

CARTESIAN DUALISM: A LIMITED VISION? SOME OBJECTIONS AND REPLIES

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Introduction

In the *Discourse*¹ Part V, Descartes gives some empirical reasons against the possibility of explaining thought and language² in mechanistic terms. In the light of the development of neuroscience, these arguments have led to some contemporary interpretations of Cartesian dualism which suggest that it was motivated by limitations in Descartes' mechanistic conception of physics. Some recent scholars maintain that Descartes was not able to see how the brain or the nervous system could generate all the complex responses necessary for the production of thought and language. As a consequence, Descartes remained a dualist.³

I disagree with this interpretation and I maintain that Descartes adopted dualism for a very different reason; namely to lay the

¹ The editions of Descartes' works used are: *Oeuvres Philosophiques*, selection presentation and notes by Ferdinand Alquié [A] (Paris: Garnier, 1963-1973), following the standard notation from Adam and Tannery [AT]; *The Philosophical Writings of Descartes*, translated by John Cottingham, Robert Stoothoff and Dugald Murdoch [CSM] (Cambridge: Cambridge University Press, 1984); with A. Kenny's correspondence anthology incorporated [CSM-K] (Cambridge: Cambridge University Press, 1991), Vol. III.

² For Descartes language is an expression of thought; through it we declare our thoughts to others [AT VI 56; CSM I 140].

³ Cf. John Cottingham, 'Cartesian Dualism: Theology, Metaphysics, and Science', in Cottingham (ed.) *The Cambridge Companion to Descartes* (Cambridge: Cambridge University Press, 1992), 242-53; cf. too Paul M. Churchland, *Matter and Consciousness: A Contemporary Introduction to the of Mind* (Cambridge, MA: MIT Press, 1988), 8-10.

foundations of his physical science.⁴ In my view, Descartes' mechanistic conception *presupposes* his dualism.⁵ On the one hand, his geometric conception of an essentially extended world, whose properties are figure, size and motion, is based on the clear distinction between body and mind. The mathematical order and measure, the quantitative and mechanistic physical explanation had to be separated from the qualities of the soul, indescribable in geometrical terms. On the other hand, if Descartes were to extend mechanist explanation to mental operations, that would destroy the metaphysical and epistemic foundations of mechanist explanation as he conceived it. A mechanist reduction of the mental realm would make it impossible to found the truth and certainty of knowledge in Descartes' terms. Only as an incorporeal substance, can the mind play its basic epistemic role concerning the true knowledge of the physical world, as Descartes intends to show through the *cogito* in the *Meditations*.

In this paper I will analyze Descartes' arguments for dualism, as well as some of the relevant objections presented by some of his contemporaries. Most of these objections against Cartesian dualism are seen as quite plausible. But Descartes thought that the objections to his dualism were the result of basic misunderstandings. The review of some of Descartes' replies will allow us to reach a better understanding of his dualist doctrine and, against the claims of some interpreters, of the non-

⁴ I refer to 'science' or 'scientific' in the context of the emerging modern science in the seventeenth century. Some authors prefer the terms 'Natural Philosophy' or 'Philosophy of Nature' [cf. S.V. Keeling, *Descartes* (London: Oxford University Press, 1968), 131-32, cf. too Laura Benítez, 'Estudio Introductorio', in R. Descartes, *El Mundo o Tratado de la Luz* (Mexico: IIF-UNAM, 1986), 10]; also 'Mechanical Philosophy' [*philosophie mécanique*], cf. Bernard Baertschi, *Les Rapports de l'Âme et du Corps* (Paris: J. Vrin, 1992), 47.

⁵ Cartesian metaphysical dualism makes knowledge of the physical world possible in two ways: epistemologically, the *incorporeality* of the mind is required to establish the certainty and truth of knowledge; on an ontological level, the substantial distinction is required for the conception of the object of Cartesian physics, a matter whose essence is extension. But Cartesian dualism finds its limits in human nature. The ontological separation of the corporeal and mental domains is a general doctrine about the universe. In order to maintain his dualism intact, Descartes establishes the relation between the human mind and body through the primitive (and polemic) notion of union [cf. Zuraya Monroy-Nasr, 'René Descartes: Sincronía y Coherencia del Dualismo y la Unión Mente-Cuerpo', *Revista Latinoamericana de Filosofía*, XXIV, 1 (May 1998), 5-21].

empirical nature of the evidence Descartes had to establish the incorporeality of the mind.

I examine Descartes' reply to Caterus and compare the Cartesian theory of distinction with some Medieval conceptions, in order to show why the distinction between thought and matter cannot be a formal one. Descartes' substantial dualism implies a real distinction between complete entities, supported by the notions of mutual separability and independent existence. But Arnauld objects that Descartes has not demonstrated that the mind can be conceived as a complete thing and, therefore, exist apart from the body. Descartes' reply clarifies his notion of complete knowledge, different from Arnauld's notion of complete and perfect knowledge. Also, I will examine Descartes' conception on the nature of substances, and the relationship between substances and their attributes, by which Descartes intends to show the inadequacy of Arnauld's analogies when applied to really distinct things such as thought and matter. Caterus and Arnauld respectively argued in favor of a formal distinction or a distinction of reason between mind and body. If Descartes had renounced the conception of the real distinction between thought and matter, he could have achieved what Cottingham calls Descartes' general reductionist program.⁶ Instead, Descartes did not make any concession on this matter and I will argue that this intransigence is anchored in the metaphysical foundations of his physical science. Descartes' arguments and replies to his objectors are evidence against Cottingham's interpretation of Cartesian dualism, as motivated by certain empirical limits to the extension of his mechanical conception of the world to mental phenomena.

