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Chapter 1

Introduction: The Digbean Way, or Navigating Between the ‘Old’ and the ‘New’



Han Thomas Adriaenssen and Laura Georgescu

Kenelm Digby was ‘one of the most influential natural philosophers’ (Clericuzio 2000, 81) of his time, whose ‘posthumous reputation as a natural philosopher ought to be much greater than it is’ (Henry 2009, 43). He had an impressive range of intellectual ties: he spent a few years at Gresham College, was an active member of the Mersenne circle, frequented the Cavendish Circle, had ties with the Hartlib circle, was part of a Parisian alchemical circle, was among the first members of the Royal Society, and was one of the most prominent members of the Blackloist group of English Catholics. In his own time and context, then, he was very much an ‘insider’. And, yet, as Henry (2009) has observed, in the historiography, Digby has remained the consummate outsider: notable enough to be occasionally mentioned in relation to others, but, for the most part, treated as too marginal to receive significant attention in his own right. Recently, however, historians of early modern philosophy and science have slowly begun to put Digby’s work back onto the map. This volume aims to contribute to this attempt.

The overall goal of the volume is to give a glimpse into what Digby’s friend, Thomas White, called ‘the Digbean way’. It recognises that there are distinctive Digbean themes and arguments—it recognises, in short, that there is a distinct, rich, and coherent Digbean philosophy, and it aims to reconstruct aspects of it either from within Digby’s own work or through his reception amongst his contemporaries.

Out of these Digbean themes, some were well known in his own time: his conciliatory project of combining Aristotelianism with the new philosophies, his endorsement of philosophical argument in proving the immortality of the soul, his alchemical and experimental interests, as well as some of his more ‘local’ theories, such as those of memory (Sutton 1998, 131–36) or of animal generation (Blank

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2007). Others have more recently surfaced and are slowly gaining their place in the historiography of the early modern period, such as Digby's sustained interest in metallic transmutation, his role in the discussions of palingenesis (Martin 2010), his distinctive account of the automaton (Brown and Normore 2019, 72–78), his theory of common notions (Blank 2007), and his idiosyncratic approach to scholastic themes (Adriaenssen and de Boer 2019; Pécharman 2020); most recently, Anne-Laure de Meyer (2021) has looked at Digby's philosophy in terms of a project of self-governance.

The introduction that follows is somewhat more extensive than one might expect to see in a volume of collected papers. Given that general overviews of Digby's philosophy are currently both scarce in the literature and sparse where they do exist, we felt it was useful to offer a somewhat more detailed overview here. In the following, we have two major aims: to introduce the reader to some of the conceptual apparatus and commitments that Digby made use of in his philosophy, and to flag some conundrums and problems that are still awaiting further investigation and possible solutions.

1.1 Biography

Digby was born on 11 July 1603 at Gayhurst, Buckinghamshire.¹ After his father, Everard Digby, was executed on 30 January 1606 for his involvement in the Gunpowder Plot, Kenelm and his younger brother, John, were raised by their mother, Mary, and educated by Jesuit teachers. In 1618, Digby entered Gloucester Hall, Oxford, where he was trained by the mathematician and astrologer, Thomas Allen, who, according to John Aubrey's *Brief Lives*, was so impressed by his pupil that he would refer to him as 'the Mirandola of his age' (Aubrey 2015, vol. 1, 325). In 1625, Digby married the love of his youth, Venetia Stanley, with whom he had a son on 6 October of the same year. In the years following his marriage, Digby's career developed swiftly. A privateering campaign against France and Spain earned him admiration at the English court, and, by October 1630, Digby had been made an officer in the Navy. After the sudden death of Venetia in 1633, however, he retreated to Gresham College, where, according to Aubrey, Digby diverted himself with 'Chymistry and the Professors good conversation' (Aubrey 2015, vol. 1, 327). In 1635, Digby moved to Paris, where he met with leading intellectuals of the time, including Thomas Hobbes, Marin Mersenne, and Thomas White. In 1638, he returned to England. This year also saw the publication of his *Conference with a Lady about Choice of Religion*, in which he argued that the oral tradition of the Catholic Church would provide the most secure link to practices and doctrines of the first Christians.

¹For detailed accounts of Digby's life and works, see Petersson 1956, Foster 2004, Moshenska 2016, and de Meyer 2021, 41–70.

At home, his support for Charles I and his Roman Catholic spouse, Henrietta Maria, brought him into conflict with parliament, leading to his imprisonment in 1642, shortly after the outbreak of the Civil War. During his imprisonment, Digby wrote his *Observations upon Religio Medici* in response to Thomas Browne, and produced a draft of a treatise on bodies that was to become the first of his *Two Treatises*. After his release in 1643, Digby left for France, where he published the *Two Treatises* in 1644. This work, in which Digby wedded a broadly mechanistic natural philosophy to a commitment to the ten Aristotelian categories as the starting point for philosophical enquiry, would soon earn him the praise of thinkers such as Isaac Barrow, Robert Boyle, and John Wallis, and would be reprinted in London in 1658, 1665 and 1669.² By 1654, Digby had returned to England, where he was to become one of the first members of the Royal Society. The year 1658 saw the publication of his *Late Discourse. . . Touching the Cure of Wounds by the Powder of Sympathy*, which in the following years would go through a large number of editions in various languages, including French, Latin, Dutch, and German. In 1661, his *Discourse concerning the Vegetation of Plants* became the Royal Society’s first official publication. Digby died of a fever in Covent Garden on 11 June 1665.³

1.2 A Plurality of Intellectual Circles

1.2.1 *Blackloism*

Together with his friends Thomas White and the younger Aristotelian, John Sergeant, Digby was one of the most important members of the Blackloist faction of English Catholics—so named after Blacklo, one of Thomas White’s many aliases.⁴ In defending Catholicism in Protestant England, the Blackloists pursued a two-pronged strategy. On the one hand, authors such as Digby and White would argue that only reliance on the traditional wisdom of the Catholic church would guarantee genuine certainty in matters of religion. On the other hand, they sought to bring Catholicism and Protestantism closer to each other, arguing that some of the elements of Catholic religion most objectionable to Protestants were not truly part of Catholic tradition.

²In 1651, a Latin translation of the *Two Treatises* appeared as *Demonstratio immortalitatis animae rationalis, sive tractatus duo, sive Tractatus duo philosophici, in quorum priori natura et operationes corporum, in posteriori vero, natura animae rationalis, ad evincendam illius immortalitatem, explicantur*.

³After his death, three collections of (alchemical) recipes would appear under Digby’s name: *Choice and experimented receipts in physick and chirurgery* (1668), *The closet of the eminently learned Sir Kenelme Digbie Kt. opened* (1669), and *A choice collection of rare chymical secrets and experiments in philosophy* (1682).

⁴On Thomas White and the Blackloists, see Southgate 1993, chapter 5, and Tutino 2008.

We find Digby pursuing both of these strategies in his *On the Infallibility of Religion*, published in 1652. In that work, Digby asks what rule will guide a Christian in his belief, and identifies two potential ‘rules of faith’: Scripture, and oral tradition:

[T]here can be but two ways to performe that worke; the one, by writing; the other, by being handed downe from generation to generation, by the mouths of them who first and immediately received it from Christ, and taught it to those that they conversed with. (Digby 1652, 184–85)

The first is the Protestants’ rule of faith, the second the Catholics’. To the first, Digby objects that, although Protestants profess to take guidance from Scripture and Scripture only, in practice they ‘binde men to opinions that cannot be decided out of Scripture’ (Digby 1652, 190). More importantly, Digby complains that we cannot be certain about either the letter or the sense of Scripture. We cannot be certain that the letter has come down to us uncorrupted, and as for the sense, he points out that the Protestants have failed to produce

a learned logike of wordes, out of which they had extracted the set of rules whereby the sense of wordes may be pondered; and whereby one may be certaine when their sense is demonstratively knowne. (Digby 1652, 194–95)

But if we cannot be certain about the letter and sense of Scripture, this makes it unfit as a rule of faith. For when it comes to the rule that must guide us on the path to salvation, the stakes are simply too high to settle for anything less than certain knowledge:

[D]evines ought to have such assurance of what concerneth their profession; seeing, that any mistake therein, exposeth men to eternall ruine and misery. (Digby 1652, 193)⁵

According to Digby, only oral tradition will provide the infallible certainty that a rule of faith needs to provide. As parents will not conspire to deceive their children, we can be certain that the wisdom of one generation is passed on intact to the next.⁶ As Digby points out in his *Conference with a Lady*, this means that only the Catholic Church, with its ‘uninterrupted succession of Pastors and Doctors’ from the days of Christ onwards, can be relied upon to connect believers today to the original teachings of their saviour.⁷

⁵In works such as his *Sure-footing in Christianity* of 1665 and the *Five Catholic Letters* of 1687, John Sergeant would make much the same point against English divines such as John Tillotson and Edward Stillingfleet. Because we cannot be infallibly certain about its letter and sense, Scripture is unfit to guide us as a rule of faith. We may perhaps be morally certain, or certain beyond a reasonable doubt, about the text and meaning of Scripture. But to settle for a rule of faith that will provide less than infallible certainty, according to Sergeant, would be to put ‘opiniative rashness’ in the place of what he called ‘rational Faith’. See Sergeant 1665, 18. On Sergeant on the rule of faith, see Southgate 2000 and Henry 2015, 101–106. On the appeal to moral certainty in Tillotson, see Van Leeuwen 1970, 32–48.

⁶See Digby 1652, 212–13. For a similar line of argument, see White 1654, 8–9.

