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## Spinoza's error and the philosophy of cognitive sciences

## Preamble

In the very relaxed concluding session of a colloquium at Les Treilles (Provence) last week – 14-18 June 2004 – on Philosophies de l'esprit et théories de la signification (Philosophies of Mind and Theories of Meaning), I happened to venture that meaning and truth are not the same, and philosopher Searle had a fast reply: The function of meaning is to serve truth. O.k., said this semiotician, thus may be the function of meaning, but not the structure of meaning. We agreed that such a gentle, distributive position could be called analytic phenomenology...

For some time, modern neuro-cognitive research has been facing a curious theoretical problem: it is philosophically inconsistent. It cannot be

theoretical problem: it is philosophically inconsistent. It cannot be continentally hermeneutic, since it has to acknowledge the existence of evolutionary properties of the human mind (meaning can therefore not be seen as created by history alone). Nor can it overtly endorse analytic philosophy, since it cannot limit itself to the study of propositions and propositional logic (meaning cannot be reduced to propositional content and truth conditions). It cannot subscribe to classical phenomenology, whether existential or formal, because this approach would rule out any empirically specialized research, from semiotics to neuroscience (where the phenomenological reduction would not work). In the actual panorama, there is no consensus to adopt any coherent 'cognitive philosophy', or 'neurophilosophy', or 'naturalised philosophy of meaning', and the realism of ordinary philosophy of science does not suffice for the study of the human world, including intentional structures of meaning, narrative meaning, emotional meaning, aesthetic meaning, etc.

The cognitive sciences emerged in a late 20th century atmosphere of anti-hermeneutic thinking and computational scientism. Occasionally,

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cognitive strains of thought and research alluded to phenomenological or phenomenalistic motives, encouraged by the fact that cognition is inherently connected to studies of perception and consciousness; but in the last instance, even the cognitive sciences stayed tied up to an all-pervasive <u>analytic</u> philosophy that had determined much of the academic life and the style of thinking in the disciplines affected by this research. They stayed inhabited and inhibited by the meaning skepticism and the logical dogmatism of the analytic century. In this paper, I will examine the problem of cognitive Spinozism and discuss some possible ways to rethink it.

It can in fact be claimed that in essential respects, analytic philosophy is not soundly connected to the study of 'mind and brain', and in particular not to the study of cognitive semantics, which has to rely on introspection and interpretation of meaning in communication, and therefore cannot use a truth-conditional semantics. However, it should also be acknowledged that analytic philosophy is organically linked to the history of the cognitive disciplines, in particular to Anglo-Saxon neuro-behaviorism and neuro-psychology. It is not enclined to leave the discourse of these areas of research, unless new and very strong arguments enter the debate.

By contrast, the sort of structural research (including structuralism in anthropology, linguistics, literary studies, psychology etc.) which in Europe has been associated with cognition - since Jean Piaget - is often philosophically anchored more or less explicitly in variants of formal phenomenology. In a phenomenological framework, semantics is free to distinguish signified meaning from referential truth (vericonditional meaning), and to localize the former in the human mind, not in the archive of truths of the outer world. Our current project of elaborating a 'cognitive semiotics', in which the overall study of meaning and the mind, and of culture and communication, still in the perspective of cognition and consciousness, is approached both from the angle of the neurosciences and from that of a structural and cognitive semantics – and thus, in a sense, both from the neural 'outside' and from the mental 'inside'- is therefore presently both a fascinating laboratory and a philosophical battlefield: especially of analytic and phenomenological motives; hermeneutics has already left the field, since History is not considered a structural cause in itself.

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My claim here is that such battles can be viewed as basically opposing Baruch Spinoza's and René Descartes' heirs. Spinoza is the father of analytic philosophy, and Descartes is the father of phenomenology, I claim. This state of affairs is by no means evident, so I shall try to sketch out some of my reasons for believing in this genealogy. Descartes, the 'dualist', distinguishes categorically the mental inside and the neural and generally physical outside, that is, the inner and the outer world. He thus distinguishes thought and extension, res cogitans and res extensa. Spinoza, the 'monist', decides that these are aspects of the same <u>res</u> – because God is present in the nature of this res. So for him, things and ideas of things are the same; ideas of things are aspects of the things they are ideas of; ideas of things are in things. And the meaning of an idea is thus its thing itself, which is its truth. Since for both thinkers, meaning and the mind are res cogitans, whereas brains, bodies, and behaviors are res extensa — which however are either aspects of the same (Spinoza) or constitute different res (Descartes) — the metaphysical differences of these rationalist masters directly concern our cognitive research and debate on minds and brains, and the embodiment of meaning.

