The Doctrine of Substance

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The notion of substance lies at the core of Descartes’ metaphysics. Substances, ultimate bearers of properties, are the most basic constituents of Cartesian reality. If we were to have asked Descartes “What is there, ultimately and most fundamentally?,” he would have answered: “Substances and their properties.” In this, he belonged to a tradition which went back to Aristotle and which had been richly developed by Descartes’ immediate predecessors and most significant philosophical influences, the sixteenth-century Jesuit late scholastics who themselves took off from Aquinas as he had been expounded and built upon since the thirteenth century. Descartes, however, was to rework the notion, driven by his radical and proclaimed intellectualist essentialism.

All the same, the term “substance” does not figure prominently in the text of the Meditations. It makes its first appearance in the earlier half of Meditation III (AT vii, 43), followed a few pages later by a terse and obscure account of the notion and of the meditator’s knowledge of it. It reappears toward the middle of the last Meditation (AT vii, 78), but not enough is added then to provide a clear understanding of its meaning. Still, its importance is apparent from the fact that the notion is discussed in the Replies to the Objections which Descartes wished to publish together with the Meditations, and also briefly in the short Synopsis preceding it.

Substance is first mentioned in the Meditations in the course of a discussion of the claim that some ideas “have more . . . reality in them” than others: ideas of substances “amount to something more” than those of modes or accidents, and an idea of an infinite being to more than those of finite substances (AT vii, 40). The next appearance of the notion is particularly perplexing. Substance is listed as one of the few things the meditator perceives “clearly and distinctly” in his ideas of corporeal things (AT vii, 43). Given the only previous use of the term, one wonders what justifies this claim. There is a complex story to tell here, which is relevant to our purposes and indispensable when trying to understand the Meditations, but which can only be sketched in this chapter.
When making the claim, the meditator is already in possession of the essential tool for philosophical understanding: a clear and distinct intellectual gaze, unclouded by sensory perception. This has been attained in the previous two Meditations. After the skeptical crisis at the end of Meditation I, designed to shake the complacent, sensorially possessed mind into the state of intense epistemic anguish and self-reflection from which Meditation II begins, the meditator is led to focus on her intellect and its contents, her intellectual powers are honed, and she overcomes her natural trust in the senses, which, though an epistemic obstacle, has been reinforced through schooling. This indeed is the point of Meditation II, which should not be read as a reply to the skeptical doubts of Meditation I. That comes only in Meditation III (see AT vii, 36). Meditation II is instead designed to provide the meditator with the necessary intellectual tools so that she can establish solid metaphysical foundations. Failure to grasp this point can support misunderstanding of Descartes’ thoughts on substance (as in Markie 1994: 80 and 81 n.21).

In this process the meditator will intellectually perceive her own existing essence, a substance, and within it she will discover a world of essences or possible substances. So, by Meditation III, the meditator has come across a substance, her own self, and she has perceived it clearly and distinctly with the pure intellect, as is necessary for firm understanding and knowledge. Furthermore, the reflection on the piece of wax in Meditation II is overtly introduced as one more step in securing intellectual powers and curbing sensation, even when dealing with individual bodies around us; but, as has been pointed out, this epistemic and heuristic reflection has metaphysical import: it reveals not just how we know material things, it also tells us something about how things are in reality (see, for example, Williams 1978: 221–2). At the end of the reflection on the wax, the meditator has a clear and distinct perception of a possible body or corporeal substance.

This is one strand of the story behind the listing of “substance” amongst the notions the meditator perceives clearly and distinctly in Meditation III. The other strand has to do with the baggage the meditator brings with her to the meditational exercise. As we mentioned, the notion of substance was a central piece of the Aristotelian philosophy the meditator would have learnt at the schools of the time. Indeed, in order to understand Descartes’ thinking on substance, we will need to acquire some knowledge of the scholastic doctrine. When the meditator claims to perceive substance clearly and distinctly, he is alluding to a notion acquired during his (scholastic) philosophical and metaphysical schooling, and then re-examined, transformed, and reformulated with the use of his intellectual powers, in particular, in Meditation II when perceiving his own nature and existence, and when examining the origin of his knowledge of material things.

What is this notion? Let us start by becoming clearer about what it is that we are looking for. What must a doctrine of substance do? First, of course, it must tell us what it is to be a substance. Substances are said to be bearers of properties,
so we are seeking an account of what it is to be a property, and be “had” by a
substance, and what it is to be a subject of properties or substance, and to “have”
properties. Second, since substances are said to be ultimate bearers of properties,
a doctrine of substance must provide an account of this ultimacy. Further, on the
basis of these accounts of inherence and ultimacy, it should tell us in what sense
substances are the basic constituents of reality, independent one from the other.
Third, a doctrine of substance must tell us what constitutes the individuality of
substance, what makes something numerically one substance; and also what con-
stitutes the identity of a substance in time, what it is for the same substance to
change and what for a substance to be destroyed and to be generated. Finally, we
must be offered an account of what it is to be this or that kind of substance. That
is, we seek an account of the what it is of a substance, some account of its nature
or essence, of the unity which substance brings to all its properties, of the scope
of its possible change and development.

Clearly, these various requirements are not unrelated, and their satisfaction
should form a coherent and interdependent whole. We will find that for Descartes
the independence of one substance from another is related to the simplicity of
substantial natures, which is at the core of his understanding of substance as subject
of properties, and of its intrinsic oneness and sameness. These are general require-
ments for any theory of substance. There are also special requirements that a
Cartesian theory of substance must satisfy, which originate in Descartes’ own
philosophical outlook, and to which we will attend shortly.

