Questions about the nature of causal relations occupy a central position in early modern philosophy. The prominence of this topic in seventeenth and eighteenth-century thought can, in large measure, be traced to a specific historical problem: the need to reconcile an emerging scientific view of the natural world — mechanistic physics — with traditional beliefs about the relation between God and his creation. On the one hand, natural philosophers of the period saw their task as one of identifying the underlying causal structures of observed phenomena and of framing explanations in terms of matter and motion alone. On the other hand, it was generally recognized that God is responsible not just for creating the world and its contents, but for sustaining them in existence as well. Against this background, in which philosophy, physics, and theology merge, the problem of causation arises in several contexts: in the realm of purely physical inquiry (how does one body produce changes in another body?); in regard to relations between the mind and the body (are mental events true causes of physical events, and do bodily states cause effects in the mind?); and in philosophical inquiry into the mind alone (are there causal relations among thoughts and other mental activities?)

In this paper I examine a particular philosophical model of causation prevalent in the seventeenth century — one that makes its clearest appearance in the second of the three contexts mentioned, mind/body relations, although for some thinkers it functions in the other two contexts as well. The model is a nonstandard one, insofar as it represents a departure from what might be called the standard causal model of the period: transeunt efficient causation. I shall call the type of causal relation I am

1 Questions about causal relations certainly arise in the seventeenth century in other contexts — social, psychological — that are beyond the scope of my concern here.
concerned with ‘occasional causation’, although, as will become evident, I intend to distinguish it quite clearly from the doctrine called ‘occasionalism’. As I show, occasional causation is a very general causal model; unfortunately, it is always overlooked in favour of — and thus often confused with — occasionalism, which I take to be one particular and specific manifestation of it. This kind of philosophical confusion usually leads to historicophilosophical mistakes. In this case, certain thinkers who employ occasional causation to explain a given set of relations are mistaken for occasionalists, properly so-called.

To focus my discussion and give it some grounding in a concrete case, I will concentrate on Descartes, as well as on some important later Cartesians, and on the explanation of how bodily motions ‘cause’ sensory and other ideas in the mind. This will both help illuminate the nature of occasional causation, especially its differences from occasionalism, and show just how one can be led to misread Descartes’ views on body-mind relations by failing to take such differences into account. In section I, I introduce the notion of occasional causation and contrast it with both transeunt efficient causation and occasionalism. In section II, I turn to Descartes’ views on the causal generation of ideas in the mind by the body, giving special attention to a recent misreading of his account. In section III, I conclude with some remarks on how occasional causation itself becomes a standard notion among orthodox (i.e., non-occasionalist) Cartesians in the context of body-mind relations.

I

Occasional Causation
The standard philosophical model of causation in the seventeenth century, particularly outside of Aristotelian-Scholastic circles and among the proponents of the new mechanical philosophy, was transeunt efficient causation. Generally speaking, one substance, event, or state of affairs, \( A \), is the efficient cause of another substance, event, or state of affairs, \( B \), if \( A \) is the immediate and direct (or proximate), primary agent of change with respect to \( B \), and is responsible for bringing about \( B \) through its own inherent efficacy or power.\(^2\) To say that \( A \) is the immediate and direct cause

\(^2\) The Cartesian physicist Pierre-Sylvain Régis, for example, defines an efficient cause as
of \( B \) is to say that no thing exists or no event takes place between the cause and effect and serves as a causal intermediary between the two (e.g., if a bat hits a ball and the ball hits a window, the bat's causal relationship to the broken window is indirect, mediated by the ball's causal relationship both to the bat and to the window). To say that \( A \) is the primary cause of \( B \) is to say that \( A \) is, by itself, sufficient to bring about \( B \), and is not merely a partial or contributing cause or necessary condition (depending on how you look at it, the bat hitting the ball is only either a partial cause or a necessary condition for the window's breaking, whereas the ball's striking the window is the primary cause or sufficient condition, given certain fixed conditions [e.g., a window that is of normal thickness, etc.]).

There are basically two varieties of efficient causation in the period: immanent and transeunt. In immanent efficient causation, something produces a change of state in itself. In transeunt efficient causation, something exerts an influence on or produces a change of state in something else.

Insofar as philosophers were able to provide for it an intelligible ontological model, efficient causation as transeunt causation was traditionally understood to involve a real action or influence of cause upon effect, where the influence in question consists in a


3 See, for example, Descartes, \textit{Comments on a Certain Broadsheet [Notae in Programma quoddam]}, AT VIII-2, 360; CSM I, 305, where he distinguishes between a contributing or 'remote and accidental' cause (\textit{causa accidentaria et remota}) and a primary and proximate cause (\textit{causa primaria et proxima}). In the Third Meditation, he identifies the efficient cause with the total cause (AT VII, 40; CSM II, 28). He emphasizes this again in a letter to Mersenne of 31 December 1640, noting as an example that 'the sun and the rain are not the total cause of the animals they generate' (AT III, 274). 'AT' refers to the \textit{Oeuvres de Descartes}, ed. by Charles Adam and Paul Tannery, 11 vols. (rev. ed., Paris: J. Vrin, 1964–76); 'CSM' refers to \textit{The Philosophical Writings of Descartes}, trans. by John Cottingham, Robert Stoothoff, and Dugald Murdoch, 2 vols. (Cambridge: Cambridge University Press, 1985).