⁷See Digby 1638, 70. As White would later put it in his *Apology for Rushworth’s Dialogues*, the original teachings of Christ and the apostles are ‘by a direct uninterrupted live, entirely and fully

However, simply to argue for the superiority of oral tradition over Scriptural tradition was not enough. The Blackloists saw that, to secure at least toleration for Catholics in Protestant England, they must also be prepared to reform their religion. They saw that the bond between English Catholics and the Papacy had to be redefined, and argued that this spiritual bond did not entail a jurisdiction of the latter over the former.⁸ Moreover, they argued that the doctrine of Purgatory, according to which the soul is purged of its sins after its separation from the body, had to be rejected. Here was a point of doctrine, then, on which Blackloists such as White and Digby were distancing themselves from the Church of Rome, and trying to find a common ground with Protestant theology.⁹

According to the Blackloists, the doctrine of Purgatory had to be rejected on the ground that it had been a deviation from true tradition. Moreover, they argued that the very concept of a disembodied soul being purged of its sins was not metaphysically tenable. According to Digby, indeed, change is an exclusively bodily phenomenon that necessarily involves the reconfiguration of material parts. As he puts it in the *Infallibility of Religion*:

[T]here can be no change in a thing that affordeth not matter to be susceptible to a new forme. (Digby 1652, 65)

Part of what this means is that there can be no change in an indivisible soul separated from its body, and that a disembodied soul is simply not the kind of entity that can be made to suffer to be purged from its sins. Or as Digby puts it in the *Two Treatises*:

[Since] there can be no local motion in an indivisible thing, . . . it is manifest, that there can be no motion to hurt the soule, since she is concluded to be *indivisible*.¹⁰

To show that all change and alteration involve the motion and reconfiguration of material parts, Digby developed an account of bodies that wedded Aristotelian principles to a broadly mechanist programme in natural philosophy.

1.2.2 Digby’s Reconciliatory Programme

Digby’s natural philosophy has often been characterized as an attempt at reconciling ancient and modern philosophies.¹¹ In the *Two Treatises*, Digby combines Aristotelian principles with a broadly mechanist account of the operations of bodies,

descended to the present Church’ (White 1654, 8). On White on tradition as an infallible rule of faith, see Tutino 2008, 35–38. For Sergeant on oral tradition as a secure link between the original wisdom of Christ and later generations, see Sergeant 1665, 41–65.

⁸For discussion, see Tutino 2008, 44–56.

⁹For discussion, Henry 1982, 223–28, Tutino 2008, 134–35 and de Meyer 2021, 525–32.

¹⁰TT 418. For discussion, Henry 1982, 224–25.

¹¹See, for example, Blank 2007, Clericuzio 2000, 81–86, and Tutino 2008, 22f.

drawing on the new philosophies of thinkers such as Descartes and Galileo to develop his science of bodies. According to Christia Mercer, indeed, Digby can be characterized as a ‘reformed philosopher’, who, like Johannes de Raey in the Netherlands, Gottfried Leibniz in Germany, and Jean-Baptiste du Hamel in France, believed that ‘for the true science we must inform Aristotelian principles with the new discoveries’ (Mercer 1993, 63).¹² As Stuart Brown and Pauline Phemister have pointed out, Leibniz on several occasions praised Digby as a natural philosopher, mentioning him alongside leading thinkers such as Galileo, Bacon, Gassendi, Descartes, and Hobbes. ‘It seems clear’, Brown and Phemister write, ‘that Leibniz was attracted to Digby’s project partly because, unlike Descartes, he sought to reconcile the new philosophy with that of Aristotle’ (Brown and Phemister 2007, 2).

But while his admiration for both Aristotle and Descartes is evident from the *Two Treatises*, Digby’s attitude towards the Aristotelian tradition and the new philosophies is complicated. The science of bodies can be built on Aristotelian foundations, but doing this requires a particular interpretation of Aristotle, which marks a break with much of the jargon and metaphysics of his scholastic followers. And while indebted to new philosophers such as Galileo and Descartes, Digby also diverges from their philosophies, and offers critiques that—with a few exceptions—have received but little attention in recent scholarship. In this section, we will look in some more detail at the ways in which Digby draws on, and criticizes, the Aristotelian tradition and the new philosophies of his time.¹³

1.2.2.1 Digby on Aristotle and Aristotelianism

In the opening chapter of the *Two Treatises*, Digby praises Aristotle as ‘the most judicious orderer of notions, and directour of mens conceptions that hath ever lived’ (TT 5), but at the same time accuses the scholastic Aristotelians of having perverted the true sense of Aristotelianism. It is this perverted Aristotelianism of the schools, he thinks, that is incompatible with the new philosophies of the seventeenth century (TT 344). But provided they are interpreted with care, core elements of the original Aristotelian philosophy retain their value.

His treatment of the Aristotelian categories provides a clear example of this attitude. According to Digby, ‘these tenne rankes, or rather generall heads, of notions, comprise all the things and creatures that are or may be in the world’ (Digby 1652, 42). Where the Aristotelian tradition went astray was in reifying these ten notions into so many kinds of being. The world we see around us is best described in terms of substances bearing accidents of nine kinds. But it would be a mistake to think that there is a special entity corresponding to every way in which a substance can be so described. There are no *qualities* to match the description of *how* (*quale*) an object

¹²On ‘reformed philosophy’, see also Mercer 2001, 100–109.

¹³On Ross’s criticism of Digby, see Hutton 2015, 80; see also de Meyer (2021), who briefly discusses Ross’s objection to the strategy of theorising about the soul via its operations (413–14), and briefly mentions Ross’ objection to Digby’s merely spatial notion of place (419–20).

is, and no *ubications* to match the description of *where (ubi)* it is. To describe the world in this way not only flies in the face of common sense and language (TT 6), but moreover is explanatorily vacuous:

[T]his is the generall course of their Philosophy; whose great subtilty, and quaint speculations in enquiring how thinges do come to passe afford no better satisfaction then to say upon every occasion, that there is an *Entity* which maketh it so. (TT 345)

Digby’s criticism of scholastic Aristotelianism did not go unnoticed by some of the more conservative Aristotelians of the time. Thus, soon after the publication of the *Two Treatises*, Alexander Ross explicitly defends a realist interpretation of Aristotelian accidents in *The philosophical touch-stone: or observations upon Sir Kenelm Digbie’s discourses* (1645). In this short tract, Ross attacks Digby for his dissent from the philosophy of the schools, and for the perversion of the peripatetic philosophy.

What is the alternative? According to Digby, in *On Generation and Corruption*, Aristotle had shown that, in the natural world, all is done ‘*per minima*, that is in our language and in one word, by atomes’ (TT 344). Part of what he had meant by this, according to Digby, was that qualities and other accidents result from the composition or arrangement of a material substance’s elementary parts. They are not beings in their own right over and above a body and its material make-up:

[A]ll the qualities, which are natural qualities following from the composition of the Elements, are made by the mingling of the least partes or atomes of the said atomes; which is in effect to say, that all the nature of bodies, their qualities, and their operations, are compassed by the mingling of atomes. (TT 343)

In this way, Digby can take on board the criticism of real accidents from contemporaries such as Hobbes, Boyle, and Descartes, and proclaim to be following Aristotle in natural philosophy. Once purged from the jargon and metaphysical accretions of scholasticism, Aristotle’s natural philosophy as delineated in works such as *On Generation and Corruption* and the *Physics*, Digby submits, naturally goes hand in hand with the mechanical and corpuscular philosophy of the time.¹⁴

1.2.2.2 Digby and Descartes

In 1641, before the publication of the *Meditations*, Digby went to visit Descartes at his Egmont house, where the two spent about a week discussing problems related to the prolongation of life, physics, and the application of physics to medicine.¹⁵ The two philosophers had already met previously with the help of Mersenne, but we do not have much information about these exchanges. At the time, Digby was already familiar with Descartes’s *Optics* and his *Discours on Method*, which he had sent to

¹⁴Digby foresaw that conservative Aristotelians would be ‘scandalised’ by the kind of Aristotelian atomism he had developed in the *Two Treatises*. And so they were. Ross, for one, urged Digby not to ‘father . . . these your atoms upon Aristotle’. Ross 1645, 60.

¹⁵See Petersson, 124–25, and Macdonald 2002, 455.

Hobbes in October 1637. In a letter to Mersenne from 14[24] February 1639[40], Digby notes that Descartes's work is the 'production of a most vigorous and strong brain', but it is nonetheless a faulty production, because Descartes was not 'as accurate in his metaphysical part as he is in his experience' (AT IV 211–12). From the same letter, we also know that, at the time, Digby had not read Descartes's *Geometry* or what he calls *Le Discours . . . sur les Mécaniques*, but shows intent to do so (AT IV 212). Whether or not he eventually did so is unclear.

Undeniably, Digby was very interested in Descartes's philosophy, and studied it closely. His rhetoric is generally very positive towards Descartes, but we would like to suggest that, in spite of this, Digby was ultimately rather critical of Cartesian philosophy. As of yet, there has not been much discussion of how Digby read Descartes. Deborah Brown and Calvin Normore, in their recent book—*Descartes and the Ontology of Everyday Life*—devote a chapter to Digby's theory of automata. The goal of their book is to argue against a reading of Descartes's ontology on which the ordinary objects of everyday life are strictly reduced to Cartesian extension. A substantial part of chapter three is dedicated to an illuminating discussion of Digby's theory of automata, or self-movers. Digby is relevant, not only because he recognised that plant and animal bodies can be treated as natural automata, but also because, according to Brown and Normore, Digby's account of automata illustrates how such self-moving natural bodies can be treated as indivisibles, with activities proper to them *qua* wholes and emerging from the heterogeneity and hierarchical organisation of their parts and their motions (Brown and Normore, 72–78).