Let us now turn to what we are told about substance in the Meditations. Sub-
stance is placed with extension, shape, position, motion, duration, and number,
as what is perceived clearly and distinctly in the ideas of material things. It is con-
trasted with properly sensorial qualities or materially false ideas. The contrast
hinges on the claim that the latter are obscure and confused so that whether they
are ideas of real things or not, and what their true causes are, remain unknown.
What initially marks substance in this passage is that it is known intellectually and
independently of the senses. The meditator then reflects on the fact that she “could
have borrowed [the clear and distinct perception of substance] from [her] idea of
[herself]” (AT vii, 44). She offers an example: though she conceives a stone as
extended and unthinking and herself as thinking and unextended, “so that the
two conceptions differ enormously,” both a stone and she herself fall under the
term “substance.” In the course of this example, the meditator offers a general
characterization: substance is “a thing capable of existing by itself [per se, de soi]”
(AT vii, 44; ixA, 35). Shortly after, she introduces the phrase “modes of a sub-
stance,” and applies it to corporeal properties like “extension, shape, position, and
movement” (AT vii, 45: the phrase “modes of thought [cogitandi modos]” is used
in AT vii, 34). In the French translation these modes are compared to “garments
under which the corporeal substance appears to us” (AT ixA, 35: also see AT vii,
30 and compare with AT ixA, 24 where ces formes translates modis ipsis). These
corporeal modes, the meditator reflects, “are not contained in [her] formally, since
she] is nothing but a thinking thing” (AT vii, 45; “formally” means “actually” or “literally”).

A substance, then, is something which can exist on its own or by itself; it can be thinking or extended, like myself or the meditator, or a stone or a piece of wax; and it has modes in it, properties which are related conceptually to the kind of substance it is. An unextended, thinking substance cannot formally or actually have size or motion, properties which can belong to a corporeal or extended substance.

One last important claim made in these pages is that God is an infinite or absolutely perfect substance. The text does not make clear whether this infinite substance is a substance in the same sense in which a stone or you are substances: “though the idea of substance is in me since indeed I am a substance myself, I would not however have the idea of an infinite substance, I who am a finite thing, if it had not been placed in me by some substance which was truly infinite” (AT vii, 45). The passage leaves undecided whether what the meditator would lack is merely the idea of infinity, or whether, in lacking that idea, she would also be deprived of the idea of a substance which is infinite.

The features used to describe God, “infinite, independent, supremely intelligent, supremely powerful” and creator of all else that exists, are not said to be “modes.” Instead, the meditator refers to these as “perfections” (for example, AT vii, 46, 50). Of course, since the term “substance” is applied to God and to the meditator and a stone, there must be some pertinent relation between all of these, though the similarities and differences between a stone and myself, on the one hand, and God, on the other, might not be the same as those between myself and a stone, all taken strictly as substances. As we shall see, Descartes addresses this very issue in Principles of Philosophy, the textbook which he hoped would replace those of the Aristotelians.

Some of these ideas reappear in Meditation VI. There the meditator uses the claim “that I have a clear and distinct idea of myself, in so far as I am only a thinking, non-extended thing; and . . . I have a distinct idea of body, in so far as this is only an extended, non-thinking thing” to draw the conclusion that “I am really distinct from my body, and can exist without it” (AT vii, 78). Earlier in the paragraph he had explained that, in general, “that I can clearly and distinctly understand one thing apart from another is enough to make me certain that the two things are distinct.” The suggestion is that two different substances, things which exist by themselves and apart from each other, can be conceived clearly and distinctly entirely independently one from the other; and vice versa.

In the course of this paragraph, the meditator appears to move from a clear and distinct understanding of herself as just a thinking, non-extended thing or substance to the claim that “absolutely nothing else belongs to [her] nature or essence except that [she] is a thinking thing.” In the next paragraph, the term “inhere [inesse]” is used to refer to the relation between, on the one hand, modes and faculties, and, on the other, the thing or “substance” of which they are modes
or faculties (AT vii, 78–9; ixA, 62; the French text uses the term “attachées” for the Latin “insint,” making a perhaps unconscious reference to the scholastic treatment of this matter; see below). The meditator identifies the thinking thing which she is with an “intellectual substance” (AT vii, 78). And she states that the “distinction between the modes of a thing and the thing itself” corresponds to the distinction between what cannot be understood without a thing in which to be, and what can be understood whole (totum; tout entier) on its own (AT vii, 78; ixA, 62). While one can understand an intellectual substance or mind, actual thought, as a whole existing on its own without supposing it has faculties of sensation or imagination (or, one might add, any one particular act or any faculties beyond intellect or thought), the “formal concept” or essential definition of sensation or imagination (or of any mental act or faculty) includes reference to intellect, and so to an intellectual substance. This point is intended generally and it is immediately applied to the “faculties . . . of changing places, taking various shapes, and the like” in relation to the “corporeal or extended substance” in which they must “inhere,” since “extension is contained in their clear and distinct conception” (AT vii, 78–9).

As we mentioned, there are special requirements which a Cartesian theory of substance must satisfy, which originate in Descartes’ own philosophical outlook, and which we can appreciate at work in these passages from the Meditations. The meditator is enjoined to abandon the senses, feign that all they deliver is false and unreal, and trust only in the intellect and its clear and distinct perception. This, of course, imposes significant constraints on a doctrine of substance. For instance, it eliminates from the start the account of some modern empiricists, who take substance to be a congeries of properly sensorial qualities (see Secada 2000a, b). Also, Descartes must provide an account of how it is that one grasps individuals purely intellectually. This is not a problem for Aristotle’s scholastic followers, nor for modern empiricists, but it is a problem for Descartes. As we have seen, the meditator claims to perceive particular substances and to establish the distinction between two numerically different substances with the use of the intellect alone. And it is an upshot of the reflection on the wax that we can perceive things like a piece of wax or the paper on which this is printed exclusively with the intellect.

