



MARGARET CAVENDISH, STOIC ANTECEDENT CAUSES, AND EARLY MODERN OCCASIONAL CAUSES

[Eileen O'Neill](#)

Presses Universitaires de France | « [Revue philosophique de la France et de l'étranger](#) »

2013/3 Tome 138 | pages 311 à 326

ISSN 0035-3833

ISBN 9782130618638

DOI 10.3917/rphi.133.0311

Article disponible en ligne à l'adresse :

<https://www.cairn.info/revue-philosophique-2013-3-page-311.htm>

Distribution électronique Cairn.info pour Presses Universitaires de France.

© Presses Universitaires de France. Tous droits réservés pour tous pays.

La reproduction ou représentation de cet article, notamment par photocopie, n'est autorisée que dans les limites des conditions générales d'utilisation du site ou, le cas échéant, des conditions générales de la licence souscrite par votre établissement. Toute autre reproduction ou représentation, en tout ou partie, sous quelque forme et de quelque manière que ce soit, est interdite sauf accord préalable et écrit de l'éditeur, en dehors des cas prévus par la législation en vigueur en France. Il est précisé que son stockage dans une base de données est également interdit.

MARGARET CAVENDISH, STOIC ANTECEDENT CAUSES, AND EARLY MODERN OCCASIONAL CAUSES*

Margaret Cavendish was a seventeenth-century critic of the mechanical philosophy, who offered an alternative, organicist explanation of natural change.¹ One of the key concepts used in her explanations is that of an “occasional cause.” In this paper, I explain what an occasional cause is for Cavendish and I do so, in part, by tracing the concept’s philosophical pedigree. I also briefly discuss

* This paper is dedicated to the memory of my teacher, Michael Frede (1940-2007).

1. A biographical sketch, and lists of Cavendish’s published works and of selected secondary sources can be found in the introductory material to my edition of Cavendish’s *Observations upon Experimental Philosophy*; see fn. 4 below. For a modern biography of Cavendish, see Katie Whitaker, *Mad Madge: The Extraordinary Life of Margaret Cavendish, Duchess of Newcastle, the First Woman to Live by Her Pen* (New York: Basic Books, 2002). For a recent collection of essays on Cavendish, see *A Princely Brave Woman: Essays on Margaret Cavendish, Duchess of Newcastle*, ed. S. Clucas (Aldershot: Ashgate, 2003). For intellectual influences on Cavendish’s writing, see Anna Battigelli, *Margaret Cavendish and the Exiles of the Mind* (Lexington: University of Kentucky Press, 1998). Important recent philosophical treatments of Cavendish include: Jacqueline Broad, *Women Philosophers of the Seventeenth Century* (Cambridge: Cambridge University Press, 2002); David Cunning, “Cavendish on the Intelligibility of the Prospect of Thinking Matter,” *History of Philosophy Quarterly* 23 (2006): pp. 117–136, and “Margaret Lucas Cavendish,” *The Stanford Encyclopedia of Philosophy* (Summer 2012 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/sum2012/entries/margaret-cavendish/>; Karen Detlefsen, “Atomism, Monism, and Causation in the Natural Philosophy of Margaret Cavendish,” in *Oxford Studies in Early Modern Philosophy*, vol. III, ed. D. Garber and S. Nadler (Oxford: Clarendon/Oxford University Press, 2006), “Reason and Freedom: Margaret Cavendish on the Order and Disorder of Nature,” *Archiv für Geschichte der Philosophie* 89 (2007): pp. 157–191, and “Margaret Cavendish on the Relationship Between God and World,” *Philosophy Compass* 4 (2009): pp. 421–438; Kourken Michaelian, “Margaret Cavendish’s Epistemology,” *British Journal for the History of Philosophy* 17 (2009): pp. 31–53.

the role occasional causes play in Cavendish's natural philosophy and in Descartes'.

1. Cavendish's Rejection of the Mechanical Philosophy

Cavendish's metaphysics and natural philosophy were constructed, in part, in opposition to all those who made reference to incorporeals in their explanations of natural phenomena. Her system of nature was also a response to what she saw as the mechanical philosophy's failure to explain natural change. Thus, she not only argued against Descartes' quasi-mechanical dualism, with its attribution of a causal role to the incorporeal mind in such phenomena as sense perception and voluntary motion, but she also argued against Hobbes' purely materialist mechanical philosophy. She agreed with Hobbes that (1) all natural change is change of motion. However, she argued that his mechanical principle, that (2) all motion in a body must come from a contiguous external body through impact, is inconsistent with the doctrine that (3) natural change does not take place through the transfer of an accident (such as motion) from one subject to another.