Descartes' 'Archimedean' point

According to J. Cottingham, "By 'Cartesian dualism' is meant the thesis that man is a compound of two distinct substances - *res cogitans*, unextended thinking substance, or mind, and *res extensa*, extended corporeal substance, or body".⁷ Cottingham's definition can be misleading. It suggests that Descartes' dualistic conception is intended to explain human nature. But Descartes' ontological separation of the

⁶ J. Cottingham, 'Cartesian Dualism...', 251.

⁷ John Cottingham, *Descartes* (Oxford: Blackwell, 1986), 119.

mental and the physical realms does not concern humans exclusively. It is a general doctrine about the constituent substances of the universe.

Descartes' dualistic doctrine certainly has important and problematic consequences for the conception of human beings. As a matter of fact, it is not through the doctrine of dualism that Descartes tried to explain the human compound. In order to give an account of humans, Descartes appealed to the primitive notion of the union between mind and body.⁸

Dualism was developed in the course of Descartes' various works. But a basic conception persisted from the *Rules* to the *Passions*.⁹ From his early to his late works, we find the unwavering conviction that thought and matter are essentially and actually different. Nevertheless, to examine Descartes' arguments for dualism I will refer mainly to one of his most illuminating works, the *Meditations*, with its *Objections and Replies*. Descartes' foundationalist project -which seeks to justify the cognitive operations of the mind and to establish its legitimacy- is argued and discussed in these works.

Going through Descartes' arguments we find that in the First Meditation the author doubts the existence of all things, especially those that are material. The doubt is radicalized in the Second Meditation to the extreme of supposing that even if there is a powerful and malicious deceiver, the only thing that the self cannot deny is its own existence. The self is a thinking thing and this is perceived clearly and distinctly. This perception does not depend on the conception of body.

To understand the strategy followed by Descartes, it is important to remember that he was deeply concerned with the problem of knowledge. He was interested not only in philosophical or metaphysical knowledge; his preoccupation was related to the possibility of reaching a true and certain knowledge of the natural world. The problem of how we can truly know the external world -an epistemological problem important for the development of Cartesian physics- was a constant theme throughout his works, and the *Meditations* show his strong commitment to understanding this matter. In the first lines of the First

⁸ Cf. Rule XII [AT X 411, 415-416; CSM I 39-40, 42-43]; Sixth Meditation [AT IX 64, 68; CSM II 56, 59]; *Principles*, IV § 189 [AT IX-2 310; CSM I 279-280] and *Passions*, art. 30ff. [AT XI 351; CSM I 339].

⁹ Cf. Rule XII [AT X 415; CSM I 42]; *Treatise on Man* [AT XI 119; CSM I 99] *Discourse* [AT VI 32; CSM I 27]; *Principles*, [AT IX-2 27-28; CSM I 195] and *Passions*. [AT XI 351; CSM I 339].

Meditation, Descartes rejects the false opinions and poorly founded principles received since childhood and states his epistemological objective: 'to demolish everything completely and start again right from the foundations if I wanted to establish anything at all in the sciences that was stable and likely to last' [AT IX 13; CSM II 17].

In the *Rules* Descartes followed a methodological approach, to show how to direct the mind to solid and true judgments. But in the *Meditations* he develops a different strategy. The only way that Descartes found to formulate his criterion of truth, '...whatever I perceive very clearly and distinctly is true' [AT IX 27; CSM II 24], was through the *cogito*. The metaphysical approach sets the foundations for justifying the possibility of true judgments. Descartes' criterion of truth allows him to argue that we can use our senses, backed by intellect, to obtain knowledge of the external world and, therefore, to make progress in natural science [cf. AT IX-2 57-58; CSM I 217-218].

Descartes does not deal with the mental operations involved in the process of knowledge from a psychological perspective. His main interest, while examining the faculties of the mind, was to provide an epistemological foundation, and this can be observed especially in the *Meditations*. In this sense, Descartes believed that the cognitive powers of human reason had to be justified and legitimized before accepting anything as knowledge.

Descartes adopted the methodological and general doubt as the strategy that might lead him to the first philosophical certainty or first principle. He argued that one cannot be certain of possessing any of the attributes that belong to a body. But, even under the extreme circumstance of being intentionally deceived, one can be certain that thought is inseparable from oneself. The *cogito* cannot be affected by doubt or by uncertainty.