4 The distinction is not always made in such explicit terms, but see Spinoza, \textit{Ethics}, I.18, where he distinguishes between God as a \textit{causa immanens} and God as a \textit{causa transiens}. See also Leibniz, \textit{De ipsa natura}, §10.

5 This is not to say that philosophers were always able to provide such a model, especially in the case of mind-body interaction, but also in the case of divine causation.

6 Note that 'effect' here more precisely refers to the thing affected by the cause, that is, the thing in which the effect itself is produced. For example, the sun, by causing warmth in the stone, acts upon the stone.
kind of 'influx' from cause to effect. One such model, found particularly among neo-Platonists, describes this in terms of an 'emanation' from cause to effect: the cause possesses what it gives to the effect in a 'higher' form and radiates it without diminution in itself. Another model, used particularly to describe causal relations among finite beings, involves a transference from cause to effect: the cause parts with what it communicates or transfers to the effect (e.g., heat, motion). In general, in transeunt or influx causation, something literally passes from cause to effect, either because the cause gives up something to the effect or because it multiplies something of its own to share with the effect. Such a process was thought to require a minimum degree of likeness or similarity between cause and effect. If what exists or existed in the cause is now to exist in the effect, then there must be some essential and substantial likeness between the two such that the same property (or kind of property) can belong to both. Finally,

7 Leibniz used the term 'influx (influxus)' to describe the interaction posited by the doctrine according to which one thing really causally influences another (a doctrine he contrasts with both occasionalism and his own system of preestablished harmony, both non-interactive systems); see 'First Truths', in Gottfried Wilhelm Leibniz: Philosophical Papers and Letters, ed. Leroy Loemker (Dordrecht: Reidel, 1969), p. 269.

8 See, for example, Henry More, The Immortality of the Soul, Book I, Chapter VI, 2; and Ralph Cudworth, The True Intellectual System of the Universe (London, 1678), p. 581. I am greatly indebted, in my discussion of these influx models of causation, to the research of Eileen O'Neill; see her essay 'Influxus Physicus', in Causation in Early Modern Philosophy, ed. Steven Nadler (University Park, PA: Penn State Press, 1992), pp. 27–55.

9 This is how Descartes often speaks of causation among bodies in motion: a moving body (e.g., a billiard ball) transfers its motion upon impact to another body (a second billiard ball); see, for example, Principles of Philosophy II.40–52, where he speaks of motion as something that is mutually transferred (transseuntem) between bodies when collisions occur (II.42); and the letter to Mersenne of 25 December 1639 (AT II, 627). He elsewhere concedes, however, that since motion is a mode of a substance, then literal transference is ruled out, since a mode cannot pass from one substance to another; see his letter to Henry More of August 1649, AT V, 404-5. For a discussion of Descartes' attraction to this 'migration' theory of causal change among bodies, see Janet Broughton, 'Adequate Causes and Natural Change in Descartes' Philosophy', in Human Nature and Natural Knowledge, Alan Donagan, A. Perovich, and M. Wedin, eds. (Dordrecht: Reidel, 1986), pp. 107–127, especially pp. 119–124. The force of this model is apparent in the fact that it persists throughout the century. See, for example, John Locke, An Essay Concerning Human Understanding: 'In the communication of motion by impulse . . . we can have no other conception, but of the passing of motion out of one body into another' (II.23.xxviii).

10 See Descartes, Second Replies: 'The fact that “there is nothing in the effect which was not previously present in the cause, either in a similar or a higher form” is a primary notion which is as clear as any that we have; it is just the same as the common notion “Nothing comes from nothing”. For if we admit that there is something in the effect that was not previously present in the cause, we shall also have to admit that this something was produced by nothing. And the reason why nothing cannot be the cause of a thing is
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transeunt efficient causation can relate two things either directly
\( (A \rightarrow B) \), where \( A \) communicates something to \( B \) or indirectly
\( (A \rightarrow B \rightarrow C) \), where \( A \) communicates something to \( B \), which in turn
communicates something to \( C \).

By contrast, what I am calling ‘occasional causation’ does not
require any substantial likeness between cause and effect,\(^\text{11}\) and
does not involve any kind of influx or communication. In the
technical sense of the term, then, no real influence occurs between
cause and effect. But occasional causation does, however,
constitute a real causal relationship and not just accidental,
sequential conjunction. Thus, in a somewhat broader (hence,
weaker) sense, there is an ‘influence’ of cause upon effect, but not
of a transeunt efficient nature.

