d'une même cause efficiente, c'est-à-dire Dieu. Il s'agit là d'un des aspects de la théorie desgabetsienne de l'«indéfectibilité des substances» (ou «des créatures»), que Sperlette propose de nouveau sans réserves ⁵⁰.

Il est bien possible que les œuvres de Cally aient eu une certaine diffusion non seulement parmi les penseurs de l'ordre bénédictin intéressés au cartésianisme, comme Desgabets, mais aussi dans le cadre de l'activité didactique de leurs écoles (où Sperlette aussi s'était formé): il suffit de penser au fait, déjà mentionné, que Mabillon encourageait l'adoption du cours de Cally dans son *Traité des études monastiques* 51. Bref, il est donc au même titre possible que les œuvres de Cally soient parvenues à Chauvin par l'intermédiaire du monde des érudits bénédictins.

Nous restons là dans le domaine des conjectures et dans l'impossibilité d'attester une connaissance directe, même épistolaire, entre les deux. Il apparaît néanmoins clairement que Cally pouvait bien se présenter comme un choix naturel pour Chauvin, au moment de recueillir le matériel pour son lexique: Cally était un auteur cartésien; il avait publié un cours clair et riche, qui donne la définition exacte de chaque terme introduit; il était toujours attentif à la confrontation entre la physique des *novatores* et la philosophie traditionnelle; finalement, on le considérait proche des protestants.

Le travail sur les sources du lexique d'Étienne Chauvin reste à approfondir. Son étude est d'autant plus intéressante qu'il représente une étape – tardive peut-être, mais c'est forcément le cas pour les lexiques – de l'effort des modernes de renouveler le savoir, ce qui impliquait non seulement l'introduction de nouvelles connaissances, mais aussi l'introduction et la codification de nouveaux termes, et surtout un grand travail de re-définition des termes hérités de la philosophie ancienne.

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Spinoza and Descartes on Judgment

I argue that Spinoza's theory of judgment is, despite important differences, more Cartesian than is sometimes supposed. In particular, Spinoza's theory of judgment agrees with Descartes' in that they both ascribe an important role to the will in judgment. This emphasis on the will unites Descartes and Spinoza against the traditional conception of judgment according to which judgment concerns the logical form of thought and involves no psychological act. Despite this important similarity, Spinoza adapts Descartes' theory of judgment in order to render it compatible with his naturalism and parallelism by identifying will with intellect. I conclude by considering a problem case for Spinoza's theory of ideas: sense perception.

«The will and the intellect are one and the same» ¹. This surprising claim, which Spinoza advances in IIP49S of his *Ethics*, asserts that where most philosophers had previously seen two distinct powers or faculties of the mind there is in fact only one. Traditionally, the intellect is the faculty by which we come to know things; its operations include judgment, belief, and cognition. The will, on the other hand, is the faculty of inclination, desire, passion, appetite, etc. Our ability to know things and our capacity for desire seem, on the face of it, quite distinct. What then leads Spinoza to identify these two powers with one another? In what follows, I shall argue that this identification is both inspired by and offers a critique of Descartes' new theory of judgment. Prior to Descartes, the predominant theory of judgment was Aristotle's according to which judgment was a matter of the logical form of thought. More

J. Sperlette, Metaphysica nova sive prima philosophia, qu. I, sect. 4 (De Essentia, & Existentia. Quid sint, & Quomodo distinguantur?), in Opera philosophica, Berlin, J. M. Rüdiger, 1703, pp. 173-174. Pour la question de l'indéfectibilité des substances chez Sperlette, cf. encore G. Rodis-Lewis, Quelques échos de la thèse de Desgabets, cit.

Un rapport épistolaire entre Mabillon et Cally est attesté par deux lettres de ce dernier au bénédictin conservées par la Bibliothèque Nationale de France (MS fr 19651, ff. 1 et 3). La première date du 4 mai 1669; la deuxième est de presque trente ans plus récente: 4 mai 1698. Cally y commente l'Epistola de cultu sanctorum ignotorum (1698) de Mabillon, qu'il dit avoir reçue grâce au «communis amicus M. Varignon». Pierre Varignon (1654-1722), mathématicien et philosophe, membre de l'Académie des sciences de Paris et associé de celle de Berlin, défendit lui aussi l'explication cartésienne du dogme de la Transsubstantiation dans une brève Demonstration de la possibilité de la Présence réelle du Corps de Jesus-Christ dans l'Eucharistie, conformément au sentiment des Catholiques, qu'on peut lire dans Pièces fugitives sur l'Eucharistie, Genève, M.-M. Bousquet, 1730.

