

Where Should We Discuss the Soul?

On the Relation between the Doctrines of *De anima* and *De generatione et corruptione*

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Introduction and Historical Background

Aristotle's famous definition of the soul as the "first act of the natural organic body having life in potency" became the center of two closely related debates in the later Middle Ages, the first of which was psychological and the second metaphysical. The psychological debate concerned the number of souls in a living being. More specifically, it concerned the question whether the vegetative, sensitive, and intellectual souls are ontologically distinct or not. The metaphysical debate concerned the number of substantial forms in a living being: does the living body contain any other substantial forms besides its soul(s)?¹

In the first few decades of the thirteenth century these two debates for the most part played out separately.² During this early phase of the Latin reception of Aristotle's *De anima*, the interpretations of Aristotle's position were to a large extent guided by Avicenna's description of the soul in his own treatise on soul, also titled *De anima*.³ In this treatise, Avicenna had written that the soul may be defined in two ways. First, as considered in itself, and as such it should be defined as a spiritual

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¹For these debates, see Zavalloni (1951).

²See Callus (1939), which, in turn, is partly based on the groundbreaking study by Lottin (1932). See also Callus (1961).

³See Hasse (2000). See also Hasse (2008, esp. 239–244), where it is shown that in his early writings on the soul from the 1240s, Albert the Great is still strongly influenced by Avicenna. Dales (1995, 89–98) makes a similar point.

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immortal *substance*. Second, in so far as it is related to the body, and as such it should be defined as the body's *perfection*.⁴ This twofold perspective naturally led most commentators to at least a mild form of dualism, where the soul is described as a substance in its own right (a so-called *hoc aliquid*) that is also able to function as the body's perfection by giving life to it. The description of the soul as a perfection (*perfectio*), rather than a form, made it relatively easy for commentators to consider the soul as a substantial unity in its own right while still doing justice to Aristotle's insight that the soul animates the body, for there seems to be no reason why one substance (the soul) could not perfect another (the body). By approaching the soul from this Avicennian perspective, there is, however, little connection between the psychological and the metaphysical question distinguished above, and the early commentators saw no difficulty in giving different answers to both. Quite a few philosophers and theologians defended the view that human beings have but one soul.⁵ But there were few, if any, who unambiguously argued that each substance has but one substantial form. At best they simply presented arguments for both alternatives.⁶

By the 1260s Avicenna's "two perspectives view" had lost ground, and Averroes had replaced Avicenna as the most important commentator on the *De anima*. Also, the term 'perfection' in the definition of the soul as it relates to the body had been replaced by the more precise expressions 'substantial form' and 'first act', which established a stronger link between the psychological and metaphysical questions presented above. Philosophers, therefore, now had to deal more directly with the question what the ontological implications of 'being the first act of the body' are for both soul and body. The variety of answers to this question can roughly be divided into three basic strategies. One strategy, favored by many Franciscans, was to argue in favor of both a plurality of substantial forms and a plurality of souls. A living being, in this view, is constituted by a series of hierarchically ordered forms, including, in the case of humans, a vegetative soul, a sensitive soul, and an intellective soul. The second strategy, derived from Averroes's commentary, agrees with the first in all respects but one, namely the ontological status of the intellective soul. The few philosophers who adopted this strategy, the so-called Latin Averroists, argued that the correct interpretation of Aristotle's *De anima* required a much stronger distinction between the intellective soul and the other forms of the living being than provided by the first strategy. Rather than being a substantial form in the normal sense, they argued, the intellective soul is a separate and unique substance, which is shared by all human beings. The third strategy was formulated by Thomas Aquinas, who

⁴"Ideo anima quam invenimus in animali et in vegetabili est perfectio prima corporis naturalis instrumentalis habentis opera vitae" (Avicenna [SDA]: *DA* I.1, 29, II.61–63)."

⁵Among others, John Blund, William of Auvergne, John de la Rochelle, and Alexander of Hales defended the view that we have but one soul. For a (partial) list of early defenders of the substantial unity of the soul, see Callus (1939). Dales (1995) provides brief summaries of the viewpoints of these early scholastics.

⁶See the literature cited in footnotes 1 and 2.

argued that a living being not only has but one soul, but that this single soul is also its only substantial form.

For Aquinas, the fundamental unity of the (human) soul is much more than a mere psychological conclusion. Rather, the unity of the soul is used as the paradigmatic case to settle the metaphysical question concerning the number of substantial forms in general. Herein also lies his radical innovation; he refuses to view the soul as both substantial form and as substance in its own right. The soul is not a substance in its own right, even though it is able to survive the death of the body.⁷ From this point onward the psychological and metaphysical debates became inextricably connected. Once the soul can only be viewed as substantial form, it becomes impossible to settle the psychological question in abstraction from the metaphysical one. As a result, Aquinas's view that human beings have but one soul provoked much stronger reactions than similar views on the unicity of the soul that had been defended in the early decades of the thirteenth century. For instance, the unicity of the soul was included in a series of prohibited articles issued after a meeting of the masters of the University of Oxford, which was presided over by Robert Kilwardby (March 1277).⁸ And although there was never a formal condemnation at the University of Paris, in at least one meeting the professors of the faculty of theology had collectively spoken out against Aquinas's position on the soul.⁹

The strong initial reactions against Aquinas's view of the unicity of substantial form notwithstanding, by the middle of the 1280s much of the dust had settled, and philosophers were once again free to defend either answer to both the metaphysical and the psychological question. But the terms of the debate had been permanently changed. It had now effectively become impossible to consider the question of the unity of the soul without touching also upon the question of the unity or plurality of substantial form. As a result, questions concerning the unicity or plurality of substantial form and the difficulties connected to these positions increasingly became a topic of discussion in commentaries on *De anima*. This shift is visible in fourteenth-century commentaries on *De anima*, but especially so in Buridan's commentary, to which I will turn next.¹⁰

⁷For a precise analysis of the difference between Aquinas's approach to the question of the ontological status of the soul and those of his predecessors, see Bazán (1997).

⁸The list can be found in *Chartularium Universitatis Parisiensis* I, n. 474, 558–560. It has recently been argued, however, that Kilwardby did not have Aquinas specifically in mind when he issued the list, but rather everyone who denied a plurality within the soul. See Silva (2012).

⁹See Hödl (1966, esp. 537), who convincingly shows that the various references to a Parisian condemnation of Aquinas's position in texts from the 1270s to 1280s refer to this magisterial meeting.

¹⁰I discuss this shift in the commentaries by Radulphus Brito, John of Jandun, Nicole Oresme, and the anonymous commentator whose work is published under the title of Buridan's *Prima lectura de anima* in de Boer (2013, chapters "Buridan on the Metaphysics of the Soul" and "Aquinas vs. Buridan on the Substance and Powers of the Soul").