In simple terms, a relationship of occasional causation exists
when one thing or state of affairs brings about an effect by
inducing (but not through efficient causation — see below) another
thing to exercise its own efficient causal power. The relationship of
occasional causation unites one thing or state of affairs with an
effect wrought (through efficient causation, immanent or
transeunt) by another thing. Thus, the term denotes the entire
process whereby one thing, \( A \), occasions or elicits another thing,
\( B \), to cause \( e \). Even though it is \( B \) that \( A \) occasions or incites to
engage in the activity of efficient causation in producing \( e \), the
relation of occasional causation links \( A \) not just to \( B \), but also (and
especially) to the effect, \( e \), produced by \( B \). In other words, \( A \) is the
occasional cause of \( e \), not of \( B \). (What may be misleading is that
the expression properly employed is of the sort: ‘\( A \) occasions \( B \) to
cause \( e \).’ Thus, because the relationship of occasioning unites \( A \) to
\( B \), and the relationship of efficient causation unites \( B \) to \( e \), it is
tempting (but wrong) to say that \( A \) is the occasional cause of
something in \( B \). Rather, because \( A \) occasions \( B \) to cause \( e \), \( A \) is the
occasional cause of \( e \).\(^\text{12}\) Descartes gives the example of workers

\( \text{simply that such a cause would not contain the same features as are found in the effect.}^{\text{1}}\)
\( \text{(AT VII, 135; CSM II, 97). See also Meditations III, AT VII, 40-41; CSM II, 28.}\)

\( ^{\text{11}} \) In fact, early modern thinkers generally use occasional causation in contexts (such as
mind-body) where likeness is lacking and thus transeunt efficient causality cannot

\( ^{\text{12}} \) This is made particularly clear when occasionalists (whose doctrine, as I show,
represents just one species of occasional causation) speak of one event being the
occasional or ‘secondary’ cause of another event, while God is its efficient cause. When \( A \)
occasions God to cause \( e \), \( A \) is the occasional cause of \( e \). See Malebranche, \textit{De la
who are incited to work either by another's command or by the promise of payment: the command or the promise of compensation is the occasional cause of the work produced (through efficient causation) by the labourers.

Something can be said to derive its being from something else for two different reasons: either the other thing is its proximate and primary cause, without which it cannot exist, or it is a remote and merely accidental cause, which gives the primary cause occasion [dat occasionem] to produce its effect at one moment rather than another. Thus, workers are the primary and proximate causes of their work, whereas those who give them orders to do the work, or promise to pay for it, are accidental and remote causes, for the workers might not do the work without instructions. (Comments on a Certain Broadsheet, AT VIII-2, 360; CSM I, 305.)

There are three things to be noted about occasional causation. First, this is not occasionalism. Occasionalism, in its extreme version, is the doctrine that finite created beings — whether minds or bodies — have no causal efficacy whatever, no power to bring about changes in one another's states. Bodies do not cause effects in other bodies nor in minds; and minds do not cause effects in bodies nor even within themselves. God is the only true (efficient) causal agent. He is immediately, proximately, and solely responsible for all natural events. And God acts causally in the world only when occasioned to do so by determinate events or states of affairs. Thus, the sticking of my finger by a needle is not the true cause of the pain I feel; rather, it is a mere 'occasion' for God to cause a painful sensation in my soul, in accordance with the laws of mind-body union. Similarly, my volition to raise my arm is not

recherche de la vérité (VI.2.iii): 'A natural cause is therefore 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.'

Gouhier has argued that Descartes' use of the word 'occasion' in this and other contexts (examined below) is neither a consistent nor a univocal employment of a philosophically considered term ('Lui donne-t-il un sens philosophique? Cela paraît peu probable?); see La Vocation de Malebranche, pp. 83-88. Gouhier may be right about this if we consider Descartes' use of the word in his earlier works, such as La Dioptrique (see AT VI, 114) and L'homme (see AT XI, 143-4, 164), although I believe that Descartes' use of 'occasion' is deliberate even there. On the other hand, whatever the vagaries and 'instabilities' of Descartes' use of the term, I am arguing that there is, especially in the later works, still a well-defined conception of causation at work that is philosophically considered. This passage from the Comments on a Certain Broadsheet makes this particularly clear.
the true cause of my arm’s rising; rather, God causes the arm to rise on the occasion of that volition. And, finally, the motion of one billiard ball and its collision with another is not the real cause of the second ball’s motion, but rather the occasion for God to move the second ball, in accordance with the laws of physics. Less extreme versions of occasionalism restrict God’s causal activity to one context or another (e.g., mind-body relations alone), while leaving finite beings genuinely causally efficacious in the remaining contexts.14

Occasional causation, on the other hand, by itself includes no essential limitations on the causal efficacy of finite beings. In fact, given the above general definition of occasional causation, if such a relationship is ever instantiated by finite beings — and there is no a priori reason why it could not be — then they must have certain causal powers. If A is to occasion B to exercise its efficient causal power to produce e, and if A and B are finite beings, then at least one finite being in this setup, B, has efficient causal efficacy. Neither, then, does occasional causation require God to be the being, B, whose causal power is occasioned by A. The relationship between occasional causation and occasionalism is that between genus and species. Occasionalism represents one species or variety of occasional causation, namely, that species in which the proximate and efficient cause whose operation (through efficient causation) is elicited by the occasional cause is God. But there may be other species of occasional causation, according to which the proximate and efficient cause whose operation is occasioned is