Despite Hobbes' (and Descartes') explicit rejections of the doctrine of the transmission of accidents such as motion, Cavendish held (as Leibniz later would) that a transmission model must underlie any mechanical explanation of change. On her view, mechanical explanations themselves rely on such things as the transfer or translation of motion through impact; a mechanical explanation of sense perception typically involves the impressing or imprinting of a figure upon a corporeal organ. If so, what else could these processes be other than the actual transmission, or giving over, of motions or images from cause to effect? She has two main reasons for rejecting the transmission model.

(1) If motion is a mode of a body, as most of the mechanical philosophers held, then motion cannot travel outside of the bodily substance in which it inheres during the process of being transferred into another body (*Philosophical Letters*, p. 98).² For, this would be to give motion the dubious status of the "real qualities" of the scholastics: things that are just qualities or modes, but that somehow possess the status of "complete things," i.e., substances. And the mechanical philosophers generally denied the existence of real qualities.

2. Margaret Cavendish, *Philosophical Letters* (London, 1664).

(2) Given, then, that motion is inseparable from material body, if motion were transferred, this would require that a portion of material substance be transferred. This would entail that each translation of motion upon impact with another body would diminish not only the motion in the agent of change, but also the agent's "substance and quantity" (*Philosophical Letters*, p. 77; p. 98). Cavendish's point is not to deny that any diremptive actions take place in nature, but rather to show why the mechanical transfer of motion upon impact cannot underlie *all* natural change.³

She offers the following account of changes in the quantity of motion in individual bodies as an alternative to that of the mechanical philosophy:

One body may either occasion, or imitate another's motion, but it can neither give nor take away what belongs to its own or another body's substance... Wherefore every creature being composed of this commixture of animate and inanimate matter, has also self-motion, that is life and knowledge, sense and reason, so that no part hath need to give or receive motion to or from another part; although it may be an occasion of such a manner of motion to another part, and cause it to move thus or thus: as for example, a watchmaker doth not give the watch its motion, but he is only the occasion, that the watch moves after that manner, for the motion of the watch is the watch's own motion, inherent in those parts ever since that matter was [...] Wherefore one body may occasion another body to move so or so, but not give it any motion, but every body (though occasioned by another, to move in such a way) moves by its own natural motion; for self-motion is the very nature of animate matter [...] (*Philosophical Letters*, p. 98; pp. 99–100).

We need to clarify Cavendish's notion of an "occasion" and distinguish it from her notion of a "prime or principal cause" (*Philosophical Letters*, 79). We also need to ask whether her commitment to an account of change in the quantity of motion in bodies, in terms of occasional causes, implies that the parts of nature are causally inefficacious (in terms of efficient causation) with respect to each other. That is, does Cavendish deny transeunt efficient causation à la Leibniz? Further, are her occasions those of Malebranche, namely, causally inefficacious conditions, without which God would not have so acted?

3. Walter Charleton, in *Physiologia Epicuro-Gassendo-Charltoniana, or a Fabrick of Science Natural Upon the Hypothesis of Atoms...* (London, 1654), discusses an argument, which he attributes to Alexander of Aphrodisias (fl. c. 200 A. D.), according to which "a continual efflux of substance must minorate the quantity of the most solid visible" (p. 140). One of Charleton's responses is that while bodies are continually losing minute parts of themselves in acts of natural change, these same bodies are also continual recipients of substantial effluvia from other agents of change.

2. Cavendish's Rejection of Malebranche's Occasionalism

Let me begin with the latter question. Cavendish makes it clear that she would reject Malebranche's occasionalism. While holding the orthodox view that God is a "spiritual, supernatural and incomprehensible infinite" (*Observations*, p. 220), she nonetheless argues that

[God] being immovable, and beyond all natural motion, cannot actually move matter; neither is it religious, to say, God is the soul of nature; for God is no part of nature [...] (*Observations*, p. 230).⁴

In order to determine precisely what Cavendish's occasional causes are, and what type of causal efficacy they have, if any, it will be useful to give a thumbnail sketch of some central features of her system of nature.