The Unicity of the Soul

As is well known, Buridan is a unicist when it comes to the question of the number of souls in a living being.¹¹ In the final version of his commentary on Aristotle's *De anima*, Buridan dedicates two questions to the unicity of the soul, one in book II and one in book III.¹² In question II.4, titled 'Are the vegetative and sensitive souls the same in an animal?', he concludes that there is no ontological distinction between the vegetative and sensitive souls in living beings, although he admits that this is a difficult question to decide. And in question III.17, titled 'Whether there is an intellectual soul in a human being different from the sensitive soul', he goes on to argue that even human beings, the most complex case, have but one soul. Admittedly, this latter claim that even human beings have but one soul does not allow for a strict demonstration, but it can, Buridan writes, be supported by probable arguments. Interestingly, most of these arguments turn out to be related to theology, and Buridan writes that these produce in him "great faith" as regards the right answer to the question of the number of souls in a human being.

There seems to be no reason to doubt Buridan's sincerity when he writes that these theological arguments produce in him "great faith", especially because he shows elsewhere that he is willing to accept all consequences that follow from the unicity of the human soul:

For this soul has to be intellectual and indivisible, not extended by some extension of matter or of its subject. And then this unextended soul is the sensitive and vegetative soul as well. How, therefore, since sensation is taken to be extended with the extension of the organ and matter, can it be inherent in an indivisible subject, and, as it were, brought forth from its potency? And that seems to be miraculous, since a form does not have extension, except by the extension of its subject. And how can something divisible and extended inhere in something indivisible and unextended? (*QDA* II, q. 9, n. 25)

In this rightly famous passage, Buridan goes so far as stating that the unicity of our soul means that the way in which this soul inheres in our body cannot be fully explained within the context of natural philosophy. The human intellectual soul is

¹¹ In this respect Buridan differs markedly from Nicole Oresme, whose commentary on *De anima* shares many features with Buridan's. Throughout his commentary, Oresme tries to evade the question concerning the number of souls in a human being. A telling example is his interpretation of Aristotle's definition of the soul in question II.1, where he offers two possible interpretations for the elements of the definition, one compatible with the unicity, and one compatible with the plurality of the soul. Compare also questions II.3 and II.4.

¹² Buridan lectured on *De anima* several times. Out of the four commentaries that have been attributed to him, two are without a doubt authentic. The first is the commentary that has been edited and translated in this series, and which seems to contain his final set of lectures, given that these are referred to in the manuscripts as the *tertia sive ultima lectura*. The second is an earlier commentary referred to in some of the manuscripts as the *non de ultima lectura*. The status of the third commentary, which survives only as a sixteenth-century edition made by George Lokert is unclear. No manuscript witness corresponding to the text has ever been found. But the views expressed in it do seem to correspond to those of Buridan. As for the fourth commentary that is sometimes attributed to Buridan (Patar 1991), there is no reason to ascribe the text to Buridan. For a full discussion, see Bakker and de Boer (2011).

unextended, and this implies, at least according to Buridan, that the vegetative and sensitive powers of human beings must also be somehow unextended.¹³ In spite of any superficial similarities, the way in which vision, for example, takes place in human beings and the way it takes place in all other animals are radically different.¹⁴ And only in the non-human cases can the process be truly explained within the bounds of natural philosophy.

Setting aside for the moment these difficulties connected with the immateriality of the human soul, let us turn to Buridan's position in the second debate, that of the number of substantial forms in a living being. Does the living body have any other substantial forms besides the single soul? Given his emphasis on the immateriality on the intellective soul, and the miraculous consequences this appears to have for human sensation, one would at the very least expect to find Buridan arguing for one additional substantial form, namely a substantial form that is constitutive of the material body (a so-called *forma corporeitatis*). But, surprisingly, Buridan almost immediately seems to dismiss the plurality of substantial form position when he discusses Aristotle's definition of the soul as the *first act* of the physical organic body. After a brief introduction of the plurality position, he immediately raises the objection that it seems to be incompatible with Aristotle's definition of the soul. If there were more than one substantial form, the soul could not be the *first* substantial act, because if the body needs a substantial form of its own, apart from the soul, it must have acquired that form prior to acquiring a soul. Having raised this objection, Buridan continues to discuss Aristotle's definition from the perspective of the unicity of substantial form for the remainder of the question. Given that Buridan only commits to the unicity position implicitly in this question, we should be careful in labeling him a unicist based solely on his commentary on *De anima*. But the following passage from his commentary on *De generatione et corruptione* can be used to confirm that he sides with the unicity of substantial forms position. In this passage, Buridan replies to one of the initial objections against his view that the substantial forms of the four Aristotelian elements (air, fire, earth, water) do not remain present in a mixture, by admitting that mixtures, like elements, have only substantial form:

And when it is said that a mixture would be as simple as an element, I concede this when we are speaking about substantial simplicity, because each would be composed from one matter and one form. (*QDGC* I, q. 22, ll. 2–5)¹⁵

¹³ The underlying principle is that whatever inheres in an indivisible subject is itself indivisible, and hence immaterial.

¹⁴ For a detailed analysis of this topic see J. Zupko (2008).

¹⁵ “Et quando dicitur quod mixtum esset aeque simplex sicut elementum, concedo loquendo de simplicitate substantiali, quia utrumque esset compositum ex una materia et una forma.” (Buridan [2010, 169, ll. 2–5]). This notwithstanding, Buridan continues, we can still call the mixture more complex (*compositius*) than the elements, because the mixture retains the primary qualities that originally belonged to the elements even though it does not retain their substantial forms: “Tamen mixtum est compositius virtualiter, quia retinet virtutes elementorum a quibus corruptis ipsum est genitum” (ll. 5–7).

By answering both the psychological and the metaphysical question from the unicity perspective, Buridan comes surprisingly close to Aquinas's position. Both argue that every living thing has but one soul, and that human beings are no different from other animals in this respect. But unlike Aquinas, Buridan thinks that animal souls and human souls relate to their bodies in very different ways. For Aquinas, there is no fundamental difference between human sensation and animal sensation. For Buridan, by contrast, there is a radical distinction between the two.¹⁶ This makes Buridan's choice for the unicity of substantial form puzzling, to say the least, since it means that he accepts each of the following three propositions. (1) Each living being has but one soul; (2) This soul is its only substantial form; (3) The human soul is an indivisible and immaterial form, which exists in our body in a miraculous manner. But if all three propositions are true, then what accounts for the materiality of our body? If the process of human sensation is already miraculous on account of the immateriality of our soul, as Buridan admitted in the passage quoted above, then the very materiality of the body seems to be even more so. I will return to this puzzle at the end of this paper. First, it is necessary to look more closely at the historical background of Buridan's discussion of the unicity of substantial forms position.

The Unicity of Substantial Form

Recall that the context for Buridan's discussion of the number of substantial forms in his commentary on *De anima* is Aristotle's definition of the soul as 'first act of the natural organic body having life in potency'. From the unicity perspective, being the *first* act means that the soul, as the only substantial form of a living being, is ontologically prior to all of the accidents (or: properties) that a living being has. This is because accidental forms inhere in substances, and a substance is only a substance on account of its having a substantial form. Straightforward as this may sound, this account seems to imply some very counterintuitive consequences, as was immediately pointed out by the earliest critics of the unicity view.¹⁷ Some of the most important of these consequences are clearly laid out in Godfrey of Fontaine's *Quodlibet* II.7 (Easter 1286) titled 'whether man receives his existence from one substantial form or multiple':

And it was argued that man does not receive his existence from only one substantial form, because positing that man has but one substantial form conflicts with sense experience, with reason, and also with faith. It conflicts with sense experience because to the senses the same accidents appear to be present in the dead man as were in the living man. This cannot be,

¹⁶ More precisely, for Aquinas there is no difference between the process in which sensation comes about in human beings and the way it comes about in other animals. There is, of course, an important difference between the roles sensation plays in the life of a human being and in that of an animal, given that human sensation is permeated with reason.