14 Recent scholarship has made it clear that, contrary to the traditional textbook mythology, the occasionalism of philosophers such as Nicolas Malebranche, Géraud de Cordemoy, and Arnold Geulincx is not simply an ad hoc solution to a peculiarly Cartesian mind-body problem. God’s ubiquitous causal activity in the world is not employed merely as some deus ex machina to explain why mental events and bodily states are correlated. Occasionalism is just as much an account of body-body ‘interaction’ as of mind-body ‘interaction’. In fact, it is a full-bodied theory of causal relations generally, physical as well as psycho-physical, and tries to reconcile in a single account a number of distinct and often competing philosophical, scientific, and theological considerations. At its basis lies both a philosophical analysis of causation and an examination of certain essential limitations on the causal power of finite creatures in the face of the omnipotence of God. See Thomas M. Lennon, ‘Occasionalism and the Cartesian Metaphysic of Motion’, Canadian Journal of Philosophy, Supplementary Volume no. 1 (1974), pp. 29–40; Louis Loeb, From Descartes to Hume (Ithaca: Cornell University Press, 1981), chapter 5; and Steven Nadler, ‘Conceptions of Causality and Explanation’, in The Cambridge History of Seventeenth Century Philosophy, Daniel Garber and Michael Ayers, eds. (forthcoming).
some finite creature. These differences between occasional causation and occasionalism will be important for my discussion of Descartes’ views on the causal generation of sensory ideas.

Second, it is essential to occasional causation that the occasional cause, A, is not engaging in any efficient causation (at least qua occasional cause). This is obviously the case with A’s relationship to e: A is neither the primary efficient cause of e nor a contributing or partial efficient cause of e (as is the sun’s heat in relation to the growth of a seed, or the bat’s swing in relation to the broken window). B is the total and primary efficient cause of e. But the point is also true of A’s relationship to B: A does not occasion or elicit B’s causal powers by acting on B as a transeunt efficient cause. The promise of payment or the command to work does not operate upon the workers as a transeunt efficient cause, given the available (influx) model of such causation, as the effect does not literally pass from the cause here, either by transference or emanation. Moreover, the case of occasionalism (as a species of occasional causation) makes it particularly clear that the occasional cause does not operate upon the efficient cause through efficient causation: finite created beings can certainly have no efficient causal power upon God. Thus, A’s role as the occasional cause of e involves no efficient causation — either direct (A → e) or indirect (A → B → e) — on the part of A. Occasional causation, in fact, is employed in just those cases where efficient causation cannot intelligibly operate, either because of the lack of substantial likeness between cause and effect (as in the body-mind case), or for other reasons (such as those offered by occasionalists for the lack of efficient causal powers in things).

Nonetheless, and this is the third point, occasional causation — and, in particular, the relation of occasioning that elicits the operation of efficient causal power in the primary cause — is still a real causal relation, albeit an inferior or secondary variety if efficient causation is taken to be the standard. As we shall see,

15 This is true both for obvious theological reasons, and because if things have no efficient causal efficacy at all (as occasionalism claims), then a fortiori they can have no efficient causal power over God. One of the contemporary objections to occasionalism (raised, for example, by François Lamy in his De la connaissance de soi-même) — that it has finite beings causally determining God’s behaviour and God having to respond to the comings and goings of things — is certainly based on a misunderstanding of the doctrine.

16 This would seem, prima facie, to cause problems for the occasionalist variety of occasional causation. True occasionalists deny that finite creatures have any causal
Descartes and others insist that an occasional, remote, or 'accidental' cause is still a cause. The relationship between \( A \) and \( B \), and thus between \( A \) and \( e \), is, for these thinkers, truly causal and not just a Humean relationship of succession. What, then, is this occasioning relation? There is no clear answer to this question. The occasional cause, while on the one hand not initiating the causal process through an exercise of transeunt efficient causation, is on the other hand not merely an accidental or coincidental element without which things would nonetheless have proceeded in the same manner. There is a nomological correlation between occasional cause and effect (in the case to be considered below, it is a relationship governed by the psycho-physical laws of mind-body union), but the grounding — physical or metaphysical — of that correlation remains opaque.\(^{17}\) What is clear is that the ground of the nomological correlation between \( A \) and \( e \) does not lie in \emph{in rerum natura} (in particular, in the nature of the cause, \( A \), and the effect, \( e \)). That is, the relationship is not grounded in some ontically real power in \( A \). This, I suggest, is what distinguishes occasional causation from efficient causation, where the lawlike correlation \emph{is} based on some power intrinsic to the (efficient) cause (the correlation between \( B \) and \( e \), for example, is grounded in \( B \)'s active power to cause \( e \)). The historical tendency with respect to occasional causation, as my discussion of Descartes (and others) will show, is to locate the ground in God's will.\(^{18}\)

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17 Opaque but nonetheless real. This is what distinguishes occasional causation from a merely Humean correlation. For Hume, the opaqueness of the ground of the correlation is, in part, the basis for an agnosticism regarding the reality of any such ground.

18 We can still speak of \( A \)'s (occasional) 'power' to cause \( e \), but it should be clear that such 'power' has no \textit{ontic} reality in \( A \). Its ontological status can be compared to the ontological status of force in Descartes' physics: force is nothing really (i.e., ontically) \textit{in} bodies (as it is with Leibniz, for example), but rather simply the conformity of bodies in motion and at rest to certain laws of nature due to the way they are moved by God (whose will is, in a sense, the real locus of force). Likewise, \( A \)'s 'power' to occasion \( e \) is simply the lawlike correlation between \( A \) and \( e \), as established by God. Bodies still do have force for Descartes; it is just not grounded in the nature of bodies. And, similarly, some bodies have certain occasional causal powers, but they are not grounded in their nature.
In a word, then, occasional causation appears simply to be a *sui generis* causal relation, one not reducible to or explicable in terms of efficient (or any other variety of) causation.\(^{19}\)