3. Cavendish's Neo-Stoic Organicism

(I) Materialism

Cavendish maintains that there are neither incorporeal substances nor incorporeal qualities in nature (*Observations*, p. 137). Instead, there is a single principle of all natural phenomena, namely matter, which comes in two "degrees": First, there is "animate matter," which parallels the ancient Stoics' God or *pneuma*—the living, intelligent, fiery breath, which is the designing force that binds the natural world into a single, continuous body, but also gives rise to the differentiated characteristics of natural things. Second, there is "inanimate matter," which parallels the Stoics' inert, undifferentiated Matter (*Observations*, p. 211). She breaks from the Stoic tradition, however, not only in using the term "matter" to refer to an active principle, but also in further specifying the functions of the active principle: animate matter is itself composed of "sensitive matter" and "rational matter." Sensitive matter, whose motions carry along the inanimate matter, gives rise to the variety of configurations in nature and makes nature a single living body filled with diverse bits of sensitive knowledge. Rational matter imbues parts of nature with a more general knowledge of the whole; when it moves within itself, it produces "fancies, thoughts,

4. Margaret Cavendish, *Observations upon Experimental Philosophy* (London, 1666). All page references are to the modern edition: *Observations upon Experimental Philosophy* (1668), ed. E. O'Neill (Cambridge: Cambridge University Press, 2001).

imaginations [and] conceptions,” and when it moves in tandem with the motions of sensitive matter, it produces sense perception (*Observations*, pp. 150–65).

(II) Complete Mixture

Cavendish makes use of the Stoic theory of “blending” or “complete mixture” in her account of the relation of the two degrees of matter. Just as the Stoics held that the coherence and orderly structure of nature was due to the all-permeating and active *pneuma* being everywhere mixed with matter, so too Cavendish maintains that

there is such a commixture of animate and inanimate matter, that no particle in nature can be conceived or imagined, which is not composed of animate matter, as well as of inanimate (*Observations*, p. 158).

So the mixture of animate and inanimate matter is not simply juxtaposition or meeting at a surface. For if we took a tiny portion of animate matter which was so joined to a tiny portion of inanimate matter, we could still find a tinier subsection of the former that was not in contact with any subsection of the latter. But complete blending requires that any particle you pick, no matter how small, will be composed of both types of matter. We should not think, however, that she has in mind some type of fusion. The two degrees of matter

do constitute but one Body, because of their close and inseparable conjunction and commixture; nevertheless, they are several parts, (for one part is not another part) (*Observations*, p. 127).

In other words, animate and inanimate matter, insofar as they are blended, have not lost their specific characters; rather, they remain distinct “degrees” of matter, which nevertheless are found completely blended together throughout nature.

(III) Pan-Organicism and Pan-Psychism

Cavendish stresses that the blending with inanimate matter includes not just sensitive matter, but rational as well. She denies that rational matter, or mind, exists only in the brain or some other region of the human body. Rather, animate matter moves throughout nature with the result that nature is everywhere filled with “sensitive and rational knowledge” (*Observations*, 207). Pan-organicism and pan-psychism, then, follow directly from Cavendish’s application of the theory of blending.

(IV) Continuum Theory of Matter

We might think, due to complete blending, that pan-organicism and pan-psychism apply all the way down in nature to its least parts, or atoms. And we might suppose that nature is the sum of the elaborate combinations of atoms, and, thus, that atoms are the first principles of natural phenomena. But this is not Cavendish's position. Like the Stoics, she embraces a continuum theory of matter. She holds that complete blending confers a unity on animate and inanimate matter, making of them a single, continuous, self-subsistent organism. The parts of this continuous, organism are not themselves wholly self-subsistent, but depend for their existence and properties on their relation to each other and to the whole of nature:

[T]he head, although it has a whole and perfect figure, yet it is a part of the body, and could not subsist without it. The same may be said of all other particular and perfect figures: As for example, an animal, though it be a whole and perfect figure, yet it is but a part of earth, and some other elements, and parts of nature, and could not subsist without them [...]. All which proves, that there are no single parts, nor [...] composition of loose atoms in nature [...] because nature is a body of a continued infiniteness [...] (*Observations*, pp. 126–27).

She further argues that if there were such self-subsistent parts:

[N]ature would be like a beggar's coat full of lice: Neither would she be able to rule those wandering and straggling atoms, because they are not parts of her body, but each is a single body by itself, having no dependence upon each other. Wherefore, if there should be a composition of atoms, it would not be a body made of parts, but of so many whole and entire single bodies, meeting together as a swarm of bees (*Observations*, p. 129).