¹⁷ William de la Mare's highly influential *Correctorium Fratris Thomae*, for instance, discusses the counterintuitive consequences of the unicity position in several articles, the most important of which are articles 31, 32, 48, 52, 102, 107 and 114.

however, unless some substantial form that was present in the living man remains present in the dead man. This is because accidents do not follow from matter unless mediated by a substantial form... It also conflicts with reason, because reason judges that to each agent and action there corresponds an endpoint and an effect... But two agents concur in the production of man, namely a natural and a supernatural agent... It also seems to conflict with faith, because if there were but one form in man, namely the soul, then, when Christ was dead, his corpse did not remain numerically identical to his living body.¹⁸

Early adopters of Aquinas's position were mostly undeterred by these consequences. For instance, in his commentary on *De anima*, Radulphus Brito simply countered the point that it conflicts with sense experience with the remark that "our senses are not able to perceive the identity of accidents" (II.3).¹⁹ And it was not too difficult to at least sidestep the point that it conflicts with faith within the framework of the *De anima*. But the point that it also conflicts with reason, of which Godfrey gave but one example, was not so easily dismissed. A large part of the question on 'whether the soul is the substantial form of the body' in Brito's commentary on *De anima* is devoted to a discussion of the causality involved in the reception and departure of the soul, in order to show that the unicity position is perfectly capable of giving a rational account.

The causal difficulty that seems to have puzzled commentators the most is closely related to the conflict with sense experience described by Godfrey, and concerns the generation and corruption of accidents. This difficulty can be introduced as follows: there are many obvious similarities between the accidents of (a) the matter that has the proper dispositions to become alive, (b) the actual living body, and (c) the corpse. But supposing that there is but one substantial form in each substance, it would seem that these similarities cannot be explained in terms of the presence of numerically the same accidents. This is because one of the implications

¹⁸ "Et arguebatur quod homo non habeat esse ab una forma substantiali tantum, quia ponere hominem habere tantum unam formam substantialem est contra sensum, item est contra rationem, item est contra fidem. Contra sensum, quia in homine mortuo ad sensum apparent eadem accidentia esse quae erant in ipso vivente. Hoc autem non esset nisi aliqua forma substantialis quae erat in ipso vivente maneret in mortuo, quia accidentia non consequuntur materiam nisi mediante forma substantiali. Sed forma substantialis quae est anima non est in mortuo homine... Hoc etiam est contra rationem, quia ratio iudicat quod unicuique agenti et actioni respondet suus terminus et effectus... Sed ad productionem hominis concurrunt duo agentia, scilicet agens naturale et agens supernaturale... Hoc etiam videtur esse contra fidem, quoniam si in homine non sit nisi una forma, scilicet anima, tunc cum Christus fuit mortuus, non remansit idem corpus numero mortuum quod fuerat vivum" (de Wulf and Pelzer [1904, 96]). For the date, see Wipfel (1981, xxvii).

¹⁹ "Et cum dicitur quod sensus hoc iudicat, dico quod sensum non est credendum de ydemptitate accidentium, sed solum de similitudine, quia quidditas rei solum ab intellectu percipitur et non a sensu" (de Boer [2013, 320–321]). Compare Thomas Sutton, *De pluralitate formarum*, VII, 575c: "Ideo dicendum quod illa accidentia non manent in corpore vivo et mortuo eadem numero, sed eadem specie: eo quod subjectum non manet idem numero, sicut contingit, quando ex vino fit acetum; manent similes dimensiones, similis etiam color, similis humiditas, in aceto quae prius in vino; nec istud est contra sensum quod accidentia dicantur non manere eadem numero. Non enim sensus potest distinguere inter accidentia omnino similia, quando sine interpolatione sunt in eadem materia, puta quod color aceti sit alius quam in vino quando vinum mutatum est in acetum" (Busa 1980).

that most philosophers who discussed the unicity of substantial forms position tended to draw from it is that the introduction of a new substantial form (in this case the soul) necessarily implies the corruption of all of the previously existing accidents. The introduction of a new substantial form, it was argued, implies the corruption of the previous substantial form; if the previous form were not corrupted, there would be two substantial forms after the introduction of the new one, which runs counter to the unicity of substantial form position. But the corruption of the previous substantial form in turn implies the corruption of all the previously existing accidents, since accidents can only inhere in a substance through the substantial form; if this were not the case, the accidents would inhere directly in prime matter. But prime matter cannot be the bearer of properties since it is pure potency. The only remaining possibility is that the accidents that are present after the introduction of the substantial form must have been (newly) generated after this introduction, a conclusion indeed defended by Brito among others.²⁰ The difficulty, however, is that every generation must have a causal explanation, and what could be the causal factors involved in these newly generated accidents? Even supposing that the observation that according to our senses there seems to be a numerical identity rather than a mere similarity can be explained away by the argument that “our senses are not able to perceive the identity of accidents”, it is not easy to explain why the scars and wounds, for instance, of a living human being continue to be present in the corpse without being able to appeal to a numerical identity, that is, without being able to say that these simply are *the same* scars and wounds.

This background is necessary to understand Buridan’s discussion of the unicity position, since he critically engages with these implications when he discusses Aristotle’s definition of the soul as *first* act:

If, however, there were a single substantial form in every concrete individual, then the only comparison is to its accidental forms existing along with it in the same subject: Is this substantial form naturally prior to these accidental forms, or are some of them in this subject prior to the soul? On this score, there is the view that in this way every soul, indeed, every substantial form, is the first act. For those who hold this view maintain that although many primary dispositions are required in matter for a substantial form to come to be and be received in this matter, nevertheless upon the arrival of this substantial form, all these primary accidental dispositions are destroyed. Following upon the introduction of the substantial form, other accidental forms, similar to the prior ones, are introduced. (*QDA* II, q. 2, n. 13–14)

This is an accurate description of the position that early adopters of the unicity of substantial form framework argued for. The soul is the *first* act, because it is the only substantial form of the living being, and because all accidental forms are ontologically posterior it. At the moment of the introduction of the soul, all previous accidents are corrupted and regenerated. As Buridan rightly points out, being the first act in this sense is not unique to souls. According to the unicist position, every substantial form is the first act of the substance of which it is the form. The soul is simply the most interesting and paradigmatic case. Having already rejected the

²⁰ For a lengthy discussion of the problem, see Brito, *Qq. DA*, II q. 3 (de Boer 2013, 320–324).

plurality position, Buridan sides with the unicity position by default, and continues his discussion of the question by presenting a number of arguments in support of this supposed corruption of accidents that according to these unnamed philosophers is implied by the unicity of substantial form. But in the final analysis he refuses to accept the corruption of accidents as a necessary implication.