While presenting his objections to the *Meditations*, Gassendi tells Descartes that he finds unnecessary all the doubts and the 'elaborate pretense of deception' that allowed him to affirm that the proposition '*I am, I exist*' is true whenever it is conceived by his mind. This proposition could be inferred from any action, says Gassendi, 'since it is

known by the natural light that whatever acts exists' [A II 708; AT VII 258-259; CSM II 180].¹⁰

Gassendi assumes that any action or movement of the body would serve the same purpose. But, for Descartes this is not simply a matter of the logical structure of the sentence.¹¹ 'I am walking, therefore I exist' can only be accepted with certitude if we are referring to the awareness of walking (i.e. if we say 'I think I am walking, therefore I exist'). Gassendi's example is a correct deduction, but it cannot be a proof because the truth value of its premise is unknown and, moreover, it is impossible to know it.

Gassendi was not the first one to raise this kind of objection. In 1638, Pollot wrote to Descartes (through Reneri) that the proposition '*Je pense donc je suis*' contained no more certainty than the proposition '*Je respire donc je suis*'. Descartes then answered:

When someone says 'I am breathing, therefore I exist', if he wants to prove he exists from the fact that there cannot be breathing without existence, he proves nothing, because he would have to prove first that it is true that he is breathing, which is impossible unless he has also proved that he exists. But if he wants to prove his existence from the feeling or the belief he has that he is breathing, so that he judges that even if the opinion were untrue he could not have it if he did not exist, then his proof is sound [A II 53; AT II 37-38; CSM-K III 98].

Descartes' answer turns the argument into a good proof and clearly shows that the problem is not the logical structure of the proposition, but to be sure of the truth of the premise. And the only certainty when affirming 'I walk' or 'I breath', as he told first to Pollot and later to Gassendi, is the awareness or the consciousness of the action.

The metaphysical certitude can only be derived from the consciousness of an action and, in his reply to Gassendi Descartes stresses the importance of this kind of certainty [A II 792-793; AT VII 352; CSM II 244]. In order to achieve it, part of Descartes' strategy is to

¹⁰ AT does not have the version in French of the Fifth Set of Objections and Replies. The edition that F. Alquié prepared includes it without the AT pagination. I will refer then to the volume (II) and pages of Alquié's edition [A]; AT VII (Latin) and CSM.

¹¹ Cf. Harry G. Frankfurt, *Demons, Dreamers and Madmen The Defense of Reason in Descartes's Meditations* (Indianapolis/New York: The Bobs Merrill Co., 1970), 95-6; 99ff.

show that we can doubt that any corporeal action or movement really exists, and we cannot reach certainty from doubtful propositions or actions. But, as the *cogito* remains unaffected by any kind of doubt, deception or denial, Descartes is convinced that this is the first indubitable principle he was looking for. The initial doubts in the First Meditation, dismissed by Gassendi as an 'elaborate pretence of deception', make complete sense under the Cartesian strategy followed to find a firm and certain point of departure for true knowledge.

In the Second Meditation Descartes declared that he was looking for one certain and unshakable thing, just as Archimedes demanded one firm and immovable point to shift the earth. At an epistemological level, Descartes' methodological doubt provided him with the first instance of the certainty he required: a *thinking self* that has no corporeal attribute. It is clear that for Descartes the presence of corporeal properties would be a source of uncertainty at this foundational point¹².

For Descartes anyone who 'philosophizes in an orderly way' [AT IX-2 27-28; CSM I 195] will reach the first and most certain of all conclusions: *I think, therefore I am*. The non-corporeal nature of thought responds to his claim for a certain and true knowledge. The certainty of being a thinking thing and the indubitability derived from the exclusion of any corporeal attribute led Descartes to the only conclusion consonant with these claims, that the mind and the body are distinct.

The Second Meditation sets the ground for the central argumentation on the issue of dualism that takes place in the Sixth Meditation. This postponement is necessary because Descartes first had to demonstrate God's existence (Third Meditation) and had to prove that a clear and distinct perception is true (this happens in the Fourth Meditation and is reinforced by the divine guarantee).

In the Sixth Meditation Descartes explains the real distinction between substances [AT IX 62; CSM II 54), in a passage that has been called by Margaret D. Wilson the 'Epistemological Argument'. I present here the main propositions in the argument:

¹² R. Landim, *Evidência e Verdade no Sistema Cartesiano* (São Paulo: Loyola, 1992), 48. As R. Landim says "The conditions that made it possible to establish the truth of 'I am' were asserted by indubitable propositions. Thus, all that is corporeal or that involves the body cannot be part of the conditions that make possible the assertion of that proposition. Now as it was inferred from the proposition 'I think', the (my) act of thought is the only condition of the assertion 'I am'".

- 1) Whatever I can conceive clearly and distinctly can be created by God as I understand it.
- 2) If I can clearly and distinctly conceive one thing apart from another, I can be certain that the one is different from the other (God can set them apart).
- 3) I know that I exist and I do not find anything else that pertains to my essence excepting that I am a thinking thing.
- 4) Hence I conclude that my essence consists in being a thinking thing.
- 5) I have a clear and distinct idea of myself as a thinking, non-extended thing and I have a clear and distinct idea of body as an extended, non-thinking thing.
- 6) Therefore, it is true that I am really distinct from my body and can exist without it.

