Substance, Causation, and the Mind-Body Problem in Johann Clauberg

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Abstract

This paper argues against traditional interpretations of Clauberg as an occasionalist, as well as more recent ones that attribute to him an interactionist theory of the mind-body relation. It examines his treatment of the mind-body problem in the context of his general theories of substance and cause. It argues that, whereas Clauberg embraces Descartes's substance dualism, he retains a broadly scholastic theory of causation as involving the action of powers grounded in essences. On his account, mind and body are distinct, power-bearing substances. While there is no causation between mind and body, each is a genuine secondary cause of its own modifications, subordinated to God as primary cause. But although the correlated actions of mind and body are grounded in mental and bodily powers, the correlation itself is not. Clauberg's view has the consequence that the conjunction of mind and body cannot be understood causally but only descriptively, in terms of the covariations of sensations and brain states, which he regards as mutually referring signs.

1. Introduction

Descartes recast the problem of human nature. Rejecting the Aristotelian doctrine of the soul as the form of the human body, he conceived the two as radically distinct substances, the one purely mental, the other purely extended. Descartes's new metaphysics of substance reframed old questions concerning the unity and the interaction of souls and bodies. The two questions are distinct but related. Union is the problem of how two distinct substances could come together to produce a third thing, the whole, unified human being. Interaction, meanwhile, is the problem of how thoughts can cause bodily effects, and bodily states can cause thoughts.

Many of Descartes's followers concluded that interaction among Cartesian minds and bodies is impossible, a group that included proponents of the family of theories known as occasionalism. Occasionalism is the thesis that the only true cause of any effect is God, for whose activity finite beings serve as mere occasions. With respect to mind-body interaction, this means that bodily events are occasions for God to cause corresponding mental events, and vice versa. Pinpricks do not, strictly speaking, cause pain sensations, nor does a decision to reach the

top shelf cause my arm to rise. The best-known seventeenth-century representative of occasionalism, Malebranche, describes the mind-body relation as follows:

Each substance remains what it is, and as the soul is incapable of extension and movement, so the body is incapable of sensation and of inclinations. The only alliance of mind and body known to us consists in a natural and mutual correspondence of the soul's thoughts with brain traces, and of the soul's emotions with the movements of the animal spirits. (*Search*, II.i.5, LO 102)

For Malebranche, genuine causation is impossible between minds and bodies. And, as far as we can tell, they do not form a substantial union, but only an alliance amounting to the correlation of their respective states.¹

At least since Francisque Bouillier's *Histoire de la philosophie cartesienne* (1854), the German Reformed professor Johann Clauberg (1622-65) has been read as a pioneer of early modern occasionalism. Bouillier's judgment was widely repeated in subsequent textbooks of the history of philosophy. Wilhelm Windelband, for instance, named Clauberg, alongside Louis de la Forge and Geraud Cordemoy, as one of the founders of occasionalism. In the twentieth-century,

¹ To be clear, Malebranche's arguments for occasionalism rest on a general denial of efficacy to finite substances, and are not specifically motivated by the problem of mind-body interaction; cf. *Search*, VI.ii.3, LO 449-50; *Elucidations*, XV, LO 658; see Nadler, "Mind-Body Problem," 6-28. In what follows, I use Malebranchean occasionalism to provide contrast with Clauberg. There are, of course, a wide variety of medieval and early modern views that fall under the label. Perler and Rudolph, *Occasionalismus*, provide a comparative study of medieval Arabic and early modern European versions of the doctrine. Still useful is Specht's, *Commercium*, 4, criterion for occasionalism, that it is the thesis that "not only motions but also thoughts are only predisposed but not effectively caused by secondary causes."

Albert Balz, Eugenio Viola, and Winfried Weier, among others, further fitted him into a narrative of the development of Cartesianism in which occasionalism is prominent.²

In recent decades, scholars have expressed doubts about this story. Steven Nadler, Leen Spruit, Jean-Christophe Bardout, and Tad Schmaltz have observed that, although Clauberg shares one negative conclusion of occasionalism—that mind and body do not causally interact he does not endorse its characteristic positive theses—that finite substances are causally inert and that God is the only efficacious cause in nature. Bardout rightly cautions against letting Clauberg's infrequent use of the phrase 'give occasion,' or his characterization of the body as a 'procatarctic cause' of mental states, mislead us into viewing him as an occasionalist.3 Some scholars have gone further and attributed versions of interactionism to Clauberg. Matteo Favaretti Camposampiero replaces the occasionalist reading with limited interactionism, whereby for Clauberg the mind is a 'moral' but still genuine cause of the direction, though not of the quantity, of motion in the body.⁴ Most recently, Andrew Platt has defended full-blown interactionism in Clauberg. On Platt's reading, Clauberg can hold both that the mind is a cause of bodily states and that the body is a cause of mental states because he has an expansive conception of efficient causation as mere dependence, not strictly as production. He is thus able to conceive moral (mind-to-body) and procatarctic (body-to-mind) causation as genuine cases of efficient causation. In other words, for Platt, Clauberg's interactionist solution to the mind-body problem rests on broadening the scope of efficient causation.⁵

² Bouillier, *Histoire*, I.281; Windelband, *Geschichte*, 300; Erdmann, *Grundriss*, 34; Balz,

[&]quot;Development of Occasionalism," 171ff; Viola, "Scolastica e cartesianismo," 265; Weier, "Okkasionalismus."

³ "Johannes Clauberg," 135-8.

⁴ "Direction of Motion," 200-2.

⁵ One True Cause, 137-65. Platt's is the most detailed anti-occasionalist interpretation of Clauberg in recent literature. Most scholars have conveyed their skepticism of the traditional

This paper agrees with recent scholarship in opposing the occasionalist reading of Clauberg. But it also resists the partial and full interactionist alternatives to that reading. It argues instead that Clauberg is best seen as laying the groundwork for a different kind of parallelist theory of the mind-body relation. Clauberg conceives mind and body as true efficient causes in their respective domains, which by their own powers (together with God's primary causality) produce two distinct series of effects. Their coordinated effects, however, are not related causally, but have the status of mutually referring signs, whose meanings are arbitrarily established by God's will. Mental and bodily events are thus related, but not due to either real interaction between finite substances or God's causal intervention. On the present reading, Clauberg is pulled in this direction because he accepts, on the one hand, Descartes's theory of substance and its foreclosure of any essential relation between mind and body; and he retains, on the other, two features of early modern scholastic theories of causation: first, that efficient causation consists in the production of change in virtue of natural powers of substances, and second, that sine qua non conditions and non-productive dependence relations are not properly causal. As a result, he conceives mind and body as complete substances that are efficacious in their own domains but are not naturally suited to interact with one another. As for their union, he

reading as asides in treatments of other topics, or in general narratives of the development of Cartesianism. For example, Nadler's remark is a footnote in a paper on Louis de la Forge; "de la Forge," 122n. Spruit, "Perceptual Knowledge," 79, likewise makes his observation, that Clauberg was not a classical occasionalist, as an upshot of Clauberg's theory of perception. Bardout's is part of a paper meant as a general introduction to Clauberg. Schmaltz's excellent study of the various early appropriations of Descartes is equivocal in its assessment of Clauberg. While questioning the felicity of the occasionalist label, it recognizes Clauberg as nonetheless having taken "a modest but important first step" toward occasionalism, while also attributing to him a one-way, change-of-direction interactionism; *Early Modern Cartesianisms*, 176-81. Favaretti Camposampiero's treatment is a section of a paper, also covering Regius, Clerselier, la Forge, and Cordemoy, on how the change-of-direction account of interaction came to be superseded by the occasionalism of later authors, leading to Leibniz's criticism.

embraces the consequence that the human being might only be a composite, not a true unity. I suggest that Clauberg's treatment of the problem opens up space for a non-occasionalist psychophysical parallelism, or a theory of a divinely coordinated development of non-interacting, yet causally efficacious, substances.⁶

The next two sections examine Clauberg's theories of substance and cause in light of his Cartesian and scholastic inheritances. Sections Four and Five address, respectively, his alleged occasionalism and his account of the mind-body relation.

2. Substance and Essence

Clauberg reckons among Descartes's key accomplishments the replacement of the scholastic theory of hylomorphic substances with the dualism of mind and body. He praises Descartes for having simplified ontology by recognizing only two kinds of substance, so that whatever exists should have either an intellectual essence—God, angels, and human minds—or a corporeal essence—the heavens, earth, water, as well as the human body (*Diff.*, xxv, OO II.1223-24).⁷ This

Conj. Anima et corporis in homine conjunctio (chapter and paragraph)

Corp. viv. *Theoria corporum viventium* (chapter and paragraph)

Diff. Differentia cartesianam inter & vulgarem philosophiam (paragraph)

Disp. phys. Disputationes physicae (chapter and paragraph)

⁶ Müller, *Johannes Clauberg*, long ago proposed that Clauberg held such a version of parallelism. But in making his case, he appears too inclined, and without sufficient attention to the text, to read Leibniz and Spinoza back into Clauberg: "According to [Clauberg's] theory, body and mind are already so perfectly created and equipped by God—one could perhaps hear a soft echo of Leibniz here—that the connection of both proceeds without any kind of mediation toward what is best for each" (37); and: "the opposition of the intelligible and the sensible in the world, the radical difference of the two factors, mind and body, can in the end only be reconciled by both finite substances losing their substantiality and merging as mere attributes in one infinite, all-encompassing substance, God" (57). In contrast to Müller, I find Clauberg neither reducing mind and body to attributes of a single substance nor declaring in favor of preestablished harmony. Affinities with Leibniz, and even more so with Wolff, are intriguing, but space considerations prevent me from exploring them here.