While Cavendish can talk about portions of the continuous body of nature, and even distinguish one portion from another on the basis of the ratios of rational, sensitive and inanimate matter, which give rise to perceivable configurations, this does not commit her to the atomic account of matter. That is, it does not commit her to the view that there are self-subsistent atoms, the sum of whose aggregates is corporeal nature. And her examples show that her objections to atomism are not just to the mechanists' atoms. Even if the *minima* of nature were animate, like bees or lice, aggregations of such *minima* would not yield unified, middle-sized bodies; we would just have unruly swarms.⁵

5. Cavendish sometimes makes use of structural explanation, as when she suggests that the figures of the particles of salt water are pointed, which accounts for such things as salt's penetrating quality (*Philosophical Letters*, p. 118). But she

I hope that this thumbnail sketch of Cavendish's views has given some indication of the important influence Stoic philosophy had on the construction of her organicist system of nature. This quite naturally leads us to the question whether the Stoics' views about causes may have influenced Cavendish as well and, in particular, whether their views can help us understand her notion of an occasional cause. In what follows, I suggest that they can.

4. The Ancient Stoics' Account of Causes

Cavendish was certainly familiar with Chrysippus' Stoic views about causes, as reported by Cicero in the latter's *De fato*, since this material is paraphrased in Thomas Stanley's *A History of Philosophy* (1687) – a work that Cavendish tells us she studied.⁶ According to Cicero:

Chrysippus [...] distinguishes different kinds of causation [...]. 'Some causes', he says, 'are perfect and principal [*perfectae et principales*], others auxiliary and proximate [*adiuvantes et proximae*]. Hence when we say that everything takes place by fate owing to antecedent causes [*causis antecedentibus*], what we wish to be understood is not perfect and principal causes but auxiliary and proximate causes'. Chrysippus goes back to his roller and spinning-top [*ad cylindrum et ad turbinem suum*], which cannot begin to move unless they are pushed or struck, but which when this has happened, he thinks, continue to move of their own nature, the roller rolling forward and the top spinning around. 'In the same way therefore,' he says, 'as a person who has pushed the roller forward has given it a beginning of motion, but has not given it the capacity to roll [*volubilitatem*], so a sense-presentation [*visum*] when it impinges will it is true impress and as it were seal its appearance on the mind, but the act of assent [*assensio*] will be in our power, and as we said in the case of the roller, though given a push from without, as to the rest will move by its own force and nature [*suapte vi et natura*].'⁷

The contemporary critical literature is filled with debates about how to understand the distinction between Stoic "perfect and principal" versus "auxiliary and proximate" causes that Cicero reports. For example, are perfect causes principal causes, and are proximate

holds that her occasional use of structural explanation in no way commits her to a particulate matter theory (*Philosophical Letters*, pp. 117–21).

6. The paraphrase of Chrysippus' views (as reported in Cicero's *De fato*) appears in Thomas Stanley, *A History of Philosophy* (1687) (New York/London: Garland Publishing, Inc., 1978), vol. II, chap. 7, p. 432. Cavendish tells us of her study of Stanley's *History* in her *Observations upon Experimental Philosophy*, p. 249.

7. Cicero, *De oratore Book III, De fato, Paradoxa Stoicorum, De partitione oratoria*, with an English translation, ed. and tr. H. Rackham (Cambridge, Mass./London: Harvard University Press, 1942), pp. 237–241.

causes auxiliary causes?⁸ Is it the case that neither the person giving the external push, nor something internal to the cylinder is a Stoic perfect and principal cause?⁹ Whatever the truth of the matter with respect to the views of the ancient Stoics, I am interested in the way their views made their way into early modern philosophy. Since the early moderns, as we will see, take the nature and force internal to the cylinder to be a Stoic perfect and principal cause, I will focus, in what follows, on this reading of Cicero. Again, since the early moderns largely take up only the distinction between proximate, i.e., antecedent causes (the Stoic *prokatarktika*) on the one hand, versus the perfect (*autoteles*), i.e., containing causes (the Stoic *sunektika*) on the other hand,¹⁰ I too will focus on the distinction between antecedent and perfect causes.

As Michael Frede points out, in Cicero's report of Chrysippus' view the main point of the distinction is that, while what a person or thing does is always fated, that is, determined by an antecedent cause, it is not the antecedent cause but instead the person herself or thing itself, or something about the person or thing, which is responsible for the behavior. And the latter is the perfect cause.