The first proposition is basic for the argument and shows why Descartes could not conclude the real distinction of substances in the Second Meditation. The Third and Fourth Meditations were necessary in order to establish the criterion of truth and the existence of God. Now, taking 1) as a principle he can infer 2). The third proposition was demonstrated in the Second Meditation and 4) is supposed to follow from it (supported by the *cogito*). Though several objections are raised against 4),¹³ it is 5) and 6) that have been found by several critics as the most controversial.¹⁴

Cartesian Theory of Distinction: Reply to Some Objections

Descartes' past and present critics have thought that the distinction between mind and body would not be so problematic if he had not maintained that it was a *real* distinction. Some important observations on the nature of this distinction were presented by his contemporaries

¹³ Cf. Lilli Alanen, 'On Descartes's Argument for Dualism and the Distinction between Different Kinds of Beings', in S. Knuuttila and J. Hintikka (eds.), *The Logic of Being* (Dordrecht/Boston/ Lancaster/Tokio: D. Reidel, 1986), 233 and note 24.

¹⁴ Margaret Wilson, *Descartes* (London: Routledge and Kegan Paul, 1978), Chapter VI, examines the Epistemological Argument in order to see the pertinence of several of the common objections against it. After a thorough scrutiny the author suggests a clarifying reading of Descartes' argument. L. Alanen, *Op. Cit.*, 223 and note 29, also proposes an interpretation that shows the argument 'is both more cogent and less unproblematic than is usually thought'.

and Descartes had the opportunity to provide his own replies. This early debate can enlighten some points that are still discussed nowadays regarding Descartes' reasons for insisting on dualism.

In the First Set of Objections, Caterus objected to Descartes' conclusion that soul and body are distinct based on the fact that the two can be conceived distinctly and apart from each other. He considered that this fact supports, not a *real* distinction, but what Scotus called a *formal and objective* distinction (intermediate between a *real* distinction and a distinction of reason). Caterus, still following Scotus, mentions as an example the distinction between God's justice and his mercy. They can be conceived apart from one another but they cannot exist apart. [AT IX 80; CSM II 72-73].

The intermediate distinction that Caterus points out, as well as the real distinction used by Descartes deserve more attention. Medieval philosophers had discussed widely the criteria to determine the distinction between things and concepts. Alanen summarizes the three basic distinctions accepted by most of these philosophers:

- 1) A real distinction (*distinctio realis*), i.e., a distinction between real things or individuals in the extra-mental world. This distinction was usually defined as a distinction between thing and thing (*inter rem et rem*), existing before the operation of the intellect.
- 2) A purely mental distinction (*distinctio rationis*), i.e., a distinction created by the mind (*per opus intellectus*).
- 3) An intermediate distinction which was generally defined with reference to the mind, but which, differently from the purely mental distinction, was usually conceived as a distinction having a basis in the nature of things and therefore corresponding to some kind of diversity or non-identity outside the intellect.¹⁵

There was no general agreement on this last distinction. According to Alanen, the formal distinction was proposed by Scotus as 'one attempt to clarify the nature of this foundation in reality'.¹⁶ Nonetheless, the kind of distinction that Caterus suggests did not apply to Descartes' understanding of a substantial distinction. What Scotus said about the distinction between God's justice and his mercy is that:

¹⁵ Alanen, Op. Cit., 226.

¹⁶ Ibid.

The formal concepts of the two are distinct prior to any operation of the intellect, so that one is not the same as the other. Yet it does not follow that because justice and mercy can be conceived apart from one another they can therefore exist apart.¹⁷

As we will see later on, that the formal distinction is prior to any operation of the mind is not sufficient to establish, at the ontological level, what Descartes proposes with his real distinction.

The kind of distinction suggested by Caterus may be problematic, but his objection is important. Caterus pointed out an issue which seems to compromise Descartes' conception of 'simple natures' like extension, shape and motion. They can be conceived 'distinctly and apart from each other', but they are *not* really distinct: e.g. the shape cannot exist apart from the extended body.¹⁸

In his reply to Caterus, Descartes says:

As to the 'formal' distinction which the learned theologian introduces on the authority of Scotus, let me say briefly that this kind of distinction does not differ from a modal distinction, moreover, it applies only to incomplete entities, which I have carefully distinguished from complete entities. It is sufficient for this kind of distinction that one thing be conceived distinctly and separately from another by an abstraction of the intellect which conceives the thing inadequately. It is not necessary to have such a distinct and separate conception of each thing that we can understand it as an entity in its own right, different from everything else; for this to be the case the distinction involved must be a real one [AT IX 94-95; CSM II 85-86].

I find two relevant issues in this reply: 1) the distinction between complete and incomplete entities and 2) the equivalence between Scotus' formal distinction and Descartes' own modal distinction. Now according to Descartes, incomplete entities fall under the formal or modal distinction, while complete entities are really distinct.

For a better understanding on this matter, in addition to the Medieval theories of distinction, we need to consider also the notions of mutual separability and existence involved in Descartes' conception. Alanen, noting the controversy on the problem of distinction tells us that the Thomists used the term 'real distinction' in a different sense, extending it

¹⁷ Caterus [AT IX 80] quotes Scotus, *Opus Oxoniense* I, 8. 4.

¹⁸ Cf. Wilson, *Op. Cit.*, 172.

to items which are separable only in thought (as the soul and its faculties or essence and existence).