⁷ I use the following abbreviations for Clauberg's texts:

is a lesson to which Clauberg holds fast, even as he is less consistent in implementing other features of Cartesian philosophy that he applauds. For instance, he highlights as another merit of Cartesianism that it does not busy itself with the common properties of things, the *transcendentalia* (x, OO II.1229). Yet, his own metaphysics proceeds in the scholastic manner of elaborating the absolute and relative transcendental attributes of any being whatsover. The mixed character of Clauberg's reception of Descartes owes partly to the Reformed scholastic context to which it is self-consciously adjusted, as he acknowledges in the preface to his commentary on Descartes's *Meditations*: he has departed from the style and order of the original so as to make it better suited for use in the schools (*Paraphr*., Praefatio, OO I.346). It also owes to Clauberg's programmatic interest in reforming rather than overturning school metaphysics with insights of Cartesian provenance.⁸

Elem. Elementa philosophiae sive Ontosophia (page)

Logica Logica vetus et nova (part, chapter, and paragraph)

Met. ente Metaphysica de ente quae rectius Ontosophia (chapter and paragraph)

Notae *Notae in cartesii principiorum philosophiae* (part and article)

Ontosoph. Ontosophia nova (page)

OO *Opera omnia* (volume and page)

Paraphr. Paraphrasis in meditationes cartesii (part and article)

Phys. contr. *Physica contracta* (chapter and paragraph)

All translations are my own.

⁸ Clauberg presented himself as an ardent defender of Descartes. After moving to Duisburg in 1651, he set about defending and explicating Cartesianism in titles such as *Defensio cartesiana* (1651), *Initiatio philosophi sive dubitatio cartesiana* (1655), and *Paraphrasis in meditationes cartesii* (1658). These would introduce subsequent generations of German academics to Descartes. But he is not a mere exegete or polemicist, either for Cartesianism or against scholasticism. The mix of Cartesian and scholastic elements in Clauberg has been widely noted in the literature; e.g. Balz, "Development of Occasionalism," 170-1; Viola, "Scolastica e cartesianismo"; Spruit, "Perceptual Knowledge," 81; Pätzold, "Behandlung des Kausalitätsproblem," 126. In what follows, I resist periodizing Clauberg into 'scholastic' or 'pre-Cartesian' and 'Cartesian' phases. Instead of asking whether and to what extent he is 'Cartesian,' 'scholastic,' or 'Cartesian-scholastic,' I follow Savini's counsel to move away from reading Clauberg merely for his significance for Cartesianism and scholasticism to approaching him as an original author in his own right, who borrows from both traditions for his own systematic purposes; *Methodus cartesiana*, 9-10. Ragni, "Search for the *Initium Philosophiae*," surveys this

Unlike Descartes, Clauberg situates the new theory of substance in a general doctrine of being insofar as it is being, or ontology. ⁹ Abstracting away from questions particular to any kind of thing, Clauberg's notion of ontology is broader than Descartes's conception of first philosophy as the science of the first known substances, namely the human mind and God. ¹⁰ Clauberg approaches Descartes's concept of substance by progressive delimitation of *ens*. He distinguishes three significations of 'being.' In the widest, "being is whatever can be thought or said," and includes discourse about nothing (*nihil*) as well as fictive beings (*Met. ente*, ii.6, OO I.283). ¹¹ In this sense, one might say, being extends to the bounds of discursivity. Narrowing the

recent shift in Clauberg studies. See Verbeek, "Bio-bibliographical Sketch," for biographical details, and Hamid, "Domesticating Descartes," for the Reformed context of Clauberg's teaching and writing.

⁹ A textual note: Clauberg presented his ontology in three versions, *Elementa philosophiae sive ontosophia* (1647), *Ontosophia nova* (1660), and the final version which was reprinted in his posthumous *Opera omnia* (1691), *Metaphysica de ente quae rectius Ontosophia* (1664). There are significant differences between the first and the later editions (the differences between the 1660 and 1664 texts are minor in comparison). With respect to the topic of substance, for instance, the second and third editions reveal a marked shift toward Descartes, with the insertion of the Cartesian doctrine of substance before the exposition of the transcendental attributes (compare: *Elem.*, 42-44 with *Ontosoph.*, 17-22 and *Met. ente.*, iv, OO I.290-2). With respect to causation, by contrast, certain scholastic commitments become more explicit in the later texts, as we shall see in the next section. For a comparative study of the three versions, see Carraud, "L'ontologie."

¹⁰ This is what Descartes suggests is the topic of first philosophy in the Preface to the *Meditations*; AT VII.9, CSM II.8. In the Prolegomena to *Metaphysica de ente*, Clauberg contrasts 'theosophia' or 'theologia' with 'ontosophia' or 'ontologia', the former being a special science of divine substance and the latter as "concerned with being in general," or with what is common to God and all created things, material and immaterial (OO I.281). The term 'ontology' does not originate with Clauberg, however, as was once thought. It is defined as '*philosophia de ente*' in Goclenius's *Lexicon* (1613), and occurs earlier still in Jacob Lorhard's *Ogdoas scholastica* (1606), where it is synonymous with metaphysics; see Courtine, *Suarez*, 410n6; Savini, *Methodus cartesiana*, 25-26.

¹¹ Carraud, "L'ontologie," 19-20, observes that, by identifying being with the merely thinkable, Clauberg's ontology represents a "noeticization of metaphysics"; and Bardout, "Clauberg et Malebranche," 136-7, that Claubergian ontology is thus better characterized as "the science of being insofar as thought and *produced* from its concept," than as the science of being qua being, so that the first object of metaphysics becomes "the indeterminate and formal object" of thought.

range, in the second sense, Clauberg characterizes *ens* as what is knowable. Here, 'being' signifies something (*aliquid*) that provides determinate content for thought. Minimally, determinate content is that which does not involve contradictions such as 'four-sided circle' or 'leaden gold-coin' (iii.38, OO I.289). *Aliquid* refers to those contents that could be objects of logical operations of definition, division, or inference (iii.40, OO I.289). It signifies a sphere narrower than that of the merely thinkable and sayable, inasmuch as it is coextensive with what is truth-apt, but wider than that which can have mind-independent existence. For Clauberg, it marks a distinction between a real attribute (*attributum reale*; *zuständige eigenschaft*) and a real being or substance (*ens reale*, *Substantia*; *ein selbständig ding*), or between that which has reality in another (*in alio*) and that which has reality in and through itself (*in se & per se*) (iii.41, OO I.289).

In the third and strictest sense, being coincides with the concept of substance. In this meaning, *ens* is called thing (*Res*) or real being (*Ens reale*). It picks out the category of substance as distinct from its modes and attributes, as a cap is distinguished from its shape, and a mind from its power of understanding (*Met. ente*, iv.42, OO I.290). Clauberg accepts the common definition of substance as "that which exists in such a way that it does not need a subject in which to exist." Among items that depend on substance, Clauberg distinguishes the "accidental and separable" modes of things (*modi rerum*) from their "essential and inseparable" attributes, which he also calls, following Descartes, modes of thinking (*modi cogitandi*) (iv.44, OO I.290).¹²

¹² Descartes sometimes uses the term '*modi cogitandi*' to refer to attributes; e.g. *Principles*, I.62, AT VIIIA.30, CSM I.214. But he distinguishes these from modes in the strict sense, i.e. from all those states that are modally distinct from substance, as an occurrent mental state is distinct from the mind, and an occurrent motion distinct from the body. He makes clear in a letter to an unknown recipient that "attributes, or modes of thinking" (*Attributa, sive modi cogitandi*) are only conceptually distinct from substances (1645 or 1646, AT IV.348-9, CSMK III.279-80).

The relation between substance, attribute, and mode is that of dependence. Modes depend on attributes, and attributes depend on substances. Certain modes presuppose certain attributes, as motions and shapes presuppose extension, and imaginings and desirings presuppose thought. Modes and attributes share the feature of being dependent, insofar as they have reality only in virtue of substances. But they are not distinguished from substance in the same way. Substance is properly opposed to mode, for only the latter denotes the concrete changes that occur in the former—or more accurately, in finite or mutable substance (iv.45, OO I.290). By contrast, following Descartes, Clauberg regards the distinction between attribute and substance as merely rational or conceptual. That is, attributes are not general properties inhering in substances of which modes are particular instances—Clauberg marks that contrast by distinguishing two species of modes, immediate and mediate, such as the property of motion as such in a horse and its determinate speed at a given moment (iv.46, OO I.290). Instead, an attribute is an aspect under which a simple substance may be thought. Attributes depend on substances insofar as what is simple in itself is regarded in diverse ways, as, for instance, body may be regarded as an existing thing or an enduring thing or an extended thing. To call attributes modi cogitandi is to call them manners or ways of thinking about substances, rather than distinct ways a substance is or might be. Thus, to speak of God's intellect and will is not to ascribe distinct realities to the simple divine nature, but to conceive it under the aspects of truth and goodness (iv.44, OO I.290). Similarly, Descartes writes that we must consider the attributes of thought and extension "as nothing else than thinking substance itself and extended substance itself" (*Principles*, I.63, AT VIIIA.30-1, CSM I.215).