II

*Descartes and Sensory Ideas*

Let us now turn to Descartes and the problem of the causal generation of sensations and other ideas by motions in the body (in particular, in the brain). In general terms, what happens in the case of adventitious ideas is that an external body communicates motions by impulse through a material medium intervening between it and the sense organs. These motions, after striking the sense organs, are in turn communicated through the nerves via the animal spirits to the brain and the pineal gland. The motions in the pineal gland are then followed by certain ideas and sensations. This correlation between brain motions and ideas is constant, lawlike, and involuntary.\(^{20}\)

What, then, is the causal nature of the connection between the corporeal events and the mental events in this process? In an important recent essay, Daniel Garber takes up the task of elucidating Descartes' views on causal relations in all three contexts mentioned above.\(^{21}\) In particular, he attempts to establish whether Descartes held occasionalist views with respect to either body-body, mind-body, or body-mind relations. He concludes that, in the first case, Descartes clearly is an occasionalist, and that God is the only cause of motion in the world of inanimate bodies; and that, in the second case, it is equally clear that Descartes thinks that there are, besides God, genuine finite mental causes of motion in the physical world. Garber insists, however, that the third context — the case of body-mind relations and the generations of sensations — is not as clear cut. Part of the problem is that there appears to have been some development over time in Descartes' views.

\(^{19}\) In fact, the future lay with occasional causation and not with transeunt efficient causation. The model according to which causation consists in mysterious powers and the transfer of qualities soon gives way (through the criticisms of Malebranche and Locke) to a less robust picture, culminating, of course, in Hume.

\(^{20}\) See the account offered in *Principles of Philosophy* IV.189-98. See also *La Dioptrique*, *L'homme*, and *Meditations VI*.

In the *Meditations* (1641), Descartes seems committed to a straightforward causal picture, with external bodies as the direct efficient causes of mental ideas. The argument for the existence of the external world in Meditation VI clearly relies on attributing to bodies an active faculty *(facultas activa)* for causing sensory ideas in the soul *(AT VII, 79; CSM II, 55)*. After eliminating the mind as the possible locus for this faculty, he concludes that ideas ‘are produced by corporeal things . . . I do not see how God could be understood to be anything but a deceiver if the ideas were transmitted *[emitterentur]* from a source other than corporeal things’ *(AT VII, 79–80; CSM II, 55)*.22

By 1647, however, Descartes’ language, at least, has changed. He is no longer speaking of an ‘active faculty’ in bodies for causing ideas in the soul. Rather, he now uses the term ‘occasion’ to indicate the causal relationship between bodily antecedent and mental effect. Where the Latin version (1644) of *Principles* I.I reads ‘. . . we seem to ourselves clearly to see that its [a body’s] idea comes from things placed outside of us’, the 1647 French translation (approved by Descartes) reads ‘. . . it seems to us that the ideas we have of it forms itself in us on the occasion of bodies from without’ *(AT IX–2, 64; Garber’s emphasis)*. After noting this shift, Garber goes on to claim that

while it is by no means clear how to interpret the word *occasion* in Descartes’ vocabulary, the word is certainly suggestive of what is to become a technical term in later Cartesian vocabulary, that of an occasional cause, a cause whose effect is produced through the activity of God.23

This ‘evidence’ for Descartes’ occasionalism24 in the context of body-mind relations is supported, Garber claims, by the well-known passage from Descartes’ response to his erstwhile Dutch disciple Henricus Regius, who had claimed that the mind has no

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22 The same general conclusion, Garber notes, appears in the Latin version of the *Principles* (1644), I.I.

23 ‘Descartes and Occasionalism’, p. 22. Note that Garber here defines occasional causation in terms of occasionalism, as involving a reference to God’s causal activity.

24 Garber rightly notes (pp. 24–6) that the term ‘occasionalism’ should be reserved for the systematic causal doctrine as it is argued for by Malebranche, Cordemoy, and others. Thus, strictly speaking, Descartes is not an ‘occasionalist’ in any context, since he does not share the motivations of these later thinkers. Nonetheless, the question here is: What causal role does God play in this and the other contexts? Garber’s claim is that it is a role similar to that accorded God by occasionalists.
need of innate ideas. Garber quotes from the *Comments on a Certain Broadsheet* as follows:

Nothing reaches our mind from external objects through the sense organs except certain corporeal motions . . . But neither the motions themselves nor the shapes arising from them are conceived by us exactly as they occur in the sense organs, as I have explained at length in my *Dioptrics*. Hence it follows that the very ideas of the motions themselves and of the shapes are innate in us. The ideas of pain, colors, sounds, and the like must be all the more innate if, on the occasion of certain corporeal motions, our mind is to be capable of representing them to itself, for there is no similarity between these ideas and the corporeal motions. (AT VIII–2, 359.)