Digby's objections to Cartesian theories of memory and sensation have also caught the attention of scholars. In an article dedicated to the polemic between Seth Ward and Thomas Hobbes regarding the originality of Hobbes's optical theories, Jan Prins (1993) devotes a section to examining the differences between Descartes's and Digby's theories of sense perception. Prins discusses Digby's account of sense perception by material transmission of effluvia from the body to the sense organs as an alternative to the Cartesian account of sensation by percussion on exterior sense organs (TT 276–77). In his *Philosophy and Memory Traces*, John Sutton situates Digby's discussion of memory in the broader context of the critical reception of the Cartesian account of memory in early modern England. Where Descartes had proposed that memories are 'just patterned motions of spirits through brain pores', his English critics argued that such an account would lead to a denial of 'the systematicity, stability, and structure characteristic of true thinking' (Sutton 1998, 129). Thus, Digby objected that, if memories are indeed but patterns of motion in the brain, it becomes hard to see how 'things are conserved in the memory' (TT 282), and how individual memories can successfully and reliably be retrieved. On Digby's alternative account of memory, the effluvia of distal bodies acting upon the brain get stored in vacant cells in the brain, where 'they lye still and are at rest, until they be stirred up' in recollection (TT 285).

Another general issue we take Digby to level against Descartes is more methodological. According to Digby, at times Descartes uses illegitimate idealisations of

(1) bodies and (2) motions. One case of an unwarranted idealisation of bodies is the use of bodies whose borders are reduced to rigid superficieses:

Reall existence in nature is as superficially tinted in *Metaphysics*, as an other would be in Mathematicks that should allow the like to a point, a line, or a superficies in Figures. These, in their strict Notions, are but negations of further extension, or but exact terminations of that quantity which falleth under the consideration of the understanding, in the present purpose; no reall entities in themselves. (Digby 1643, 21)

If a ‘superficies’ has no real existence but is a notion of the human mind to limit extension, then, in physics, the borders of bodies, at which Cartesian collisions must happen, have to be three-dimensional, and to some extent fuzzy, and the account of collision has to take account of this. We would like to suggest that, on Digby’s understanding, Descartes does not always do so.

Another case of problematic idealisation can be reconstructed from the various worries that Digby raises against Cartesian optics. If light is a body—and both agree that it is (TT 56–58)—then, even though it is a very subtle body, it must follow the laws of Cartesian collisions. But—we suggest—for Digby, this is not always the case in Cartesian explanations. Descartes’s treatment of the speed of light and his account of refraction (in particular) are objectionable precisely because Descartes does not always treat light as a three-dimensional body incurring pressure and resistance, but as a body that moves unproblematically in a straight line ‘as if there were no resistance’ (TT 110; see also TT 108–15). More scholarship is needed to determine how Digby read specific parts of Descartes’s philosophy, and how successful (or unsuccessful) he was in formulating his critique.

1.2.2.3 Digby and Galileo

Galileo’s *Two New Sciences* (1638) is one of the main targets of Digby’s *Two Treatises*. This becomes particularly evident when one compares the published version of the *Two Treatises* with the manuscript that can be found at the Bibliothèque Sainte-Geneviève in Paris. The manuscript comes in two volumes: MS 3392, containing the treatise on the body, and MS 3393 containing the treatise on the soul. The manuscript is undeniably one of the final versions of the text, but given the various corrections and additions that can be found when comparing the manuscript with the published version, one can safely conclude that the manuscript is not the version that went to the publishing house. The manuscript is of particular use for scholars of Digby who want to make better sense of how he incorporates the scientific developments of his time into his work, and for those interested in understanding how Digby read other philosophers, such as Mersenne, Descartes, Gilbert, and Galileo.

When comparing the manuscript with the published version, one notices the care that Digby takes in arming himself with arguments and examples against Galileo’s

science of motion.¹⁶ Many of the corrections to the text of the first treatise are to be found in the chapters on gravity, light, and natural and violent motions—chapters in which Galileo is one of the dominant figures in the background. Despite the apparent praise, for Digby, Galileo commits similar errors to Descartes: the principles of his system are questionable. Digby makes this point in the 14[24] February 1639[40] letter to Mersenne, but he does not show which principles he takes to be questionable, and why. This becomes apparent in the *Two Treatises*. There, Digby makes reference to various ancient and modern philosophers, and, amongst the moderns, Galileo is the most referenced—he comes up even more frequently than Digby’s close friend, Thomas White. But Digby does not reference Galileo only to put his views to work in his own philosophy. On the contrary, more often than not, when Galileo’s name is invoked, a rampant critique of one of his views will follow. Recently, Stephen Clucas and Timothy Raylor (2020) have studied Digby’s critique of Galileo’s *Two New Sciences*, especially in regard to the free fall of bodies. Clucas and Raylor claim that Digby accepts some Galilean theses about motion—namely, that as an object moves from rest into motion, its speed increases, along with the Galilean odd number rule as one of the laws of motion—while rejecting the experimental bases of Galileo’s claims and, conceptually, his reliance on media free of resistance.

Here, we draw attention to some further points where Digby appears to distance himself from Galileo. Take the law of the odd numbers, which gives us the distance that a free-falling body traverses in equal intervals of time. The law holds for gravitational force, and it is supposed to hold generally in these cases: as long as the body falls, the law applies. Digby accepts neither of these claims: for him, the law is not restricted to gravitational motion, but is supposed to hold for all motions: ‘we must enlarge this proposition unto all motion’ (TT 71). Moreover, the application of the law is limited. The acceleration stops at the point at which the resistance of the medium overcomes the ‘cutting power’ of the body moving through the medium:

[W]e must not imagine, that the velocity of motion will alwayse encrease thus for as long as we can fancy any motion . . . For since the density of the mooveable, and the force of the Agent moving it, (which two, do cause the motion) have a limited proportion to the resistance of the medium, how yielding soever it be: it must needs follow, that when the motion is arrived unto that height which ariseth out of this proportion, it can not exceede it, but must continue at that rate. (TT 72)

Given this, we note another difference from Galileo’s position: if, for Galileo, the law holds in virtue of the supposition of continuous motion and of a medium free of

¹⁶The scholarship on Digby only recently begun to actively engage with the Sainte-Geneviève manuscript. Clucas and Raylor 2020 is currently the central piece of scholarship for anyone who wants to learn more about the composition of the manuscript, the conditions of its production, and some of the main differences from the published version. De Meyer points out that, in the manuscript version, the operations of the soul and its immortality are discussed in separate sections (de Meyer 2021, 252–53). She briefly discusses the composition of the Second Treatise (278), and provides a table comparing the table of contents of the published and manuscript versions of the treatise on body (79–82).

resistance, Digby aims to account for the law in terms of mechanical causes and their properties: i.e., cutting power and relative densities. Digby does not *simply* accept Galileo’s law of odd numbers. Instead, he seems to be suggesting that Galileo found the law of odd numbers precisely because that is how mechanical causes work. He offers a physical explanation for Galileo’s findings, under certain conditions, rather than accepting Galileo’s descriptive law. If our suggestions are correct, then new nuances could be picked up by a more detailed analysis of Digby’s response to Galileo. Additionally, it must be remembered that Digby does not challenge Galileo solely on some of his commitments about motion, but also on his theory of density, on the composition of the continuum, on some details of his account of magnetism, on projectile motion, etc. These observations are not meant as criticisms of Clucas and Raylor, but as directions for future research.

1.2.2.4 Digby and the Experimentalist Project

After the death of his wife, Venetia, in 1633, Digby retreated to Gresham College for a couple of years. There, he conducted experiments related to generation, embryology, the circulation of the blood, magnetism, optics, alchemy, and mechanics (Petersson 1956, 108). Although Digby offered general and systematic explanations for such phenomena in his *Treatise on Body*, and claimed that he was not seeking certainty in particulars and was willing to reduce high-level phenomena to the most general properties of bodies, he devoted a significant part of his scientific career precisely to collecting, recording, modifying, and performing experiments.

Digby’s interest in experimentation in general, and in alchemical experimentation in particular, remained throughout his life. As Lawrence Principe has discovered, there are several alchemical manuscripts owned by Digby to be found in Boyle’s collection, along with a large body of such alchemical manuscripts at the Bibliothèque Nationale et Universitaire de Strasbourg, many of which are in Digby’s own handwriting.¹⁷ The collection of manuscripts amounts to about 5000 pages of material, dealing with a wide variety of alchemical problems and recipes; however, by Principe’s assessment, the main theme in the manuscripts is the transmutation of metals. The material contains unpublished alchemical tracts by authors other than Digby, but also notes, recipes, and records of experiments performed by Digby himself. According to Principe, the manuscripts not only demonstrate Digby’s practices of reading texts, notetaking, and collecting, but also document the existence of a circle of alchemists in Paris in the 1650s and 1660s in which Digby was particularly active. As Principe urges, a closer reading of these manuscripts would help us understand the extent to which the alchemical tradition shaped Digby’s philosophy, and will help us better situate Digby’s laboratory practices, which have not yet received much scholarly attention.

¹⁷ See Principe 1995 and Principe 2013.

Clericuzio (Chap. 7, this volume) makes a considerable step in this direction. Further work will be needed, however. The books of miscellaneous recipes associated with Digby's name, *Choice and Experimented Receipts in Physick and Chirurgery* (1668) and *The Closet Opened*, first published in 1669, have so far been relatively little addressed in the literature. Furthermore, the reception of Digby's alchemical and cookery recipes is also notably understudied. There are some indications that Digby's reception likely extended far wider and deeper than has so far been documented. We know, for instance, that Robert Boyle closely read and annotated at least some of Digby's alchemical recipes.¹⁸ We also know that Digby had an active relationship with the Hartlib circle. And, in the eighteenth-century rearranged edition of Bacon's *Sylva Sylvarum* (1733), Peter Shaw claimed that Digby was an authority on vegetation.