In the course of clarifying the Meditations to his contemporaries, Descartes adopted an essentialist doctrine: he wrote that if one knows that a substance exists, one must also know its essence or nature. Furthermore, in Meditations V and VI he made clear that, at least in some cases, one may know the essence or nature of a substance without knowing whether it exists (see AT vii, 63 and 71; on knowledge of the essence and existence of God, AT iii, 273; on knowledge of one’s own essence and existence, AT vii, 359; and generally on knowledge of the essence and existence of any entity, AT vii, 107–8). The roots of essentialism can be traced back to claims made in Plato’s Meno which Aristotle criticized in his Posterior Analytics (see Meno 80d–81e in Plato 1997: 879–80; Posterior Analytics I, 1 in
Aristotle 1984: vol. 1, 114–15). Descartes is reformulating the Platonic doctrine in opposition to the existentialism of the scholastic Aristotelians. Essentialism stands in opposition to existentialism. Essentialism (existentialism) is the doctrine, first, that one cannot know the existence (essence) of any substance without knowing its essence (existence), and, second, that one can know the essence (existence) of some substance without knowing its existence (essence). The order in question is logical. The essentialist affirms what the existentialist denies, that knowledge of existence entails knowledge of essence; and he denies what the existentialist affirms, that knowledge of essence entails knowledge of existence (see Secada 2000c: 1–26).

There can be no doubt that Descartes espoused universal essentialism, and that he considered it an important doctrine. It is also clear that the doctrine is of considerable historical and metaphysical significance, and that it imposes further requirements on the doctrine of substance, which must cohere with it. It is most important to attend to these Cartesian requirements, particularly given certain contemporary tendencies toward the elimination of real essences and their substitution by nominal definitions, and toward subjective metaphysical doctrines and foundations, tendencies which Descartes did contribute to bring about, but which he himself did not fully embody. Indeed, there is here a most fertile ground for historical and philosophical work. So, what are we to make of the texts from the Meditations in light of these Cartesian peculiarities and of the general requirements that any doctrine of substance must satisfy?

First, we should note the striking similarities and differences between some of these passages and claims found in the works of Descartes’ scholastic predecessors. Before we can proceed, then, we will need to discharge our earlier promise and review the scholastic doctrine of substance. There were many variations, of minor and major detail, in the accounts of these matters offered by nominalist, Scotist, Thomist, and diversely eclectic Aristotelian scholastics, but fortunately it will suffice for our purposes to sketch a general common outline, designed to serve as background to what we find in the Meditations. Our source will be Francisco Suárez, the great Aristotelian thinker whom Descartes used to confirm standard philosophical usage (see AT vii, 235). We will find that by using Suárez much light is shed on the Cartesian texts.

Coming after a long tradition of development and discussion of the Aristotelian notion, Suárez wrote that substance in its proper and general sense is that which exists “in itself and by itself [in se ac per se]” (Suárez 1960–6: XXXIII, 1, 1). He made clear that “by itself [per se]” is opposed to “in another [in alio]” (ibid., XXXI, 5, 9), and used that phrase (instead of just in se) to underscore the difference between substance as what is in and by itself, and substance as subject of accidents or properties. He maintained that though God and creatures are both in and by themselves, God is not a subject of accidents as some creatures are (ibid., XXXIII, 1, 2). Suárez distinguished being “per se” (by itself), which he bundled together with being “in se” (in itself), from being “a se” (by its own agency).
Before exploring the notion of substance, he provided an account of the division of being into “a se” and “ab alio” (or “ex se” and “ex alio”), which he took to be equivalent to “infinite” and “finite,” “uncreated” and “created,” “necessary” and “contingent,” “pure act” and “potential,” and “essential” and “by participation” (ibid., XXVIII, 1, 3–17). He separated this conceptual mapping, which articulates the distinction between God and creatures, from that which divides being into “per se ac in se” and “in alio” and which properly does not distinguish God from creatures but rather substances, whether divine or created, from created accidents. According to Suárez, the term “substance” is said analogically of God and of creatures (ibid., XXXII, 1, 9). But the “analogy” in question appears to amount to univocity. A term properly applied to creatures is then applied to God, when both creatures and God are so intrinsically. So there is a common meaning of the term as it applies to both. The difference between God and creatures is that since there is no composition in God, he is substance absolutely and essentially, while they are substances merely “aptitudinally” (aptitudine; ibid., XXXII, 1, 7; see also, XXXIV, 4, 27). What does this mean?

Suárez explained that being in or by itself and being in another are “modes” that determine the existence of an entity (ibid., XXXIV, 4, 23–7). Existence, considered strictly as such, “is indifferent to the mode of existing sustained by another and to the mode of existing by itself without depending on another as sustainer” (ibid., XXXIV, 4, 23). So if a created entity which is a substance were considered without such mode, it would be considered merely as an existing entity capable of being a substance and existing in and by itself without actually being so. But God cannot be considered except as being in and by himself; he necessarily must exist in that way. Creatures depend on God for the composition of their existence and its determining mode, so they can be considered independently of such mode, and then they are seen as merely having the aptitude or inclination to be completed by it (ibid., XXX, 4, 3–7; XXXIV, 4, 1–41) Nonetheless, since creatures can be substances intrinsically, they can be defined as such without reference to God (ibid., XXVIII, 3, 15). Indeed, the notion of substance, and any other notion with which we can know God, originates in our knowledge of creatures.

Created substances, unlike divine substance, are subjects of accidents. Like other Aristotelians, Suárez espoused hylomorphism (ibid., XXXVI, 1, 1). He analyzed created, non-spiritual substances into matter, substantial form, accidents, and modes. These variously dependent entities all come together into the congeries which is an individual material thing. All creatures have a capacity for change and not-being: they are a mixture of potency and act. Only God is pure act, necessary and eternal, not in potency to be anything other than what he is. Prime or pure matter is the first subject of change, and a principle of created potency. Though in itself it is only potency, merely a capacity to be something or other, it possesses a certain real entity, so as to be able to receive a substantial form and to be the underlying subject of the generation and corruption of substances (see ibid., XIII, §§1, 4–9). But, Suárez explains, since this “substantial change is hidden and
cannot be sensed by itself,” we humans know prime matter only by “analogy” with subjects of other mutations (ibid., XIII, 6, 3). And our concept of prime matter “is . . . not entirely distinct and as it is in itself, but partly negative and partly obscure” (ibid., XIII, 6, 4).