Garber admits that this passage does not *imply* that God causes the idea on the occasion of the brain motions, and that ‘Descartes’ main point is simply that sensory ideas cannot come directly from the motions that cause them, but must, at best, be innate ideas that are elicited by the motions communicated to the brain by the sense organs.25 And yet he concludes, on the basis of this passage and the text from the French version of the *Principles*, that ‘it seems reasonable to think that while Descartes may have seen bodies as genuine causes of sensations at the time that the *Meditations* were published in 1641, by the publication of the *Principles of Philosophy* a few years later, he may have changed his views, and held something closer to what his occasionalist followers held, that God is the true cause of the sensations on the occasion of certain motions in bodies’.26 Later, he adds that ‘it seems probable that God is the real cause behind body/mind interaction, the causation of sensations in the mind’.27

25 ‘Descartes and Occasionalism’, p. 23.
In the light of my discussion above, and of the distinction I draw between occasional causation and occasionalism, it should be clear that Garber’s thesis concerning Descartes’ occasionalism in the body-mind context simply reads too much into Descartes’ use of the term ‘occasion’. 28 Certainly, Garber may be right that for us, with our knowledge of the development of Cartesian metaphysics in the seventeenth century, the word ‘occasion’ is suggestive of the doctrine later held by Malebranche and others, according to which God is the sole causal agent. But we should not be misled by this. I believe that what we have in Descartes’ account, considered in its own terms, is simply a case of occasional causation among finite beings, and not occasionalism.

Let us look more closely at Descartes’ texts, especially the response to Regius. 29 Here is a longer excerpt from the passage Garber cites:

If we bear in mind the scope of our senses and what it is exactly that reaches our faculty of thinking by way of them, we must admit that in no case are the ideas of things presented to us by the senses just as we form them in our thinking. So much so that there is nothing in our ideas which is not innate to the mind or the faculty of thinking, with the sole exception of those circumstances which relate to experience, such as the fact that we judge that this or that idea which we now have immediately before our mind refers to a certain thing situated outside us. We make such a judgment not because these things transmit the ideas to our mind through the sense organs, but because they transmit something which, at exactly that moment, gives the mind occasion to form these ideas by means of the faculty innate to it.

Descartes goes on to explain, in the part Garber quotes, that nothing reaches our mind from external objects through the sense organs except certain corporeal motions. . . . But neither the motions themselves nor the shape arising from them are conceived by us exactly as they occur

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28 On the other hand, Gouhier may be reading too little into Descartes’ use of the term ‘occasion’; see note 13 above.

29 This text is particularly important, because — given the fact that Descartes is here explicitly addressing the question of the causal origin of ideas and is laying out his position so that it will not be misunderstood by others — it probably represents Descartes’ most considered view of the matter.
in the sense organs, as I have explained at length in my Optics. Hence it follows that the very ideas of the motions themselves and of the shapes are innate in us. The ideas of pain, colors, sounds, and the like must be all the more innate if, on the occasion of certain corporeal motions, our mind is to be capable of representing them to itself, for there is no similarity between these ideas and the corporeal motions. (AT VIII-2, 358-9; CSM I, 304.)

What Descartes is particularly struck by in this situation is the utter lack of similarity between corporeal motions and mental event. This, in his mind, rules out transeunt efficient causation as the explanation of the correlation between the two. For Descartes, the causal relationship between body and mind cannot be even generically like the causal relationship between body and body, where something — motion — is communicated from one body to another upon impact. 30 Nothing literally passes from the body into the mind: not motions, and certainly nothing like an idea. But transeunt influx causation is the only way in which a body can be an efficient cause. 31 Thus, the principal and efficient cause of an idea is nothing other than the mind itself. The mind is an active substance and has the inherent causal power to produce thoughts through its faculty of thinking (facultas cogitandi). The mind can produce ideas voluntarily, as occurs in pure rational thinking and imagination. 32 On many (if not most) occasions, however, thoughts are present to the mind without there being a volition to think of anything. Sensations and ideas of extension occur involuntarily when the senses are at work, normally on the occasion of the presence of some external material object. What happens is that the motions communicated to the brain by the object — which motions are, for Descartes, the ‘remote and merely accidental [causa remota et accidentaria duntaxat]’ (AT VIII-2, 360) or occasional cause of the idea — give the primary and proximate cause — the mind — occasion to produce an idea. (Since ideas are nothing other than modifications or properties of the mind itself, the process

30 See note 8 above.
31 I make this claim on the assumption that bodies are real causes in the physical world. But Descartes may in fact, as Garber has argued, by an occasionalist when it comes to body-body relations; see 'Descartes and Occasionalism', and Descartes' Metaphysical Physics, chapter 9.
32 See the letter to Hyperaspistes, August 1641, AT III, 425.
involved when the mind produces an idea would be *immanent* efficient causation.)

To speak of the external material body — or, more precisely, the motions it communicates to the brain — as the occasional cause of the idea; or, to use Descartes’ own words, to say these motions ‘give occasion’ to some primary cause to produce ideas, does *not* commit Descartes to occasionalism here. First, note that the motions do not serve as an occasion for *God* to cause an idea; rather, they serve the mind itself, which is endowed with an active causal power. Second, one can call the bodily motions an occasional cause and still insist that they are not without a kind of causal ‘efficacy’, albeit of a secondary and non-intrinsic nature. For Descartes (and for orthodox Cartesians like La Forge and Arnauld), an occasional, remote, or ‘accidental’ cause — even when not an indirect efficient cause, as Descartes’ remote causes sometimes are — is nevertheless a real cause. The bodily motions really do occasion or stimulate or elicit (or, in Descartes’ words, ‘induce [*invitans*]’ (AT VIII–2, 366) ) the mind’s own efficient causality.\(^{33}\) While the radical substantial dissimilarity between body and mind in Descartes’ dualism may rule out any relationship of transeunt efficient causation between the two, it does *not* rule out all and any causal relations between them. As Descartes remarks in a letter to Clerselier, it is false to suppose that ‘if the soul and the body are two substances whose nature is different, this prevents them from being able to act on each other’ (AT IX–1, 213; CSM II, 275).\(^{34}\)