At the same time, the extent to which Digby takes experiments to have the force to constrain his philosophical commitments remains somewhat unclear. From the observational and experimental reports used to develop the sympathetic cure to the systematic observations of the fertilisation of eggs, of magnetic attraction, and of the resurrection of plants, Digby's dedication to rejecting any appeal to vitalist explanations, to powers, 'specifick vertues', or to other qualities of material bodies, remained unflinching. In her studies of Digby's role in the history of alchemy, Dobbs (1973) has argued that Digby attempted to mechanise alchemy. While discussing Highmore's theory, Ekholm (2008) also explains how Digby's mechanical account of the generation of chickens is supposed to work. In addition, Keller (2012) contextualises Digby's account of generation, and shows how he mechanised John Heydon's observations. More recently, in a series of articles, Clericuzio (2018, this volume) has resisted mechanist readings of Digby. According to Clericuzio, Digby accounts for higher-level phenomena—from the vegetation of plants to plant nourishment and so forth—by taking a rather eclectic approach, which combines 'the Aristotelian theory of elements and forms and the corpuscular theory, as well as Duchesne's and Sendivogius' theory of universal spirit as the active principle responsible for life' (Clericuzio 2018, 571–72), and which makes use not only of the elemental qualities, but also rather non-mechanical components, such as nitrous salt, balsamic saline juices, and so on.

1.3 Digby's 'Philosophical' Method

As Beeley (Chap. 6, this volume) shows, Digby found himself in the role of mediator amidst a seventeenth-century mathematical dispute between Pierre Fermat, John Wallis, and William Brouncker about a range of problems in number theory. But what is the role of mathematics in Digby's system itself?

¹⁸Boyle, 'Promiscuous Observations begun the 24th of September 1655' (BP 25, 178–79).

In works such as the *Infallibility of Religion*, Digby criticizes the reliance on probabilistic reasoning in philosophy. Thinkers who ‘content themselves with probable opinions’ are ‘unworthy the name of Philosophers’ (Digby 1652, 193). After all, Digby reasons, a conclusion that is merely *probably* true may still be false (Digby 1652, 195), and no multitude of probable arguments will establish a conclusion for certain. One cannot reach a ‘something’ by piling up ‘nothings’ (Digby 1652, 16).

But where probable opinions fall short, mathematics provides the model of ‘right method’ (Digby 1643, 100). It is the science of demonstrative proof, and provides a method whereby conclusions may be derived with certainty from a set of axioms and conclusions that are ‘evident as soon as they are proposed’ (Digby 1652, 161). This method must be followed in all domains of scientific knowledge, including the science of metaphysics:

[T]he science of Mathematikes, by enterweaving a few axioms and definitions, sprooteth out, into an unbelievable progeny of subtilty and variety. Likewise, the science of Metaphysikes, by ordering such notions as occurre to every man of common sense, runneth out over the whole machine and extent of all that is. (Digby 1652, 74)

As Digby makes clear on several occasions, it is crucial not only that we follow the method of demonstrative proof, but also that in doing so we proceed from the right foundations. In this passage, we are told that, in the science of metaphysics, this starting point is provided by ‘such notions as occurred to every man of common sense’.

According to Digby, these common notions are in essence the concepts of the ten Aristotelian categories (TT 5). In the *Two Treatises* these provide the starting point for his demonstrative science of bodies and his inquiry into the nature and attributes of the human soul. In this volume, a couple of articles discuss the rationale for taking common notions as a starting point. On Nauta’s reading (Chap. 2, this volume), the common notions are used to oppose the far too specialist and restrictive vocabulary of the schoolmen and the experts. Digby is worried about theoretical speculation and the type of entities he should appeal to in order to make the system consistent. Digby’s discussion of the concept of ‘ubication’ or location is instructive in this respect.¹⁹ At the same time, however, Blank (Chap. 3, this volume) suggests that Digby, in following Gassendi, ‘uses common notions as criteria for the evaluation of hypotheses in natural philosophy . . . because they confer content to theoretical concepts’. In addition to the views of Nauta and Blank, we want to emphasise that the common notions are the primitive and self-evident starting point in the construction of a science for Digby.

Alongside common notions, Digby also frequently mentions principles:

Demonstrations are built upon certain and approved principles; and though they be but roughly pronounced, yet they convince and draw after them necessary conclusions. (Digby 1658, 17)

¹⁹For a detailed discussion of Digby’s criticism of location, see Adriaenssen, Chap. 9, this volume, Sect. 9.4. Also Blank, Chap. 3, this volume, Sect. 3.4.

The principles of a science of physics or metaphysics are like the mathematical axioms in that they are not absolute simples, but are grounded on, derived from, prior evident notions. Such principles also seem to be hierarchically layered: for instance, in the science of bodies, we encounter the seven principles of motion and interaction of mixed bodies, which Digby discusses more explicitly and systematically in the *Sympathetic cure* (Digby 1658, 18–52), which are in turn built on the principles of the four elements, which can be further resolved into their most simple principles, i.e. the basic notions—‘the notions of *Quantity*, and of the two most simple differences of quantative things, *Rarity and Density*’ (TT 30–31).

1.4 Digby’s Science of Body

1.4.1 *Quantity and Divisibility*

Digby’s natural philosophy is centred around material bodies and their operations. A successful natural philosophy is one that gets the principles of bodies right, spells out the operations of bodies based on these principles, and then formulates hypothetical explanations about how these operations are at work in the phenomena we see around us. The ‘first’ and ‘most simple principle’ of bodies for Digby, which he also calls the ‘first and primary affection’ of body, is quantity. In other words, there can be no body that lacks quantity, or bulk, and it is quantity that makes a thing ‘what we intend to signify by the name of body’ (TT 1).

But what is Digbean quantity? Historians of philosophy have recently begun to examine this concept, its origins, and its idiosyncrasies closely. Recent examples include Adriaenssen (Chap. 9, this volume), Pécharman (2020), and de Meyer (2021, 84–90). Digby defines quantity as divisibility, or as ‘the bare capacity for division’ such that parts are made out of it (TT 10). Quantity is that in virtue of which something is divisible into parts. Hence, when Digby tells us that quantity is the defining ‘affection’ of bodies, what he is telling us is that to be a body is to be divisible into parts.²⁰

From this, Digby proceeds to derive a conclusion about the ontological status of bodily parts. To say of an object that it is divisible into parts is to say that it can be divided into parts, and to deny that it actually is divided into parts. Hence, a body does not have its parts actually, but only potentially.²¹ Part of what this means is that the parts a body has are not simply given. Instead, a measure must be given by which the parts are picked out:

If you aske what Quantity there is, of such a parcell of cloth, how much wood in such a piece of timber, how much gold in such an ingott, how much wine in such a vessell, how

²⁰ See also Digby 1652, 26: ‘The very essence of body is, to be a collection of such partes’.

²¹ For White’s reading of Digby’s arguments for the claim that quantity entails potential parts, see White 1656, 32, 193–94.

much time was taken vp in such an action; he that is to giue you an account of them, measureth them by elles, by feete, by inches, by poundes, by ounces, by gallons, by pintes, by daies, by houres, and the like; and then telleth you, how many of those parts, are in the whole that you enquire of. (TT 9)

Digby’s take on quantity did not go unnoticed by his contemporaries. Georgescu (Chap. 10, this volume) shows that Digby’s contemporaries, such as Alexander Ross, Margaret Cavendish, and Joseph Glanvill acknowledged that the notion of quantity as divisibility is distinct from that of quantity as extension, and that the move from extension to divisibility comes with more or less acceptable consequences. Georgescu reconstructs the debate between Thomas White and Joseph Glanvill regarding Digbean quantity and shows the implications of the shift from actual to potential parts for Digby’s project for a natural philosophy. Digby’s theory of potential parts is probably the one theme in the metaphysical aspects of Digby’s project that has so far received substantial attention from scholars. Holden (2004, 118–26) argues that Digby’s commitment to potential parts is a mere extension of his scholastic commitments, whereas Pasnau (2011, 619–23) suggests that Digby’s views on potential parts is, contra Holden, idiosyncratic and more radical than most scholastic positions. What remains somewhat unclear is how these commitments constrain Digby’s natural philosophy, and the extent to which Digby was successful in using these commitments when accounting for how bodies operate.

1.4.2 Density and Rarity, and the Problem of Quantity over Substance

Quantity is the ‘primary affection’ of body, and it is impossible to conceive of a body without any quantity. Since quantity is divisibility, to conceive of something without quantity is to conceive of an indivisible. An indivisible thing cannot be a body because a body, by definition, is a thing with parts, and quantity is that in virtue of which a body gains its parts. However, Digby also claims that there is an ‘absolute distinction’ between a substance and the quantity it has at any given moment (TT 25). Digby offers two reasons for this. First, the notions of substance and of quantity are distinct (TT 361). Second, ‘the one may be changed and the other not’ (TT 25). Getting a grip on the exact relation between substance and quantity is not only central to understanding Digby’s metaphysics, but it is also consequential for his natural philosophy.

Digby’s account of density and rarity depends on precisely the claim that substance and quantity are distinct, such that one can vary without the other. For Digby, alongside quantity, density and rarity are the most basic notions of his natural philosophy. This is so because ‘all physical things and natural changes do proceed out of rare and dense bodies’ (TT 25), and density and rarity are ‘the first differences of bodies’ (TT 15). Rarity and density are defined by the ‘proportion of quantity to substance’ (TT 24), where a large proportion of quantity to substance makes for a rare body, and a small proportion of quantity to substance for a dense one.

But what exactly do we mean when we claim that rarity and density are defined by the ‘proportion of quantity to substance’? Here, we briefly consider two possible readings. On the first reading, Digby is proposing a broadly Aristotelian account of rarity and density. When a given amount of matter occupies a greater volume, it is rarer, and when it occupies a smaller volume, it is denser. On this account, rarefaction is the process in which a continuous portion of matter comes to take up a larger quantity of space than before. Likewise, condensation is the process in which a continuous portion of matter comes to take up a smaller quantity of space than before. In his contribution to this volume (Chap. 9), Adriaenssen develops a reading along these lines.