In the list of attributes, Clauberg includes not only Descartes's common attributes of existence, duration, and unity but also the scholastic *transcendentalia*, both the absolute ones

such as truth and goodness and the relative or disjunctive ones such as cause/effect, prior/posterior, whole/part, and so on.¹³ He follows Descartes, however, in maintaining that every substance has one attribute through which its modes are most distinctly understood (*Met. ente*, iv.47, OO I.291). Accordingly he directs attention to identifying these principal attributes. He first conceives *ens reale* with reference to those features which are "maximally opposed and contrary" and at the same time positively intelligible or affirmable. These turn out to be, unsurprisingly, extension in bodies and intellect and will in minds, "seeing that neither intellect and will can be ascribed to length, breadth, and depth, nor length, breadth, and depth to intellect and will" (iv.48, OO I.291). The inconceivability of either primary attribute through the other yields a distinction between two kinds of essence, one corporeal and the other intellectual, and two kinds of mode.

The notion of essence expresses the relation of a substance to its primary attribute. Clauberg defines essence as "that whole through which a thing both is, and is what it is" (*totum illud, per quod res & est, & est id quod est*) (v.60, OO I.293). Essence is what is "first, principal, and inmost" in a substance, and determines its range of possible modifications, as, for instance, divisibility, figure, and position depend on the corporeal essence of extension (v.56, OO I.292). Through its essence, a body is constituted as a particular kind of substance, namely as one possessing conditions of truth, unity, goodness, and causality expressible in geometrical but not mentalistic terms. He provides a series of glosses on the definition: essence is what is universal in a thing, or what is presupposed in any actuality or modification of a substance; essence is also that which could exist outside the intellect, thus as the abstract conception of a being to which

¹³ For a tabular depiction of Clauberg's divisions in ontology, see Ècole, "L'histoire des propriétés transcendentales," 149.

existence is not repugnant; and as quiddity, or that which answers to the question of the definition of a thing (v.61-63, OO I.293-294). Common to essence of whatever species is that it does not permit of greater or lesser, is indivisible, immutable, and is what belongs to a substance necessarily (v.65-66, v.68-70, OO I.294-95). One body does not possess more corporeality than another; it cannot have only some part of corporeality but not the whole; it cannot transmute into a thinking thing; and it is necessarily a corporeal substance. To posit a property as belonging to the essence of a substance is to ascribe to the latter some internal, per se or non-accidental feature, in virtue of which certain modifications and not others are possible through its natural operation (v.69, OO I.295). For Clauberg, essences define complete substances, that is, substances not requiring other finite substances in order to exist. The abstract terms 'mentality' and 'corporeality,' in particular, denote natures that depend only on God for their actuality. He thus rejects the hylomorphic theory of substance, on which soul and body are incomplete essences that are perfected by uniting to constitute a plant, animal, or human being. For Clauberg, soul is not naturally suited for the perfection of body, nor body for the perfection of soul, but each is complete in itself.¹⁴

Among the possibilities grounded in essences are the relations one substance bears to another. Given Clauberg's embrace of Descartes's division of substances as either mental or bodily but not both, he must face the question of the nature of the relation between such radically heterogeneous, complete substances. Intuitively mind and body seem to be related by causation.

¹⁴ By contrast, Suárez, for instance, writes of the soul: "It is not a part in the sense of something whole in itself but is essentially a part, and has an incomplete essence, which is by its own nature ordained to make another essence complete; hence it is always an incomplete substance" (*Disp. met.* xxxiii.1.11). While separable, the soul by its nature seeks union with the body; human souls thus merely subsist upon the death of the body, but cannot exist until reunited with the resurrected body. See Rozemond, *Descartes's Dualism*, ch. 5, for Descartes's reversal of the scholastic view of soul and body as incomplete substances.

My desire to raise my arm causes it to rise; light striking the retina causes color sensations. Clauberg's theory of causation makes it difficult to uphold that picture.

3. Causation

The impact of Jesuit scholasticism on the development of Protestant metaphysics in the seventeenth century has been well-documented. Its influence is evident in textbooks both of Lutheran professors and, more relevantly for Clauberg, of Reformed ones such as Rudolph Goclenius and Clemens Timpler. 15 This background figures crucially in Clauberg's treatment of causation. Following a model influentially articulated by Francisco Suárez and transmitted to Protestant metaphysicians, Clauberg conceives causation as the production of change by the action of natural powers. Moreover, he takes this conception to be compatible with the Cartesian theory of substance. Minds and bodies are genuine secondary causes that cooperate with God in producing natural change, albeit only in their own substantial domains. The problem of mindbody interaction thus presents a special problem. But to address it, Clauberg does not reconceive causation as the mere dependence of an effect on a cause, as some scholars have recently argued. Platt, for instance, proposes that, in his later writings Clauberg no longer strictly identified efficient causation with production: "Clauberg revised his definitions of principle and an efficient cause. He extended his conception of efficient causation in order to accommodate mindbody interaction. Thus he came to recognize mere dependence-relations as a special type of efficient causation." 16 Key pieces of textual evidence for Platt's reading are, first, Clauberg's

¹⁵ Petersen, *Geschichte der aristotelischen Philosophie*, 283-94; Leinsle, *Ding und die Methode*, 87-137; Courtine, *Suarez*, 405-35. Savini, *Methodus cartesiana*, 30-3, emphasizes the specific influence of Goclenius and Timpler on Clauberg's metaphysics.

¹⁶ One True Cause, 162-5.

rejection of Suárez's notorious language of *influere* to describe the transfer of being from cause to effect, and second, his capacious definition of principle as that on which another thing depends. As I shall argue, both these features are consistent with Clauberg's conception of cause as a species of principle through the difference that it denotes a dependence relation established by the action of a causal power. Contra Platt, Clauberg does not equate cause with principle, so that any manner of dependence would count as causal. He holds fast to a production theory of causation.

In Clauberg's ontology, *causa* figures among the relative transcendental attributes. He defines 'cause' as, "a principle that gives being [largitur] to another thing different from itself" (Met. ente, xiii.225, OO I.321).¹⁷ His theory of causation is helpfully approached through the lens of Suárez's definitions of cause, as "that on which something else per se depends"; and more precisely, as "a principle per se inflowing being [influens esse] to something else" (Disp. met., xii.2.4). For Suárez, the second definition better conveys several key features of a cause. First, to call 'cause' a principle is to say that it is the thing itself that is the source of change. When fire heats water, the cause is the fire propagating, or "giving, or communicating" (dandi, vel communicandi), heat to water under suitable conditions. Cause is not the relation between the heat in fire and the subsequent appearance of heat in water. It is also not the causality of fire, or that in virtue of which fire is constituted as a cause in act. Second, with the phrase 'per se,' Suárez wishes to exclude privations, per accidens causes, and sine quibus non conditions from properly counting as causes. There must indeed be a necessary absence of heat in water prior to it becoming hot; proximity is a necessary condition for heating; and the color of fire is always but only accidentally linked to it. But while such factors stand in dependence relations to fire qua

¹⁷ "Causa vero proprie dici videtur principium, quod alteri rei essentiam largitur a sua diversam."

cause, they are not sources of heat. Finally, the obscure locution, 'inflowing being,' expresses the admittedly mysterious propagation of a quality to a patient by an agent.¹⁸

Clauberg's relation to the Suárezian theory of causation evolves over time. In particular, between his earliest treatment of ontology and his latest, he grows chary of the language of *influx* to characterize the causal action of an agent. In *Metaphysica de ente* (1664), he confesses ignorance about what "those who define action as the *fluxus of effect from the cause*" conceive as passing from one to the other, effectively reversing his own characterization in *Elementa philosophiae* (1647) of efficient causation as "*fluxus effectus a causa*" (*Met. ente*, xiii.231, OO 1.323; *Elem.*, 68). In 1664, he further observes that the definition fits certain cases better than others. For instance, although one might plausibly take generation to involve parents transferring materials to offspring, the same cannot readily be said of divine activity or that of the human mind. Minimally, the manner of *fluxus* needs to be specified with respect to the primary attributes of the substances under consideration. Clauberg is skeptical, in other words, that there could be any non-trivial definition of production that would capture indifferently all the kinds of action by which different types of causes produce effects.¹⁹

At the same time, Clauberg retains Suárez's thought that causation involves a special kind of dependence relation that obtains in virtue of one substance giving being to another.

Cause is a species of principle. He defines principle broadly as "that from which something has

¹⁸ For a more detailed discussion of Suárez's model of causation, see Hattab, "Conflicting Causalities," and Schmaltz, *Descartes on Causation*, 24-36.