Substantial form actualizes matter into a substance, whose existence as substance is, for Suárez, determined by a further entity, the mode of being in and by itself (ibid., XV, §§1, 4–7, 9). Substantial form accounts for the essence or nature, the what it is, of a substance. It constitutes a unity with its matter, and when that unity is broken, the substance is destroyed and the substantial form perishes. The exception is the human soul, which, though it is the substantial form of the living human body and is incomplete without it, can exist separated from it. In this sense, the human substantial form or soul is a quasi-substance (see ibid., XXXIV, 5, 5–52). An accident is a dependent entity with an “aptitude or propensity for inhering” or existing in a subject, and actually inhering in one when its existence is determined by the mode of being in another (ibid., XXXIV, 4, 24; see also XXXVII, 2, 8–9). Modes, however, do “essentially include not just the aptitude but also the actual affection of or conjunction with the thing of which they are modes” (ibid., XXXVII, 2, 10).

There are further distinctions that can be drawn here as the analysis of created material substance is completed, but we need not be concerned with these details. The main picture on which I want to focus is already drawn. Material substances are congeries of diverse entities, some of which are, in certain ways, separable from each other. Knowledge of these diverse entities and of their peculiar interdependence relies on the senses, though in some cases an appeal to revealed, theological fact may be necessary in order to make certain conceptual points and distinctions perspicuous (see, for example, ibid., XXXIV, 1, 1 and 8; 2, 5–7, 9–15; 3, 3–4; 4, 22 and 23).

Some Aristotelians adopted universal hylomorphism, asserting that all creatures are material, and that this accounts for their capacity for change and their contingency (see ibid., XIII, 15, passim). They argued that matter grounded the individuality of creatures and, more importantly, that if they lacked matter, creatures would be pure acts and therefore not creatures. Others, however, held that there are spiritual substances which, though not material, are not pure acts nor necessary, unchanging beings (see ibid., XXXV, 1–3). Their potency arises from their contingent nature, and their individuality is accounted for either, as in Aquinas, through specific differences, so no two spiritual substances could be of the same species, or, as in Suárez, through individual differences. Again, the details here are not important for our purposes. Individual substances are known empirically. Substances contain an element of pure potency, prime matter, which cannot be grasped distinctly by the human intellect and which is knowable only sensorially. Their kinds and natures are discovered empirically, as is, insofar as it is, the range of accidents they may have. Even our concept of God’s substantiality originates in sensation.
Let us return to the passages from the *Meditations*. Descartes’ characterization of substance as “what is capable of existing by itself [rem quae per se apta est existere]” is reminiscent of Suárez’s own definition (AT vii, 44). The difference, however, is significant. To qualify the existence of substances, Descartes uses exclusively the Latin phrase “per se,” without adding “in se.” And he does not offer any explication of how this phrase is to be understood. This is unfortunate. The Latin “per se” suffers from a similar ambiguity as the English “by itself,” pointing at least in two different directions relevant to our present interests: by itself in the sense of being on its own, and by itself in the sense of by its own agency. The French “de soi” is also equivocal (see Dubois et al. 1992). Reference to the dependence of creatures on God suggests the second sense, while contrasting substance with inhering modes suggests the first. In the *Meditations*, the conceptual relation between being the subject of properties and being uncaused is not examined.

One feature of Descartes’ treatment of substance in these passages of the *Meditations* on which we have already remarked is his requirement that we turn away from the senses when seeking clear and distinct understanding. Indeed, Descartes’ approach to substance is permeated by his intellectualist essentialism, and this constitutes another major divergence from his Aristotelian predecessors, who all espoused forms of empiricist existentialism. He maintains that the essence of a substance is known purely intellectually, and that one can know possible substances, and know them in their individuality, purely intellectually. He holds that the non-sensorial conception of a possible and separately existing whole, an independent entity, is the conception of a possible substance, and that from such conception one can obtain knowledge of the essence or nature of such substance.

Also notable is Descartes’ use of “mode” to refer to the inhering properties or accidents of a substance. Even if we set aside the differences between various scholastic authors, it is obvious that here Descartes is departing from scholastic doctrine, while borrowing its concepts. Whenever this is so, we can be sure he knew what he was doing and was, in fact, relying on how the terms would be understood by his scholastic readers. In these cases, the job of commentators is to make clear what is being preserved and what discarded from the scholastic baggage. By using “mode” to refer to the accidents of a substance, Descartes seems to indicate that all accidents are determinations or ways of being of the subjects in which they inhere. The implication is that substance itself is intrinsically determinable, and not just an underlying substratum of added accidental entities. Descartes dispenses with Suarecian accidents whose proper concept need not involve reference to their subject and instead makes all real accidental properties of a substance modes which essentially include such reference.

There is a conceptual connection, graspable purely intellectually, between a Cartesian substance, its essence, and any of its inhering properties or modes. A mode implies a certain essence and an essence implies a unique range of possible modes. Following Suárez, Descartes states that inhering modes cannot be
understood apart from their substance on account of the fact that they contain the notion of their subject in their “formal concept” or essential definition (AT vii, 78). We know he did not disregard standard scholastic terminology, and he was certainly cognizant of Suárez’s treatment of these matters in the *Metaphysical Disputations*. In fact, the oddity of the claim that all accidents are modes, when placed on the side of scholastic doctrine, is evident: for the Aristotelians, the concept of an accident need not contain the notion of its subject. For them, the properties of being four cubic feet large or of having two legs or of being fast can inhere in substances with different essences or natures, say a human being, a monkey, or an ostrich; not so for Descartes, who would hold that all these properties can only inhere in the same substance, namely, the material universe. This reinforces the suggestion that Cartesian properties stand in a relation of determination to their subject.

A relation which fits the Cartesian treatment of substance, essence, mode, and inherence is the relation between determinates and their determinables. Highest-order determinables (for example, color) and their determinates (for example, red, green, gold, and the various other colors) form independent, tightly structured logical wholes. Highest-order determinables are conceptually independent of any other such determinables, as is the case, for example, between color and taste. Determinables imply the range of their determinates and determinates imply their determinables. If B is a determinable and C₁, C₂, C₃ . . . Cₙ are its possible determinates, then “A is C₁, or C₂, or C₃ . . . or Cₙ” follows from “A is B.” For example, “A is a triangle, or a square, or a circle, or an ellipse, etc.” follows from “A is a plane closed figure.” And “A is Cₓ” (where x ranges over 1, 2, 3 . . . n) entails that “A is B,” as “A is a figure” follows from “A is a triangle.”