On this reading, Digby would appear to be vulnerable to a line of criticism formulated by Hobbes in *De corpore*. According to Hobbes, a given portion of matter has a constant quantity, which can increase only as new matter is added to the initial portion.²² Hobbes claims that, while we may be able to imagine a process in which a constant portion of matter inflates to spread out over a larger space, ‘we cannot in our minds understand how this could happen in nature’ (Hobbes 1999, chapter 8.20).

On a second reading, what is at stake in the definition of rarity and density is first and foremost the specification of different degrees of quantity or divisibility. Rarity and density differentiate bodies in terms of how many parts they can be divided into when acted upon. To say that a body is rarer than another is only to claim that it is more divisible than the other. To say that it is denser is to claim that it is less divisible than the other. For cases of sensible mixed bodies interacting, rarity and density are given relatively, with diffuseness or compactness being an effect of the more basic operation of division. For the simple bodies or elements, on this understanding, to say that there is a proportion of substance to quantity is to say that, if there is more than one elemental body in the world, there will be a difference in the limits to which each of these bodies will be divided by the other, thus allowing for more or less divisibility.

Whatever the historical origins of the account of rarity and density we are given in the *Two Treatises*, contemporary readers were puzzled by the distinction between substance and quantity that it relies on. The atomist Walter Charleton, for instance, dismissed Digby’s account of rarefaction and condensation as ‘Chimerical’ precisely because it was based on what he took to be the real distinction of substance and quantity. Such a distinction, Charleton claimed, was ‘absolutely incomprehensible’.²³ Similarly, in his reply to Thomas White’s *De mundo*, Hobbes

²²As Pasnau points out, this ‘Conservation of Quantity Principle’ was widely accepted by early modern philosophers. See Pasnau 2011, 71–76.

²³Charleton 1654, 251. It should be noted that Charleton does not explicitly mention Digby here but, as reconstructed, it seems clear that the position can be associated with Digby’s theory. Charleton’s dismissive response is especially puzzling since according to Digby the defender of atomism presupposes the distinction in the account of motion in void (TT 24). See Henry, Chap. 4, this volume, for discussion as to why Charleton might have referred to Digby while avoiding invoking his name.

criticized the very concept of a ‘proportion’ obtaining between substance and quantity:

The *rare* and the *dense* he says, *are such in virtue of the proportion of quantity to its subject*. I do not know what he would mean by these words, *proportion of quantity to subject*. It is clear to everyone that there can be a proportion between things belonging to the same genus only. Hence, there is no proportion between quantity, which is an *accident*, and a subject, which is a *substance*. There can be a proportion between quantity and quantity, or between two quantified things, but not between a quantity and what is quantified.²⁴

Hobbes in this passage raises two related complaints. First, proportions are not cross-categorical in the way White and Digby appear to assume. There can be a proportion between the quantity of one substance and that of another, but not between a quantity and the substance whose quantity it is. Second, Hobbes appears to worry that White and Digby conflate the metaphysical notion of quantity with a mathematical notion of quantity as a determined measure.

To what degree this criticism is fair of course crucially depends on how one understands the concept of a proportion between substance and quantity. As we have seen, Digby defines the quantity of a substance in terms of divisibility, or the ability to be divided by some other substance. But not all substances are divisible to the same degree. One substance will more easily divide some substances than others (TT 17). Thus, relative to one and the same divider, some substances may be said to have more divisibility than others. This may be in essence what Digby tried to capture when claiming that the proportion between substance and quantity varies between bodies. Establishing the extent to which this reading gives us a solution to Hobbes’s criticism, however, requires further work.

Either way, for Digby, the concepts of rarity and density are crucial in defining the elements. What distinguishes fire, earth, water, and air are their respective densities and rarities, in combination with their gravities. As we will see below, the gravity of a body is not some inner accident of it, but rather consists in its downward or upward motion, which results from its interaction with the bodies that surround it.

1.4.3 Introducing Gravity

The notions of quantity, density and rarity are necessary, but insufficient, to get an account of the simple bodies or elements. We also need, Digby claims, the notion of gravity, or weight (TT 26–32). Metaphysically, weight is one of the species of quantity, alongside magnitude, place, number, motion and time. Since quantity makes body, it follows that these six species of quantity are the appropriate notions for

²⁴ *‘Rara, inquit, et densa talia sunt ipsa quantitatis ad subiectum proportione. Nescio quid sibi vult per voces istas quantitatis ad subiectum proportione. Constat omnibus proportionem non esse inter ea. quae sunt eiusdem generis, nulla ergo proportio inter quantitatem, quae est accidens et subiectum, quod est substantia; potest esse proportio inter quantitatem et quantitatem, et inter duo quanta, sed inter quantitatem, et quantum esse non potest’* (Hobbes 1973, 124).

explaining the operations and interactions of bodies. But, as a species of quantity, is gravity also a property intrinsic to a body?

As early as 5 March 1639, in a letter to Mersenne, Digby had distanced himself from an account of gravity as an intrinsic accident of body which causes it to move either to the cosmic centre or to a body of a similar nature.²⁵ Bodies are, simply put, indifferent to all directions of motion. But if that is the case, what is the gravity that Digby requires in order to provide a proper definition of the elements, and why does he require it? According to Digby, gravity is that which accounts for the continuous streams of bodies moving downwards and upwards. We can, Digby claims, classify it as a natural motion of bodies just because to be a natural motion is nothing more than to be a constant, permanent motion.²⁶ Gravity is a constant and permanent motion, because every interaction between two or more bodies involves upward and downward motions of these bodies relative to one another. Why is that? Because interacting bodies are unequal in respect to their quantity, so they have different densities. Thus, the upward and downward directions of the local operations of bodies are reconceptualised based on the relative densities of bodies (for more on this, see also Sect. 1.4.4).²⁷

To make sense of the elements, Digby holds that the gravity of a body has to be ‘compared’ to its density and rarity. This comparison is done via a thought experiment concerning the different effects that gravity and density or rarity have on bodies (TT 28–29). The thought experiment can be entertained, we suggest, precisely because density, rarity and gravity are shown to be constant causes of body–body interactions.

According to Digby, the four elementary qualities—moist, dry, hot, cold—can be defined in terms of rarity, density, and gravity. Hence, the four elements characterized by these qualities, too, can be defined in terms of these three notions.²⁸ On this point as well, Digby’s claims merit closer investigation than they have so far received. Since quantity, density, rarity, gravity, and the elements are supposed to be the foundational notions for the Digbean science of body, making sense of how these notions hang together, and the extent to which they are successfully concatenated or not, will be required to articulate Digby’s specific brand of ‘mechanical’ philosophy, or of reductionism, but also to assess how successful the project actually was.

²⁵ Digby to Mersenne, 5/15 March 1639/40, Mersenne, *Correspondance*, letter 839 (in Mersenne 1932–1988, vol. 9, 205–206): ‘En ma Philosophie je bannis la gravité (et semblables accidents) comme accidents internes d’un corps et qui operant sur iceluy... Tout corps de soy est indifferent à tout mouvement’. Similar claims can also be found in TT 76, 81.

²⁶ On Digby’s account of quantity and its role in Digby’s criticism of Galilean motion, see Clucas and Raylor 2020.

²⁷ For the importance of gravity to Digby’s atomism, see de Meyer 2021, 141–49.

²⁸ For discussion, see Lasswitz 1890, vol. 2, 191–200.

1.4.4 *The Operations of Simple and Mixed Bodies*

Digby distinguishes between the operations of the elements and the operations (or motions) of particular mixed bodies. The most general operation of bodies is division. In division, for instance, a denser body, which is by definition more resistant to division, divides (breaks apart) a rarer body since it has less resistance to division (TT 32). Fire, however, which is the rarest of bodies, is also apt to divide (i.e., to divide other bodies), since nothing can divide it further. This latter claim needs to be handled with some care. It is not that elemental fire is some pre-existing natural kind for which there is no other body that can divide it. Rather, elemental fire is defined as that which nothing else can further divide: whatever it is that cannot be further divided is fire.

From division, local motion follows necessarily, because, upon division, the divided body will be circumscribed by different bodies from those that circumscribed it prior to division. Local motion, then, is not the most basic operation of bodies, but it is a necessary, and (potentially) sensible, effect of division. Local motion is ‘the quality of dividing and of being divided’ (TT 350). As such, it depends on density and rarity:

Those causes which contribute to division, or resist it, are the causes which make, or resist local motion. It hath also beene said, that Density hath in it a power of dividing; and that Rarity is the cause of being divided. (TT 69)

This operation of division and its first effect, local motion, bring about the upward and downward motion of elemental bodies. Gravity consists in this motion, and follows from the interaction of bodies with different densities. Because the Sun constantly heats the upper and lower regions of the air, its heat, along with the heating and cooling effects of the atmosphere, produce and maintain a constant stream of atoms moving upward and downward relative to each other. It is in this sense that Digby claims gravity is a universal motion of the bodies from the lower and middle regions of air. And this model of gravity suggests to him the possibility that gravity has no effect in the bowels of the Earth (TT 88). A further point to be noted here is that spatial direction—up and down, but also rectilinear direction in general—will be effects derived from the interactions of bodies of relative densities. It is not the result of some inner tendency of bodies to move to some given point, such as the centre of the universe²⁹:

[W]hat downewardes signifyeth: for eyther it signifyeth towards a fixed point of imaginary space; or towards a fixed point of the uniuerse; or towards some mooveable point. As for the first, who would. . . thinke that a naturall quality could have an essence determined by a nothing: because we can frame a conceit of that nothing. As for the second, it is very uncertaine, whether any such point be in nature. . . . As for the third position, likewise it is not intelligible how a quality should change its inclination or essence, according to the