These arguments notwithstanding, I believe the opposite. The demonstration of which is the business of my *Questions on "On generation and corruption"*. Therefore, I'll go through it rather quickly, touching only on two main arguments. (*QDA* II, q. 2, n. 22)

Two things are important to note at this point. The first is that the views of the unnamed philosophers who argued in favor of the corruption of all accidents at the introduction of a new substantial form and Buridan's own view agree to the extent that they say that in each living being there is but one substantial form, which, in the case of living beings, is their soul. Their disagreement is limited to the further ontological implications of this view. When Buridan writes that he believes the opposite, he refers to the corruption of all previous accidents at the introduction of the soul, not to the unicity position itself. It is the combination of rejecting the corruption of accidents and accepting that there is but one substantial form in any substance that makes Buridan's position so interesting. John of Jandun, for instance, had also argued at length against the thesis that accidents are corrupted and regenerated in his commentary on Aristotle's *De anima*.²¹ But since he also argued in favor of a plurality of substantial forms that was only to be expected. Indeed all pluralists rejected this thesis. In the case of Buridan, by contrast, his denial of the corruption of accidents means that he modifies the unicity of substantial forms position itself. The second important thing to note is that even though the question whether the soul is the only substantial form of the living being had traditionally been a question raised and discussed in commentaries on the *De anima*, we are told that the full demonstration of Buridan's position on the manner in which the soul relates to the body *as its first substantial act* is not to be found in *De anima*. It is rather to be found in another textual genre, that of *De generatione et corruptione*.

Buridan's Commentary on *De generatione et corruptione*

The soul-body relationship is indeed discussed extensively in Buridan's commentary on Aristotle's *De generatione et corruptione*, especially in questions seven and eight on book I. Question 8 focuses completely on this relationship and is titled "whether in animated things there is another substantial form besides the soul". This is also where the bulk of the discussion takes place. But the topic is already introduced in question 7 titled "whether each generation of a thing is also the corruption of another". About half of the possible exceptions to the Aristotelian adage that

²¹ See John of Jandun, *Qq. De an.* II, q. 2, esp. 73–74.

every generation implies a corruption that Buridan considers in this question are cases involving the soul. As Buridan puts it:

Because of living things, there remains some doubt concerning substances, since those who posit that the soul is added to another substantial form, or to other substantial forms, should not say that at the generation of an animal by the advent of the soul something is corrupted, nor that on account of killing an animal something is substantially generated. (*QDGC* I, q. 7, ll. 7–11)²²

The difficulty, as it is being presented here, is that if those who posit a plurality of substantial forms in a living being are right, Aristotle's adage on the relation between generation and corruption seems not to apply to living beings. As a result, the adage would no longer express a principle that universally applies to (substantial) generation and corruption. If, by contrast, we assume only the existence of a single substantial form, Buridan continues, there is no such problem, and the universal applicability of the adage is secured.

But what exactly is the problem that living beings pose to those who argue for a plurality of substantial forms? At the beginning of the question Buridan lists six initial objections against the universal applicability of the Aristotelian adage. Three of these mention living beings:²³

1. The division of annulose animals, such as worms. This seems to be a generation without a corruption. Although before the division you had one worm, whereas after the division you have two, each half the size of the original, nothing seems to have been corrupted, since all the quantitative parts of the original worm still exist.
2. The killing of a horse. Here the corpse seems to be identical to the living body (with its own forms) minus the soul. This seems to be a corruption (of the living horse) without a generation.
3. The infusion of the intellective soul into a properly disposed body. Since the properly disposed but not yet human body and the fully human body seem to be identical, this seems to be a generation (of the human being) without a corruption.

The three arguments combined cover the whole range of animals. Given that plants were often lumped together with the annulose animals in fourteenth-century discussions on the soul, it actually covers the whole range of possible soul–body relationships: the imperfect brutes/plants, the perfect brutes, and human beings.²⁴

²²“Sed adhuc in substantiis est bene dubitatio propter viventia, quia ponentes quod anima sit addita alteri formae substantiali vel aliis formis substantialibus non oportet dicere quod ad generationem animalis per adventum animae aliquid corrumpatur; nec oportet dicere quod propter interfectionem animalis aliquid substantialiter generetur” (Buridan [2010, 77]).

²³The remaining three initial objections are: (1) mutation is divided into two basic types in Aristotle's *Physica*, namely generation and corruption, so it cannot be true that a generation is a corruption; (2) the generation of light, vision, and concepts entails no corruption; (3) in the generation of a mixture the composing elements are not corrupted.

²⁴The rationale for grouping together plants and annulose animals is that both are able to survive division. Cut a worm in half and both parts continue to live (at least for some time). The fact that

The first of these three objections, the one concerning the division of imperfect animals such as worms, is not particularly worrisome. The correct reply to this argument, as Buridan rightly notes, depends on our answer to the question whether each part of an animal is itself an animal. And this, in turn, depends on our answer to the question whether we want to take ‘animal’ as a substantial or as a connotative term. If we take ‘animal’ in the substantive sense, then each part of the animal can properly be called an animal to begin with. In that case there is neither a substantial generation nor a substantial corruption at the moment a worm is divided into two parts. The only change that takes place is a separation of parts. If, by contrast, we take the term ‘animal’ in the sense connoting that it is ‘sufficiently organized to receive nutrition and to live for a long time’, then neither of the two worm parts that result after the division should be called an animal.²⁵ A similar, but more elaborate, analysis is given in Buridan’s commentary on *De anima*, when he argues that the whole soul is present in each and every part of the body.²⁶

The other two arguments, those that target the corruption of perfect brutes and the generation of human beings, apparently call for a more detailed analysis, given that Buridan writes that he will address these difficulties in the following questions, the first of which is the question “whether in animated things there is another substantial form besides the soul”. It seems a reasonable conclusion, therefore, that this separate question on the ontological structure of animated things is included in the commentary on *De generatione* to more adequately address the difficulties that living beings pose for a general theory of generation and corruption. This would have the additional benefit of explaining why the first few questions of Buridan’s commentary on *De anima* II, where the soul–body relationship is described at its most basic level in terms of matter and substantial form, are so closely related to the *De generatione* context. I will approach this relation from the perspective of *De anima* first, and then return to the question on the soul in the commentary on *De generatione*.

As noted above, Buridan accepts the unicity position by default in his commentary on *De anima*, but he rejects the implication that all accidents are corrupted and regenerated at the introduction of a new substantial form. Having referred the reader

this usually works better in the case of plants than annulose animals does not seem to have bothered the commentators much.

²⁵ *QDGC* I, q.7, ll. 4–13: “Et credo quod sit respondendum quod si illa esset bona definitio animalis <i.e. substantia animata sensibilis *SdB*>, tunc quaelibet pars quantitativa animalis esset animal, sicut quaelibet pars aquae est aqua. Et sic concederetur quod unum animal esset plura animalia. Et tunc in divisione anguillae nullum animal esset generatum et nullum animal esset corruptum... Sed si dicamus quod ad rationem animalis ultra praedictam definitionem exigitur quod sit sufficienter organizatum ad recipiendum nutrimentum et ad vivendum longo tempore, tunc neutra pars ipsius anguillae esset animal” (Buridan [2010, 79]). It would be difficult to apply Buridan’s solution to plants, since in that case both parts will continue to live for a long time.