Later Scholastics as Scotus, Ockham and their followers, seemed to have restricted the use of 'real distinction' to referring to things considered as separable in the extra-mental reality: 'Hence, as opposed to the other distinctions assumed by these authors, a real distinction, for the later Scholastics, always presupposes either a mutual or at least a non-mutual separability with regard to the existence of the items or things considered'.¹⁹ Mutual separability is the case when members of a compound continue to exist after separation, like the elements of a house if torn apart. But when non-mutual separability is the case, only one of the elements in the compound can exist without the other.²⁰

In his reply to Caterus, Descartes explains that:

For example, the distinction between the motion and shape of a given body is a formal distinction. I can very well understand the motion apart from the shape, and vice versa, and I can understand either in abstraction from the body. But I cannot have a complete understanding of the motion apart from the thing in which it occurs, or of the shape apart from the thing which has the shape;...[AT IX 94-95; CSM II 86].

Descartes is conceiving 'simple natures' like shape and motion as incomplete entities, of non-mutual separability. And the formal distinction is quite adequate for them.

Nevertheless, the distinction between mind and body is in a totally different situation. Each one is conceived not only separately, but as a complete thing. There is nothing in the body that is conceived to belong to the nature of a mind. Conversely, there is nothing in the mind that is conceived to pertain to the nature of a body. For Descartes, this is possible because there is a *real distinction* between the mind and the body [AT IX 94-95; CSM II 85-86] and, as I have argued, this kind of distinction entails the notion of mutual separability.²¹

¹⁹ Alanen, *Op. Cit.*, 227-28.

²⁰ *Ibid.*, 228.

²¹ Before Descartes, non-Thomist Scholastics defended the distinction of form and matter. The possible subsistence of the rational soul without matter was not a source of disagreement. But for the followers of Aquinas, it was not acceptable that matter can exist without any form. According to some authors like Suárez, Fonseca, Scotus and Ockham, the reason that matter could exist without any form was God's

Replying to Caterus, Descartes said that Scotus' formal distinction did not differ from the modal distinction.²² But later, in the *Principles* [Part I, § 62, AT IX-2 53; CSM I 214-215] he corrects himself and compares it with his conceptual distinction. But despite these differences in Descartes' conception on the sorts of distinction, the substantial distinction conceived as *real* remains the same.

At this point it is necessary to highlight the fact that Descartes' use of Scholastic terminology can mislead us. We often find a Cartesian notion, named by an established term but used with a different meaning. He justifies this practice by saying that:

... the names do not always fit the things with sufficient accuracy. Our job, however, is not to change the names of things after they have been adopted into ordinary usage; we may merely emend their meanings when we notice they are misunderstood by others [AT VII 356; A II 797; CSM II 246].

In the Cartesian theory of distinction, developed in the *Principles*, the notion of conceptual or mental distinction seems to have a great similarity with Suárez's concepts. This author had divided the conceptual or mental distinction into a distinction of: 1) reasoning reason, *distinctio rationis ratiocinatae*, which is purely mental as it 'arises exclusively from the reflection and activity of the intellect' and 2) reasoned reason, *distinctio rationis ratiocinatae*, also a mental one but preexisting in reality and which requires 'the intellect only to recognize it, but not to constitute it'.²³

Descartes rejects the first kind: 'I do not recognize any distinction made by reason *ratiocinatae* - that is, one which has no foundation in

absolute power. Nevertheless, none of them sustained, as Descartes did, that matter naturally exists apart from form. For recent and detailed studies on the differences and similarities between Descartes' substantial dualism, Aristotelian and non-Thomist Scholastic doctrines on form and matter, cf. Dennis Des Chene, *Physiologia. Natural Philosophy in Late Aristotelian and Cartesian Thought* (Ithaca/London: Cornell University Press, 1996), Chapter 5, and Roger Ariew, *Descartes and the Last Scholastics* (Ithaca: Cornell University Press, 1999), Chapter 4.

²² Cf. *Principles* (Part I, §§ 60-62) for Descartes' explanation of his own categories for distinction.

²³ Cf. Alanen, *Op. Cit.*, 243, note 16. This author is quoting Suárez DM VII, Sect. 1, § 4; transl. by Vollert, *Francis Suarez: On the Various Kinds of Distinctions* (Wisconsin: Marquette University Press, 1947).

reality - because we cannot have any thought without a foundation' [AT IV 349; CSM-K III 280]. For him the conceptual distinction is 'a distinction made by reason *ratiocinatae*' [ibid.]. Thus, this is a distinction somehow founded in reality. This makes clear why Descartes finds Scotus' formal distinction equivalent to his own conceptual distinction: it is previous to the operation of the intellect, because the objects of this distinction (a substance and its attributes) are not created by the mind, they are not mental entities. But this distinction can only reside in the mind and result from reasoning, because a substance and its attributes are entities of non-mutual separability.

Descartes corrected in the *Principles* what he had said about Scotus' formal distinction, previously understood by him as a modal distinction and later as a conceptual one. Nonetheless, this correction has no consequences upon his conception of the *real* distinction. Alanen makes an interesting point while reminding us that both the conceptual and the modal distinctions 'require in fact an abstraction of the mind and are therefore opposed to the real distinction'.²⁴ And, as Descartes told Caterus, the real distinction applies only to things conceived as complete, this is, things that subsist by themselves. According to Descartes this is the case for thought and matter. Thus, in his reply to Caterus the author relies on the epistemological doctrine that he defended throughout the *Meditations* - the mind can be completely conceived independent of any corporeal attributes.