¹⁹ In this regard, he agrees with Timpler, who had already registered his dissatisfaction with the prevailing tendency among his contemporaries of offering general definitions of cause. Noting that Aristotle nowhere attempted such a task, Timpler complains that all proposed definitions are either too broad or too narrow. On his diagnosis, that should be the fate of any general definition, for the notion of production becomes meaningful only with respect to some domain of activity, not absolutely (*Met. sys.* III.ii.3).

its origin, or on which something in any manner depends" (Met. ente, xiii.221, OO I.320).²⁰ Besides cause, the genus includes, for instance, principles of knowing (cognoscendi), as an evident proposition is a principle supporting an inference; and principles of mere order (ordinis). as sunrise is a principle of daytime in virtue of necessary temporal priority. But Clauberg is less interested in these than in principles of being (essendi), among which belongs the category of cause (xiii.222, OO I.320). A cause is said, not merely of any circumstance that is prior to and somehow connected to an effect, but of a thing that produces the latter. A cause is a principle either in virtue of grounding the possibility of something, as God is the cause with respect to the being (secundum esse) of creatures as such through a continual action (which, despite his reservations about Suárez's term, he calls *influxu*); or in virtue of actualizing a finite effect, as an architect is the cause only of the coming-to-be (secundum fieri) of a house, but not of the continued inherence of the form of the house in bricks and stone (xiii.223, OO I.320-1). The priority of a cause, and hence the dependence of an effect on it, is unlike, say, the dependence of generation on a privation, which merely involves the necessary absence of a form prior to its actualization. It is also unlike the dependence of a conclusion of a syllogism on its premises, and of a line on a point. Marking just this contrast, Clauberg writes: "Cause is contained under principle as a species under a genus. Thus, a point is a principle of a line, not a cause" (xiii.220, OO I.320). To conceive a relation as one of cause and effect is to distinguish it from merely

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²⁰ A broad sense of principle in terms of dependence is common among early modern scholastics; cf. Suárez, *Disp. met.* xii.1.4; Timpler, *Met. sys.* III.i.1-2; Goclenius, *Lexicon*, 871-73. Each of these authors, however, distinguishes cause from principle as a species to a genus, such that cause involves dependence due to one thing giving being to another. In this respect, Clauberg in fact moves closer to his scholastic predecessors over the course of his career. In his brief treatment in *Elementa philosophiae*, he had defined '*principium*' narrowly, and in close relation to '*causa*,' as that which communicates real being (*esse reale*) (*Elem.*, 63). By contrast, his lengthier account in *Metaphysica de ente* defines 'principle' through a more expansive sense of dependence, reserving 'cause' for the special case of production as giving being.

privative and logical dependence relations. It requires attributing to principles necessary powers of production, of giving and receiving being.

For Clauberg, causation is paradigmatically an external relation. Following later scholastic consensus, of the four Aristotelian causes he regards the efficient cause as best fitting the general concept. He considers the two internal causes, form and matter, not so much as causes that produce effects by their activity, but as principles of composition, or as "parts of a thing from which its essence is composed" (*Met. ente*, xiii.225, OO I.321). For to make up or compose (*facere*), as expressed in sentences such as, "two and three make five," or "walls do not make a city," is not the same as to act (*agere*) (xiii.226, OO I.321). While nominally accepting the slogan that, "every cause acts in its own manner"—the end by moving the will, matter as substratum, form by bestowing properties—Clauberg contends that, "properly speaking *to act* [*agere*, *wirken*, *schaffen*] is adequate only to the efficient cause." The difference between acting and composing has to do with the kind of source implied in the two cases: only the former properly implicates *supposita*, or individual substances producing change through their actions and passions. For Clauberg, the dictum, "actions belong to subjects" (*actiones esse suppositorum*), expresses the character of substance as a producer of effects in virtue of its own

²¹ The growing priority of efficient causation in later scholasticism has been noted in the literature; see, for instance, Maier, *Metaphysische Hintergründe*, ch. V; and Pasnau, "Teleology in the Later Middle Ages." The readjustment of the respective claims of the four Aristotelian causes is prefigured in Suárez, *Disp. met.* xxvii.1.10: "The efficient cause most properly inflows being. Matter and form, however, do not as properly inflow being as compose it through themselves. And therefore for this reason it seems that the name 'cause' is said in the first place of efficient causes." Timpler concurs; *Met. sys.* III.ii.15. See also, Pätzold, "Behandlung des Kausalitätsproblem," 128. Clauberg's privileging of efficient causation becomes more explicit in the 1664 edition of his ontology. In the 1647 version, he also focuses on the two external causes, but without offering clear reasons for the choice, and in particular without the clear insistence present in the later text that the efficient cause, whose causality is action, takes precedence because causality in general consists in action.

causality, namely its action (xiii.227, OO I.321). A substance is a *per se* as opposed to a *per accidens* efficient cause just in case its action results from its own power (xv.256, OO I.326). For Clauberg, causal principles are substances endowed through their essences with powers to produce effects.

Clauberg defines action (actio) as "the change of state in which a thing is" (Met. ente. xii.228, OO I.321-22). Insofar as a change of state is referred to a producer, it is called 'action'; but insofar as it is referred to a subject undergoing change, it is 'passion.' Action may be either immanent, a change of state in the agent itself, or transeunt, a change produced by an agent and received by a patient. Per se efficient causation requires, in the first place, an immanent action in a substance. In the right circumstances it results in transeunt action in another. In other words, for Clauberg, transeunt action presupposes immanent action. Immanent action is the actualization of part of an agent's essence that results in its power to produce change in a suitably disposed patient. For instance, an external act, such as walking that is commanded by the will (actus imperatus), requires a prior act of the same will choosing what to do (actus elicitus) (xiii.229-30, OO I.322-23). To take another example, to say that fire is the cause of the heating of water is to assert, first, that heat results from the essence of fire as its principal action; and second, that in virtue of its heat, the obtaining of certain conditions, and a suitable passive power in water, fire necessarily propagates to water a similar state. Strictly speaking, for Clauberg, there cannot be any purely transeunt causal relations, or causation that is not grounded in internal actions. Causation in nature indeed results in dependence relations among substances, but only in virtue of the immanent actions of their mutually adjusted powers of acting and of being acted upon. Clauberg, one might say, would deny any opposition between causation as

dependence and as the action of causal powers. The former express necessary relations that obtain in virtue of the latter.

Efficient causation as production does not exhaust the use of causal language in Clauberg. One class of causal concepts relevant to our purposes is that of *sine quibus non* conditions, circumstances that are necessary but not sufficient for causation. Here again, the influence of his scholastic predecessors runs deep. While some earlier authors had treated *sine auibus non* factors as causes in their own right. Suárez marks a sharper distinction between the respective contributions of powers and mere necessary conditions. According to Suárez, the key difference is that only the former but not the latter implicate essences. Fire is the per se cause of heat in water because its causality results from its essence. By contrast, the proximity of substances necessary for the propagation of heat is not attributable to their natures. As a result, whatever explanatory role such factors occupy must be grounded in something other than essences. For Suárez, this ground could only be God's will to institute certain states of affairs as requisite for the exercise of natural powers. With respect to the divine will, there is thus a crucial difference between per se causes and sine quibus non conditions. God's volition is required only to sustain in existence the creaturely essences, and hence powers, conceived in God's intellect. By contrast, not being attributable to essences, *sine quibus non* conditions must be wholly grounded in God's will, and thus on special decrees for the sake of the perfectibility of created substances. As Andrea Sangiacomo observes, "Suárez systematically reserves the term 'cause' only for those causes that produce their effects in virtue of their efficacious natural powers, while he renames 'conditions' what previous medieval authors such as Ockham had labelled *sine* quibus non 'causes'."²²

The demotion of *sine quibus non* conditions and the privileging of efficient causation is shared by two of Clauberg's most important Reformed predecessors, Timpler and Goclenius. In his general discussion of causa, Timpler insists on the sufficiency of Aristotle's four species of cause, and especially of efficient and final causes, to account for change. In particular, he stresses that 'cause' is improperly used to refer to any kind of principle whatsoever, and for any requisite of an effect, such as occasions and sine quibus non conditions, in which no powers to produce or receive actions are posited (Met. sys., III.ii.3). Goclenius likewise opens his discussion of 'cause' by distinguishing proper (proprie) from improper (improprie) uses of the term. First among the latter is its use for "conditione sine qua non," which he dismisses as amounting to calling privation a cause. For Goclenius, the correct meaning of cause is that of a principle of producing which, when posited, results in a suitable effect and which, when not posited, does not result in that effect (Lexicon, 355). While Clauberg rarely uses Suárez's, Timpler's, or Goclenius's language of sine quibus non causes, he subscribes to their clear distinction between per se efficient causes, which produce effects by their own powers, and mere necessary conditions for their exercise.²³ Efficient causal agents exploit circumstantial factors for the sake of their own perfection. Illustrating with a stock example, Clauberg identifies the

²² I am indebted to Sangiacomo, "Sine Qua Non Causation," 218-23, for the discussion in this paragraph.

²³ In *Elementa philosophiae* Clauberg had included 'causa sine qua non' among the proximate reasons of causation (*Elem.*, 65). The term recurs in *Logica*, I.vi.62, OO II.791: "Sol est causa a qua conclave illuminatur; sed remotio valvarum est causa sine qua non fit illuminatio." The example confirms the circumstantial character of such factors as the opening of a door-leaf in causal analysis. The phrase disappears from Clauberg's accounting of causal terminology in *Metaphysica de ente*.

architect as the principal cause of building, for the sake of whose *per se* causality instruments (tools; *Werkzeug*), exemplars (blueprints; *Werkbild*), and procatarctic (wages) and proegumenal reasons (desire for profit), enter as necessary but insufficient conditions (xv.253, OO I.326). The term 'cause' is only loosely applied to such factors.

With Clauberg's theories of substance and causation in view, we can better examine the long-standing question of his occasionalism and the more recent one of his mind-body interactionism.

4. Occasionalism and Secondary Causation

As noted earlier, Clauberg has been linked to occasionalism since the mid-nineteenth century. The linkage has typically focused on the mind-body problem. The chief grounds for the occasionalist reading have to do, first, with Clauberg's denial that mind and body could be naturally united, and second, with certain passages where he uses the terms 'occasio' and 'causa procatarctica' to describe the relation between mental and bodily modes. Some scholars have further argued that, by attributing the mind-body relation to the divine will, Clauberg implicitly denies the efficacy of secondary causes.²⁴ None of these reasons is adequately supported by the texts.