²⁶ See *QDA* II, q.7, n. 23–32. For a discussion of differences between the substantial and connotative uses of the term ‘animal’ and the later impact of Buridan’s analysis of this topic, see Kärkkäinen (2004). For a more general discussion of substantive and connotative terms in Buridan, see Klima (2009, 261–267).

to his commentary on *De generatione* for the detailed demonstration of the manner in which the soul inheres in the body, he briefly presents two of the reasons that led him to reject the implication that all accidents are corrupted and regenerated at the advent of soul. The following passage contains the complete presentation:

Therefore, I'll go through it rather quickly, touching only on two main arguments. The first is that if a horse is killed and all its warmth destroyed upon the destruction of its soul, even after it has been dead for a while it is still very warm inside its chest. What, then, could generate this new warmth? The killer does not have the nature to generate warmth any more than to generate cold. Nor is the warmth generated in the manner of something that follows upon the form of the carcass, because it would produce coldness rather than such warmth. Second, when water turns into fire, the water gets warm. It is clear that although this warmth is naturally brought forth from the potency of matter, which naturally inclines toward the form of fire, for which this warmth prepares it, nevertheless, this warmth is not brought forth from the substantial form of water, since it is unnatural to and discordant with the substantial form of water. Indeed, the substantial form of water would resist the generation of warmth rather than contribute to it. Therefore, if the substantial form of water is destroyed, this warmth still need not be destroyed at all, because the matter, from whose potency it was brought forth, remains. (*QDA* II, q. 2, n. 22–24)

Both arguments address the continued presence of heat after a corruption and concomitant generation have taken place, on the supposition that all accidents are destroyed and regenerated. If the heat that continues to be present in the horse's corpse were newly generated, as the unicity position predicts, then what might be the efficient cause of its generation? There is no reason to suppose that it is the one who did the killing, because a killer, as such, is indifferent to the generation of heat or cold. Nor can it be the substantial form of the corpse, because that form is responsible for the cadaver being cold rather than warm. But if we cannot assign an efficient cause, the only remaining option is that the heat that is present in the corpse is simply numerically the same heat as was present in the living body. Nothing has been corrupted and regenerated. And in the second example, the case of water transforming into fire, what reason could there be to suppose that the heat is destroyed when the substantial form of the water is replaced by the substantial form of fire, given that the heat was "discordant with the substantial form of water" to begin with?

The two arguments presented by Buridan are in fact two sides of the same coin. In the first, it is argued that we are unable to give a causal explanation for the supposed regeneration of heat. In the second, it is argued that we are unable to give a causal explanation for its supposed corruption. In both cases the conclusion is the same: if we cannot give a causal explanation of a supposed change, then the supposition that there has been a change should be rejected. What is striking about these two arguments is that both are limited to a discussion of the continuing presence of one of the four primary qualities, rather than, for instance, a discussion of the various bodily dispositions that already seem to exist at the advent of the rational soul, or a

discussion of the continued presence of scars and wound in the corpse, both of which were popular examples in the fourteenth century.²⁷

Although the question whether numerically the same heat remains present throughout generation and corruption was not normally discussed in commentaries on *De anima*, it was hotly debated in another genre. Commentaries on *De generatione et corruptione* usually contained one or more questions on the so-called *qualitates symbolae*, that is, qualities that are shared by two of Aristotle's primary elements. Since there are four primary elements in the Aristotelian sublunary realm, and since each element is characterized by the presence of two of the four primary qualities, each quality is present in two elements.²⁸ For instance, air and fire share the quality of heat, and earth and water share the quality of cold. Combined with Aristotle's view that each element can transform into one of the other three elements, this led to two related questions in commentaries on *De generatione*. Is it easier for one element to transfer into another if they share a *qualitas symbola*?²⁹ And what happens to the *qualitas symbola* if such a transformation takes place? Is the *qualitas symbola* itself corrupted and (re)generated in that case? Precisely these questions are referred to, at least implicitly, in the two brief reasons that Buridan presented in his discussion of Aristotle's definition of the soul as *first act*. Buridan's own commentary on *De generatione* also contain questions on these *qualitates symbolae* and it should not come as a surprise by now that the same argument about the killing of a horse is used there to argue for his own position, which is that the *qualitates symbolae* are not corrupted when one element transforms in another:³⁰

I answer that that the *qualitas symbola* that existed in the corrupted things remains in the generated thing. This is proved as follows: if a horse is killed, one finds heat in the corpse. And it cannot be said that it is generated anew, because it is impossible to come up with a way how. (*QDGC* II, q. 7, ll. 1–4)³¹

It is now becoming clearer why Buridan referred the reader of his commentary on *De anima* to his commentary on *De generatione* for the details. The arguments he presents in support of his position were developed within the context of *De*

²⁷ See Brito, *Qq. DA* II, q. 3. Michael (1992, 168–169) cites passages from John of Jandun's commentary on the *Physica*, where the scars and wounds example is discussed (and their regeneration denied). Jandun's discussion in this commentary is consistent with that in his commentary on the *De anima*. The continued presence of scars and wounds in a corpse is also discussed in Nicole Oresme's commentary on *De generatione et corruptione* in a question titled "Utrum aliqua qualitas maneat eadem in generato que prius fuit in corrupto." See Oresme, *Qq. DGC* I, q. 8: "Nono, quod cycatres manent etc" (Caroti [1996, 67, l. 167]). It can be inferred from the heavily abbreviated form of the argument that it was well known by the middle of the fourteenth century.

²⁸ See Aristotle, *DGC* II.3 330a30–b5.

²⁹ Aristotle had suggested that a transformation involving a *qualitas symbola* is easier than one that does not (*DGC* II.4 331b2–331b10).

³⁰ Buridan discusses the *qualitates symbolae* in *QDGC* II, qq. 6–9.

³¹ "Respondeo quod qualitas symbola maneat in generato quae fuerit in corrupto. Probatur quia: si interficitur equus, invenitur caliditas in cadavere; et non potest dici quod de novo generatur, quia non posset dari modus per quem" (Buridan [2010, 226]). The second argument from the *De anima*, about the presence of heat in water, is also discussed in this question.

generatione. This again shows the inextricable connection between his commentary on *De generatione* and his commentary on *De anima*. More importantly, Buridan's commentary on *De generatione* presents at least partial answers to the questions that remained unanswered in the commentary on the *De anima*.