[«]Voluntas, & intellectus unum, & idem sunt». All citations from Spinoza are from Spinoza Opera, ed. C. Gebhardt, 4 vols., Heidelberg, Carl Winter, 1925, (G hereafter). English translations are from Edwin Curley ed. and trans., The Complete Works of Spinoza, vol. 1, Princeton, Princeton University Press, 1985, with occasional modifications. Translations from the Tractus Theologic-Politicus and the Tractatus Politicus are my own. In citations from the Ethics, I use the following abbreviations: roman numerals refer to parts; 'P' means proposition; 'C' means corollary; 'S' means scholium; e.g. 'EIVP37S' means Ethics, part IV, proposition 37, scholium.

specifically, those thoughts which involve the attribution of a predicate to a subject were classified as judgments. Descartes breaks with this tradition by making judgment not a matter of the logical form of the content of thought, but an act of will directed toward an idea, viz. an affirmation or negation. Spinoza follows Descartes in making the will central to his account of cognition, but modifies Descartes' theory in ways which make it compatible both with his overarching commitment to naturalism and with central tenets of his metaphysics and philosophy and mind. The end result is a theory which is neither Cartesian nor Aristotelian; instead it forms a new conception of cognition which renders possible a mechanistic psychology parallel, under the attribute of thought, to mechanistic physics.

Thomas on Intellect, Will, and Judgment

Let us look more closely at the Aristotelian conception of judgment as articulated by one of the more influential representatives of that tradition, Thomas Aquinas. Thomas defines the intellect as the power of the soul through which we come to have cognitive access to the world, or the means by which the world is presented to our understanding². The aspect of the world available to our intellect, according to him, is substantial and accidental form³. The first operation of the intellect is that by which the accidental and substantial forms of things are presented to the intellect. When this happens, the soul literally acquires the form of the objects of cognition without the matter.

The second operation of the intellect is called judgment. As a result of the first operation of the intellect, the mind has access to various substantial and accidental forms. At this point the objects of cognition are neither true nor false; we might say that the products of the first operation of the intellect are more like terms than propositions. The intellect gains truth-evaluable objects through conjoining or separating, an operation that Thomas calls judgment 4. This operation of the intellect joins or separates the forms into subjects and predicates. For example, if I have, as a result of the first operation of the intellect, the intelligible species 'x' and 'F', then I might also have, as a result of the second operation or judgment, the idea 'x is F'.

Judgment can also happen in a second-order or reflective manner; that is, we can make judgments about our judgments. Judgments of this type generally relate to the truth value of first-order judgments. For example, «'x is F' is true» is a reflexive judgment of this sort⁵. One arrives at such judgments in one of two ways. First, if a first-order judgment involves predicating an essential property to a subject, then the judgment is known through itself (per se nota) to be true. For example, that «human beings are rational animals» is known through itself to be true because national animal is the real definition of human being, i.e. it constitutes the real nature of human beings⁶. Second, a first orderjudgment can be justified if it can follow deductively from premises that either are themselves conclusions arrived at deductively or are real definitions per se nota7.

Notice that nowhere in his account of intellect or judgment does Thomas make mention of the will. For the most part the will pertains exclusively to the appetitive faculty of the soul and does not bear upon operations of the intellect such as abstraction or judgement8. There is, however, an important exception. Where the truth of a judgment is neither per se nota nor demonstrable from per se nota premises, but where belief in the judgment is a necessary means to an end, the will can determine the intellect to belief. This circumstance obtains in the case of religious faith. The truth of revealed scripture is not per se nota nor derivable from per se nota premises (because we can not see God in this life or infer knowledge of his nature from anything else directly knowable by us) but belief is a necessary means to the end of salvation. Therefore we can affirm the truth of revealed scripture through an act of will.