Clauberg certainly emphasizes the special character of the mind-body relation. In *Corporis et animae in homine conjunctio* (henceforth, *Conjunctio*), he stresses the impossibility

²⁴ Weier, "Okkasionalismus," 43, exemplifies these tendencies, attributing to Clauberg three theses he regards as constitutive of occasionalism: 1) that body and soul are distinct kinds of substance; 2) that it is impossible to explain the relation of body and soul in a natural way; and 3) that the reciprocal relation between these substances is the result of God's intervention (*Eingreifen*). For Weier, the last thesis amounts to God's causality overriding the powers of creatures, thus rendering secondary causes redundant (53-4).

of any causal relation between the two substances, given their radically dissimilar natures, and concludes that their union could only be ascribed to God's wisdom (*Conj.*, iv.14-15, OO I.212). Clauberg's denial of a natural union of mind and body has often led to his characterization as an occasionalist. But as Bardout, among others, has stressed, the negative criterion alone is too weak to support any interesting form of occasionalism.²⁵ The mere denial of efficient causation between mind and body is shared by a wide range of early modern authors whom we would not straightforwardly classify as occasionalists. What's more, as Nadler has argued, seventeenthcentury occasionalism should not be seen as an *ad hoc* response to the problem of mind-body interaction generated by dualism. He shows that the heterogeneity of mind and body plays little or no role in the arguments of Malebranche, Cordemoy, and Geulincx, authors we do recognize as defending the distinctive theses of occasionalism: that there are no necessary connections in nature, and that God is the sole efficient cause of change.²⁶ Clauberg, by contrast, never entertains occasionalism as a general cosmological doctrine, applicable equally to body-body and mind-mind interaction. Given his special treatment of the mind-body problem, the appropriate question to pose to his texts is, 'what is the nature of the conjunction of mind and body?,' rather than, 'what kind of occasionalism is this?'

A second reason for attributing occasionalism to Clauberg has to do with his use of the Stoic and Galenic terms 'occasio' and 'causa procatarctica.' This, I submit, is a verbal deception that is cleared up once we understand his use of the terms. The key text, again, is in *Conjunctio*, where he describes bodily motions as,

²⁵ "Johannes Clauberg," 138.

²⁶ "Mind-Body Problem," 6-28.

²⁷ 'Causa prokatarktika' is of Stoic origin. O'Neill, "Stoic Antecedent Causes," shows that its identification with 'occasional cause' is due to a fourteenth-century translation of Galen's discussion of Stoic physics, which rendered '*causa prokatarktika*' as '*occasio*.'

merely procatarctic causes that give occasion to the mind as the principal cause, which indeed always has that power in itself, to produce such and such an idea, at this particular moment, and to bring into act its power of thinking. (*Conj.*, xvi.10, OO I.221)²⁸

The terminology of procatarctic causes is borrowed from the early modern medical literature. In that context, the procatarctic, or remote, cause denotes a circumstance which triggers the onset of a malady by inciting a proegumenal, or proximate, cause of the disease. The Dutch physician Steven Blankaart defines it as,

the preexistent cause of disease, which works together with other agents from which disease is first produced; [it may be] either external or internal, as anger or hot air, which induce fever by moving the ill-humors [*Cacochymiam*].²⁹

In this example, the cacochymial fluids are the principal causes of fever, while anger or warm ambient air are prevailing conditions, which excite the fluids to produce the malady. To take another example from the literature, a habit of intemperate eating and drinking, or a hereditary disposition to do so, would be the principal causes of gout. Catching a cold, by contrast, is called a procatarctic cause of an actual episode of gout inasmuch as it induces the disposition to actualize. Analogously, in the *Conjunctio* passage Clauberg seems to suggest that certain bodily states may be regarded as inducements of certain mental states.

The medical model appears to fit what Nadler has called 'occasional causation.'

According to Nadler, "occasional causation exists when one thing or state of affairs brings about

²⁸ "Quapropter corporis nostri motus tantummodo sunt *causae procatarcticae*, quae menti tanquam causae *principali* occasionem dant, has illasve ideas, quas virtute quidem semper in se habet, hoc potius tempore quam alio ex se eliciendi ac vim cogitandi in actum deducendi." Other uses of *causa procatarctica* occur at *Notae*, IV.lxxxvii, OO I.573; *Met. ente*, xv.253, OO I.326; *Logica*, I.vi.60, OO II.791.

²⁹ Lexicon medicum, 395.

an effect by inducing (but not through efficient causation [...]) another thing to exercise its own efficient causal power." He analyzes the relation as: A occasions B to cause *e*, where *e* is an effect of B's efficient causality. Occasional causation is distinct from occasionalism, which is the wider thesis that finite beings have no efficacy of their own and are only occasions for God's efficient causality. Logically, occasional causation is compatible with both the affirmation and the denial of secondary causation and, *ipso facto*, of occasionalism. Adopting this model, Clauberg might be read as holding that bodily states are occasional causes of mental states by inciting the mind to produce effects through its own efficient causality. Occasional causation, rather than efficient causation, would link bodily and mental states.

Attractive as this interpretation might seem, it does not fit easily with Clauberg's doctrine of cause. The question raised by his distinction between 'give occasion' and 'produce' is whether the former marks a genuine species of causation. The *Conjunctio* passage above distinguishes the principal cause in the mind from the merely (*tantummodo*) procatarctic cause, the corporeal motion. Whereas the former is the mind itself in virtue of its efficient causality, the latter amounts only to an enabling condition for its exercise. Like warm ambient air or an episode of anger preceding the onset of fever, the bodily motion is not a source of the new mental state.³¹ In labeling a motion a procatarctic cause, Clauberg deemphasizes its contribution with respect to the mental power. Indeed, the fact that he borrows medical terminology to describe the role of the bodily motion in the production of mental effects suggests a concern to distinguish *per se* causes from mere necessary conditions, just as he distinguishes the causality of the architect

³⁰ "Occasional Causation," 33.

³¹ In a similar vein, Bardout, "Johannes Clauberg," 138, notes: "It seems that the procatarctic [cause] has a status more like a condition *sine qua non* rather than an occasional cause."

from the contribution of tools and wages to house-building. As I shall argue in the next section, for Clauberg, the relation of mental and bodily states is best conceived in non-causal terms.

A key lesson from the above passage is that body cannot cause mental effects. Clauberg's reasoning here may be contrasted with Malebranche's, who draws a rather different conclusion from the inadequacy of a substance to cause change in another. In one example, Malebranche considers a simple case of collision, where one moving ball is regarded as "a natural cause of the motion it communicates" to another. He uses the example to argue, however, that, since all motion depends on God, "a natural cause is not a real and true but only an occasional cause, which determines the Author of nature to act in such and such a manner in such and such a situation" (Search, II.2.3, 448). The lesson Malebranche draws from the inability of a finite substance to be the full cause of an effect is that it should be entirely denied the title of cause. The lesson Clauberg draws instead from the inability of body to be a proper cause of mental effects and vice versa is that natural powers are true causes only in their own substantial domains, not that nature is devoid of causal agents. While his ontology precludes efficient causation between mind and body, it leaves open its possibility within each substance. To my knowledge, he never explicitly denies it. Indeed, he divides efficient cause into intellectual and physical species, the former designating the causal power of mental substance, the latter of corporeal (Met. ente, xv.257, OO I.326). A change in mental state results from the action of a mental power. Corporeal motion likewise results from corporeal powers. Even if occasional causation were granted as the right model for thinking about the mind-body relation, for Clauberg it would have to be paired with the denial of occasionalism. Turning to Clauberg's physics confirms his broad commitment to secondary causation.

In *Metaphysica de ente*, Clauberg distinguishes a primary or universal cause as one that "acts indifferently in many things," from a particular or secondary cause as one whose "power is restricted by a natural disposition to one [kind of] effect" (xv.249, OO I.325). Both primary and secondary causes possess efficacious natures. The difference lies in the manner and extent of their efficacy. In *Disputationes physicae* (1664), he distinguishes them as follows:

we will first consider the universal and primary cause that produces all motions that are in the totality of corporeal things; then the particular and secondary cause from which proceed various and diverse motions in each part of the world. (xviii.5, OO I.97)³²

Clauberg further defines a secondary cause as, "either some thing that produces motion, or the rule or law according to which motion is produced" (xviii.6, OO I.97).³³ The dual characterization is significant, for it allows him to accommodate Descartes's identification of secondary causes with the laws of nature to his own conception of causes as power-bearing substances. In dealing with a core tension in Descartes's system—how to reconcile the general passivity of matter with specific physical causes to account for the determinacy of effects—

Clauberg's strategy differs sharply from the occasionalist. Whereas the latter resolves the tension by attributing all causality to God and treating bodies as mere occasions, Clauberg conceives individual bodies as partial efficient causes in virtue of their essential structural properties.

In physics, Clauberg elaborates the primary/secondary cause distinction with respect to each of his two senses of secondary cause, as powers and as laws. With respect to the latter, he

³² "Quemadmodum autem in aliis rebus physicis, ita etiam in Motu primo considerabimus causam Universalem & primariam, quae efficit omnes motus, qui sunt in corporeo rerum universo; deinde particularem & secundariam, a qua varii ac diversi in singulis mundi partibus motus proficiscuntur."

³³ "Causae particularis nomine intelligere possumus vel *rem* aliquam, quae motum efficit, vel *regulam* sive legem ac rationem, secundum quam efficitur motus."

conceives the distinction by analogy with the relation between a ruler and his legislation, specifically between God and his word. As primary cause, God stands in a relation to creatures as lawgiver to subjects, while secondary causes amount to the specific laws by which creatures are to operate. In other words, the distinction amounts to one between the legislator's authority over subjects and the authority of the laws by which subjects are bound to the legislator's will (*Disp. phys.*, xviii.8, OO I.98). With respect to the former sense of secondary cause, as powers, the primary cause is simply that on which all motion depends *qua* motion, namely God as the source and conservator of the total quantity of motion. The difficulty lies in conceiving secondary causal powers in Cartesian material substance, which Clauberg acknowledges is in itself mere inert bulk (xviii.4, OO I.97). How can one part of passive extension be an efficient cause of change in another?