Historically, it may be argued that contemporary phenomenological philosophy is in fact rooted in Descartes' experiential rationalism, allowing and inviting both introspection and extrospection; and that the analytic, or logicist or logico-empiricist, movement in contemporary philosophy stems from the "geometric" style and the epistemological doctrine developed by his most important popularizer and critic, Spinoza. Descartes founded a philosophy where intentionality and mental events could be acknowledged as real in a key distinct from the reality of physical causality. There were, as René Thom would say, distinct "regions" in reality, an immaterial and a material region. Thought and extended matter, though ontologically or regionally distinct, were contingent and could thus causally affect each other.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Antonio Damasio foregrounds in his book titles Descartes and Spinoza in ways that do not contribute to clarification, see Kirkeboen 2001 on Damasio's Descartes. Heidi M. Ravven criticizes Antonio Damasio in "Spinoza and the education of desire", Neuro-Psychoanalysis, 2003, 5 (2), for not being sufficiently Spinozian in his new book Looking for Spinoza, 2003; he still separates mind and body. Damasio replies: "Ravven takes Spinoza's identity of body and mind quite literally. My view, however, is that Spinoza would have liked to know how that single natural substance managed to produce within itself what we call mind. The Spinozian "identity" of mind and body to which Ravven refers is no more a scientific fact than my saying that emotion plays out in the theater of the body and feeling in the theater of the mind. In both instances, these are modes of expression. They are meant to dramatize a certain historical moment in the understanding of a complicated problem given the knowledge of the

Descartes' experiential rationalism admitted <u>causal interaction between mind</u> <u>and body</u> and initiated the technical study of this interaction (<u>Le Traité des passions</u>, 1649, his last published work); strictly speaking his philosophy is therefore a <u>causal monism</u>. His Dutch critic felt that thought and extension must be aspects of one and the same substance, which in return had to be <u>dual</u>, namely immediately both material and spiritual, both divine and physical, idea and thing in one. Spinoza's famous 'monism' identified mind and body and so had to rule out such causal relations between mind and body, stating<sup>3</sup> instead that a mind <u>is</u> nothing but the idea (or essence) <u>of</u> a body, it is the idea that this body <u>has</u> of itself, in the same way that any other object must contain its own idea, or mind, as a natural and divine part of itself, as a being. Spinoza's thinking is, strictly speaking, an ontological <u>dualism</u>.

In the causal respect – and which other respect could matter more to ontology? – <u>Descartes is a monist, and Spinoza a dualist</u>.

In terms of epistemology, the latter further tried to prove geometrically that while minds think of the bodies whose minds they are, they can think of objects different from their own bodies in so far as they, being bodies, are affected by other bodies (things) that they encounter physically, through sensory perception. But such thoughts, he says, are originally nothing but vague, chaotic, and meaningless impressions: imaginations (imaginationes, versus rationes). In order to overcome this imaginary condition and become real and meaningful ideas, or thoughts, these impressions are further to be ordered formally, "geometrically", today we could say "analytically", in terms of a formal and propositional demonstration. Only in this way can they become real ideas (of these other things), ideas whose meaning consists in the truth they are part of in the world. Without such an ordering, they will just

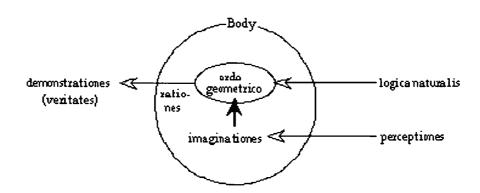
time. Three-and-a-half centuries later, I believe Spinoza would have wanted to know, chapter and verse, how that "idea of the body which constitutes the human mind" comes about in neurobiological terms." The centuries would have turned Spinoza into Descartes! Rather, Damasio is showing us that his view is Cartesian: the body <u>produces</u> the mind, as a fact of neurobiology; Spinoza couldn't care less.

<sup>&</sup>lt;sup>3</sup> As. M. D. Wilson says in Garrett 1996: "[Spinoza's] proposition [is] that the mind is "the idea of" the body (or the body "the object of" the mind)." (Pp. 100-101).