Descartes on Intellect, Will, and Judgment

Descartes emphatically rejects the traditional Aristotelian account of judgement. For him, a judgement is more than applying a predicate to a subject. It involves an act of will - an affirmation or negation - in cooperation with the intellect; as we have seen, for the traditional account, on the contrary, judgment is an exclusively intellectual affair. According to Descartes, the intellect is the faculty of perception; by this he means not only sense perception, but also perception of universals, bodily self-awareness, imagination, and memory - all the modes whereby we apprehend ideas. To this extent, Descartes' notion of intellect is similar to that of Thomas. But Descartes differs from Thomas in that he does not consider any of these perceptions to be judgments. Instead, these ideas must be affirmed by an act of will in order to become judgments.

Why does Descartes think that the will, which is traditionally held to concern practical rather than theoretical matters, pervades our intellectual life as an essential

Summa Theologiae (ST hereafter), I.84.1 (in Opera omnia, vol. IV, Romae, ex Typographia Poliglotta S. C. De Propaganda Fide, 1888, pp. 313-314).

ST I.75.5, 84.1, 85.2 (ed. cit., pp. 201-202, 313-314, 333-335).

ST I.16.2 (ed. cit., p. 208)

Quaestiones disputatae de veritate (QDV hereafter), 1.9 (in Opera omnia, vol. XXII, Roma, Editori di San Tommaso, 1975, pp. 29-30), ST I.16.2 (ed. cit., p. 208).

Sententia super Posteriora analytica (PA hereafter), I.19.5, I.10, I.33, II.2.11 (in Opera omnia, vol. I, Romae, ex Typographia Polyglotta S. C. De Propaganda Fide, 1882, pp. 263, 208-211, 318-324, 330).

PA 1.4.9 (ed. cit., pp. 179-181). The preceding is heavily indebted to S. MacDonald, Theory of Knowledge, in N. KRETZMAN (ed.), Cambridge Companion to Aquinas, New York, Cambridge University Press, 1993, for an illuminating treatment of Thomas' epistemology.

However, Thomas maintains that the will does move the intellect, for example, when someone undertakes to learn something new. But the intellectual operations by which this learning takes place, abstraction and judgement, do not involve the will.

component of judgment? The answer stems from the need to make the evident fact of human error consistent with the metaphysical picture sketched in the first three Meditations. Descartes views the world, ourselves included, as the creation of an omnipotent and benevolent God. How then do we ever make mistakes? The problem, for Descartes, is particularly acute because, unlike Thomas, Descartes sees our sensory access to the world as rife with potential error. Our senses present the world to us as though it possessed all kinds of qualitative features – for example, as if it were red, and hot, and painful, as in the case of fire – which it in fact does not. The physical world truly has only the qualities of size, shape, and motion. Every other quality perceived by us involves a misrepresentation of the physical world, and a temptation to error. What could account for this kind of widespread misrepresentation if we are, in fact, creatures of God?

According to Descartes, God gives us the resources to lead error free lives. He gives us criteria for recognizing true ideas and the power to affirm only those ideas. Clarity and distinctness are the infallible criteria of truth, and we affirm or deny ideas by means of our own free will. These two things in conjunction suffice to make it possible for us to never err, and relieve God of any responsibility when we do. Because our wills are infinite and our intellects finite, we are prone to err by affirming things not clearly and distinctly grasped by the intellect, but this is a misuse of faculties which, when correctly employed, never mislead.

Although the prime motivation behind Descartes' theory of judgment is to show that God is not responsible for our errors, his account has a number of virtues that will appeal to philosophers who might not share Descartes' theological preoccupations. În order to render his theory of judgement more plausible, Descartes points out that just perceiving an idea does not commit us to judging it true or false. That is, merely ascribing a predicate to a subject does not amount to a judgement, or an assertion of its truth. This is evident when we suppose something for the sake of argument, consider a hypothesis, or doubt something without asserting its falsity.