²⁹Digby had pointed this out as early as 5 March 1639, in a letter to Mersenne. See letter 839 in Mersenne 1932–1988, vol. 9, 205–206. Similar claims can also be found in TT 76, 81.

change that should light to make now one point, now an other, be the center unto which it should tend. (TT 98)

Thus, spatial locations and properties are derived from the interactions of bodies. In which case, they are explanatorily secondary to bodies and their operations. Digby will use his theories of density, local motion, and gravity to rework the Aristotelian classification of natural and violent motions, and to criticise the Galilean science of motion. We know from the Parisian manuscript of the *Two Treatises* that Digby felt the need to heavily annotate these chapters, yet a careful analysis of the details of his theory, its role in the history of the physics and dynamics of bodies, and Digby's own role in the heated debates surrounding Galileo's treatment of falling bodies still awaits careful examination by scholars.³⁰

When it comes to the operations of particular bodies, that is, sensible, mixed bodies, Digby discusses the following: rarefaction and condensation (TT 144–57), attraction (TT 157–66), filtration (TT 167–69), restitution (TT 169–72), and electrical attraction (TT 172–75). His overarching goal in discussing these motions is to show that they can also be grounded in the operations of density and rarity. This reductionist program has to be the driving force because 'seeing that *rare* and *dense* is the primary and adequate division³¹ of *bodies*, it follows evidently that what cannot be effected by the various dispositions of rare and dense parts cannot proceed or be effected by a pure body' (TT 342). In other words, any sensible bodily effect will count as an effect of body only if it can ultimately be reduced to the laws that govern the interaction of density and rarity, and whatever derives from them. The extent to which Digby's program is successful or not remains to be analysed.

1.4.5 *What Kind of Particulate Theory of Matter? Atomism and Minima Naturalia*

As Pasnau notes (2011, 286), for Digby 'quantity gives the material realm its corporeal structure'. In the *Confessio naturae* (1669), Leibniz, following Boyle, portrays Digby as one of the revivers of Democritus and Epicurus, alongside, Galileo, Bacon, Gassendi, Descartes, and Hobbes. Similarly, Ross attacks Digby's corpuscularian interpretation of Aristotle:

[F]or though he [i.e., Aristotle] denies not *minima naturalia*, or *atomes* in bodies, which are parts of the whole; yet he never affirmed that all *actions*, *passions*, *motions*, *mutations* are performed by them. (Ross 1645, 60)

³⁰ Clucas and Raylor (2020) and de Meyer 2021 are notable exceptions. The manuscript is particularly interesting in showing the many struggles Digby had in articulating a mechanical account of gravity that not only saves relevant phenomena, but can also be made consistent with his own laws of bodies, as they derive from his account of the necessary quantitative inequality of bodies.

³¹ 'Division' here refers to categorisation or comparison by respects, rather than physical division as such.

To many of his contemporaries, Digby was beyond doubt a corpuscularian philosopher. But in spite of his frequent use of the word ‘atom’, he was by no means an Epicurean atomist. Indeed, he qualifies the Democritean and Epicurean atomic theory of bodies as ‘most contrary’ to his own (TT 24). He rejects atomism on Aristotelian grounds: the vacuum is metaphysically impossible, as are physical indivisibles, and local motion would be impossible in vacuum. Might, then, Digby’s atoms be on a par with Cartesian corpuscles? Since Digby is a plenist, and is committed to a particulate theory of matter, one might want to claim so. But, where, for Descartes, the geometrical properties of a body are necessarily part of the explanans of natural phenomena, for Digby, they are not. This has led historians to conclude that Digby belongs to the *minima naturalia* tradition.³² In the Aristotelian context, *minima* are the smallest parts of a thing in which its substantial form is preserved. *Minima* for gold, for instance, would be the smallest possible quantity of gold. If that quantity were divided further, what we would be left with would no longer be gold.

There are various points at which Digby himself implies an allegiance to this tradition:

By which word Atome, nobody will imagine we intend to express a perfect indivisible, but only the least sort of natural bodies. (TT 38)

[M]ixtion (which he delivereth to be the generation or making of a mixt body) is done *per minima*; that is in our language and in one word, by atomes; and signifyeth, that all the qualities, which are naturall qualities following the composition of the Elements, are made by the mingling of the least partes or atomes of the said Elements. (TT 343)

The extent to which we locate Digby in the tradition of *minima naturalia* will depend on what we take his commitment here to be. While, in the passages above, he does talk about the smallest units for a given kind, he is not talking about *minima* for all kinds, but only for the four Aristotelian elemental bodies. It is not clear that he is also committed to a *minima* account for mixed bodies. For Digby, mixed bodies are always acted upon by other mixed bodies, and, in many interactions, parts of these mixed bodies are displaced and mixed anew with other bodies. Are the parts displaced *minima* (or atoms) of the mixed body, or *minima* of elements? Are the *minima* of the elements distinguished by their different sensible qualities, or are these sensible qualities themselves effects of the operations of density and gravity? Are the principles of mixture (al)chemical or mechanical, i.e. derived from Digby’s accounts of the operations of relative densities upon the elemental bodies?

³²For Digby’s role in the minima tradition, see Kargon 1966, 70–73, Clericuzio 2000, 82–86, Levitin 2015, 369–72, Newman 2001, 305–306 and de Meyer 2021, 90–96.

1.4.6 *The Sympathetic Cure, Radial Theory of Bodies and Operations by Effluvia*

The Digbean topic that appears to have received most attention, both amongst his contemporaries and in the scholarship, is his weapon salve cure. Digby's treatise dedicated to explaining how the cure is supposed to work, *A Late Discourse made in a Solemne Assembly of Nobles and Learned Men at Montpellier in France . . . Touching the Cure of Wounds by the Powder of Sympathy* (1658), received dozens of editions after its publication and a series of translations in several languages (German, Dutch, French, English and Latin). Digby's contribution to the weapon salve controversy has also been of great interest to intellectual historians and historians of medicine.³³ The idea of such a cure was not novel with Digby: it was part of Paracelsian medicine, and it involved applying an ointment to the weapon that had caused the wound, or to a bandage which had covered the wound, while keeping the actual wound itself clean and sometimes covering it with a bandage soaked in the patient's urine. The treatment's relatively high rate of success led to an ongoing controversy amongst physicians and natural philosophers as to the best formula for the salve, as well as how the curative effect could be explained.

Digby's historically contested medical contribution was a vitriol formulation of the salve. To modern eyes, it might appear laughable that such a cure was taken seriously, and that it spawned the discussions it did. But close attention to the subject shows the position to be far less risible in context: the use of such a cure made a lot of sense in a time when action at a distance and sympathetic bonds between different kinds of bodies were generally acceptable views. Digby's is a curious case, however, because he is simultaneously an explicit defender of the weapon salve therapy and a staunch critic both of action at a distance, since his bodies work by local motion alone (see, e.g. TT 139–40), and of sympathies and antipathies between bodies.³⁴ When discussing sympathetic (e.g. TT 333–35) and antipathetic phenomena (e.g. TT 331–33) in sensible bodies, Digby rejects sympathies and antipathies as causes:

All of which are caused in them, not by secret instincts, and antipathies, and sympathies, whereof we can give no account . . . but by downe right material qualities (TT 332)

If sympathetic and antipathetic phenomena are not accounted for by material qualities and corporeal interactions, such phenomena remain unexplained.

There is a further reason to note Digby's rejection of sympathy: defenders of sympathies typically treat them as universal forces; all (or most) bodies show

³³On Digby's role in the weapon salve controversy, and the reception of his salve see Dobbs 1971, Hedrick 2008, and Lobis 2011.

³⁴Digby rules out action at a distance not so much following Aristotle's metaphysical arguments, but as a consequence of his commitment to the law of the sphere of activity discussed here. See TT 138–40.

sympathetic bonds.³⁵ However, when Digby explicitly dedicates two subchapters to sympathetic and antipathetic phenomena, they are reserved for bodies endowed with sense, memory and fantasy (imagination). To Digby, an antipathetic or a sympathetic response is the result of a material trace that a body emits and that is received by an animal's sense with acceptance or aversion. Multiple mechanisms *can* inform the response: in some cases, the averse response is the result of the sense's receiving material traces which indicate a source of distress for an animal of the same temper complexion as the sensing animal (Digby discusses the case of mice and mousetraps, for instance), or the result of the faculties of memory and of fantasy recognising the material traces as harmful or beneficial for the animal's specific complexion (and Digby discusses here cases of both animals and humans learning to develop harmful or beneficial responses), or as the result of inherited traits from parents which are activated in specific situations. What matters to Digby is to show that the sympathetic and antipathetic responses are not basic, but fully explainable by appeal to streams of particles received by animals via their senses.

The same is the case for the weapon salve. Digby proposes an explanation based on streams of interacting particles: those emitted from the hot wound, those emitted from the salve placed on the gun (which still has the victim's blood on it), or the bloody cloth which covered the wound. Since the wound is hot, it emits particles, at a rapid rate, which are harmful to the wounded body. At the same time, the wound supposedly receives the victim's blood particles back, since they bond to the salve and are thus emitted back into the air and eventually back into the wound—as long as the gun is not placed too far from the victim, the room in which the therapy takes place is at the right temperature, the wound is not covered, and so on. What the case of the weapon salve shows us is how Digby's theory of bodies works in practice, as Jalobeanu's chapter in this volume discusses (Chap. 8).

On Jalobeanu's reading, finding a satisfactory answer to what a body is was no easy endeavour for Digby. According to Jalobeanu, some of his solutions—the metaphysical and the mechanical—fail, but the one that Digby eventually prefers is a version of the radial theory of bodies.³⁶ According to this theory, a body has two boundaries: it has an observable boundary (what we would normally think of as the limit to the body), and it also has an 'orb', or sphere, that proceeds beyond, and is distinct from, the observable boundary; the extent of the sphere is seen through its effects, rather than through apparent visible limits. It is a sphere of activity. The archetypical case is that of a magnet: its effective limits extend far further than its visible body.