In one of the examples Cicero gives, the sense impression (let us say, of a pleasant, shady place to sit on a hot day) is the antecedent cause of the person's coming to sit in the shady spot. There is a counterfactual dependence here: without the impression, there would not be this behavior. But the impression does not necessitate the action; it is something about the person which makes that person accept the impression. The perfect cause, which makes the person accept the impression, and which necessitates the behavior, rests within the person.

8. In "The Original Notion of Cause" in his *Essays in Ancient Philosophy* (Minneapolis: University of Minnesota, 1987), Michael Frede suggests the answer is 'yes' – though he is careful to show why not all auxiliary [*sunerga*] causes are proximate [*prokatarktika*] causes. R. J. Hankinson, however, distinguishes perfect [*sunektika*] from principal causes (which latter he takes to be *aitia proegoumena*) on the one hand, and proximate, i.e., procatartetic causes, from auxiliary causes (which latter he takes to be *aitia sunerga*), on the other hand; see R. J. Hankinson, "Explanation and Causation," in *The Cambridge History of Hellenistic Philosophy*, ed. K. Algra, et al. (Cambridge: Cambridge University Press, 1999).

9. Susanne Bobzien argues for this view in "Chrysippus' Theory of Causes," in *Topics in Stoic Philosophy*, ed. K. Ierodiakonou (Oxford: Oxford University Press, 1998).

10. It seems to be generally agreed that *autoteles aition* [perfect cause] and *sunektikon aition* [containing cause] were used interchangeably. The evidence is Clem. Strom. VIII 9, 33,2 = SVF II, p. 121, p. 127; VII 9, 25,3 = SVF II, p. 120, 2ff., as cited in Frede, "The Original Notion of Cause," in *Essays*, p. 140. But see Susanne Bobzien, "Chrysippus' Theory of Causes," for reasons to reject this view.

In Cicero's other example, the person who gives the cylinder or the spinning-top a push is the antecedent cause: without the push, there would be no rolling or spinning. But it is not the fact that the person gave the object a push that accounts for the specific motions. What makes the cylinder roll and the top spin is something about these objects themselves – something about their natures. Moreover, as Frede points out, Cicero further suggests that the perfect causes internal to the cylinder and top are also things which exert a force and possess a power to keep the objects moving once they have gotten their initial push.

It is important to see that it is imprecise and misleading to call an antecedent cause, e.g., the person who gives the cylinder the push, a “partial cause” of the cylinder's rolling motion. While it is true that it is part of the causal history leading up to the rolling motion, and while it does make a causal contribution by way of being a triggering cause, the person giving the push is not a co-cause in the way that the Stoics' *sunaitia* are. If each of two horses can pull a load only up to one hundred pounds, the two horses pulling as a team will be *sunaitia*, i.e., joint causes, that directly bring about the movement of the two-hundred pound load. The Stoics drew a sharp distinction between such joint causes, which, working together, directly bring about an effect, and antecedent causes, whose action does *not* work together with the perfect cause directly to bring about the effect. Antecedent causes are merely triggers for the perfect cause to bring about the effect directly and entirely out of its own nature and force.

One last point about the Stoic distinction between antecedent and perfect causes, which will be important to bear in mind when we return to Cavendish's views about causation. Frede cautions us that we should not think that perfect causes are essentially internal causes: the person who gives the cylinder a push is the perfect cause of the beginning of motion in the cylinder; the external object is the perfect cause of the production of the impression in us. So, a perfect cause of a merely passive affection of an object will lie outside that object in the thing that affects it, and the need for a second cause only comes in when we want to explain how a thing reacts as a result of being affected.

5. A Brief History: From Stoic Antecedent Causes [*Prokatartika*] to Early Modern Occasional Causes [*Occasiones*]

But are Cavendish's occasional causes modeled on the Stoic's antecedent causes or at least on a later causal concept, which itself traces its history back to ancient antecedent causes? I believe so. By at least

