is through direct contact with the individual the concept is to signify. Past experiences of direct contact will serve, since the singular concept may be retained in memory. Nevertheless, there must be a direct contact at some point for genuine singular cognition. The actual mechanism by which a new singular concept is acquired, that is, a new discrete term is introduced into mental language, is through imposition, a performative act Buridan describes as akin to baptism:<sup>32</sup>

If I were to announce this [man] within my prospectus to be picked out by the proper name ‘Socrates’ (rather than by such-and-so [characteristics]), then the name ‘Socrates’ would never fit anyone else

<sup>31</sup> *Questions on Aristotle's “Metaphysics”* q. 20 fol. 54va: Nullus est conceptus singularis nisi sit conceptus rei per modum existentis in praesentia et in prospectu cognoscentis tanquam illa res appareat cognoscenti sicut demonstratione signata et istum modum cognoscendi vocant aliqui ‘intuitium’. Verum est quod per memoriam bene concipimus rem singulariter per hoc quod memoramur hoc fuisse in prospectu cognoscentis, et per talem modum illud cognovisse.

<sup>32</sup> *Questions on Aristotle's “Physics”* I q. 7 fol. 9ra: Si hunc in prospecto meo demonstratum voco ‘Socratem’ nomine proprio non quia talis vel talis sed quia isti nunquam alii quantumcumque simili conveniret hoc nomen ‘Socrates’ nisi ex alia impositione esset impositum ad significandum illum alium et sic aequivoce.

no matter how similar, unless there were a new imposition and it were imposed to signify that other person, and hence equivocally. Singular concepts are related to their significates directly, not through a likeness, which would entail a degree of semantic generality.<sup>33</sup> The semantic property of individuality, that is, predicability of only one, is secured through “presence within the prospect of the knower” as an essential feature in the acquisition of the singular concept. It follows that there are only two classes of genuinely discrete terms, *i. e.* only two kinds of discrete term in mental language: the proper names of individuals with which one has come into direct contact, and demonstrative expressions.<sup>34</sup> The names of individuals with which one has never come into direct contact, Buridan holds, are not strictly discrete terms but rather disguised descriptions; we who have never come into direct contact with Aristotle “do not conceive him as different from other men except by a given circumlocution, such as ‘a great philosopher and teacher of Alexander and student of Plato, who wrote books of philosophy which we read, *etc.*’” (*Questions on Aristotle’s “Physics”* I q. 7), which would equally signify and refer to another individual if there were one having engaged in these activities.

The semantics of mental language, then, based on the nature of concepts, determine what terms can be properly regarded as discrete. Buridan did not permit natural necessity or even metaphysical necessity to infringe upon the domain of semantics: terms such as ‘sun’ describe a kind of entity, namely ‘the largest and brightest planet,’ that is naturally unique, but the term ‘sun’ is nevertheless semantically general; indeed, he is so bold to assert the same for the term ‘god,’ who is not only naturally but metaphysically unique (*Questions on Aristotle’s “Metaphysics”* VII q. 20). Truths about the world, even truths about the necessary uniqueness of certain entities, do not secure the semantic individuality of terms.

<sup>33</sup> Note, however, that this account of singular concepts sits uneasily with the basic claim that concepts signify their significates through natural objective similarity, that is, through intrinsic features, rather than through the genetic and causal story suggested by imposition! This tension is not specific to Buridan. William of Ockham, for example, adopts the general line that concepts ‘resemble’ their significates, but in his *Reportatio* II qq. 12–13 and *Quodlibeta* I q. 13 he asserts that intuitive cognition is of one individual rather than another, no matter how similar, due to the causal role played in the genesis of the concept by that very individual.

<sup>34</sup> Obviously such ‘proper names’ need not be the names of persons, or even animate beings; a ‘proper name’ (a discrete term) may be imposed upon an accident, as in *e. g.* naming this whiteness ‘Robert’. For Buridan, demonstratives are a subclass of the general linguistic class of ‘identificatory-relative terms’, which may have anaphoric as well as pronominal reference.

Buridan's theory of individuation may be summarized in three claims: individuality is a basic feature of the world; there are no non-individual beings; metaphysical problems are, by and large, disguised semantic problems. These deceptively simple claims have a clear affinity with contemporary philosophy. Yet the virtues of Buridan's approach are also its vices. The same reasons that drove philosophers to seek an account of the individuality of individuals in the first place have not been addressed, merely bypassed. Nor is it clear why questions about individuality are illegitimate. (It may be more theoretically fruitful to take individuality as primitive, but that is a very different line of reasoning, and a peculiarly modern one.) While Buridan offers a subtle and penetrating account of semantic problems surrounding singular and general reference, there is some ground for the charge that, like other nominalists, he has missed the point.

### Conclusion

The mediaeval debates over the principle of individuation never arrived at a consensus. Indeed, they never came close. However, through their exploration of different approaches and solutions they left behind a rich vein of metaphysical gold that has yet to be mined. Despite the austere and sometimes forbidding technical apparatus within which they worked, the concerns and questions they had are sophisticated, subtle, and more readily transplanted from their historical context into modern debates than most other historical work in philosophy. I hope to have indicated something of their depth and power in the few positions surveyed here.