Whether in an Animated Being There is Another Form Besides the Soul

The discussion of the number of substantial forms in a living being in book I, q. 8 of Buridan's commentary on Aristotle's *De generatione et corruptione* shares a key feature with the corresponding discussion of the topic in book II, q. 2 of his commentary on *De anima*, which is that Buridan argues for the unicity position only indirectly. But rather than merely stating that the plurality of substantial forms is incompatible with Aristotle's definition of the soul as *first* act, he now points out two difficulties that would arise were we to assume a plurality of forms. These difficulties are apparently such as to render the plurality position untenable, leaving only the unicity position as a viable option. What makes this question an important supplement to his discussion in *De anima* is that these difficulties relate to the presence of organic structures such as flesh, nerve, and bone. Can these organic structures, Buridan asks, be said to have their own distinct substantial forms?³²

A first difficulty with the position that nerve, bone, and similar structures have their own substantial forms, as Buridan correctly notes, is that such structures are only found in living beings. As Aristotle had argued in his *De anima*, the eye of a corpse is not really an eye, except equivocally (II.1 412b20–2).³³ Similarly, the bones and nerves of a corpse are only equivocally bones and nerves. So to have eyes, bones, and nerves in the proper sense, a thing must be alive. But when we take the soul to be the final form of the body, as both unicists and pluralists tend to do, then whatever comes to the living thing after the advent of the soul is accidental. When we can only properly speak of bones and nerves after the advent of the soul

³²The position that the bodily structures have their own substantial forms is usually attributed to Duns Scotus. See John Duns Scotus, *In META VII*, q. 20: 'Utrum partes organicae animalis habeant distinctas formas substantiales specie differentes' (Scotus [1997]). For discussion, see Cross (1998, 62–71). For the reception of this view in later Franciscan authors, see Duba (2012). A related view was defended by Nicole Oresme, who argued that the soul of a brute animal should be described as a heterogeneous form. See Oresme, *Qq. DA II*, q. 5: "Quinta conclusio est quod anima bruti est forma heterogenea, et prius fuit probatum. Et probatur adhuc quia: dat aliud esse ossi et aliud esse carni. Unde caro et os differunt specie et habent diversa nomina substantialia et definitiones; et aliud est esse carnem et esse os; igitur habent formas diversarum rationum; et illae sunt partes unius totalis animae; igitur ipsa est totum heterogeneum" (Patar [1995], 151, ll. 74–79). Note, however, that in Oresme's view the partial forms taken together are identical to the whole soul, whereas in Scotus's view they are present in the living being over and above the soul.

³³"When seeing is removed the eye is no longer an eye, except in name—no more than the eye of a statue or of a painted figure" (trans. Smith in Barnes [1984, 657]).

then these bodily parts cannot have their own substantial forms. The second difficulty is closely related to the first. If we were to posit a plurality of substantial forms, Buridan writes, then these forms must have some relation to each other that can be expressed in terms of potency and act. Each subsequent form must somehow perfect and complete the previous form in such a way as to constitute a unity. Otherwise the end result would not be one single thing in act, but several things, each with their actuality. Once this point is conceded, the argument proceeds by asking which of the two forms, the soul and the form of bone, relates to the other as its act. If the form of bone relates to the soul as act, then this would imply that the form of bone is a more perfect form than the soul itself, since it would be the soul's actuality. But surely souls are more perfect than the forms of bones. If, on the other hand, the soul relates to the bone as act, we run into the difficulty that the soul already vivifies the embryo before bodily structures such as bone are present. And it is impossible that the actualization of a potency occurs before the potency itself exists. So this route too is closed off.

These two arguments, in conjunction with the methodological principle that we should never posit the existence of a plurality in nature when we can explain the same by positing fewer things, lead Buridan to his conclusion that there is but a single substantial form in living things. But this only makes the question how Buridan is able to avoid the consequence that all accidents are corrupted and regenerated at each substantial change (given that he only accepts one substantial form) more pertinent. Buridan's solution is comprised of two elements: a different conception of matter than usually adopted by the unicists and a distinction between two senses of 'being the subject of a quality'.

In his commentary on Aristotle's *Physica*, Buridan argues that matter has an actuality of its own and would still be something in act were it—through divine intervention—to exist without a single form.³⁴ Rather than being nothing but a pure potency, prime matter, on Buridan's account, has a certain robustness of its own. This in itself already implies that Buridan's position on the unicity of substantial form must be quite different from that of the majority of thirteenth- and fourteenth-century philosophers who tried to follow the analysis of Aquinas. To put this more strongly, the thesis that matter has an actuality of its own had been a defining characteristic of *pluralists*, as Callus rightly pointed in a passage that is still worth quoting:

If one contends (i) that primary matter is not absolutely passive and potential, but possesses in itself some actuality, no matter how incomplete or imperfect it may be: an *incoatio formae*, or any active power; (ii) that privation does not mean the complete disappearance of the previous form, so that matter is not stripped of all precedent forms in the process of becoming; or (iii) that substantial form either meets with some actuality in prime matter or does not determine the composite wholly and entirely, but only partially; from all this it will necessarily follow that there are in one and the same individual plurality [sic] of forms. (1961, 258)

³⁴ John Buridan, *QPHYS* I, q. 20: "Tertia conclusio: quod materia est actus et esset actus licet existeret sine forma sive substantiali sive accidentali" (Dullaert [1964, f. 24rb]).

It is striking that when we compare Aquinas and Buridan using these three points as our guide, Buridan falls squarely in the pluralist camp on all three counts, his position that all living things have but one substantial form notwithstanding. Does this mean that Buridan is a closet pluralist who failed to see the full implications of his position? I would argue for a different interpretation. Buridan shows that he is very much aware of the difficulties involved in giving a causal explanation of the process of generation and corruption on the assumption that there is but one substantial form, especially when it comes to living beings. From the 1270s onward, both pluralists and unicists seem to have considered the (im)possibility of giving an adequate causal story to be the key decisive factor in the debates on the unicity or plurality of substantial form.³⁵ The counterintuitive account of the presence of similar accidents in the living body and the corpse that many of the unicists came up with can hardly be called convincing, no matter how appealing the position that there is but a single substantial form in each living being. But by attributing to matter an actuality of its own, and by refusing to account for that actuality in terms of the presence of a substantial form, Buridan opens up the possibility of an alternative account for the persisting presence of qualities throughout generation and corruption, one that does not need to appeal to a “mysterious” regeneration of accidents. Rather than starting from the idea that living beings have one substantial form and then trying to formulate a theory of generation and corruption that fits this idea, Buridan seems to develop his view of the soul–body relationship from the ground up, beginning with a description of the *qualitates symbolae*. In the context of those most basic qualities, he distinguishes between qualities that inhere directly in the matter and qualities that inhere in the composite substance:

³⁵ It is intriguing that Aquinas pays so little attention to these difficulties. One of the very few places where he describes in some detail the succession of substantial form involved in the generation of a living being is the relatively early *Summa contra gentiles* (II.89, 542): “Licet enim generatio simplicium corporum non procedat secundum ordinem, eo quod quodlibet eorum habet formam immediatam materiae primae, in generatione tamen corporum aliorum oportet esse generationum ordinem, propter multas formas intermediarias, inter primam formam elementi et ultimam formam ad quam generatio ordinatur. Et ideo sunt multae generationes et corruptiones sese consequentes. Nec est inconueniens si aliquid intermediorum generatur et statim postmodum interrumpitur, quia intermedia non habent speciem completam, sed sunt ut in via ad speciem; et ideo non generantur ut permaneant, sed ut per ea ad ultimum generatum perveniatur... Et ideo in generatione animalis et hominis in quibus est forma perfectissima, sunt plurimae formae et generationes intermediae, et per consequens corruptiones, quia generatio unius est corruptio alterius. Anima igitur vegetabilis, quae primo inest, cum embryo vivit vita plantae, corrumpitur, et succedit anima perfectior, quae est nutritiva et sensitiva simul, et tunc embryo vivit vita animalis; hac autem corrupta, succedit anima rationalis ab extrinseco immissa, licet praecedentes fuerint virtute seminis.” Compare also Aquinas, *De spirit. creat.* q. 11 (*ad rationes*): “Et ideo aliter dicendum est quod generatio animalis non est tantum una generatio simplex, sed succedunt sibi invicem multae generationes et corruptiones: sicut dicitur quod primo habet formam seminis et secundo formam sanguinis, et sic deinceps quousque perficiatur generatio” (ed. Leonina, 102, ll. 300–305). My own, tentative explanation of why the causality involved in the generation and corruption of living being only became a problem after Aquinas, which I cannot develop here, is that Aquinas tried to understand living beings almost exclusively from the perspective of final causality.