the fourteenth century, Stoic antecedent causes, as discussed in the Galenic medical tradition, had entered philosophy in the Latin West under the name of “occasions or occasional causes.” Briefly the evidence is this: Galen takes the Stoics to be working from a roughly Hippocratic starting point, and so he uses the word ‘prophasis,’ i.e., “that which makes manifest or shows” to gloss the Stoics’ technical term, *aition prokatartikon* [antecedent cause]. Galen does this because the antecedent, external trigger *reveals* the internal dispositions in patients for acquiring a disease.¹¹ For example, in the case where one thousand people go to the stadium and suffer the heat of the day, only one may get feverish as a result.¹² The external triggering cause – the heat – reveals the internal weakness of the person disposed to contract a fever. Importantly for our purposes, the only extant copies of Galen’s text on antecedent causes are manuscripts of a fourteenth-century Latin translation by Niccolò da Reggio, in which antecedent causes [*causae procatarticae*] are identified as what many of the ancients referred to as *prophaseis*, and these latter revealing causes are translated as *occasiones* (occasions).¹³ So, by the time Cavendish and other early moderns were writing, *occasio* or ‘occasion’ had long been used to make reference to an antecedent cause. Further, Renaissance and early modern philosophers would have known about the Stoic and medical tradition’s distinction between antecedent and perfect causes, not only via Cicero’s report in *De fato*, but through logic books, such as that of Thomas Wilson (1551) in which we are told: “Those causes, that are fetched farre of, and beeyng but halfe causes, partly and by the waye, geue onely the occasion.”¹⁴ The example Wilson gives is this: Ovid’s teacher is the occasional cause of his pupil’s skill in poetry, while it is something internal to Ovid, his “great aptness by nature,” that is the cause that “wholie compasse[s] a matier,” in other words, that is the perfect, containing cause of his poetic skill.

11. See the discussion of *prophasis* in Hankinson’s introduction and commentary in Galen, *On Antecedent Causes*, ed. and tr. R. J. Hankinson (Cambridge: Cambridge University Press, 1998). I want to thank Stephen Menn for bringing Galen’s text to my attention and for noticing that Niccolò used ‘*occasio*’ for ‘*prophasis*.’ To my knowledge Menn is the first to have traced the early modern (non-Malebranchean) notion of an occasional cause to the ancient notions of *prophasis* and *prokatartikon*. He and I hope to do some collaborative work on the history of occasional causes in the future.

12. Galen, *On Antecedent Causes*, pp. 73ff.

13. See Galen, *On Antecedent Causes*, p. 72, which includes the Latin translation of Niccolò.

14. Thomas Wilson, *The Rule of Reason Conteynyng the Arte of Logique* (1551), 1, I, iii, rule v.

Among the most important pieces of evidence that Cavendish's occasional causes are modeled on the Stoic's antecedent causes is Johann Baptista Van Helmont's *Oriatrike, or, Physick Refined* (1662), a text with which Cavendish was familiar and upon which she commented in her own *Philosophical Letters* (1664).¹⁵ In *Oriatrike*, Van Helmont makes use of the ancient Stoic notion of an antecedent triggering cause, which he calls "the occasional and outward cause." He distinguishes this cause from the "efficient and seminal cause within," i.e., the Stoics' perfect cause:

[E]very effect is produced, either from the outward agent and it is a thing brought forth by Art: or from an outward awakener, and nourisher, which is the occasional and outward cause: which notwithstanding, [everything] hath an efficient and seminal cause within [...]. [T]he occasional cause is not the true, but mediate agent (*Oriatrike*, p. 29).

Van Helmont gives, as an example of the efficient, internal cause of the being and growth of a plant something in "the seed, which by itself and immediately frameth the plant, and effects it, with the assistance of that which stirs it up [*cum adjutorio excitantis*]" (*ibid.*). "That which stirs it up" is the occasional and outward cause. Something internal to the seed is the perfect cause of the new plant; it is through the nature of the seed and its causal powers that a particular kind of plant is produced. Van Helmont calls the perfect cause within the seed the 'Archeus' or 'Chief Workman.'

6. Parallels Between Stoic Antecedent Causes and Cavendish's Occasional Causes

So, Van Helmont clearly understands occasional causes as Stoic antecedent causes, and Cavendish could have absorbed this notion from her reading of Van Helmont and her reading of the paraphrase of the Cicero passages in Stanley's history. Can this help us to reconstruct her anti-mechanist theory of causation? First, notice the parallels between the Stoic account of causal interaction between bodies and Cavendish's. She claims:

When a man [...] tosses a ball [...] the hand is only an occasion that the [...] ball moves thus and thus. I will not say, but that it may have some perception of the hand, according to the nature of its own figure; but it does not move by the hand's motion, but by its own (*Observations*, p. 140).

15. Johannes Baptista Van Helmont, *Ortus medicinae* (Amsterdam, 1642), which appeared in English translation as *Oriatrike, or Physick Refined*, tr. J. C. sometime of M. H. Oxon (London, 1662).