Color, of course, is not a good candidate for Cartesian substantiality, since it is a properly sensorial object which can be clearly and distinctly understood “only as a sensation or thought” and not as a thing “existing outside our mind” (AT viiiA, 33). But there are non-sensorial determinables. Indeed, Descartes suggests that there are two kinds of highest-order determinables which can be grasped purely intellectually, can be clearly and distinctly conceived to exist outside any mind, and which exhaust the whole of the reality which we can know: extension (i.e., size, shape, and movement) and thought (i.e., perception and will). This points in the direction of an ontological reductionist program: all real properties can be analyzed into extension, thought, and their determinates. And an argument to support taking substantial inherence as determination is thereby suggested, for if the program is successful, then it can be claimed that this provides the best metaphysical account of what there is.

Still, these texts in the Third and Sixth Meditations are merely suggestive. To acquire a fuller understanding of Descartes’ notion of substance, we have to turn to other of his writings, where we find more extensive discussions. Descartes deals with the notion in the * Replies to the Objections* to the *Meditations*, in the *Principles of Philosophy*, and in his letters. To these texts we now turn.
We shall start with the well-known paragraphs on substance in *Principles of Philosophy*, I, §§51–4. Descartes first offers a general characterization of substance as “a thing which exists so that it needs no other thing for its existence.” He then provides an explication of his meaning: “we can understand only one substance which needs absolutely no other thing, namely God. Indeed, we perceive that all others cannot exist without the aid of God’s concurrence.” In order to exist, creatures need to be created by God. Furthermore, they must be conserved by him at all times, so that any activity or state of a creature supposes the concurrence of God. God, of course, exists necessarily without being created or conserved.

Substantial independence is here made out to be a kind of causal autonomy. A gradation in substantiality could be imagined, allowing some creatures to be substances in a secondary sense, insofar as they are causes which depend only on God’s causal support. A problem with this suggestion is that it is unclear that, for Descartes, any creature possesses the kind of causal power that God displays in creation and conservation. And it is in any case fairly clear that for him bodies do not possess it, while, as we have seen, he is willing to talk of “extended substance.” Moreover, the text itself undermines it.

Descartes continues: “as they say in the Schools, the term ‘substance’ does not apply to God and [creatures] univocally; that is, there is no meaning of the term common to God and creatures which can be distinctly understood.” (See the French translation, AT ixB, 47, where the scholastic view is commended: “they are right to say in the School. . . .”) He does not, here or anywhere else, indicate that the term is applied analogically. He must, then, be read as stating that it is applied equivocally to God and creatures. Descartes is explicitly invoking scholastic doctrine, that “substance” is not used univocally of God and creatures, but then holding that it is applied equivocally. The informed reader must find this passage to be directly, even if covertly, at odds with Suárez’s account. (One interesting consequence of this Cartesian doctrine is that, if we know God at all, we know him directly; see AT vii, 52; see also Marion 1981: 140–59; 1986; and, most importantly, Devillairs 2004).

Descartes’ initial explication of the independence of substances in *Principles* is unpromising. The French translation adds two sentences, probably from Descartes’ own hand: “but since amongst created things some are of such nature that they cannot exist without some others, we distinguish them from those which do not need anything but the ordinary concourse of God, calling them substances, and those others the qualities or attributes of substances” (AT ixB, 47). The reference to a distinction between substances and attributes or qualities points in the direction of a non-causal dependence. In order to make sense of the demand that there be no common meaning of the term applying to God and creatures, we must take Descartes’ substantial independence to be covering two different relations when applied first to God and then to creatures. God is creator and conserver and no creatures are such, while some creatures are subjects of properties in a way God is not. A more implausible reading might insist that the only dependence relation
here is causal and that substances and their properties stand as causes to their effects.

Some questions arise at this point. Why did Descartes think it appropriate to use “substance” both of God and of creatures? And why would he, or for that matter anybody, think that causal autonomy grounds the ontological independence of substance (can one not conceive an uncaused but ontologically dependent property?), or even just that causal dependence is incompatible with ontological independence? An answer to the first question is that this was, in fact, how the term was used in the School. And given both Descartes’ rejection of metaphysical analogy and the Suarecian account of substance, this answer may help explain the rather forced account Descartes offers, and provide an answer to our second question: substance is what is independent (or exists per se); God is absolutely independent, and in particular, as creator and conserver ex nihilo, he is independent in a way no creature is, to any degree; as highest-order determinables, creatures are independent in a different way, one which does not apply to God, not of course because he is dependent in this way but because he bears no modes or determinations. Descartes rejects the scholastic doctrine of substance, and with it Suárez’s doctrine of the determining modes of creaturely existence. But he does agree with the scholastics that God is not a subject of accidents. So he must find another way of still applying the term “substance” to him. Since, unlike Suárez, Descartes can find no sense of being by itself common to God and creatures, he takes the notion of independence or being by itself in its most general sense, focuses on the causal dependence of creatures on God, and ends up with an account of how the term “substance” applies to both of them only equivocally.

The passage continues unhelpfully repeating the characterization of created substances as “things which need only God’s concurrence in order to exist” (AT viiiA, 25; see also AT iii, 429). What we want is an explication of the dependence of properties on their substances, and hence the start of an account of the substantial independence of created substances. Descartes appeals to “the common notion that no attributes, that is to say, no properties or qualities are of nothing.” But this does little more than restate that properties “inhere” in substances; it is of no use when seeking to clarify what “inherence” amounts to. Again, an earlier claim that we do not know substances merely on account of their existence, taken by itself, is unhelpful in this context. These pages give the impression that Descartes had certain readers in mind, readers trained in the scholastic philosophy, and that he took for granted that the use of the terminology of the School would make his text comprehensible to them.