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\(^{33}\) La Forge, for example, who faithfully adopts Descartes’ explanation of the generation of ideas, insists that ‘one must not conclude that the body is not the cause of thoughts which arise in the mind on its occasion’; see *Traité de l'esprit de l'homme*, in *Oeuvres philosophiques*, ed. P. Clair (Paris: Presses Universitaires de France, 1974), p. 213. La Forge thus speaks of the ‘power’ (*puissance* or *force*) the body has to excite thoughts.

\(^{34}\) For a contrary view, see Broughton, ‘Adequate Causes and Natural Change in Descartes’ Philosophy’. Broughton argues that in Descartes’ account, the bodily motions that serve as the occasion for the mind to produce an idea play no *causal* role in the process. Tad Schmaltz, on the other hand, argues (in agreement with my view) that bodily motions occasioning mental event is not a non-causal relationship; see ‘Sensation, Occasionalism, and Descartes’ Causal Principles’, *Minds, Ideas, and Objects: Essays on the Theory of Representation in Modern Philosophy*, P. Cummins and G. Zoeller, eds., North American Kant Society Studies in Philosophy (Atascadero, CA: Ridgeview, 1993), pp. 37–56. Similarly, Margaret Wilson, in her examination of the various models Descartes uses to describe the generation of sensations by the body, claims that the body-mind relationship always remains a *causal* one; see ‘Descartes on the Origin of Sensation’, *Philosophical Topics* 19 (1991), pp. 293–323.
To be sure, God still has an important role to play in Descartes' causal schema, although it differs significantly from the role God is called upon to play in the occasionalist account. Given the lack of substantial likeness between material occasional cause and mental effect, body-mind (occasional) causal relations lack the kind of intelligibility evident in the transeunt efficient causal relations in the body-body realm. We can see why a body moving in a certain direction with a given speed should cause a second body with which it collides to move in a determinate and predictable way.\[35\] But, with the radical dissimilarity between mind and body, we cannot see clearly why bodily motions should occasion the mind to produce ideas, nor why particular bodily motions should occasion the mind to produce particular ideas. Descartes' answer is simply that God, in establishing the union of mind and body, has ordained that the body should, under certain conditions, occasion the mind to produce ideas; and has willed, moreover, that particular motions in the body should occasion the mind to produce particular ideas.

Now I maintain that when God unites a rational soul to this machine [the body] . . . he will place its principal seat in the brain, and will make its nature such that the soul will have different sensations corresponding to the different ways in which the entrances to the pores in the internal surface of the brain are opened by means of the nerves. Suppose, firstly, that the tiny fibres which make up the marrow of the nerves are pulled with such force that they are broken and separated from the part of the body to which they are joined, with the result that the structure of the whole machine becomes somehow less perfect. Being pulled in this way, the fibres cause a movement in the brain which gives occasion for the soul . . . to have the sensation of pain.  (L'homme, AT XI, 143-44; CSM I, 102-3.)\[36\]

Although this solution, like occasionalism, employs a divine cause as the ultimate explanatory principle for an apparently incomprehensible explanadum, it still does not amount to occasionalism.\[37\] For Descartes, God establishes the (occasional) causal relationship between body and mind once and for all. God

\[35\] Although even in the body-body case Descartes calls upon God in order to explain why bodies in motion behave in the ways they do; see Principles of Philosophy II.36-52.

\[36\] See also Meditations VI, AT VII, 87-8; CSM II, 60.

\[37\] This is where Prost gets hooked; see Essai sur l'atomisme et l'occasionalisme, pp. 32-4.
is not required to act constantly to cause mental effects on the occasions of bodily motions. *Deus ex machina?* Yes. *Occasionalism?* No.

### III

**Conclusion: Occasional Causation Among the Cartesians**

I have examined an important model of causation that, in the seventeenth century, stands in contrast to the more recognizable model of efficient causation. And I have argued that Garber and other commentators, by failing to distinguish occasional causation from occasionalism, are misled by Descartes' use of the term 'occasion' to describe how bodily motions are causally related to mental events. They thus fall prey to the temptation to read Descartes as an occasionalist on the question of body-mind relations.

My conclusions here, and the relevance of the distinction between occasional causation and occasionalism, are confirmed by the way the term 'occasion' is used by later orthodox Cartesians, particularly in the explanation of body-mind causation in the generation of ideas. I shall end by briefly considering the body-mind account offered both by Louis de la Forge (1632–66) and Antoine Arnauld (1612–94), perhaps the two most loyal and orthodox Cartesians of the period. The model they use is identical to Descartes' mature view — in La Forge's case it is, in some parts, practically a verbatim reproduction — and their presentations help bring out its non-occasionalist character.