In addition to finding this an intuitively plausible description of judgment, we might also discern here an anticipation of a trenchant critique of the traditional theory of judgement, first made by Frege. The sentence

'Saturn is larger than Mars.'

ascribes a predicate to a subject, so it must be, according to the traditional view, a judgement. But when this sentence appears again as the antecedent of a conditional, e.g.:

'If Saturn is larger than Mars, then Saturn is larger than Mercury.'

it no longer expresses a judgment, although its logical form is unaltered. It will not do to argue that when functioning as the antecedent of a conditional, the logical form of the sentence, despite the superficial appearance to the contrary, has changed, and no longer involves predication. If the first sentence is a predication and

the second is not, then we would not be entitled to infer q from if p then q and p. Because p is a predication when it stands alone and not when it is the antecedent of a conditional, such an inference would involve an equivocation 9.

One way out of this dilemma is to hold that something more than logical form is required for judgment. On Descartes' theory, that something more is the will. Judgments require and act of will in order for us to affirm the idea or proposition in question. But why does Descartes settle upon the will? Might not there be some independent faculty of affirming and denying that is unrelated to the will? First and foremost, his aim is epistemological theodicy, and freedom of the will is a tried and true way of denying God's responsibility for evil. Our cognitive sins are our own, since our judgments rely upon our free will.

But the will has additional features which make it an attractive candidate for making predications into judgments. As David Rosenthal has pointed out, there are a number of similarities between conatative and cognitive attitudes which suggest that the same faculty is at work in both 10. First of all, conatative mental acts, e.g. desires, differ in intensity or strength. I may, for example, passionately desire something with all my heart, or I may regard it with only mild affection. Furthermore, this difference in intensity is important to the explanation of action. The more strongly I desire something, the greater burdens I will be prepared to endure, the greater the effort I will be willing to make. What is more, intensity differentially responds to features of the thing desired. The more I think something good, or attractive, the more strongly I desire it.

Cognitive attitudes exhibit the same features. We believe, judge, assent, etc., with differing intensities. I am, for example, much more strongly convinced that 2+2=4 than that paying down the national debt will result in economic growth. This difference in intensity is expressed in the ways in which such judgements contribute to action. I am much more likely to perform actions, the success of which depends upon more certain propositions, than I am to perform those which rely upon more dubious ones. A strong desire in conjunction with a weak belief is no more likely to result in action than a weak desire coupled with a strong belief. Moreover, the strength or weakness of judgments responds to certain features of the what is judged. Just as desires are stronger when their objects are more attractive, judgments are made with more conviction when their objects are more plausible. On Descartes' view, clarity and distinctness are the criteria of plausibility. The greater the clarity and distinctness, the greater my inclination to believe. Ideas which are maximally clear and distinct, according to Descartes, must be believed. This in no way compromises the supposed freedom of the will, since, according to him, freedom of indifference is only the lowest grade of freedom of the will 11. When my will

For an excellent discussion of this problem, see R. Brandom, Asserting, «Nous», XVII, 1983, pp.

D. M. ROSENTHAL, Will and the Theory of Judgment, in A. OKSENBERG RORTY (ed.), Essays on Descartes' «Meditations», Berkeley, University of California Press, 1986, pp. 405-434.

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believing something; likewise you cannot desire without likewise desiring something. Such attitudes require objects.

Such attitudes require objects.

The second claim, on the contrary, is both novel and tendentious. It says that an idea as such involves an attitude, viz. affirmation, and there is no additional mode of thought, e.g., an act of will, that accounts for it. Simply having an idea entails, all by itself, that you also affirm it. Note that both Thomas and Descartes would reject this claim. Descartes would reject it because he conceives of ideas as modes of a passive faculty, the intellect. It would make little sense to say that a mode of a passive faculty as such involves some activity (affirmation or negation). Thomas would reject it because he thinks that the will is largely irrelevant to the operations of the intellect except in the special case of religious faith. Under ordinary circumstances, an attitude like affirmation is unnecessary for thought. The logical form of the representational content of an idea indicates whether or not a particular idea constitutes a judgment

(i.e., contents of the form x is F are judgments).

In the ensuing demonstration of this proposition, Spinoza considers the case of the volition by which someone affirms that the sum of the angles of a triangle are equal to two right angles. He attempts to show that the volitions cannot be a separate mode of thought distinct from the idea which it affirms. Rather, the idea itself must involve an affirmation as an intrinsic feature. He writes:

This affirmation involves the concept, or idea, of the triangle, i.e., it cannot be conceived without the idea of the triangle. For to say that A must involve the concept of B is the same as to say that A cannot be conceived without B. Further, this affirmation (by A3) also cannot be without the idea of the triangle. Therefore, this affirmation can neither be nor be conceived without the idea of the triangle.