The next paragraph adds two significant doctrines regarding the essence of a substance and its relation to its properties. There is only one property that constitutes the essence of a substance, and all “modes” of a substance “are referred” to it (AT viiiA, 25). Shortly after, Descartes explains that the essence of a substance and the substance itself are merely conceptually distinct; that is, they do not designate two different entities, but rather the same one entity considered in two
different ways (AT viiiA, 30–1). In this case, the distinction holds between a
substance considered as an independent subject of properties, and a substance
considered as an intelligible nature which necessarily remains unchanged while
its diverse modes or determinations may change.

All these texts, then, appear to point in the direction of the view that Cartesian
substances are highest-order determinable natures. This interpretation gets further
confirmation from Descartes’ reply to Arnauld’s objections regarding the criterion
for a real distinction between two substances (AT vii, 198–204 and 219–29). Some
commentators have found Descartes’ reply unsatisfactory, at best obscure (for a
recent example, see Almog 2002: 23–4 and 25; and for a corrective, see Secada
2003: 441–5; instructive reconstructions are found in Curley 1978: 193–206 and
Wilson 1978: 177–200). But when it is read from the perspective of the doctrine
of substance that we have seen emerging from the text of the Meditations and the
Principles, it presents a cogent and definitive reply.

As we have seen, Descartes maintained that a distinction between two sub-
stances may be established from the purely intellectual, clear, and distinct concep-
tion of each. In the Meditations, the distinction between the meditator’s mind and
body is established from the fact that she can conceive each separately from the
other. In Meditation VI, the meditator stresses that substances can be conceived
“whole” and by themselves (AT vii, 78). Toward the end of the First Replies,
Descartes writes that

> I understand completely what a body is when I take it to be only something
> extended . . . and deny of it anything which belongs to the nature of a mind.
> Conversely, I understand a mind to be a complete thing . . . even though I deny
> that it has in it any thing which is contained in the idea of a body. This would be
> quite impossible if there were not a real distinction between the mind and the body.
> (AT vii, 121)

These texts invite an obvious objection. In his comments on the Meditations,
Arnauld forcibly presents it: “how does it follow, from the fact that he is aware of
nothing else belonging to his essence, that nothing else does in fact belong to it?”
(AT vii, 199). For the argument to proceed, the meditator would have to have an
“adequate” concept of the thing in question, one which included all of its properti-
bes, but that is impossible (AT vii, 200). Consider a right-angled triangle (AT vii,
201–2). Is it not possible to have a clear and distinct conception of a triangle
which has one right angle, while denying that its sides are such that the square of
the longest is equal to the sum of the squares of the other two sides?

Nonetheless, the seamless move from “understand completely [completa intel-
ligio]” to “understand to be a complete thing [intelligo esse rem completam]” indi-
cates that Descartes did not implausibly require that in order to establish a real
distinction one’s notion of a thing must contain all its real properties, or even just
all its necessary real properties. In his replies to Arnauld, Descartes makes exactly
this point: he was using “understand completely and understand to be a complete thing with one and the same meaning” (AT vii, 221.) So the crux of Descartes’ reply is found in this notion, “to be a complete thing,” a thing “endowed with the forms or attributes which suffice to recognize it is a substance” or “an entity in its own right which is different from everything else” (AT vii, 85, 221, 222). Descartes first explains that substances are “things subsisting by themselves [\textit{per se}].” Shortly after, he writes that “it is of the nature of substances that they should mutually exclude each other” (AT vii, 227). So the real distinction hinges on having two separate conceptions, each of which is the conception of a substance, a thing which may exist by itself. Conceptions are separate if whatever is in one can be clearly and distinctly denied of the other.

Descartes’ answer to the right-angled triangle example makes exactly these points. First, even if we take a right-angled triangle to be complete thing or substance existing by itself, “it is certain that the property of having the square of the base equal to the squares of the sides is not a substance” (AT vii, 224). But further, one cannot clearly and distinctly conceive each of these terms while denying the other of it. One may clearly and distinctly conceive a right-angled triangle without considering the relations between its sides, but one cannot then deny that a certain relation holds between its sides, which, in fact, does necessarily hold between them, and still maintain that one has a clear and distinct conception of the triangle. On the other hand, while “it is not possible to have a concept of a triangle such that no ratio is understood to hold between [its sides] . . . nothing at all which belongs to the mind is included in the concept of body, nothing at all which belongs to the body is included in the concept of mind” (AT vii, 225).

All the objects we know to exist in reality are either substances or modes of substances, “things, or the affections of things” (AT viiiA, 22). Different substances are separate one from the other and their concepts are mutually exclusive: nothing in the concept of one is contained in the concept of another. Again, the reply to Arnauld suggests that substance is an essence which can be conceived purely intellectually to exist in reality and which has the completeness and independence belonging to highest-order determinables.

Definitive confirmation of the view that Cartesian inherence should be understood as determination is found in an exchange between Descartes and Hobbes in 1641 (see Secada 2000c: 190–3). Responding to earlier assertions by Descartes, Hobbes had asked:

How does he understand that the determination is in the movement? As in a subject?
It is absurd; for movement is an accident. It is just as absurd to say that white is in the color . . . But as absurd as it is to say that the determination is in the movement as an accident is in a subject, still Mr Descartes does not refrain . . . (AT iii, 343; the determination in question is the direction of the movement)

Descartes did not refrain because he saw nothing wrong with treating determinates as properties of the determinable natures which they determine. So he curtly dismissed Hobbes’ point:
The Englishman . . . uses a frivolous subtlety when he inquires whether the determination is in the movement as in a subject; as if it were here a matter of knowing if the movement is a substance or an accident. For there is no problem or absurdity in saying that an accident is the subject of another accident . . . (AT iii, 354–5)

Descartes did not take Hobbes’s “frivolous subtlety” very seriously. So he did not spell out how he understood substance and the relation between existing subjects and their real properties. But he defended his claim that “the determination is in the movement as in a subject” by arguing that “an accident can be the subject of another accident,” and that one commonly predicates one accident of another. It is clear that whatever the oddity of “the determination is in what is determined” (or of particular cases like “the circle is in the shape,” or “the [direction] is in the movement” in AT iii, 324), Descartes took “B determines A,” when both A and B exist in reality, to imply that B is in A as a property is in a subject. In addition, he took “accident B inheres in substance A” to itself imply “B determines A.” For him the direction determines, or inheres in, the movement, as the movement determines, or inheres in, the body.