To deal with this situation, Clauberg retools a scholastic distinction between primary and secondary matter (*materia prima/secunda*). In the Cartesian context, he uses the former to refer to corporeal substance in general, or geometrical extension *simpliciter*, which depends on God alone. By contrast, the latter denotes individual bodies, *qua* packets of extension formed in certain generic ways, which permit their classification into determinate kinds (*Disp. phys.*, iv.15, OO I.58; *Phys. contr.*, ii.48-9, OO I.2; iii.104, OO I.4).³⁴ We can think of secondary matter as picking out features characteristic of different types of bodies—their textures, sizes, and shapes—which limit the ways in which a body propagates motion by offering various degrees of resistance. Such features count as powers, for Clauberg, in virtue of partially determining the

Descartes supplies textual warrant for a distinction between substance considered as *res extensa* as such and as an individual body, e.g., in "Second Replies": "The substance that is the immediate subject of local extension and of the accidents that presuppose extension, such as shape, position, local motion, and so on, is called body"; AT VII.161, CSM II.114; cf. *Principles* I.60, VIIIA.28, CSM I.213.

resultant motions of bodies in impact and collision events. Given the inertia of matter, however, he conceives both the active and the passive powers of body, its vis agendi and vis obsistendi, as species of resisting force (vis resistendi). The former refers to a body's capacity to repel another body by its present momentum, the latter to its degree of impenetrability by another (Disp. phys., xxii.8, OO I.113; Phys. contr., v.210, OO I.8). While God is indeed the sole cause of the origin of the motion present in any body, the features that explain how particular bodies are moved or resist being moved consist in the configurations of their mechanical properties. For Clauberg, such properties qualify bodies as secondary efficient causes of motion, and warrant their classification in terms of dispositions to distribute their preexisting motion in certain ways, such as projectile, flowing, rotating, or descending (Disp. phys., xviii.7, OO I.97-98). To be sure, both active and passive corporeal powers are species of resistance, or of how bodies respond to external impulses. But while, in keeping with Descartes's law of inertia, he denies bodies the power to initiate motion, he conceives colliding bodies as partial causes of change, in their own states as well as in one another's, in virtue of intrinsic properties, and thus to act in his generic sense.35

Clauberg's treatment of bodily causal powers is not without its tensions. It is far from clear, to put it mildly, whether a notion of resisting force is truly conceivable through merely geometrical properties. Without an element of innate activity, what Clauberg imagines as bodily efficient causes are perhaps, by his own lights, better construed as formal dispositions, and not active powers to produce effects. His adjustments to Cartesian physics betray an ambivalence shared by many, otherwise sympathetic, readers of Descartes with regard to a conception of body

³⁵ Buzon, "La nature des corps," 103-4, and Platt, *One True Cause*, 254-6, similarly note the anti-occasionalist character of Clauberg's physics.

as mere extension. While Clauberg does not go so far as to replace extension with impenetrability as the primary attribute of corporeal substance, his account pulls in that direction. His predicament results from his general theories of substance and causation, which require that Cartesian laws of nature be complemented with powers constituting bodies as sources of particular kinds of change in universal motion. He thus combines his two senses of secondary cause, as bodily powers to oppose and resist change and as particular laws governing impacts and collisions, to conceive bodies as co-causes of change determined ultimately by God's creative and legislative act. For Clauberg, only in this way could Descartes's laws, and especially the third law governing collisions, be interpreted as containing "all the particular causes of change" in bodies (*Disp. phys.*, xxii.7, OO I.113).

With such an interpretation of Descartes's physics, however, occasionalist readings of Clauberg become untenable. On his cosmological picture, God as primary cause imparts a fixed quantity of motion and endows creatures with powers to modify it in definite ways. Creatures are subordinated to God in the sense of having been antecedently determined to produce particular actions in accordance with divinely instituted laws. But it is not the case, as with occasionalism, that God acts in their stead.

5. The Federation of Mind and Body

While ruling out occasionalism, Clauberg's embrace of secondary causation does not lead him to an interactionist position on the mind-body relation. His account instead suggests, without fully articulating, a parallel development of two radically distinct, naturally efficacious substances, whose states covary in regular ways and are related as mutually referring signs.

As we have seen, Clauberg denies that mind and body could be naturally united, due to their heterogeneous natures. In *Conjunctio* he writes: "there cannot be found in the universe two things conjoined that are more dissimilar and more generically different than body and soul" (iv, OO I.211). While certainly appearing connected, body and soul can be joined neither in the manner of two bodies—which are said to be conjoined when their outer surfaces are touching—nor in the manner of two souls—whose conjunction requires that one intimately know and desire the other (vi.2, OO I.213; vii.1-2, OO I.214). Their relation cannot have the character of cause and effect, or of substance and accident, or in general of one that could obtain between two homogeneous things. Consequently, it can only be a specially instituted one, bypassing their essences. Yet, Clauberg insists that the relation can be understood not merely *per negationem* but also positively (viii.7-8, OO I.215). He proposes a weaker criterion:

To establish the relation between these things, it is not at all necessary for one to be the cause or the effect of the other. It suffices if one brings about something, or changes something in the other, such that the two substances mutually refer to each other in their actions and passions. (ix.10, OO I.215)³⁶

Two points bear emphasis in this passage. First, Clauberg distinguishes a relation of causation from one that is sufficient for mutual reference, which he calls conjunction. The former is a transcendental relation of production grounded in essences. The latter has weaker requirements, for reference may be established without causation, as, for instance, by marks conventionally agreed upon to carry certain meanings. While causation is what grounds the conjoined mental and bodily states, their conjunction itself is not conceivable through the causal powers of

³⁶ "Ad relationem istam has inter res fundandam, minime necesse est alteram esse alterius vel causam vel effectum. Satis est si altera aliquid efficiat vel mutet in altera, ita ut actionibus & passionibus ad se mutuo referantur."

substances. Consequently, second, he suggests that no deeper account of mind-body conjunction is needed, or possible, than one which describes the mutual reference of mental and bodily states. To establish their conjunction, in other words, it is not necessary to explain how the covariations are grounded in mental and bodily natures. As he continues, the mind-body relation, as far as we know, consists only in the external "commerce and reciprocity" (*commercio et reciprocatione*) of their actions and passions, not in the "similitude and agreement" (*similitudine et convenientia*) of their powers (ix.11, OO I.215). To drive home the distinction, he reminds the reader that a real union of mind and body would require causal production, that "something should come from this to that, or from that to this, that is, that one should give something to the other, or it should receive something from the other" (ix.13, OO I.215).³⁷ Their mere conjunction, by contrast, is not grounded in the reciprocal fittingness of their powers, but only in the mutual reference of their actions.³⁸

The conjoined modes of mind and body constitute what Clauberg calls a "vital concourse," to distinguish it from a causal connection. A brain state is not the kind of entity apt to produce sensations in the mind, nor a volition the kind to produce motions in the body.

Clauberg suggests that they are related merely as transeunt acts (*actus transeuntes*) (*Conj.*, xi.1-4, OO I.217). If taken causally, this usage would be inapt, for, as we have seen, Clauberg denies

³⁷ "Requiritur, inquam, ut aliquid ab illo ad hanc, vel ab hac ad illud perveniat, seu, ut altera res alteri aliquid largiatur, vel ab altera quid accipiat."

Platt, *One True Cause*, 140-4, carefully lays out Clauberg's formulation of the interaction problem in *Conjunctio*, leading to the recognition that the mind-body relation is contingent and not grounded in essences. But, with that constraint, Clauberg is then not licensed to conceive the mind-body relation as causal, a position Platt goes on to attribute to him. Platt emphasizes the language of "brings about or changes" in the second sentence of the block-quoted passage. But he elides the first sentence, thereby missing the contrast drawn between the relation in virtue of which mental and bodily modes mutually refer and a causal relation in the strict sense. Platt's reading rests on an implausibly permissive meaning of efficient causation, which I have argued against in §3.

any merely transeunt causation, and the immanent acts of mind and body are inapt to be causal grounds of each other's modes. Here he avoids just that consequence by considering mental and bodily modes as merely transeunt acts. That is, he refers to them only as completed states, not as causal actions. To illustrate, he again appeals to the distinction between *actus elicitus* and *actus imperatus* of the will with respect to walking. In the context of the mind-body nexus, only the commanded act of the will, and not its internal decision that is the causal ground of the command, may be referred as a transeunt act to the corresponding bodily motion. That is, with respect to the apparent action of the mind on the body, the will's internal deliberation that issues in a command cannot be considered a cause. Similarly, only the bodily motion insofar as it is perceived is conjoined to the soul, but not the real motion as produced immanently from a corporeal power (xi.5-6, OO I.217). "Accordingly," he writes, "conjunction consists in this alone, that the body is moved for the use of the soul, and the soul confusedly perceives something as if a reminder from the body [*quasi monente corpore*]" (xi.7, OO I.217).