Digby makes an explicit commitment to a version of radial theory, claiming that one of the laws of bodies is that

every physical body must of necessity have an orbe of fluours, or a sphere of activity about it. (TT 189)

³⁵ See Schliesser 2015.

³⁶ Few readers have so far noted such an explicit commitment to a radial theory as Jalobeanu proposes in this volume (Chap. 8). A notable exception is Pyle 1995, 705.

[T]hese shoures or streams of atoms issuing from the compressed body are on all sides round about it att exceeding little distances, because the pores out of which they are driven are so likewise . . . [A]ccording to the multitude of them and to the force with which they are driven out, the compasse they take up round about the compressed body is greater or lesser . . . Now, this which we have declared by the example of the cold compressing a particular body happeneth in all bodies wheresoever they be in the world, for this being the unavoydable effect of heate and cold, wheresoever they reside . . . it follows evidently that there is no body in the world but hath about itself an orb of emanations of the same nature which that body is of. (TT 138)

This is the *law of the sphere of activity*. But we have to be careful how we understand Digby's law. Natural philosophers such as William Gilbert and Francis Bacon—with whom Digby would have been familiar—will say that the body has, or is endowed with, a *vis*, a power, and that its orb is the volume within which this *vis* is effective. But Digby cannot assent to a *vis* interpretation. His general commitments oblige him to mechanise the power, while preserving the orb. If the Digbean body were to have powers, his philosophical project would more or less fall apart, as the soul is the only natural power he allows in his ontology. Instead, for Digby, the sphere of activity consists in the stream of particles that the body necessarily emits, since all bodies always finds themselves in a medium (i.e., with other bodies)—a medium with a specific complexion with which it interacts. This interaction consists in an interchange of particles; hence the constant stream.

Whether Digby has a fully successful mechanistic story of these spheres of activities remains to be investigated further. What we note is that Digby appears to be a transition case between the Della Porta/Gilbert/Bacon tradition of spheres of virtues or powers to Boyle's strictly corpuscularian theory of effluvia.³⁷ The extent to which Digby's emissions of particles differ from Cartesian vortices of particles and from Boylean effluvia is not yet established in the literature.

The natural philosophical explanations that Digby develops in the later parts of the First Treatise are explanations in terms of these streams of emitted particles. Given this, it seems reasonable to suggest that the earlier chapters of the First Treatise are precisely attempts to offer his readers the rules or the laws that govern these exchanges of particles. On this reading, the entirety of *The First Treatise* is working to establish a radial, effluvia-based account of physical change.

1.4.7 *Living Bodies*

So far, we have been looking at some of Digby's explanatory principles of non-living bodies. But what about the living body? Does Digby offer a criterion for picking out the domain of the living, as distinct from the non-living? In other words, does he have a principled domain of the biological? As is clear from Digby's detailed discussions of sensation, memory, and imagination, all of these activities can and

³⁷For discussions of this radial theory of bodies also Jalobeanu 2016 and Parigi 2015.

must be explained by the same principles we use to explain magnetic attraction, the generation of metals, rarefaction, and so on.³⁸ This raises the question of what, if anything, sets the living body apart from other bodies.

In the *Discourse on the Vegetation of Plants*, we seem to find a criterion for life spelled out. Digby claims that plants are not—strictly speaking—alive because they are not self-movers: ‘They have not a principle of motion within them’ (1661, 80).

In the *Two Treatises*, however, Digby treats plants as an—albeit inferior—part of the domain of the living:

[If] we will say that a plant liveth, or that the whole moveth it selfe, and every part moveth other; it is to be understood in a farre more imperfect manner, then when we speake of an animall: and the same wordes are attributed to both, in a kind of aequivocall sense. (TT, 209)

According to Digby, there are two kinds of compound. There are compounds whose parts have been joined ‘by chance and by accident’. These compounds lack ‘harmony’, in that every part of the compound operates independently of the other. He offers the example of ‘bodies digged out of mines’ in which mutually independent bits of metal, stone, and glass happen to be found together (TT 205). The other kind of compounds have parts which depend on one another for their operations, and appear to have been united by design rather than by chance. Living bodies are of this latter kind:

[T]here are other bodies in which this manifest and notable difference of partes, carrieth with it such a subordination of one of them unto an other; as we can not doubt but that nature made such engines (if so I may call them) by designe; and intended that this variety should be in one thing; whose unity and being what it is, should depend of the harmony of the severall differing partes, and should be destroyed by their seperation. As we see in living creatures. (TT 205)

Digby notes that ‘of this latter kind of bodies, there are two sortes’: plants and animals. These two kinds of living bodies differ, however, in one important respect. According to Digby, in a plant, all of the individual parts perform the same operation: ‘the operation of one part is not att all different from that of an other’. In animals, however, all parts ‘have such a peculiar motion proper unto them’ (TT 205).

As Brown and Normore have recently argued, the individual parts of an animal jointly constitute what they call an automaton. An automaton has to satisfy four conditions: (a) it has to be made of various distinct parts, each of which performs distinctive operations; (b) these parts have to be interdependent and hierarchically organised such that existence of the automaton is preserved by their interdependence and structural organisation; (c) the automaton is a proper indivisible whole because its division will not result in two smaller automata of the same kind; and (d)

³⁸On the Digbean account of sensation as material transmission, see in particular de Meyer 2021, 187–201. De Meyer nicely shows that Digby reverses the traditional epistemological order of the senses, and prioritizes touch over sight (192). It is not entirely clear, however, on what grounds Digby can do so. After all, all senses work by the transmission of corporeal effluvia, and this makes it hard to see in what sense exactly one sense could be more ‘worthy’ or ‘objective’ than another. In general, the implications that Digby’s theory of sensation as material transmission has for his views on empirical methods have not yet been worked out in the scholarship.

the automaton as a whole and its individual parts perform different operations (Brown and Normore 2019, 75).

What all of this indicates is that in Digby's biological domain, we encounter a new kind of material body: the heterogenous proper whole. While some of these operations of such bodies—sensation, memory, reproduction—have received attention in the literature,³⁹ there is still some work to be done to understand these heterogenous wholes, how they relate with Digby's theory of mixtures, their place within the system of Digbean bodies, and perhaps the extent to which they follow the most general principles of bodies. The extensive biological part of the first treatise might well prove to be an interesting laboratory for stress-testing the consistency of Digby's system.

1.5 Digby's Science of the Soul

In his contribution to this volume (Chap. 5), Seth Lobis studies the integration of philosophy and theology in Digby's work. Against thinkers such as Pomponazzi in the sixteenth century and Thomas Browne in the seventeenth, Digby maintains that philosophy can provide a foundation for religion, and that dogmas such as the immortality of the soul are capable of rational proof. For Digby, as for White in *De mundo*, 'the highest and best part of philosophy is none other than the way and the preparation for the journey to theological truths' (White 1642, 433).⁴⁰

In the *Two Treatises*, Digby's strategy to prove the immortality of the soul had been to point out the limits of mechanism. In the First Treatise, he argues that all bodily operations are realized by matter in motion. In the Second Treatise, he turns to the operations of the human soul, and argues that these cannot be realized in the same way. From this, he concludes that the operations of the soul are not bodily operations, and that the soul is not a bodily substance. But if the soul is not a bodily substance, it is not the kind of entity that can be broken up into parts. It must therefore be immune to the kind of corruption bodies are subject to.

In the Second Treatise, Digby provides detailed discussions of a large number of mental operations to build his case that the operations of the soul cannot be realized by matter in motion.⁴¹ Among the mind's abilities, two cases that Digby appears to attach special weight to are its ability to abstract universal content from single instances, and its ability to compare or relate two or more individual beings or events to one another.

According to Digby, the senses represent individual objects only. For example, they will represent this or that man in particular, as having this figure and shape

³⁹On Digby on animal generation, see Needham 1959, 121–30, Blank 2007, de Meyer 2021, 220–36. Also briefly Adriaenssen and de Boer 2019, 65–67.

⁴⁰Translation Lobis, Chap. 5, this volume, note 8.

⁴¹For a detailed treatment of the soul's operations, see de Meyer 2021, 257–93.

rather than another, and as existing at some particular place and time. The mind, however, has the ability to abstract away from these and other individuating conditions, and is able to form a representation of man in general: a representation that is indifferent to this or that man in particular, to any particular figure or shape, and to existence at any particular place or time.

Now, according to Digby, representations of this kind cannot possibly be material entities. After all, every material entity is an entity with one figure or shape rather than another, and with one location in space and time rather than another:

It is impossible to imagine any bodily thing whatsoever, to be at any time without all kind of figure, without any place at all, or indifferent to this or to that. (TT 397)

Hence, Digby concludes, no material entity has the capacity to represent in a way that is indifferent to a particular shape or figure, or a particular place and time. For example, no material entity will represent to the mind, or display, human being without representing this or that human being, with this or that shape, and at this or that location:

Such a nature as this of indifferency to distinct and different things, can neither be in it self corporeall, nor be represented by bodies or by subtile and grosse partes variously disposed. (Digby 1652, 38)

But if mental representations cannot be material devices, the soul processing them cannot be material either. It has to be an immaterial substance.