Descartes rejected the Aristotelian hylomorphic account of substance. He maintained that substance is an essence subsisting in reality, an entity defined through an intellectual principle of unity and identity. By conceiving inherence as determination, he was able to understand the relation between a substance and its properties purely intellectually. The distinct and complete conception of a substance, which is just the conception of its essence, contains its possible modes or properties. And the distinct conception of any accident or mode involves the conception of its substance’s nature. Cartesian substantial essences (and also determinable modes) are both individual and determinable. In his exchange with Hobbes, Descartes was referring to “concrete things” (AT iii, 355–6). The “concrete” movement to which he was referring is an individual mode or determination of the determinable extended substance (see Leibniz’s discussion of extension and substantiability in Conversation of Philarete and Ariste in Leibniz 1976: 619–27; and in Leibniz 1989: 257–68).

In the Principles, Descartes wrote that “we can . . . easily come to know a substance by one of its attributes”; and that “if we perceive the presence of some attribute, we can infer that there must also be present an existing thing or substance to which it may be attributed” (AT viiiA, 25). These statements should not be read as in any way suggesting the notion of substance as a property-less substratum. Descartes’ substance is not a support of properties with a character not captured by any of its attributes, the result of a Lockean “supposition of he knows not what support of . . . qualities” (Locke 1985: 295).

A Cartesian substance is not this obscure and unmentionable something. If accidents or determinations inhere in what they determine, an ultimate subject is not a property-barren substratum but an essence that determines no higher determinable. In his conversation with Frans Burman, Descartes clearly rejected the idea of substance as a bare substratum when he said that “all the attributes taken
together are identical with the substance” (AT v, 155). Substance is nothing beyond its real properties, but amongst real properties some are ultimate and independent subjects and others, modes of these natures. This is how one should take Descartes’ claim to Burman that “in addition to the attribute which specifies the substance, one must think of the substance itself which is the substrate of that attribute” (AT v, 156).

The character of substances as basic ontological units arises from their intelligible independence and unity as highest-order determinable natures: it is in this sense that they are the ultimate, simple, and fundamental things that there are. The identity of a substance through change is the identity of a determinable as its determinates change. And the numerical individuality of a substance is the individuality of the determinable nature which it is. The conception of two distinct substances is the conception of two intelligibly separate wholes having nothing in common: Cartesian essences are individual, and they make the substances which they are one, rather than being made one by their substances.

One remarkable consequence of the Cartesian doctrine of substance is that not just substantial essences, but all the real properties or modes of a substance are individual in the sense that no other substance can have modes or properties of the exact same type. If some substance is F, where “F” designates a mode or real property of the substance, then anything which is F is the same substance. We can call this the Cartesian principle of the identity of similars, a stronger principle than Leibniz’s identity of indiscernibles. While the Leibnizian principle dictates substantial identity on the basis of the identity of all real properties, the Cartesian principle dictates substantial identity merely from the identity of one mode.

Descartes distinguishes between the universal “thought” and the “particular nature which takes on [modes of thinking]” (AT v, 221). Each mind is an individual consciousness. That a mental act is necessarily an “I think” makes thought individual. For Descartes, the first-personal character of consciousness is not to be seen as a peculiar take the mind has upon itself, but rather as manifesting its essential individuality: “I” is the name of a unique consciousness, a thinking whose individuality is part of its very nature (see Anscombe 1981). Unfortunately, Descartes does not offer a discursive account, however brief, of this unique, but intellectually apprehensible, individual character of thought. If we want to grasp it, his recipe is to introspect: “there are things which we obscure by trying to define them, for they are most simple and clear . . . [T]hought . . . can be included amongst these things . . . [T]he only way we can learn of [it] is by . . . that awareness or internal testimony which everyone experiences within himself” (AT x, 523–4). Though with his articulation of the self as thinking substance Descartes presented modern philosophy up to our day with one of its central problems, his own account of the individuality and identity of the self, even when sympathetically reconstructed, faces insurmountable difficulties (see Williams 1978: 95–101 and 278–303; see also the discussion and references in Secada 2000c: 247–63).
The Cartesian account of substance does not face analogous problems when dealing with the individuality of material things: there is strictly only one body which is “this world or the whole of corporeal substance” (AT viiiA, 52). Nonetheless, Descartes recognized that “this word ‘body’ is extremely equivocal” (AT iv, 166). Apart from the sense just indicated, where “body” is “taken generally,” that is, to mean all the parts of the single corporeal substance, he acknowledged two other senses (AT vii, 14). The first refers to all proper parts of matter. These are individuated by their size and shape and their relative location, and they are such that “if any particle of [their] matter were changed, [they would be judged] no longer numerically the same” (AT iv, 166). The second refers to an aggregate of diverse parts of matter which are extrinsically defined as one. For instance, one human body is just “the whole of matter which is united to [some one] soul,” and it remains “numerically the same” in spite of changes in its size and shape, or whether it losses or acquires matter (see AT iv, 165 where a similar point is made about a river).

Neither of these two latter senses is ontologically fundamental, a fact which Descartes is careful to indicate by making reference to the dependence on thought of any determination of individual parts of the one material substance (see AT viiiA, 28–9; AT vii, 222; also AT vii, 13–14 where Descartes states that “absolutely all substances” cannot perish unless annihilated by God, a doctrine reiterated at AT vii, 153–4, and incompatible with the claim that the many bodies or parts of the material substance are all strictly substances; for an opposing account, see Slowik 2002: ch. 4). Here one might distinguish between, on the one hand, the division of the one material substance, or “the quantity” which composes “the whole visible universe” (AT iv, 166 and viiiA, 315), into proper parts at any given time, a division which, given the infinite divisibility of matter, must depend partly on some external determination by the considering mind, and, on the other, its division into proper parts through a certain duration, a division which adds the preservation of shape and size through movement.