<sup>&</sup>lt;sup>4</sup> Again: bodies must have minds, in Spinoza's view, because bodies are part of nature, which is God; so God is in every body, or existing thing, giving it a mind. This mind is not due to any cause, and nervous systems, neurons, brains or whatever is causally involved, have nothing to do with there being a mind in a thing.

stay <u>imaginations</u> and vague images, idle noises from the sensory organs, and will have no cognitive value, no meaning, no truth. Fig. 1:

## Spinoza's view of the emminded body:



Imaginations are meaningless. Ideas are truths that the body produces out of sensory impressions, if it uses its logical capacity which it somehow inherits from Nature (God). Imaginations can be transformed into ideas, if they can be ordered logically.

Spinoza's epistemology was a 'meaning skepticism' but not a science skepticism: natural science was to him a sort of religious service (Deus sive Natura) and was also an example of empirical reasoning through observation and demonstration only. The feeling of discovering a truth is a mystical feeling of beatitude, divine grace, since the idea filling one's truthful thought is God's presence. False thoughts, which would be ideas of nothing, of no real existing things, by definition do not exist. Such apparent meanings are just mechanical imagery stemming from the body, unstable and dreamlike nonsense. In other words, there are no representations in the mind, no stable mental pictures of simple but real possibilities: possible truths are not truths, because what is, is necessarily. Spinoza's explicit necessitarianism does not admit arbitrary, hypothetical meaning, or uncertain reasoning. Thinking, if ordered logically, axiomatically, is literally identical to a bodily state of being divinely inhabited by the things thought of. Representation is nothing in itself.

<sup>&</sup>lt;sup>5</sup> This is of course the central and rather direct link from Spinoza to the scientistic Vienna Circle – inspired by the results of Max Planck and animated by Schlick, Neurath, etc.

Phenomenology is therefore impossible in Spinoza's perspective.<sup>6</sup> In Descartes' philosophy, by contrast, imagination is an evident and prominent part of human reality. The relation between thought and extension is as solid as the Saussurean sign relation between the <u>signified</u> (a thought of a mental image: a concept) and its <u>signifier</u> (a thought of an extended event: a sound shape). Cartesian 'semiology' therefore finds no difficulty in distinguishing the <u>signified</u> (conceptual) meaning ( – le sens) from the <u>referential</u> (veridical) meaning of signs ( – la signification); meaning is the signified aspect of the sign, <u>le signifié</u>, whereas truth is an independent matter of correspondence between signified and referential 'things' in the world.<sup>7</sup>

Spinoza's line of philosophizing is, in my view, the true historical origin of the immensely influential analytic movement in modern philosophy. This line of thinking is inherently at odds with elementary phenomenological motives, and also with the neuroscientific project, for the reasons I hope to have made at least conceivable and maybe even somewhat plausible.

Descartes' line of thought, monistic in the sense that thought and extended things are predicted to affect each other causally, could have stimulated research into the interaction of mind and brain; instead, Spinoza's 'monism', which is strictly speaking dualistic, since it mystically ascribes thought to every extended thing, has become predominant in modern thinking and research in the humanistic and social domains. Curiously but characteristically, there is no reference in Spinoza to the brain, only to the body: ideas need no brains, not even heads, since they emanate from the things and bodies themselves. All things have – as the German idealists would say – a <u>für sich</u> embedded in their <u>an sich</u>, so there is no need to look for special devices like neural processes in order to follow paths between <u>an sich</u> and <u>für sich</u>.

The Spinozian inspiration is clearly present in the physicalist Vienna Circle and in the early Wittgenstein, whose <u>Tractatus Logico-Philosophicus</u>

<sup>&</sup>lt;sup>6</sup> Spinoza makes it attractive both to believe in natural science and in God, but not to believe in the autonomy of a human mind and a life-world of meanings built up and reproduced by consciousness and communication.

In his Treatise on the Passions, Descartes writes: "Par exemple, lorsqu'un mari pleure sa femme morte, laquelle (ainsi qu'il arrive quelquefois) il serait fâché de voir ressuscité, il se peut faire que son cœur est serré par la tristesse que l'appareil des funerailles et l'absence d'une personne à la conversation de laquelle il était accoutumé excitent en lui, [...] nonobstant qu'il sente cependant une joie secrète dans le plus intérieur de son âme [...]"; this <u>tristesse</u> is the <u>signifié</u> of the ceremony etc., whereas the secret joy is a referential meaning.