Note, for the solution of the argument, that the subject to which such primary qualities are attributed is one thing, and the subject from whose potency they are educed (and which by its own nature is also *per se* receptive of them) is another. For the subject from the potency of which heat or cold arises passively and receptively is prime matter. Hence, if this matter remains, even though the form does not remain, it is in no way inconvenient that these qualities remain... Indeed the general public is unaware of prime matter. Hence they do not attribute these qualities to it, but attribute them to the perceived composite instead. (*QDGC* II, q. 7, ll. 62–70)³⁶

Precisely this idea is repeated when Buridan discusses the soul–body relationship in his commentary on *De anima*:

To the last argument we reply that due to our ignorance of matter and our familiarity with composite substance, in ordinary speech we attribute all accidents to the composite substance and not to matter, despite the fact that they are brought forth only from the potency of matter, at least those found to be similar among composite substances belonging to diverse species. (*QDA* II, q. 2, n. 32)

By accepting a more robust concept of matter than the pure potency which had often been adopted by the earlier unicists, Buridan is able to avoid some of the counterintuitive consequences of the unicity position. The presence of a single substantial form continues to be the principle that accounts for the unity and organization of a material substance. But it is no longer necessary to appeal to a substantial form to explain the presence of all the qualities of a substance, since some qualities are literally ‘educed only from the potency of matter’, among which are the *qualitates symbolae* mentioned above.³⁷

Buridan’s conception of matter and its relation to the *qualitates symbolae* is also the answer to the problem I mentioned at the beginning of this paper, namely how Buridan can explain the materiality of the human being given his description of the miraculous inherence of the human soul. This materiality does not need to be explained in terms of a substantial form, because it is already accounted for by Buridan’s view of the actuality of matter and the properties that inhere directly in it.

³⁶“Nota pro solutione rationum quod aliud est subiectum cui tales primae qualitates attribuuntur, et aliud est subiectum de cuius potentia educuntur et quod est per se ex natura sua receptivum earum. Nam subiectum de cuius potentia egriditur caliditas vel frigiditas passive et receptive est prima materia. Igitur si ipsa manet, quamvis forma substantialis non maneat, nihil est inconveniens tales qualitates manere. Sed subiecta quibus tales qualitates attribuuntur sunt substantiae compositae ex materia et forma propter maiorem notitiam earum. Vulgus enim non percipit primam materiam. Igitur illas qualitates sibi non attribuit, sed attribuit eas composito sensato” (Buridan [2010, 284]).”

³⁷ Buridan, unfortunately, writes little about the type of qualities that inhere directly in matter, apart from the final sentence in the quote above. Presumably qualities such as the persisting scars and wounds still found in the corpse would have to be included.

A Precursor to Buridan's Solution

Buridan's distinction between two subjects in which qualities can inhere resembles a distinction that Avicenna introduced in his *Liber primus naturalium* between accidents that follow upon the form of a substance and qualities that follow upon its matter.³⁸ Could Buridan, therefore, have adopted this part of his solution from Avicenna? To answer this question, it is important to take the context in which Buridan formulates the distinction into account. Buridan develops his solution in the context of his discussion of the *qualitates symbolae*, where he offers a theory that is directly opposed to that of Avicenna. Whereas Avicenna argued that the elements themselves remain present in the mixture, Buridan argues that only their qualities remain. By rejecting Avicenna's solution to the problem of mixtures, and arguing that only the elemental qualities remain, Buridan in effect develops Aquinas's solution, which was based on the unicity of substantial form, as was pointed out already by Maier (1952, 126). This makes it unlikely that Avicenna was the proximate source. But Maier noticed something else about Buridan's commentary on *De generatione et corruptione*, namely that it is influenced by Giles of Rome's (c. 1247–1316) exposition of that same text.

To the best of my knowledge, Buridan would have been hard pressed to find all the elements of his position in Giles's exposition of *De generatione et corruptione* (early 1270s).³⁹ Although a distinction between qualities that follow from matter and those that follow from form is there, at least in outline, Giles seems to only allow the indeterminate dimensions of a substance to inhere directly in matter.⁴⁰ In his discussion of the *qualitates symbolae*, by contrast, he still argues that we should say, as is commonly said (*ut communiter ponitur*), that the symbolic qualities only remain specifically but not numerically the same.⁴¹ There is even less discussion of the topic in his exposition of the *De anima* (early 1270s); Giles has little to say on the difficulties connected to the soul being the *first* act to begin with, and there is no discussion of the *qualitates symbolae* in that context, let alone an integration of the discussions from *De generatione* and from *De anima* as is the case in Buridan.⁴² In

³⁸ Avicenna, *Avi.PHYS*, t. 1, cap. VI, 61, ll.45–58: “Sunt enim quaedam quae consequuntur materiam, ut nigredo Aethiopis, et cicatrices vulnerum et extensio staturae. Sunt etiam quaedam quae consequuntur formam, sicut spes et gaudium et potentia ridendi et cetera in hominibus... Quae vero consequuntur ex parte materiae, aliquando remanent post formam, sicut cicatrices vulnerum et nigredo Aethiopis post mortem.”

³⁹ For the dates of Giles of Rome's works, Del Punta et al. (1993).

⁴⁰ Giles of Rome, *Comm. DGC*, f. 35va: “Ideo, quia dimensiones indeterminate magis se videntur tenere ex parte materie, alia autem vel videntur sequi formam, vel forte sequuntur materiam ut est subiecta forme, ergo qualitates (quia vel sequuntur formam, vel sequuntur materiam ut est subiecta forme) non videntur remanere eadem numero.”

⁴¹ *Ibid.*, f. 35va–b: “Quod vero addebatur de Philosopho, quod videtur velle qualitatem symbolam remanere, dici debet, ut communiter ponitur, quod remanet eadem specie, non autem oportet quod remaneat eadem numero.”

⁴² Giles seems to follow Aquinas when he writes that the soul virtually contains the form of the mixture (f. 25rb). There is, however, some discussion of the accidents of the body when Giles discusses the soul as *actus corporis* (ff. 25rb–va).

Giles's *Contra gradus et pluralitate formarum* (1277/1278), by contrast, the Avicennian distinction between accidents that follow upon a substance's form and those that follow upon its matter plays a much more important role, and is used in the context of a discussion of the *qualitates symbolae*. Giles argues that we should distinguish between referring to these qualities insofar as they hold (*tenens*) from matter and insofar as they hold from form. Although the details of the distinction are somewhat difficult to follow, Giles's main point is that in the former case these qualities remain numerically identical through generation and corruption.⁴³ Lastly, in one of his *Quodlibeta* (which were composed between 1286 and 1295), Giles even cites the passage in which Avicenna makes the distinction between qualities that follow upon form and qualities that follow upon matter, and he again links the *qualitates symbolae* to matter.⁴⁴ In this text his position is intriguingly close to that of Buridan.