Real Distinction: Some Objections and Replies

The debate with Caterus became the point of departure for Arnauld's discussion, in the Fourth Set of Objections, on the Cartesian conception of the nature of the human mind. First, Arnauld examines the part we have called, following M. Wilson, 'Epistemological Argument'. Then, he refers to premise 1) Whatever I can conceive clearly and distinctly can be created by God as I understand it, and says:

... if the major premiss of this syllogism is to be true, it must be taken to apply not to any kind of knowledge of a thing, nor even to clear and distinct knowledge; it must apply solely to knowledge which is adequate. For our distinguished author admits in his reply to the theologian, that if one thing can be conceived distinctly and separately

²⁴ Alanen, Op. Cit., 246, note 30.

from another 'by an abstraction of the intellect which conceives the thing inadequately', then this is sufficient for there to be a formal distinction between the two, but it does not require that there be a real distinction [AT IX 156; CSM II 140].

Here, Arnauld explicitly tries to apply against Descartes the argument previously used with Caterus. Immediately after, he quotes the final paragraph in the First Set of Replies where Descartes said:

By contrast, I have a complete understanding of what a body is when I think that it is merely something having extension, shape and motion, and I deny that it has anything which belongs to the nature of the mind. Conversely, I understand the mind to be a complete thing, which doubts, understands, wills, and so on, even though I deny that it has any of the attributes which are contained in the idea of a body. Hence there is a real distinction between the body and the mind [AT IX 156; CSM II 140-141].

This argument is quite similar to propositions 5) and 6) in the 'Epistemological Argument', and it is interesting to observe here that the notion of complete thing has now been added. On this quotation Arnauld says that:

But someone may call this minor premiss into doubt and maintain that the conception you have of yourself when you conceive of yourself as a thinking, non-extended thing is an inadequate one; and the same may be true of your conception of yourself as an extended, non-thinking thing. Hence we must look at how this is proved in the earlier part of the argument. For I do not think this matter is so clear that it should be assumed without proof as a first principle that is not susceptible of demonstration [AT IX 156; CSM II 141].

According to Arnauld, it would be necessary to have a complete knowledge of a substance in order to establish a real distinction between two of them. For him, a clear and distinct understanding would not be enough for this kind of distinction [AT IX 156; CSM II 140-141]. Arnauld gives an example of the relation between the body and the mind, from the point of view of those who conceive the mind as corporeal, through the analogy of the genus and the species. "Now a genus can be understood apart from a species, even if we deny of the genus what is proper and peculiar of the species -hence the common maxim of logicians, 'The negation of the species does not negate the genus'" [AT IX 156; CSM II 141]. Thus, the genus 'figure' can be conceived without

understanding the properties of a circle. Therefore, Descartes' argument would still need to prove that this is not the same for the mind and that it can be completely conceived apart from the body.

Arnauld admits it is possible to obtain some knowledge of oneself without knowledge of the body: 'But it is not yet transparently clear to me that this knowledge is complete and adequate, so as to enable me to be certain that I am not mistaken in excluding body from my essence' [AT IX 157; CSM II 141]. As an example of this, Arnauld uses the geometric figure of a triangle, whose property of being right-angled can be clearly and distinctly perceived. Though, someone can ignore, doubt or deny that another property belongs to it (e.g. that the square on the hypotenuse is equal to the squares on the other two sides). Nevertheless, this does not mean that the property does not belong to the essence of the triangle. Then, regarding the mind-body relation he finds that:

Similarly, although I clearly and distinctly know my nature to be something that thinks, may I, too, not perhaps be wrong in thinking that nothing else belongs to my nature apart from the fact that I am a thinking thing? Perhaps the fact that I am an extended thing may also belong to my nature [AT IX 158; CSM II 142-143].

Arnauld does not accept that doubting (or ignoring) the existence of bodies can be enough to eliminate the body as part of the human essence. Although one can obtain some knowledge of oneself without knowledge of the body, it does not mean this knowledge is complete and adequate. It is possible to have certainty of a partial knowledge, but one could be mistaken about the essence because we have an incomplete knowledge. Hence, Descartes can affirm with certainty that he is a thinking thing. It could also be an incomplete knowledge because he is not recognizing the body as an essential part of the thinking thing. Therefore, according to Arnauld, without a complete knowledge of the mind, we are not entitled to conclude that it can exist without the body.

Arnauld's strong and logical objections to Cartesian dualism initiated an interesting and revealing debate with Descartes. This author answers Arnauld's objections to his conception of the human spirit pointing directly to a misunderstanding of the significance and role of complete and incomplete knowledge. Descartes assures him that in his reply to Caterus, he did not establish it was necessary to have a complete knowledge in order to give support to his 'Epistemological Argument'.