(1921), named after Spinoza's <u>Tractatus Teologico-Politicus</u> (1670), contended<sup>8</sup>, and did so in its very composition 'ordine geometrico', that the (propositional) structure of language, if organized axiomatically, and as 'language' in the sense of formal logic, directly reveals the structure of reality, or the world. This is a view that gained considerable influence within the Circle and would continue to do so in the subsequent spreading and development of logical positivism. The line starting in Spinoza's mysticism and, I would say, his logical empiricism - leads through the hard-core empiricist bishop Berkeley and the idealists of the 19th century, including F. H. Bradley and J. Ward, through the all-important psychologist W. James, to Russell, Moore, Ayer, etc. The militant behaviorism of J. B. Watson and B. F. Skinner is another direct consequence of the rejection of the epistemic autonomy of meaning. Behaviorism is necessarily a meaning skepticism. We could by the way add C. S. Peirce to the list of Spinozian dualistically monist thinkers led toward basically the same religiously motivated cult of logic.9 Characteristics of this line are: the truth-conditional conception of semantics<sup>10</sup>; the rejection of representations and imagistic models of meaning; the principle of behavioral embodiment of meaning (note that the general theme of embodiment<sup>11</sup> in the cognitive sciences is a Spinozian leitmotif, rather than a phenomenological product); and in particular this strange and stubbornly absolute belief in formal logic as the 'language' or expression of reality, and therefore, implicitly the idiom of the Divinity itself<sup>12</sup>, an idea forcefully professed by G. Frege, whose Begriffsschrift (Concept-notation, 1879) was a direct modern translation of Spinoza's "geometrical order", and who thought that formal logic was a real language (though unspoken) but a language in which formal laws would be laws of empirical truth. Philosophy therefore

<sup>8</sup> Cf. J. Heil in Audi 1995.

<sup>&</sup>lt;sup>9</sup> In his doctoral dissertation, the Danish philosopher Karsten Hvidtfelt Nielsen explicitly develops his 'meaning skepticism' as a tribute to Spinoza and adopting his view of logic as the proper means to state it (Hvidtfelt Nielsen 2003).

<sup>&</sup>lt;sup>10</sup> In Peirce, it has never been clear if the Object in the sign relation is a signified or a referent; the truth is, I think, that it is a referent. The Representamen is its idea, and the Interpretant is another idea, namely an idea of the first idea in its relation to the Object; the Interpretant idea is something like a thought (ratio) in Spinoza's sense.

In conceptual metaphor theory, it is thus plainly believed that the human body contains an idea of itself, namely the <u>container</u>, which becomes an image schema that can serve as a source structure in ontological metaphors (Lakoff and Johnson 1980). P. 29: "Each of us is a container."

<sup>&</sup>lt;sup>12</sup> Behind Spinoza's logicism there is probably a khabbalistic mysticism; this mysticism is in harmony with modern forms of religious sensitivity, in which the divinity is identified with

could have direct access to profound knowledge of the world through logic alone, and would not need any academic disciplines (such as anthropology, sociology, psychology, linguistics, etc.) in order to produce valid statements on language, meaning, and concepts, and even on political, ethical or cultural issues. The Spinozian conviction is that when the human body orders its inputs, or perceptions, logically in terms of formal axiomatic systems of propositions, it is <u>per se</u> understanding the world, since the order of a formal logic supposedly <u>is</u> the world order. G. Frege influentially redefined 'analytic' to mean 'provable from logical laws and definitions', which was again believed to mean: true about the world.

To summarize once more: in Spinoza's epistemology, perception gives rise to two distinct forms of mental activity: imagination ('imaginatio') and thinking ('ratio'). The former consists of blurred superpositions of perceptions, forming images of no order or value, thus of no meaning (i.e. of no truth), despite the fact that people think they are indeed meaningful. By contrast, the latter mental activity, real thinking, consists of imageless ideas<sup>13</sup> by which we participate in the (mentally equipped) things of nature. Ideas are meaningful because they are or are part of their objects. Truth is of course not correspondence (between a statement and what it states) In this perspective it is essential identity. This explains the ontological importance of logic here; the natural order of ideas is formal logic, not people's vernacular tongues, their miserably confused colloquial and chaotic pseudo-languages. Logic becomes therefore the 'Language' of truth, and a source of truth in itself. No philological grammar is needed in order to understand 'language' in this sense. Occurring mental contents, life-related experiences, and generally the modes of phenomenological presence<sup>14</sup>, presence-to-the-mind, are radically dissociated from meaning, since 'meaningful' now exclusively means 'logical', which in turn means 'real', belonging to the natural world. This strong turn of naturalization (or perhaps rather: referentialization) of meaning, as mentioned, had to wipe out all representational philosophies, and

the physical world, and science is therefore a form of religious ceremony – science but not the humanities, built on signified meanings, hence on falsehood.

predominantly Spinozian.