On her view, the hand – the occasion – is an antecedent, rather than the perfect, cause of the motion of the ball. It is the nature of the ball itself, the disposition to move that is inherent in it, that is the perfect cause of the ball's motion. All that is needed is an external trigger to activate that disposition. Furthermore, Cavendish appears to agree with the Stoics that the hand nonetheless does causally contribute in some way to the motion of the ball. She writes:

I do not say, that the motion of the hand doth not contribute to the motion of the bowl [ball]; for though the bowl hath its own natural motion in it self ... nevertheless the motion of the bowl would not move by such an exterior local motion, did not the motion of the hand, or any other exterior moving body give it occasion to move that way; Wherefore the motion of the hand may very well be said to be the cause of that exterior local motion of the bowl, but not to be the same motion by which the bowl moves (*Philosophical Letters*, pp. 447–48).

It seems that Cavendish takes her account of the causation of the motion of the ball to be similar to the Stoics' account of the motions of the cylinder and spinning-top. The hand is not the perfect cause of the motions, since one and the same push or toss can result in distinct effects. Nonetheless, the hand activates or triggers the ball's disposition to move by means of the motion it – the hand – (perfectly) causes on the surface of the ball.

7. Cavendish's Anti-Mechanist Account of Natural Change Via Occasional Causation

Cavendish was not alone in the seventeenth century in replacing a mechanical account of natural change for a vitalist one. Henry More wrote to Descartes:

I feel more disposed to believe that motion is not communicated, but that from the impulse of one body another body is so to speak roused into motion, like the mind to a thought on this or that occasion... neither [the motion nor the thought] is received into the subject, in fact, but both arise from the subject in which they are found [AT V 383].

But how does one body “rouse” another into motion? More held that recourse to an incorporeal “Spirit of Nature” was needed – something the Stoics and Cavendish deny. The ancient Stoics, on the other hand, held that the complete blending of the corporeal *pneuma* with matter made nature a unified organism, whose parts had mutual affinities and sympathies. Similarly, Cavendish maintains that the blending of rational matter with both sensitive and inanimate matter gives rise to “agreeable combinations and connexions of parts in all productions”

(*Observations*, p. 159). The pervasiveness in nature of rational matter accounts for how each of the parts of nature knows how to change its configuration on the occasion of changes in those other parts of nature with which it shares a particular affinity or sympathy. So, Cavendish is attempting to replace a transfer model of change, where discrete parts of nature give and receive motion, with a model of the vital agreement and harmony in a unified, purely material organism. Given her panpsychism, she understands this vital agreement in terms of the mutual “perceptions” that the agent and patient of change have.

[A]ll actions are knowing and perceptive; and, were there no perception, there could not possibly be any such actions: for, how should parts agree, either in the generation, composition or dissolution of composed figures, if they had no knowledge or perception of each other? (*Observations*, p. 167).

On her view of animal perception, external objects – with their corporeal motions – are the occasional causes of the production of sensitive and rational motions by the principal and primary cause, namely the sentient body itself. External objects are the occasional causes, i.e., triggering causes, which induce the sensitive body to “pattern out” or imitate one set of motions rather than another at a given time.

Cavendish’s account of perception would apply as follows in her non-mechanical explanation of change of motion in bodies. The hand does not transfer its motion to the ball upon impact. Rather, the rational and sensitive matter in the ball, as part of the same organic body as the hand, has a sympathetic affinity with its matter; it “perceives” that the hand is about to so change its own configuration that it is about to diminish its motion by n degrees. The hand triggers the ball’s disposition to imitate the hand’s n degrees of motion. The ball is the primary and direct cause of its own n degrees of motion. Rather than a transference of motion, there has been an activation of a disposition within the nature of the ball, which is so coordinated with the other parts of nature and their motions, that it does not violate the conservation of motion in the system.

We are now in a position to answer the second of my initial questions. We can now see that Cavendish’s account of natural change in terms of occasional causes does *not* imply that the parts of nature are causally inefficacious with respect to each other. She does not deny that individual bodies have causal powers with respect to other individual bodies; she does not deny transeunt efficient causation. For, recall that the hand’s perfect causation extends to the surface of the ball, where it can effect change in local motion. In addition, she insists that transeunt causation takes place all the time in animal

generation and in the varieties of “respiration.” These cases of natural change require the emission of corporeal parts from one individual body to another.