The Cartesian sense of complete knowledge does not imply the knowledge of each and every property. For him complete and adequate knowledge is not accessible to humans. Only God can possess and recognize this kind of knowledge [AT IX 171; CSM II 155]. In the case of the created and limited human mind, even if it was in possession of a complete knowledge in Arnauld's sense, it would not be capable of recognizing it as such by itself. Therefore, a complete and perfect knowledge is not a requisite for a real distinction between two substances:

Hence when I said that 'it does not suffice for a real distinction that one thing is understood apart from another by an abstraction of the intellect which conceives the thing inadequately', I did not think this would be taken to imply that *adequate* knowledge was required to establish a real distinction. All I meant was that we needed the sort of knowledge that we have not ourselves made *inadequate* by an abstraction of the intellect [AT IX 172; CSM II 155-156].

Thus, for Descartes: 1) an adequate conception of something does not require an absolute understanding of *each* property contained in the object of knowledge; to have a *complete* knowledge of the thing it is necessary and sufficient, for a created intellect, to conceive it *distinctly* as 'an entity in its own right which is different from everything else' [AT IX 95; CSM II 86], and 2) the real distinction requires that the knowledge of the substance is not rendered *imperfect* or *defective* by the abstractions or restrictions of the human mind.

F. Alquié has summarized the differences in Arnauld's and Descartes' conceptions on complete knowledge.²⁵ Arnauld distinguishes between incomplete and complete knowledge, and the latter is combined with the notion of perfect knowledge, which excludes all abstraction of the spirit and entails the totality of properties of the thing. Descartes, says Alquié, distinguishes between incomplete knowledge, complete knowledge and perfect knowledge:²⁶ 'Incomplete knowledge can be clear, but entails the abstraction of the spirit that the other two exclude. But only perfect knowledge, which is inaccessible to man, will contain with certitude the totality of properties of the thing'.²⁷ So, the complete

²⁵ Cf. A II 661, note 2.

²⁶ Alquié translates the original term in Latin *cognitio adaequata* as *connaissance parfait*.

²⁷ A II 661, note 2.

conception of a thing, accessible to human knowledge, may not contain the totality of the properties, but does not incur abstraction. Under this definition, we observe that the Cartesian real distinction is to be applied solely to things that are understood as complete, which means each thing can be completely conceived without the other.

In his reply to Arnauld, to explain better what a complete thing is, Descartes examines the notion of *substance*.²⁸

... by 'complete thing' I simply mean a substance endowed with the forms or attributes which enable me to recognize that it is a substance. We do not have immediate knowledge of substances... We know them only by perceiving certain forms or attributes which must inhere in something if they are to exist; and we call the thing in which they inhere a 'substance' [AT IX 172-173; CSM II 156].

As a substance is a complete thing due to its ability to exist on its own, Descartes says it would be self-contradictory to consider something a substance if it was incomplete, that is, if it did not possess the power to subsist on its own [AT IX 173; CSM II 156-157].

Extension, divisibility and shape are attributes by which the substance called body is recognized. Understanding, willing and doubting are attributes by which the substance called mind is recognized. Descartes understands each of these substances as a complete thing, independent from the other. Thus, he finds Arnauld's comparison of the relationship between mind and body, with that of the genus and the species, 'impossible to assert' [AT IX 173; CSM II 157].

Following the Cartesian sense of complete knowledge of a thing we observe that, in effect, Arnauld's example does not correspond to the mind and body case. Even if the genus can be understood without any specific differentia, the species cannot be thought without the genus. In contrast, the mind or the body can be distinctly and completely conceived without any of the attributes of the other. For Descartes there

²⁸ The Cartesian notion of 'substance' resulted problematic in the light of dualism. When Descartes defines it as a self-subsisting thing, an *ens per se existens*, he seems to be in accordance with the Scholastic conceptions. But after establishing the real distinction between the mind and the body, his definition of substance was against what most Scholastics accepted, and was clearly expressed by Suárez: 'the rational soul, as a separate entity, is an incomplete substance' [DM 33, Sect. 1, §. 2]. Also, it was adverse to the Aristotelian definition of the mind as the form of the body (cf. Alanen, *Op. Cit.*, 229). For a better understanding of the Cartesian notion of substance cf. *Principles* [I 51-53; 56-60].

is no subordination. The mind and the body have the same ontological status (each one is a substance), as well as the same epistemological status (each one is completely understood on its own).

The example of the triangle seems also inadequate to Descartes. Although a substance can be conceived as having a triangular shape, the Pythagorean property of having the square on the hypotenuse equal to the squares on the other two sides, is clearly not a substance. Therefore, neither the triangle nor the Pythagorean property can be understood as a complete thing [AT IX 174; CSM II 158].

Undoubtedly, Arnauld's objections were quite astute and are often quoted. But it is also important to recognize that Descartes' replies were appropriate and sharp, as when he shows the difference between adequate knowledge (in Arnauld's sense) and complete knowledge (in Descartes' sense) and how the latter is enough to support his 'Epistemological Argument'. Also, based on his conception of the nature of a substance, and the relationship between substances and their attributes, Descartes shows the inadequacy of Arnauld's keen analogies when applied to really distinct things such as thought and matter.