Clauberg appreciates that the union of a merely perceived body and a merely recollecting mind is not entirely satisfactory. What is at issue is the union of the mental and bodily natures themselves that are thought to act upon one another. Pretheoretically, in choosing to raise my arm, I do not take myself to be urging the body to act in a certain way, and then to be advised by it of its new state, but simply to have caused my arm to rise. Between the conjunction of mind and body and the conjunction of perceptions and their objects, Clauberg writes, "a marked distinction shines forth" (*Conj.*, xii.1-3, OO I.217). He is certainly moved by the intuition that the mind-body union should consist in genuine interaction, in particular with the mind governing the body (xii.5, OO I.217-8). At times he tentatively suggests that the union should consist in a real and not merely objective presence of the latter to the former. That is, the relation of mind to

body should be a causal one of the sort between agents and patients, not a merely intentional one of the sort between signs and significates, or images and exemplars. But such an account would require the body to be not just an external object of mental representations but a site of mental causation (xii.9-10, OO I.218).

Clauberg's treatment of the matter betrays some unsteadiness. One interpretive option suggested by the texts, and which some scholars have ascribed to Clauberg, is that of a one-way interactionism. On this proposal, while the body is powerless to affect the mind, the mind qualifies as a directional cause of change in the body.³⁹ That is, the mind might have the power to modify the direction of bodily motions, even though it cannot introduce new motions. The mind could thus cause change in body without violating Descartes's principle of the conservation of the total quantity of motion in the universe. Such a view is licensed by Clauberg's recognition of the principle, that "an inferior thing cannot act in a superior thing." Granting that mind is nobler than body, it allows for the possibility of the former acting on the latter but not vice versa (*Conj.*, xiii.7, OO I.219). This interpretation is also suggested by his likening of the mind-body relation to that of a charioteer and a horse: after all, the charioteer is able to direct the motion of the horse, even as the motion is produced by the animal itself. In its alleged gubernatorial role, Clauberg sometimes calls the mind a "moral" rather than a "physical" cause of bodily change (xvi.5-6, OO I.221).

Despite textual intimations, a change-of-direction account of the mind's relation to the body does not accord with Clauberg's picture of causation. On his view, a causal connection of substances requires a formal agreement of their powers, or an aptitude of the one to have the

³⁹ Schmaltz, *Early Modern Cartesianisms*, 180-81, Favaretti Camposampiero, "Direction of Motion," 201-02, and Platt, *One True Cause*, 147.

other as the real object of its action. Without such agreement, the internal action of the mental power cannot be the transeunt cause of bodily change. To return to the earlier example, in a Cartesian universe, this means that the commanded act of the will is powerless to produce change in the body, even though it may refer to a bodily motion in some other respect. The constraint holds as much for the direction as for the quantity of motion, since both are equally modes of extension. 40 Lacking the attribute of extension, the mind cannot produce bodily modes. At best, the will's command could only be an exhortation that the perceived body be moved into such-and-such state. In *Metaphysica de ente*, in fact, Clauberg characterizes the mind's status as moral cause in just such terms, deploying a series of verbs that all fall short of expressing genuine causation. A moral cause only (duntaxat) "persuades," "urges," "deliberates," "reminds," and "entreats" (suadet, hortatur, consulit, monet, orat), but does not produce effects (Met. ente, xv.258, OO I.326). For Clauberg, the concept plays a pragmatic rather than an explanatory role. To illustrate, he considers the difference between a doctor and medicine, and a man lighting a fire and the fire itself, as causes of health and conflagration. Strictly speaking, medicine and fire are the causes of healing and flames. The human agent, however, "is more usually called cause in common life [in communi tamen vita], because he is seen as an acting subject" (note 'r', OO I.326). In other words, we are warranted in calling doctors and arsonists 'causes' because of the usefulness of such language, not because it tracks the order of causation.41

⁴⁰ Favaretti Camposampiero, "Direction of Motion," 202, nicely highlights the problem with the charioteer metaphor, that "between the mind and the body there is nothing corresponding to the horse's bridle." Direction is just as much a mode of extension as shape or size. Without an account of how a non-extended thing can produce a mode of an extended thing, the appeal to the horse and charioteer metaphor is just that, a metaphor.

⁴¹ The example of the arsonist is a stock scholastic example used to distinguish moral causation from physical causation; cf. Suárez, *Disp. met.* 17.2.6. Platt, *One True Cause*, 156-7, concludes

Mind-body interaction is a problem because of the heterogeneity of mental and bodily natures. It thus rules out an efficient causal union of the two substances. For Clauberg, however, heterogeneity precludes any kind of essential relation that would result in a unified substance from mind and body. The peculiar conjunction of one mind and one body, which we ordinarily take to constitute a unified person, certainly merits special consideration. Clauberg recognizes that human nature uniquely lends itself to a threefold consideration, as body, as soul, and as what "arises from and is composed of the two" (*Conj.*, x.8, OO I.217). But, from this, he does not move toward a trialist position, a view that some scholars have found in Descartes. That is, Clauberg rejects the possibility that the third, composed thing counts as a special hylomorphic substance distinct from mind and body, and that sensations count as a special kind of mode belonging neither to mind nor to body but to their union. He remains committed to Descartes's substance dualism, and consistently treats sensations as modes of the mind alone. Instead, he problematizes the common view, that the human being is a *per se* unity.

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from this passage that Clauberg regards the moral cause as an attenuated kind of efficient cause, akin to procatarctic causes. I have already argued that Clauberg's procatarctic causes have the status of *sine qua non* conditions rather than efficient causes. Here, Clauberg is contrasting the everyday use of the word 'cause' from the philosophical concept in the strict sense, as that which gives being to another.

Descartes asserts that the human being consists in a real, substantial bond of mind and body at, for instance, "Fourth Replies," AT VII.228, CSM II.160; to Regius, January 1642, AT III.493, CSMK III.206; and to Elisabeth, 21 May 1643, AT III.664-5; CSMK III.217-8. These passages have led some commentators to find the thesis of substance trialism behind his official one of dualism—that sensations, the locus of the problem of interaction, constitute a third kind of mode and correspond to a third kind of substance, namely a hylomorphic unity distinct from both mind and body. The label 'trialism' is due to Cottingham, "Cartesian Trialism," though the interpretation goes back at least to Gueroult, *Descartes*, II.134-35. For proposals to save Descartes from the trialist specter, see, e.g., Rozemond, *Descartes's Dualism*, ch. 6, and Kaufman, "Descartes on Composites." Scholars widely agree that Descartes's position on the status of sensations is anything but clear.

In Conjunctio, Clauberg sidesteps the question of whether a human being is called a unity per se or per accidens as irrelevant to the question of the mind-body relation, referring the reader to Metaphysica de ente (v.6, OO I.213). There, he defines 'unum per se' as "that which has an indivisible essence, either simple or complex." In the case of complex essences, the title is subject to the further condition, "that a sufficiently close [arcta satis] conjunction exists among the component parts" (Met. ente, viii.133-4, OO I.304-5). He goes on to observe that, how exactly sufficient closeness is to be defined is far from easy. He illustrates with the example of man, who "is customarily called *ens unum per se*, even though he is composed not only of the most dissimilar but also of the most easily disconnected parts." For Clauberg, the ambivalent status has to do with the vast gap between humanity's prelapsarian and postlapsarian conditions. On his Calvinist view, although the creation of the human being may have resulted in a conjunction of body and soul sufficiently strong to constitute a per se unity, the total corruption due to the Fall has weakened the bond enough to call that into question. In its present state, at least, the title of ens per se does not properly pertain to man (viii.133, and note 'i', OO I.304-5). Whether humanity should be considered an indivisible essence must remain unsettled. Given what we can know of human nature in this life, it may well be regarded as a unity per accidens, in virtue of being composed from diverse and readily separable natures (viii.134, OO I.305). Consequently, he rejects the traditional formula of man as a rational animal, with its implication of rationality as the form of a certain kind of animal body, and instead defines 'homo' simply as "a thing composed from a finite mind and an organic body" (Corp. viv., xxiv.588-9, OO I.187). The human being cannot be said to be either a hylomorphic unity or a distinct, simple nature, but only the result of the composition of two complete, separate substances. Mind does not require body for its perfection, nor is it a form that perfects matter by unifying the life-functions of a

certain kind of animal. Their unity could thus only be an external one consisting in the correlation of their modes (*Conj.*, iv.14, OO I.212). Accordingly, his favored metaphors for mind-body conjunction suggest contingent cooperation, such as teaching (*docens*), federation (*foedere*), and friendship (*amicitia*), rather than necessary connection (viii.4, OO I.214; ix.17, OO I.216; *Corp. viv.*, xxvi.613, OO I.188). In other words, Clauberg recognizes a rather tenuous bond between mind and body, which could be stronger in some individuals and weaker in others; stronger, as he opines, in children and the unlearned than in adults and the learned, just as the strength of friendships and federations may vary (*Conj.*, xliii, OO I.248).⁴³

What, then, is the nature of the federation, and how does it come about? On the latter question, beyond a brute appeal to God's will, Clauberg maintains steadfast agnosticism. Given our epistemic situation,

it is not appropriate to ask why such-and-such thoughts of the soul follow such-and-such motions of the body, or to seek how the motions of the animal spirits depend on the will. No natural necessity or affinity will be found inherent in these acts. (*Conj.*, xiv.8, OO I.219)⁴⁴

Nothing in the nature of the two substances could explain the seeming arbitrariness of sensory contents; why, for instance, certain patterns of brain motions following pinpricks are regularly accompanied by pain sensations and the desire to withdraw the affected part of the body. All that

⁴³ As Specht, *Commercium*, 109-10, observes, this view has the unusual consequence that the strength of the mind-body union is a function of how well they cooperate: "the more strongly the two components in sensations and movements are dependent on one another, the tighter is their connection."