It is, therefore, quite possible that Buridan adopted the Avicennian distinction through Giles, and then used this distinction to give a unified account of generation and corruption, applicable without difficulty to the generation of living things. Even if this hypothesis is correct, it is important to emphasize that the systematic use of the distinction to unify the commentary tradition on the *De anima* and *De generatione* remains Buridan's achievement. As noted above, the distinction and its use are not yet fully developed in Giles's commentaries on these texts. And more importantly, Giles is not fully committed to the unicity position in these texts, and is especially hesitant on the question of whether the unicity of substantial forms applies to human beings.⁴⁵

Final Conclusions

In sum, Buridan's position on the relation between soul and body is the following. Each living being has but one soul, and this one soul is also its only substantial form. In the case of human beings we are unable to demonstrate the truth of this position, but there are arguments that produce "great faith" that the position is correct. The single soul informs a matter that has a certain actuality of its own, and that functions

⁴³ Giles of Rome, *De gradibus formarum*, f. 100vb "Secundum hoc ergo dicemus quia sicut in re corrupta et generata non remanet forma sed eadem materia, ita non manet realiter eadem qualitas simbola se tenens ex parte forme. Manet autem realiter eadem qualitas <corr. ex quantitas *SdB*> simbola se tenens ex parte materie. Et quia mollicies et alia accidentia physica quibus affecta materia nominatur caro se tenet ex parte materie poterunt eadem realiter remanere. Quare accipiendo nomine carnis eo modo quo diximus poterit remanere eadem caro numero et mortua et viva, sicut et eadem materia numero remanet in re generata et corrupta."

⁴⁴ I first learned of Giles' use of the Avicennian distinction from Wippel (1981, 223n4), who refers to Giles of Rome's *Quodlibet* IV.9 (1646, 221–223), where Giles cites the relevant passage from Avicenna. According to Giles, both *quantitas materiae* and *qualitas simbola* remain numerically identical through generation and corruption.

⁴⁵ See Zavalloni (1951, 272–278).

as the subject in which at the very least the four elemental qualities inhere. Quite likely it also functions as the subject of at least some of the qualities that derive from the mixture of the elements, although Buridan is vague about this. This matter, including the qualities that inhere directly in it, endures through generation and corruption, and therefore accounts for the many similarities between the almost living body, the living body, and the corpse. Moreover, it accounts for the materiality of the human body given Buridan's view that the human soul, in contrast to all other souls, inheres in the body in an indivisible, and hence miraculous manner.

Buridan's position has a number of benefits. First, he can easily maintain that Aristotle's adage that the generation of one thing means the corruption of another is universally valid, and applies to all substances and accidents. When a living being dies, the corpse really is a completely different substance than the living being, the persisting accidents notwithstanding. Moreover, he can also uphold the universal validity of Aristotle's definition of generation as "the transmutation of one whole thing into another whole thing, while nothing sensible remains as the same (underlying) subject (*ut subiecto eodem*)", simply by saying that the underlying subject should be understood as an actually existing substance, something for which matter on its own does not qualify. This allows him to safeguard the radical distinction between generation and alteration, which was more troublesome for the pluralists. Second, he can explain the unity of a living in the same way as strict unicists can, by pointing to the presence of a single substantial form. Third, he is able to evade all the counter-intuitive consequences connected to the unicity of substantial form, such as the corruption and regeneration of accidents, which had evoked so much criticism. Fourth, and perhaps most importantly, he is able to give a consistent account of the soul-body relationship that also takes into account the efficient and material causes that play a role in the generation of a living being.

There is, admittedly, a drawback to Buridan's position, but this has to do with his analysis of the human soul in particular. By describing the inherence of the human soul as miraculous, and thereby radicalizing the difference between the soul-body relationship in human beings and all other material living beings, Buridan played a role in the separation that was to take place in the next centuries between the study of the human soul and the study of all other living beings. Having integrated the traditions of the *De anima* and *De generatione*, Buridan also splits the subject matter of the *De anima* into two radically different parts: human souls, with their miraculous manner of inhering that can only be plausibly explained by presenting theological examples on the one hand, and all other embodied souls that admit of a naturalistic explanation on the other. But given that many other fourteenth-century authors were also convinced that the manner in which the human soul inheres in the body is not something that can be demonstrated in natural philosophy, this detracts little from his achievement described above.⁴⁶

⁴⁶For the non-demonstrability of the inherence of the human soul, see, for instance, William Ockham, *Quodlibeta septem* I.10, 63³⁹–64⁴⁷: "Dico quod intelligendo per 'animam intellectivam' formam immaterialem, incorruptibilem quae tota est in toto corpore et tota in qualibet parte, nec potest evidenter sciri per rationem vel per experientiam quod talis forma sit in nobis, nec quod

To conclude: it was Aquinas's great contribution to turn the unicity of substantial form from a psychological thesis (a living being has only one soul) into a general principle of metaphysics (each substance has but one substantial form). But the result was that the connection between the teachings of the *De anima*, where everything is explained in terms of one substantial form, and those of *De generatione*, where things are explained in terms of a succession of forms, led to some serious problems, which were repeatedly pointed out by the pluralists. It was Buridan's achievement to reunite the two traditions, perhaps by building on the work of Giles of Rome, and by reinterpreting the relation between prime matter and form. To this end, he introduced a question on the ontological structure of animated things in his commentary on *De generatione* to more adequately address the difficulties that living beings pose for a theory of generation and corruption, and used the solutions developed there in several key places in his commentary on *De anima*. The result is a unified natural philosophy in which the *De generatione* and the *De anima* supplement each other and are consistent with each other, so that the soul can be just as easily discussed in the context of *De generatione* as the transition of one element into another can in the context of *De anima*.

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intelligere tali substantiae proprium sit in nobis, nec quod talis anima sit forma corporis—quidquid de hoc sensuerit Philosophus non curo ad praesens, quia ubique dubitative videtur loqui—sed ista tria solum credimus.” Compare also Oresme, *Qq. DA* III, q. 4 (Patar [1995, 335, ll. 78–80]), and Ps.-Buridan *QDAP* III, q. 4 (Patar [1991, 42, ll. 333–38]). Marsilius of Inghen, too, claims that we cannot demonstrate the manner in which the human soul inheres in the body, as can be seen in Pluta (2000). Scotus was slightly more optimistic, but he also thought that we could neither demonstrate the immortality of the human soul, nor its origin. See, for instance, John Duns Scotus, *Ordinatio* IV, d. 43, q. 2, 46: “Potest dici quod licet ad illam secundam propositionem <i.e. quod anima intellectiva est immortalis *SdB*> probandam sint rationes probabiles, non tamen demonstrativae, imo nec necessariae.” For a detailed discussion of Scotus's views on the limits of the demonstrability of the properties of the soul, see Bazán (2001).

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