14 Jacques Derrida's anti-presence philosophy was of course as well received in the Spinozan tradition as his meaning skepticism.

<sup>&</sup>lt;sup>13</sup> In cognitive semantics, imagery plays a major role but still only in so far as ideas can be interpreted as images stemming from perception. This is a crucial problem for current cognitive understandings of schematic structure in general. Cognitive semantics is still predominantly Spinozian.

correspondingly, to isolate itself from the (Husserlian, Cassirerian or otherwise) life-world-oriented phenomenological philosophies and claims to the semiotic autonomy of meaning in the human imaginary – as those held by the modern, and in a sense Cartesian, continental structuralists. Modern Jakobsonian or Lévi-Straussian structuralism would evidently admit the principle of possible causal connections between mind and body. Freudian and Lacanian views most certainly also do but in the framework of a peculiar methodological solipsism...

As mentioned, Spinoza's radically and drastically mono-dualistic view of the mind-body relation as a strict two-in-one identity has turned out to be not only acceptable but positively attractive to some, perhaps even most cognitive scholars. As also mentioned, this is due to one essential motive, namely that its principle of embodiment of thought seems to suit the need for explaining thought and representation away by an 'embodied mind' in the sense of the mind's being identical with the one and only physiological body of the biological organism having it. The mind is this body, according to the Spinozio-cognitive claim. Rather than an embodied mind we have an 'enminded body' here. Whereas the phenomenological notion of body - cf. Merleau-Ponty's use of the term 'flesh' (la chair) - sharply distinguishes the experiencing-experienced body (my experiencing body as experienced by me and my 'other'), that is, the phenomenological body, from the physicomedically given body, the Spinozian notion of body instead directly identifies experience and physiology (cf. in this respect G. Lakoff's new neural theory of language<sup>15</sup> and its use of the embodiment principle: here, image schemas are motor programs).

Contemporary cognitive understandings of mental embodiment are nevertheless often challenged by this extremely strong claim of 'enmindment' of the body and its radical referentialization of meaning. For instance, the conceptual entities we call metaphors are resistent to such claims, since the metaphor's source and target structures differ as to their semantic domain<sup>16</sup> and apparently have to contradict each other's ideational reference, truth, and meaning. They therefore ought to be meaningless, as analytic philosophy

<sup>&</sup>lt;sup>15</sup> In an interview with John Brockman (UCBerkeley homepage), G. Lakoff states: "Our brains take their input from the rest of our bodies. What our bodies are like and how they function in the world thus structures the very concepts we can use to think. We cannot think just anything - only what our embodied brains permit."

originally thought they were, and maybe basically still thinks they are. However, the meaningfulness of metaphors in natural language could perhaps be saved analytically, if it were shown that they have a logical format and that this is a propositional format which is always predicative (A IS B), always yields a logical inference, and thereby always helps the mind build a true idea out of the imagistic magma of imagination, that is, that it always helps the mind connect the concrete and bodily (B) to the abstract and ideational (A), establishing a truth which would still be "of the body", since the body is a body of logic. This is mainly but implicitly what Spinozian cognitive theories of conceptual metaphor have tried to do. The theory of conceptual integration (blending) is caught in the same trap, I think.<sup>17</sup>

Semiotic analysis<sup>18</sup> tends to show, however, that most metaphors are not just factories of ideas as such, but rather they express possibly arbitrary judgements, evaluations, emotions, and speech acts <u>about</u> the ideas or states of affairs they refer to. Metaphors can therefore not be reduced to their truth-conditional and inferential meaning or 'idea', but have to be seen as meaningfully structured imaginations that predicate something <u>about</u> their deictic content, instead of constituting it out of nothing. This 'aboutness' is a major problem in analytic cognitivism. It is nevertheless a basic fact of the human imaginary, which prefers to 'see' the same affairs in many ways (cf. Aristotle's <u>to einai pollakos legomenon</u> [being is multiply said]).