⁴⁴ "Itaque non oportet interrogare, quare tales cogitationes in animo ex talibus corporis motibus consequantur, aut quomodo motus spirituum ab animi voluntate pendeant. Nam illud a nulla naturae necessitudine vel cognatione ipsis inhaerente, qualem hic plerique requirunt; sed a Deo conditoris voluntate existit."

can be said is that, "through his wisdom and freedom, God has willed that these acts of such different kinds be united in a human being, such that the one refers to the other, without there being any similitude between them" (xiv.9, OO I.219). God's will alone has made it the case that certain mental actions refer to certain bodily actions, and vice versa. But only God's intellect, the source of creaturely essences, could ground a necessary relation between the two. Given the inscrutability of God's will, no further explanation of their apparent correspondence is available.

As for the referential character of mental and bodily modes, Clauberg understands it as akin to signification relations in language, such as the relation between written and spoken words, and between words and objects (*Conj.*, xv.2, OO I.220). Commenting on the Sixth Meditation, he maintains that no cause can be discovered to explain why, for instance, certain agitations in the stomach are of the sort we call hunger. All we may conclude is that "*nature teaches us*" the correlations between sensations and bodily states on which the human condition depends (*Paraphr.*, vi.75-6, OO I.463; *Conj.*, xiv.9, OO I.219). We learn the meanings of the correlations through experience, much as English speakers learn that the word 'cat' signifies a certain kind of animal in their linguistic community. In learning sensory meanings, we do not discover necessary connections but instead arbitrary conventions governing signs and their significates. Not being grounded in the essences of mind and body, we can only suppose that sensory meanings have been fixed by divine convention (*Paraphr.*, vi.77-8, OO I.463).

Clauberg calls sensations material or instrumental signs (*signa materialia/instrumentalia*) as opposed to formal signs (*signa formalia*). The latter category ranks among the transcendental relative attributes, and is defined as, "an image of a thing in the mind, or every sign which

properly speaking represents" (Met. ente, xxi.336, OO I.337).45 A formal sign does not just carry signals from the environment, but represents objects by essential features, as smoke represents fire in virtue of acquainting the perceiver with qualities that necessarily result from burning. A material or instrumental sign, by contrast, has a merely indicative function, as an external aid (externum adminiculum) to thinking. Deploying the distinction in Conjunctio, Clauberg likens the significatory character of sensations to the way in which "an ivy bush hung up announces that wine is for sale" (*Conj.*, xxxviii.14-5, OO I.243).⁴⁶ Ivy on the tavern door does not naturally represent the availability of good wine for purchase, and yet reliably informs customers in virtue of a social convention. Analogously, pain sensations reliably indicate a certain kind of bodily state, but not in virtue of representing the reasons why pain accompanies such states. Sensations do carry definite meanings, even if not by representing real features of things. Indeed, we may be confident that, as divinely instituted conventions, the meanings of sensations are more stable than socially instituted meanings. But whatever special reasons God may have had for establishing that certain brain patterns should signify pain, or certain motions in the stomach should signify hunger, remain inexplicable. From the human standpoint, the problem of the

⁴⁵ "Formale signum appellatur imago rei in mente vel omne signum, quod proprie repraesentat." Descartes, of course, rejects a strictly imagistic theory of mental representation; "Third Meditation," AT VII.37, CSM II.25-6; "Second Replies," AT VII.160, CSM II.113. Clauberg's discussion of the relation between sensation and cognition betrays the continuing influence of the Aristotelian theory of perception and cognition as mediated by sensible and intelligible species, as Spruit, "Perceptual Knowledge," 81, observes. In his notes on Descartes's *Principles*, for instance, Clauberg wonders how formal signs represent external objects, given that our sense does not "touch upon" (*attingere*) things outside us. His tentative answer: "by the species of things"; *Notae*, I.lxviii, OO I.510. Such remarks sit uneasily with his ontology, to put it mildly. I do not wish to put too much emphasis on the *Notae*, however, seeing as they exist as fragmentary teaching notes for an audience for whom scholastic terminology still provided the common frame of reference.

⁴⁶ "Sensus sive sensualis perceptio sit per *signa materialia*, quae res quidem indicant, ut hedera suspensa monet vinum esse vindibile."

mind-body relation becomes one of describing accurately the covariations of sensations and bodily states, not of understanding causality.⁴⁷

Clauberg's conception of the relation between brain states and sensations as one of signification approaches what Margaret Wilson has termed the doctrine of natural institution in Descartes. On her view, what Descartes can reasonably establish is that,

what we call the close union or intermingling of this mind with this body is nothing but the arbitrarily established disposition of this mind to experience certain types of sensations on the occasion of certain changes in this body, and to refer these sensations to (parts of) this body.⁴⁸

Wilson observes that, in his concern to uphold the traditional doctrine of the human being as *ens unum per se*, Descartes sometimes goes beyond the natural institution theory toward what she calls the co-extension theory, on which the mind-body union consists in a certain real intermixture. But she deems that attempt unfortunate. According to her, Descartes does not permit himself the resources for a deeper account of the union than as a mere conjunction of

⁴⁷ Descartes uses the language of signs and occasions at, for instance, *Dioptrics*, AT VI.112-13, CSM I.165; The World, AT XI.4-5, CSM I.81-82; "Sixth Meditation," AT VII.87-88, CSM II.60-61; Principles, IV.197 AT VIIIA.320-21, CSM I.284; Comments on a Certain Broadsheet, AT VIIIB:359, CSM II.304. See Rozemond, "Mind-Body Interaction," 444-56, and Hatfield, "New Thoughts on the Senses," 453-57, for discussion of Descartes's use of these terms to characterize the relation between brain states and sensations as one of signification. They emphasize that Descartes appeals to the notions of signs and occasions primarily in order to deal with the arbitrariness of some sensory contents—ideas of colors, pains, sounds, for instance. In virtue of what could a sensation of redness be about the body it purportedly represents, in the absence of any resemblance between mental and corporeal modes? That is, Descartes is concerned with how the content of sensory ideas could get fixed without any basis in the natures of things. Hatfield suggests that Descartes's use of the sign/signatum relation to understand the nature of sensory representation is modeled on late scholastic treatments of Aristotle's account of the psychosemantics of words in *De interpretatione*. The analogy is useful inasmuch as in both cases (sensory and linguistic representation) stable meanings are established in the absence of qualitative resemblance. Clauberg is operating with a similar set of concerns and tools. ⁴⁸ Descartes, 211.

signs.⁴⁹ Clauberg better heeds Wilson's counsel. He embraces the consequence of his theoretical commitments that the mind-body nexus amounts to no more than the coordination between the perception and desire of the former and the motions of the latter. In this consists entirely the commerce and reciprocity of mind and body. The conjunction of my mind with the body which by a special right I call mine is neither necessary nor permanent. It is contingent and temporary, and susceptible to ebbs and flows. Yet, for my earthly well-being, this tenuous union is, like all healthy friendships and federations, "dear and pleasurable" (*amicum et delectabile*) (*Conj.*, xlii, OO I.246).

6. Conclusion

Clauberg has long been regarded as one of the originators of seventeenth-century occasionalism. In recent years, scholars have rightly questioned this reading, noting that suggestions of occasionalism in Clauberg are restricted to the context of the mind-body problem, in contrast to a global occasionalism such as Cordemoy's or Malebranche's. Building on the gathering consensus, some scholars have, however, veered too far in the direction of interactionism, in some cases by attributing to Clauberg a general theory of causation as mere dependence rather than as production. I have argued that both the occasionalist and the interactionist readings of Descartes's most important German advocate are mistaken. By examining his theories of

⁴⁹ Simmons, "Mind-Body Union," has recently contended that Descartes's own considered view of the mind-body problem stops roughly where Wilson thinks it should have stopped. Simmons argues that, his puzzling talk of intermixing and conjoining notwithstanding, for Descartes, "there is no humanly possible metaphysics of the mind-body union and so we should stop trying to give one and turn to a different project" (6). With that move, on her account, Descartes intends to shift attention to the phenomenology of embodied agency, which, in contrast to the metaphysics of mind and body, requires turning back toward the senses and to what the correlations of mental and bodily states feel like.

substance and causation, I have argued that Clauberg retains a neo-scholastic conception of efficient causation as the dependence of an effect on its cause in virtue of having been produced by the action of an essential power. He ascribes to secondary causation a key role in both physics and psychology. Unlike on the occasionalist picture, God's efficient causality is not the only reason for natural change, for minds and bodies are true causes within their own domains. This position creates a special problem for the apparent causal interaction and union of mind and body. But in that context, rather than radically alter his theory of efficient causation to accommodate mind-body interaction, Clauberg's treatment points toward the conclusion that the task of understanding the mind-body relation should be reframed as a descriptive rather than an explanatory one. To be sure, his account remains equivocal. But, what is clear is that, for Clauberg, the conjunction of mind and body should not be treated as a causal relation at all, but as one of reciprocal signification of bodily motions and sensations. The mind-body problem is thus suited only to an historical inquiry, of describing the covarying patterns of their states.

If one were to insist on an ontological solution to the mind-body problem, Clauberg's position is unsatisfactory. It is also not without its tensions, as we have seen. Yet, his non-occasionalist and non-interactionist dualism may have been historically consequential. It points toward an alternative theory of psychophysical parallelism to the occasionalist, on which the inaptitude of mind and body to causally interact is compatible with their status as naturally efficacious substances. In conceiving minds and bodies as secondary causes limited to their own domains and acting in accordance with divine decrees, Clauberg suggests the possibility of a parallel causal development of two kinds of substance, coordinated by God's initial creative act. Whether the seeds of later theories of preestablished harmony in German philosophy lie here remains a matter for further inquiry.

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