Descartes’ talk of many bodies or material substances is motivated by his desire not to unnecessarily antagonize the School nor make patent the opposition between his and their natural philosophy. When this is the case, here and elsewhere, he also provides the elements so that readers can discern his considered thoughts on the matter, as we have just seen.

Apart from God, the one material universe, and the many created souls or minds, there are no more substances. Though Descartes writes of a substantial union of the human soul or mind with a human body, and some commentators have taken this to indicate a reference to a third substance, the human person or embodied mind, there is no textual need to go down this path, which is generally acknowledged to be difficult to make compatible with the rest of Descartes’ metaphysics. The Cartesian union of mind and body in humans can be rendered in terms of causal interaction and the peculiar phenomenology of sensations, feelings, passions, and emotions, which make us aware of our body as if possessed by it.
Descartes presents us with a conception of substance and reality which leaves no room for the claim that, for instance, thought might be discovered to be a property of certain material organisms. Mental acts could not “emerge” from bodies, whatever their structure, nor could they in any way be properties of bodies. There is a unity to substance, a tight conceptual interconnection between all its possible properties, which precludes that possibility. To say that there is only one thing here, where we have corporeal and mental properties, demands an account of the individuality asserted, and Descartes’ account makes such a statement incoherent.

But is this not science by fiat? Not quite. Descartes’ ontology, his account of substance and its properties, is offered as comprehensive, and as having the virtue of intellectual transparency. It is proposed as a clear and distinct account, free not only from incoherence but from obscurity. Furthermore, and this is a crucial point, Descartes claims that the whole of human knowledge, all that the sciences can tell us, and all that we know firmly in any sphere of human activity, will fit into this ontological picture. All known true predications can be analyzed so that in the end no reference need be made to anything but these orders of determination, extended, corporeal substance, and thinking substances or minds.

Descartes must not only explain true predications which appear to refer to properties other than thought and extension and its determinates, he must also analyze away apparent common predications, and of course explain the apparent plurality of substances of the same nature. He devoted most of his time to pursuing this project by developing a natural science which could be cast exclusively in terms of size, shape, and motion, and by articulating a corresponding science of the mind in terms only of perception and will, the two highest-order modes of thought. The impressive results of his efforts are found in *The World*, *Treatise on Man*, *Discourse on Method*, *Principles of Philosophy*, *The Passions of the Soul*, and some of his other writings.

Yet Descartes himself did not finish his project; and there are serious conceptual difficulties with the picture he painted, some of which we have already mentioned. Though Descartes’ account of properly sensorial qualities as objects in the mind has survived to our day in the doctrine of secondary qualities, and his nominalist account of universals, of Suarecian inspiration, is not easy to dismiss, his reductionist project was hardly successful even within his own time. It was not long before Cartesian mechanistic physics was discarded in favor of a science that is incompatible with Descartes’ conception of corporeal substance as mere extension. (On Descartes’ natural science, see Gaukroger 2002: 93–179.) And even more decisively, Leibniz brought out the vacuity of this conception (see his *Critical Thoughts on the General Part of the Principles of Philosophy* in Leibniz 1976: 383–412, esp. 390 and 392).

Further, Descartes offered no clear account of the relation between causation and inherence. In fact, literally taken, the passages on substance in *Principles* bring the two together obscurely. As we pointed out, Descartes could be read, perhaps
uncharitably, as holding that created substances are to be understood as causally
dependent only on God, as opposed to their modes which stand to them as effects
stand to their causes. Things are compounded by a late letter where Descartes
indicates that the notion of substance, strictly taken, entails infinity or absolute
perfection:

By “infinite substance” I understand a substance having true and real, actually infinite
and immense, perfections. This is not an accident added to the notion of substance,
but the very essence of substance taken absolutely and qualified by no defects; for in
relation to substance these defects are accidents while infinity or infinitude is not.
(AT v, 355–6)

Descartes’ insistence that God is properly substance, while creatures are so only
imperfectly and qualifiedly, seems to be at odds with his claim that there is no
meaning of “substance” which applies univocally to God and to creatures.
Furthermore, it opens up the issue of the relation between causation and
inherence.

Shortly after Descartes’ death, Spinoza was to provide an articulation of the
relation between these two relations which is deeply troubling for the Cartesian
doctrine of substance. Consider the following argument: substances are highest-
order determinable natures; cause and effect are like each other; things which are
like each other share a real property or determinate mode; things which share a
real property or determinate mode are the same determinable nature or substance;
therefore, nothing can cause something other than itself. Given that everything
has a cause, it follows that all existing substances are self-caused. This, abbreviated
and simplified, is the argument with which Spinoza begins Part I of his Ethics (see
Ethics, I, props. 1–16 in Spinoza 1985: 408–25). Starting from a Cartesian under-
standing of substance, and using causal intuitions which Descartes himself used,
Spinoza arrived at the claim that there is only one substance, infinite and
self-caused.

Renford Bambrough once said that most of what Spinoza wrote in the Ethics
was false, but that this fact, if it was a fact, did not in any way diminish his interest
or his stature as a great philosopher. To be sure, philosophers are not studied
because they will tell us what is true. They generate interest in their work because
they help us to understand ourselves and the things amongst which we live. And
this they can do even when they do not attain truth. Furthermore, the interest in
them is renewed with each generation as knowledge, aims, and perspectives
change, and the past acquires a new voice. Descartes’ Meditations and its doctrine
of substance can help us reformulate many of our deeper assumptions, by seeing
ourselves in our modern origins. The rejection of hylomorphism is a decisive
feature of the early modern metaphysical revolution. Revisiting Descartes’ seminal
intellectualist and essentialist version of that rejection can be a source of consider-
able philosophical enlightenment.