I think it is necessary to realize that truth-conditional semantics does not serve the analysis of this human imaginary.<sup>19</sup> It is not a fruitful belief that ideas are or just mean the real things they refer to and are truths of. Many ideas are of non-existing things, and still these ideas exist. Ideas exist as such, because they are made of representational reality – this expression does not have to be an oxymoron. In the mental life of humans there is a neutral medium that makes it possible to seamlessly combine remembered, expected, perceived, and communicated contents in one and the same representation and representational format. The human mind can even simulate all these content sources in a pure imaginary form as a narrative or theatrical fiction

18 Cf. Brandt 2004.

<sup>&</sup>lt;sup>16</sup> For an analysis of the problematic notion of semantic domain, see Brandt 2004, chap. 3. <sup>17</sup> Mapping is still a logical operation, and the meaning emerging in the blend is supposed to be a truth, not a representation.

that has all the features of ordinary belief-related (remembered, expected, perceived, or communicated) contents, yet has no ontological grounds other than that of being imagined in this format.

How does this seamless integration of heterogeneous elements happen? The only rational answer to this question is that the heterogeneous elements are all representationally structured and thus obey the same structural principles that are principles of the human representational, theatrical, imaginary mind. The simple point I want to make is that this mental format of imaginations, neither true nor false but just given as a result of evolution, can be explained by the existence of an autonomous structural capacity of the human mind, and that a philosophy is needed that could acknowledge it in order to let science explore it.

Such a philosophy must accept three conditions, I think. Firstly it has to accept that immediate <u>inner experience</u> is as real as the commonally observable and measurable outer world – even if we still do not know technically how inner experience comes about. Secondly it has to <u>naturalize experience</u> as far as possible, that is, to accept that the experiential and phenomenal reality is causally grounded in physical and physiological nature – in ways that science has yet to explore. Thirdly it must accept that the experiential systems and processes of meaning production are capable, in certain respects, of being <u>structurally stable</u> in human minds. The possible structural stability of meaning implies that these semiotic processes can be further stabilized culturally through communication using stable external signs, exteriorizations of linguistic and symbolic interactions, and other communicative behaviors, including <u>art</u>, that allow semantizations of the outer world in terms of inner schemas so that it can be experienced as a culturalized and shared human reality.

A philosophy of this form might be called a <u>structural phenomenology</u>. And as Ferdinand de Saussure said, referring to semiology: puisqu'elle n'existe pas encore, on ne peut dire ce qu'elle sera; mais elle a droit à l'existence, sa place est déterminée d'avance. (CLG III, §3).<sup>20</sup>

<sup>&</sup>lt;sup>19</sup> In Fauconnier and Turner, <u>The Way We Think</u>, 2002, truth-conditional semantics is explicitly rejected, but the argument - namely that the mappings between mental spaces are independent of meaning, is inconsistent and unconvincing.

## Bibliography:

- Audi, Robert (ed.) 1995, <u>The Cambridge Dictionary of Philosophy</u>, Cambridge: Cambridge University Press
- Brandt, Per Aage 2004, <u>Spaces, Domains, and Meaning. Essays in Cognitive</u>
  <u>Semiotics</u>, Berne: Peter Lang Verlag, European Semiotics Series No. 4
- Damasio, Antonio 1994, <u>Descartes' Error: Emotion, Reason and the Human Brain</u>, New York: Grosset/Putnam
- Damasio, Antonio 2003, <u>Looking for Spinoza: Joy, Sorrow, and the Feeling</u>
  <a href="mailto:Brain">Brain</a>, New York: Harcourrt</a>
- Fauconnier, Gilles & Mark Turner 2002, <u>The Way We Think. Conceptual</u>

  <u>Blending and the Mind's Hidden Complexities</u>, New York: Basic Books
- Garrett, Don (ed.) 1996, <u>The Cambridge Companion to Spinoza</u>, Cambridge: Cambridge University Press
- Hvidtfelt Nielsen, Karsten 2003, Interpreting Spinoza's Arguments Toward a Formal Theory of Consistent Language Scepticism, New York: The Edwin Mellen Press
- Kirkebøen, Geir 2001, "Descartes' Embodied Psychology: Descartes' or Damasio's Error?", Journal of the History of the Neurosciences, Vol. 10, No. 2
- Lakoff, George & Mark Johnson 1980, <u>Metaphors we live by</u>, Chicago: The University of Chicago Press
- Spinoza, Baruch 1999 (1988), <u>Ethique démontrée selon l'Ordre Géométrique/</u>
  <u>Ethica Ordine Geometrico demonstrata</u>, Paris: Editions du Seuil

<sup>&</sup>lt;sup>20</sup> ...since is does not yet exist, it is impossible to say how it will be; but it has the right to exist, its place is determined beforehand.