Arnauld's objections have long endured and can often be found in contemporary studies as a source of criticism for Cartesian dualism. But, generally, we are not told about the striking effect that Descartes' replies had on Arnauld. Between June and July in 1648, Arnauld wrote two letters [AT V 184; 211], that were immediately answered by Descartes [AT V 192; 219; CSM-K III 354; 356]. Arnauld's first letter shows a general satisfaction with the replies. But here Arnauld adds some questions on matters about which he is not quite convinced, as the idea that the mind is always thinking. For him the mind, as a thinking thing, requires nothing but the faculty of thought, just as the corporeal substance that is always divisible, but is not always divided [AT V 188]. Descartes' answer is simple and again refers to the nature and relationship between substance and its attributes:

Nevertheless it seems necessary that the mind should always be actually engaged in thinking; because thought constitutes its essence, just as extension constitutes the essence of a body. Thought is not conceived as an attribute which can be present or absent like the division of parts, or motion, in a body [AT V 193; CSM-K III 355].

In his second letter Arnauld says he fully agrees with him on the fact that the mind is always thinking [AT V 213]. Arnauld was so convinced by Descartes' arguments that in his work *Des vrais et des fausses idées* (1683), one of the seven rules he offers 'to search the truth and avoid many mistakes in natural sciences'(VFI, 38:181-183) is: '6. Do not treat or conceive of minds or souls as bodies; nor bodies as minds or souls. Do not attribute to one what applies only to the other. Thus, one ought not to ascribe beliefs to material bodies or extension and divisibility to minds'.²⁹ As Nadler points out 'the strict dualism of Cartesianism demands the methodological principle that one should not mix categories and predicate of one kind of object what can be predicated only of another'.³⁰

Caterus and Arnauld argued in favor of establishing merely a distinction of reason or a formal distinction between the mind and the body. This would avoid the doctrine of separate existence, which stands in the way of a reductionist conception of thought and matter. If Descartes had accepted some of the objections received, he could have gone one step forward in what Cottingham calls Descartes' general reductionist program. This author states that Descartes was open to a radical mechanistic reductionism in the *Traité de l'homme*, and that his 'scientific work on the human nervous system points unmistakably in the direction of the *homme-machine...*'.³¹ Nevertheless, as Cottingham maintains this full reductionist program was not attempted by Descartes.

Furthermore, in all his replies concerning the real distinction and the non-corporeal nature of the mind, Descartes did not make the slightest concession. I maintain that Descartes' intransigence is anchored in the metaphysical foundations he laid for his physical science. Due to its foundational nature, the Cartesian philosophical and scientific project required an indubitable principle:

Archimedes used to demand just one firm and immovable point in order to shift the entire earth; so I can hope for great things if I manage to find just one thing, however slight, that is certain and unshakeable [AT IX 19; CSM II 16].

²⁹ Cf. Steven M. Nadler, *Arnauld and the Cartesian Philosophy of Ideas* (Princeton: Princeton University Press, 1989), 36.

³⁰ Ibid.

³¹ Cottingham, 'Cartesian Dualism...', 252.

Descartes states this at the beginning of the Second Meditation. There, through the methodological doubt he finds the certain principle he searched for. It is extremely important to keep in mind that, for Descartes, the *cogito* is his 'Archimedean' point due to its incorporeal nature.

To fulfill his scientific-philosophical project, departing from an indubitable principle, Descartes redefined the traditional natures of thought and matter as independent and really distinct substances. Thus, in his replies to Caterus and Arnauld, Descartes maintains that the distinction is real because: 1) the mind and the body are things we clearly and distinctly perceive apart from each other; each is conceived as a complete thing whose mutual separability allows it to exist on its own, without the other, and 2) the distinction refers to an extra-mental dominion, and the mind is capable of recognizing the distinction but it is not creating it.

Cartesian dualism characterizes ontologically the thinking and the extended substances. But I think dualism has to be considered also in its epistemological dimension, basically for two reasons: 1) true and indubitable knowledge is based on the incorporeal nature of the mind, which is possible because of the Cartesian real distinction, and 2) the object of knowledge of the physical world must be a *completely* quantifiable thing, deprived of any kind of soul, like the extended substance with its attributes and properties, that can only be conceived this way because of the substantial real distinction.

Perhaps, in the *Meditations*, Descartes does not emphasize enough that his foundations for knowledge are intended to comprise metaphysical as well as physical objects. But through a systematic reading of Descartes' previous works, specifically the so called scientific works (*The World*, the *Treatise on Man*, the essays prefaced by the *Discourse*), we can clearly see how greatly important it was for him to found the possibility of reaching a true and certain knowledge of the physical world. The thinking substance, whose incorporeality is argued in the *Meditations* and defended in the *Replies*, is capable of knowing with certainty the nature of the extended matter, deprived by Descartes' dualism of occult powers and unquantifiable attributes and known to

behave in accordance with the laws of mechanics.³² In my opinion, this is a powerful reason for Descartes intransigence with his dualistic conception. Otherwise, his philosophical and scientific project could not be founded.³³

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³² Cf. M. Bolton, 'Seventeenth Century Mechanism and Causal Powers: what is Wrong with *Virtus Dormitiva*?', in L. Benítez y J. A. Robles (eds.) *Materia, Espacio y Tiempo: de la Filosofía Natural a la Física* (Mexico: FFyL-UNAM, 1999).

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