Next, this idea of the triangle must involve this same affirmation, viz., that its three angles equal two right angles. So conversely, this idea of the triangle also can neither be nor be conceived without this affirmation.

So (by D2) this affirmation pertains to the essence of the idea of the triangle, and is nothing beyond it. And what we have said concerning this volition (since we have selected it at random), must be said concerning any volition, viz. that it is nothing apart from the idea, q.e.d. ¹⁶.

is ineluctably drawn to affirm or pursue some object because its truth or goodness are clearly manifested, then the will acts for its own reasons (i.e., according to its own nature) and so enjoys the freedom of spontaneity ¹². In fact, this spontaneity is greater, and thus the freedom of the will is greater, the less indifference the will feels toward the ideas it affirms or denies ¹³. When an idea is manifestly neither true, not false, then the freedom of indifference comes into play. A well governed will suspends judgments on such occasions, but hubris, laziness, self-deception, or other vicious cognitive habits can bring one to affirm or deny in the absence of compelling reasons for doing so. In this way, we are prone to error despite being the creatures of an omnipotent and benevolent God.

3 Spinoza's Identification of Will and Intellect

Spinoza's identification of the will and intellect sharply distinguishes him from both the Aristotelian and the Cartesian. Unlike Thomas who sees only a severely limited role for the will in intellectual operations such as judgment, and unlike Descartes who sees the will and intellect as both involved in judgment, but as two distinct components, Spinoza thinks that will is identical to intellect. Nonetheless, Spinoza's theory of judgment has clearly Cartesian roots in that it gives a prominent role to the will. As I shall argue, Spinoza retains this Cartesian innovation while at the same time purging it of elements incompatible both with his commitment to naturalism and with some of the most basic tenets of his metaphysics and philosophy of mind.

Let us first look more closely at Spinoza's explicitly stated reasons for identifying the will and the intellect. This identification first appears as a corollary to proposition II49 which says:

In the mind there is no volition, or [sive] affirmation and negation, except that which the idea involves insofar as it is an idea 14.

As will become clear when we look at its demonstration, Spinoza intends to make two related claims in this corollary: (1) there is no species of volition (affirmation, negation, etc.) without a concomitant idea which serves as the object of such attitude. (2) all ideas as such involve some affirmation.

The first claim says nothing very controversial and amounts to little more than orthodox Cartesian doctrine ¹⁵. Basically, it means that you cannot believe without

I2 AT VII 59.

¹³ *Ibid*.

^{4 «}In Mente nulla datur volitio, sive affirmatio, & negatio praeter illam, quam idea, quatenus idea est, involvit».

¹⁵ See E. Curley, Spinoza and Descartes on the Ethics of Belief, in E. Freedman – M. Mandelbaum (eds.), Spinoza: Essays in Interpretation, LaSalle, Open Court, 1975, p.169, and M. Della Rocca, The Power of an Idea: Spinoza's Critique of Pure Will, unpublished, p. 2.

[«]Haec affirmatio conceptum, sive, ideam trianguli involvit, hoc est, sine idea trianguli non ptest concipi. Idem enim est, si dicam, quod A conceptum B debeat involvere, ac quod A sine B non possit concipi. Deinde haec affirmatio (per Axiom. 3. hujus) non potest etiam sine idea trianguli esse. Haec ergo affirmatio sine idea trianguli nec esse, nec concipi ptest. Porro haec trianguli idea, hanc eandem affirmationem involvere debet, nempe, quod tres ejus anguli aequentur duobus rectis. Quare & vice versa haec trianguli idea, sine hac affirmatione nec esse, nec concipi potest, adeoque (per Defin. 2. hujus) haec affirmatio ad essentiam ideae trianguli pertinet, nec aliud praeter ipsam est. Et quod de hac volitione diximus (quandoquidem eam ad libitum sumpsimus), dicendum etiam est de quacunque volitione, nempe, qoud praeter ideam nihil sit. Q.E.D.»