8. Occasional Causes in Descartes’ *Comments on a Certain Broadsheet*

Cavendish’s Stoic-inspired occasional causation is an important component of her organicist alternative to mechanical explanation of phenomena. She certainly has Descartes in mind as one of her mechanistic opponents. But I would argue that Descartes, in fact, makes use of antecedent causes/occasions in his own account of the role of body in the production of our sense ideas. In his *Notae in programma quoddam* [*Comments on a Certain Broadsheet*], Descartes states:

Something can be said to derive its being from something else for two different reasons: either the other thing is its proximate and primary cause [*causa ejus proxima & primaria*], without which it cannot exist, or it is a remote and merely accidental [*remota & accidentaria duntaxat*] cause, which gives the primary cause occasion to produce its effect at one moment rather than another. Thus workers are the primary and proximate cause of their work, whereas those who give them orders to do the work, or promise to pay for it, are accidental and remotes causes, for the workers might not do the work without instructions (AT VIII B 360; CSM I 305).¹⁶

And in the preceding paragraph, Descartes had claimed:

Nothing reaches our mind from external objects through the sense organs except certain corporeal motions... But neither the motions themselves nor the figures arising from them are conceived by us exactly as they occur in the sense organs, as I have explained at length in my *Optics*. Hence it follows that the very ideas of the motions themselves and of the figures are innate in us. The ideas of pain, colours, sounds and the like must be all the more innate if, on the occasion of certain corporeal motions, our mind is to be capable of representing them to itself, for there is no similarity between these ideas and the corporeal motions (AT VIII 359; CSM I 304).

On my reading, Descartes’ view is that motions communicated to the brain by external objects are the remote, occasional causes of our sense ideas; these motions stimulate or induce the mind itself, which latter is the primary cause, to produce our sense ideas. Notice

16. All translations of Descartes’ works are from *The Philosophical Writings of Descartes*, ed. John Cottingham, et al., 3 volumes (Cambridge: Cambridge University Press, 1985-1991).

Revue philosophique, n° 3/2013, p. 311 à p. 326

that Descartes' contemporary, Johannes Clauberg, explicitly identifies Descartes' occasional cause as a Stoic antecedent cause:

The motions of our body are only *procatartici* causes that give occasion to the mind, the principal cause, to produce [*eliciendi*] on its own such and such an idea, at this particular moment, and to actualize its power of thinking.¹⁷

If I am correct, then Cavendish's Stoic-inspired occasional causes not only play a role in her organicist explanations of natural change, but also in Descartes' explanation of body-to-mind causal interactions.

9. Closing Remarks

I have indicated some reasons to pursue the study of Cavendish's theory of occasional causation and her natural philosophy more generally. Her Stoic-inspired system of nature occupies a unique position in the logical space of early modern philosophy. She is a materialist, yet she argues there neither can, nor need be, mechanical transfer of motion. As a vitalist she maintains that motion, perception, life and reason are inherent in matter. But in reply to those vitalists who make recourse to an incorporeal spirit of nature, she argues that the ultimate explanations of natural phenomena make no reference to incorporeal substances or properties. Thus, her system opposes that of Platonists and vitalistic chemists. As Descartes and the Cambridge Platonists, each in their own way, were giving us a new Platonic philosophy, and Gassendi was giving us a new Epicureanism, so too Cavendish was attempting to construct a Neo-Stoical natural philosophy. Study of her work will give us a richer understanding of the philosophical moves available to those in the seventeenth century who were attempting to jettison a largely Aristotelian philosophy of nature and to provide a new metaphysics consonant with strands of the new science.

In addition to the intrinsic philosophical and historical interest of Cavendish's work is the light that study of it can shed on the work of more well-known early modern figures and issues. It was through the need to understand occasional causation, which plays such a central role in her natural philosophy, that I began to see that these causes were at work in Descartes' account of bodies' causal role in

17. Johannes Clauberg, *Conjunctio*, chap. 16, §10; the translation is from Jean-Christophe Bardout, "Johannes Clauberg," in *A Companion to Early Modern Philosophy*, ed. S. Nadler (Oxford: Blackwell, 2002, p. 138). I thank Andy Platt for bringing this passage to my attention.

the production of sense ideas – a topic that has been of considerable interest to historians not just over the past decades, but over the centuries. So, study of Cavendish's work may have rich payoffs even for those historians whose main interests lie with the figures now considered canonical.

Eileen O'NEILL
University of Massachusetts-Amherst
eoneill@philos.umass.edu