La Forge saw his *Traité de l'esprit de l'homme* (1665) as faithfully completing the work begun by Descartes in *L'homme*. While Descartes concentrated on the human body qua mechanism, La Forge sought to expand the discussion to cover both the human mind alone and its union and interaction with the body. And the explanation that La Forge gives of how ideas in the mind are causally related to motions generated in the body by an external

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39 La Forge, in fact, edited the *Traité de l'homme* with Clerselier. It was published with La Forge's notes in 1664.
object, right down to his distinction between the primary and remote causes of ideas, is a fine encapsulation of Descartes' account.

While it can be said that the bodies that surround our own, and generally everything that can compel us to think of bodies, or even of minds, when this does not result from our own will, are in some manner the cause of the ideas that we then have, because we would not have them [the ideas] on all of the occasions that we have them if the [the bodies] did not act upon our body; nonetheless, because these are material substances, whose action does not extend as far as the soul, in so far as it is simply a thing that thinks; but in so far as it [the soul] is united to a body... they can at most be only the remote and occasional cause of them [the ideas] that, by means of the union of the mind and the body, compels our faculty of thinking and determines it to produce those ideas of which it is the principal and efficient cause.  

Passages such as this, with its use of the phrase 'occasional cause', have led most commentators to assume that La Forge's account of body-mind relations is occasionalist. But he later claims that 'all of our ideas considered in themselves in so far as they are only different ways of thinking, need... no cause for their production other than our mind'. The mind, with its faculty of thinking, contains within itself (and he insists that he is speaking here of something dedans l'Ame) the sole efficient cause of its ideas, 'that which has the power to determine and give form to [the mind's] thoughts'. The primary cause at work here — the cause principale et effective whose power is elicited by the cause éloignée et occasionelle — is the mind, not God.

40 Traité de l'esprit de l'homme, p. 176.
41 La Forge, unlike Descartes (who uses only the verb 'to occasion'), speaks explicitly of 'occasional causes' here, strengthening the false impression that occasionalism is at work. For a fuller discussion of occasionalism in La Forge, see Steven Nadler, 'The Occasionalism of Louis de la Forge', in Causation in Early Modern Philosophy, loc. cit., pp. 57-73.
43 Traité de l'esprit de l'homme, p. 177.
44 Like Descartes, La Forge does appeal to a deus ex machina to explain how it is that bodily motions and mental events do stand in this relationship of occasional causation; see Traité de l'esprit de l'homme, p. 163.
The same causal picture appears in Arnauld’s ‘Port-Royal Logic’ (1662), a work thoroughly permeated by Cartesian methodological and metaphysical principles. Arnauld begins his discussion of ideas with an attack on the brand of empiricism that holds that ideas are conveyed into the mind by the senses. This opinion, he insists, is ‘absurd’: in what way could such ideas as ‘being’ or ‘thought’ have entered through the senses? Nor does it seem possible for ideas of this nature to have been formed from other, more primary sensible images, whether by composition, diminution, or amplification. The only reasonable hypothesis, he concludes, is that ‘the mind has the faculty of forming these ideas for itself, though it often happens that it is aroused [excitée] to do this by something which strikes the senses’. This opinion is then generalized to cover all the mind’s ideas:

It is false, therefore, that all of our ideas come through our senses. On the contrary, it may be affirmed, that no idea which we have in our minds has its origin [tire son origine] in the senses, except by occasion, in that the movements which are made in the brain, which is all our senses can do, give occasion to the soul to form [de se former] different ideas which it would not have formed without them.

Once again, the model at work is occasional causation, not occasionalism. And the source is Descartes’ views on body-mind relations.

To be sure, not all Cartesians adopt the schema I have been examining. Pierre-Sylvain Régis, for example, offers a more straightforward causal picture, with bodily motions apparently serving as the efficient cause of ideas in the mind. And Malebranche, a deviant Cartesian at best, in arguing for his own

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45 *La Logique, ou l'art de penser* (Paris: Flammarion, 1970). The ‘Logic’ was coauthored by Pierre Nicole, one of Arnauld’s Jansenist colleagues at Port-Royal.


47 *La Logique*, p. 71.


49 Arnauld, in his later works, abandons this explanation in favour of a more strictly occasionalist one; see Steven Nadler, ‘Dualism and Occasionalism: Arnauld and the Development of Cartesian Metaphysics’, *Revue Internationale de Philosophie* (forthcoming).

doctrine of the vision in God, explicitly attacks the orthodox Cartesian view. But whatever may be the subsequent history within Cartesianism of Descartes’ explanation of the causal relationship between bodily motions and ideas in the mind, that account nonetheless serves well to bring to our attention a causal model that was clearly prevalent in the period; a generic model that, while it may structurally capture the mechanics of occasionalism (one of its species), should in no way be confused with it.

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51 See Malebranche, De la recherche de la vérité, III.2.iii.
52 An early version of this paper was read to a meeting of the Midwest Seminar on the History of Early Modern Philosophy. I am grateful to the participants of the discussion that followed, and especially to James Petrick, who commented on the paper. I am also grateful to Dan Garber, Charles Larmore, Marleen Rozemond, Don Rutherford, Eric Saitel, Tad Schmaltz, Alan Siddle, Elliott Sober, and Red Watson, all of whom provided helpful comments and suggestions after reading drafts.