The ability the soul has to compare and to represent what Digby calls the 'respects' and relations among beings and events provides another argument for its non-bodily nature. He reasons as follows. When we see two white walls, our mind will make present to us, not only two individual white walls, but also the similarity between them. But in doing so, it goes beyond what material reality provides to it. What material reality provides to the mind are just the two individual white walls. There is no such thing as 'a likeness' or 'a similarity' to be found in the material world. Hence, nothing in the material world will represent, or display, a likeness or similarity in the mind. The only thing that could make a likeness or similarity present to us, therefore, is an immaterial device, and the substance processing these representations must be an immaterial substance:

[Likeness] is no where to be found in its formall subsistence, but in the apprehension of man, and therefore it can not be described by any similitude, nor be expressed by any means . . .by the sound of a world . . . and therefore there is nothing out of us, to paint it by. (TT 359–60)

Digby's argument for the immortality of the soul from the limits of mechanism enjoyed a mixed reception. Thus, in a letter of 21 May 1671 to Johann Friedrich, Duke of Hannover, Leibniz wrote the following of Digby on the immortality of the soul:

In the end, his argument comes down to this: thought cannot be explained from motion and shape, and so the mind is not a body. Correct, but that thought cannot be so explained is what needed to be proven. To conclude that thought cannot be explained from motion and shape because Digby, endowed with such a great intellect and with such a solidity of judgment, could not so explain it, is a very weak argument.

The proof for the immortality of the soul provided in the *Two Treatises*, Leibniz concluded, was at most ‘a moral proof’ which failed to establish the immortality of the soul with certainty.⁴²

At the same time, however, attempting to build the immortality of the soul on the limits of mechanism looked like a promising strategy to many.⁴³ Thus, in his contribution to this volume (Chap. 4), Henry shows that, after Digby, this strategy was taken up by leading Anglican thinkers, and that, whether they knew it or not, thinkers from Charleton to Bentley, Stillingfleet, and Clarke would defend the immortality of the soul in essentially the same way Digby had in the *Two Treatises*. Like Digby, they argued that the science of the soul began where the science of body ended, and that matter in motion simply did not afford the means to realize the operations carried out by the human mind.

1.5.1 *The Resurrection of the Body and the Soul as Form*

Having established the immateriality of the soul, Digby concludes that ‘man is compounded of some other substance besides his body’, and goes on to praise ‘Avicenna in his booke *de Anima and Almahad*, and Monsieur des Cartes’ for showing how ‘the soule doth subsist of it self independently of the body’ (TT 415–16). But while the soul is capable of existing independently of the body, the converse does not hold.

According to Digby, body and soul relate as matter and substantial form. Part of what this means, is that the soul is the ‘distinguisher and individuator’ of the body. A human body is the individual body it is because of the soul that informs it. And it remains the same body for as long as it continues to be informed by the same soul:

Let us consider then how that which giveth the numerical individuations to a Body, is the substantiall forme. As long as that remaineth the same, though the matter be in a continuall fluxe and motion, yet the thing is still the same. (Digby 1643, 65)

Because sameness of form guarantees sameness of body, the individual body can survive a fair amount of change on the level of its material constitution. But it also means that a body separated from its soul no longer is the individual it was. In spite of his praise for Avicenna and Descartes, then, Digby is not the kind of dualist for whom body and soul are two independent substances, each with an individuality and identity of its own.

⁴² ‘Huc redit in summa ejus argumentatio: non posse ex motu et figura exponi cogitationem, ergo nec mentem esse corpus. Recte sed hoc demonstrandum erat: exponi ex iis non posse, quia Digbaeus tanto ingenio tanta judicii soliditate praeditus non potuit? infirma consequentia est. . . . Demonstratio igitur Digbaei, si resolvas, in summa moralis est, seu conficit immortalitatis non certitudinem, sed praesumptionem’. A II 1, 180–81.

⁴³ On this methodology in Digby, see also Levitin 2015, 246–50. According to Levitin, Digby in the *Two Treatises* claimed to be ‘reviving the ‘true’ Aristotelian approach that worked from physics outwards to prove the soul’s immortality’ (Levitin 2015, 248).

Digby applies this analysis of the relation between body and soul to the dogma of the resurrection of the body, which he initially discusses in the *Observations*, but explicitly expands on in *Discourse on the vegetation of plants*.⁴⁴ As Clericuzio shows in his contribution to this volume (Chap. 7), Digby in this short text addresses a number of natural philosophical problems related to the generation and growth of plants, and the possibility or impossibility of palingenesis or regeneration of the same plant through a series of alchemical experiments and recipes.

In the *Discourse*, Digby describes an experiment in which he calcined nettles, produced lye from their ashes, dissolved the lye in water, and let the water freeze over. He reports that, as the result of his efforts, nettle-shaped structures would appear in the congealed water, but that these structures lacked the colour of the original nettles. In the process from the calcination of the nettles to the appearance of nettle-shaped structures in the congealed water, he conjectured, not all of the essential parts of the original plants had been preserved, and their substantial forms had been destroyed in the process. The appearance of nettle-shaped structures did not amount to a true palingenesis, and his experiment had failed to regenerate the original nettles⁴⁵:

I conceive that a new areall body and thing is made out of the Plant that furnished matter for this new substance, and whose substantiall form is totally destroyed, and a new one produced into the World; which is accompanied with many accidents like unto many of those that belonged to the precedent substance. (Digby 1661, 81–2)⁴⁶

But if his efforts had failed in the case of the nettles, Digby reports more success in his attempt to regenerate crayfish. Living bodies could be regenerated from their ashes, then, and this observation leads Digby to a discussion of the resurrection of the human body towards the end of his treatise. Central to this discussion is the claim that matter is individuated by form, and that ‘matter abstracted from the Form, hath no determinate being, no individuation’ (Digby 1661, 92). What makes a human body the individual body it is, then, cannot be its matter. Rather, what makes a human body the individual body it is has to be the soul that informs it. And with this account of individuation in place, the resurrection of the same body becomes perhaps surprisingly easy. After all, as long as your soul or form is preserved, any portion of matter attached to it at the end of times will again constitute your

⁴⁴Alexander Ross (1645, 99–109) criticizes Digby’s views on the resurrection of body.

⁴⁵According to Digby, even if all of the essential parts of the original plant had been preserved and if he had succeeded to regenerate the same plant, this would not have amounted to the regeneration of a living body. For, as Clericuzio discusses in his contribution to this volume (Chap. 7), Digby found that plants lacked an inner principle of motion, and so could not strictly speaking be said to be alive (Digby 1661, 80).

⁴⁶If the substantial form of a plant can be destroyed in the course of chemical processes such as the one described here by Digby, can we say that it remains intact as a plant grows and develops over time? According to Adriaenssen and de Boer (2019), Digby is committed to the view that plant forms persist, and that individual plants persist for as long as their forms do. On another reading, when Digby says that bodies owe their individuation and identity over time to their forms, he is referring to human bodies only, and plant bodies do not retain an identity over time the way human bodies do.

body—the same individual body you had before you died. As he had colourfully put it to Browne in his earlier *Observations upon Religio Medici*:

[I]f God shoud joyn the *Soule* of a lately dead man . . . unto a *Body* made of earth taken from some mountaine in *America*; it were most true and certaine that the body he should then live by, were the same Identically body he lived with before his *Death* and late *Resurrection*. It is evident that *samenesse*, *thisnesse*, and *thatnesse*, belongeth not to matter by it selfe, (For a generall indifference runneth through it all) but only as it is distinguished and individuated by the *Forme*. (Digby 1643, 86)

The Aristotelian notion of substantial form has no role to play in Digby's natural philosophy theory of bodies and their operations. But it is crucial to his metaphysics of the soul and the afterlife.⁴⁷

1.6 Conclusion

Digby was a thinker trying to navigate his way between traditions, combining what he believed to be the best of several worlds. He maintained the ten Aristotelian categories at the core of his system, while nevertheless looking to the new philosophies of his time to analyse the qualities of, and causal interactions between, bodies. It is thus that, in the *Two Treatises*, we find high praise for Aristotle ('the most iudicious orderer of notions. . . that hath ever lived', TT 5), as well as for Descartes, who 'by his heroyke attempts. . . hath left us no excuse for being ignorant of any thing worth the knowing' (TT 275). The result of his attempts to find a 'Digbean way' between old and new philosophies was a rich philosophy of remarkable depth and breadth. Thus, in the *Two Treatises*, a critical discussion of the Aristotelian categories provides the overture for an innovative mereology centred around the notion of quantity, a subtle discussion of Galileo on motion, an account of animal generation building on and amending Harvey's discussion of epigenesis, and, in the Second Treatise, an account of the operations of the soul intended to establish its immaterial and immortal nature.

While recent years have seen something of a renewed interest in Digby's work and its intellectual context, fundamental aspects of the Digbean way and its reception in the seventeenth century still await further discussion. The contributions in this volume take a closer look at a selection of themes central to the *Two Treatises* and other writings. These include the epistemology of common notions, Digby's

⁴⁷According to Lloyd Strickland, Digby and Descartes defend very similar accounts of the resurrection of the body. This makes them both indebted to scholastic hylomorphism (Strickland 2010, 176–79). Note, however, that, few scholastics would go so far as Digby, and claim that any random portion of matter ('from some mountaine in America') will, when united to my soul, suffice to re-constitute my body at the Day of Judgment. It was much more common to hold that the resurrected body would have at least some material overlap with the body before death, and that, for instance, a part of the 'seminal matter' out of which the living body first developed would return in the glorious body after its reunion with the soul. For discussion, see Reynolds 1999, and Fitzpatrick 2017.

ecumenical project, his argument for the immortality of the soul, and his ontology of material bodies as divisible but actually undivided wholes.

We realize that, in a single volume, it is impossible to do justice to the full breadth of Digby’s thought. Accordingly, some topics that receive careful discussion in the *Two Treatises* and other works—such as voluntary motion, the passions, and animal sensation—feature less prominently in the following chapters than others. We hope, however, that the present volume will become part of an ongoing conversation about Digby’s place in early modern intellectual history, and that it will stimulate further discussion of his many contributions to the philosophical, scientific and religious and debates of his time.

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