The first part of the demonstration attempts to prove that affirmation «involves» the idea affirmed. Spinoza begins by saying that A «involves» B, if and only if A cannot be conceived without B. So in order to show that affirmations involve ideas, he must show that affirmations cannot be conceived without ideas. Next, he cites EIA3, which says that an affirmation cannot exist without the idea of the object of the affirmation. The gap lies between saying that the affirmation cannot exist without the idea, and saying that the affirmation cannot be conceived without the idea. In order to support his claim that the affirmation involves the idea, Spinoza needs to show that because affirmation cannot exist without the idea, it cannot be conceived without the idea. Spinoza says nothing in the demonstration to help us establish that connection. Nevertheless, denying it would entail that there could be existential connections that do not imply conceptual connections, and although it is difficult to point to a specific text or argument which prohibits such a move (perhaps the closest is IA4), such a move would undoubtedly be singularly un-Spinozistic.

However, the situation worsens when we consider what Spinoza says in support of the claim that an idea as such involves affirmation. Since this is the controversial part of the conclusion of IIP49, we would hope for an argument stronger than the one adduced in favor of the first claim. Unfortunately what we get instead is a bald assertion of what needs to be proved: «Next, the idea of the triangle must involve this same affirmation». Granted, it does seem difficult to imagine denying that the sum of the angles of a triangle equal two right angles. It is, after all, a necessary truth. But it seems unwarranted to draw general conclusions about the nature of ideas from the special case of ideas representing necessary truths. Far from being selected «at random», the case of the triangle seems specifically contrived to make Spinoza's point.

Little wonder then that the general consensus among recent commentators holds that in the demonstration of IĬP49 Spinoza says nothing convincing in support of the second claim 17. Despite this lack of support from the demonstration of IIP49, I will argue, building on the work of Michael Della Rocca, that Spinoza has good reasons to assert it - reasons which go right to the heart of his cognitive psychology 18.

Before preceding further, let us note that the identification of will and intellect asserted in IIP49Č presents us with a serious interpretive difficulty. At this point in the Ethics, Spinoza has not yet given any precise characterization of the will. What little we have learned about the will in the pages leading up to IIP49C can be summarized as follows: (1) God's intellect, will, and power are one and the same thing 19. (2) the will belongs to Natura Naturata as opposed to Natura Naturans (i.e., it is a mode, not an attribute, of substance) 20, (3) the activity of the will is conditioned by external causes (i.e., it is not absolutely free) 21, (4) God produces no effect through freedom of the will 22, (5) belief in free will results from ignorance of the causes of action 23, and (6) willing is a form of mental action 24.

These amount to little more than a loose collection of remarks concerning either some characteristic of the divine will (which does not directly concern us here) or the fact the will is not free. Reflections such as these do not amount to any definite notion of will and do little to help us understand the identification asserted in IIP49C. In fact, not until Part III does Spinoza explicitly define the will: «When this striving [to persevere in being] is related only to the mind it is called will» 25. That is, the will manifests the conatus under the attribute of thought. The dialectical structure of the Ethics prevents Spinoza from mentioning the conatus prior to IIIP6 (since he cannot help himself to a proposition that he has yet to demonstrate), but clearly a full understanding of many of the topics he discusses prior to that proposition (e.g. the will) depend upon it. For this reason, I propose that we can better understand the claim that the will and intellect are one and the same thing if we take what we learn about the will in the latter parts of the Ethics and retrospectively read that back into the discussion of cognition in Part II. In this way, we shall be able to clarify certain features of Spinoza's cognitive psychology only hinted at by IIP49C.

3.1 IDEAS, WILL, AND ACTION

Although, as noted above, Spinoza does not define the will until part III, already in IIP48, he indicates something about the nature of the will important for understanding his identification of intellect and will. He writes:

The mind is a certain and determinate mode of thinking (by P11), and so (by IP17C2) cannot be a free cause of its own actions, or [sive] it cannot have an absolute faculty of willing and not willing 26.

Here Spinoza tells us that since the mind is a certain and determinate mode of thought, it cannot be a free cause of its actions, i.e. it cannot have an absolute faculty of will. It is not absolutely clear how to construe this, but one natural way is to

J. BENNETT, A Study of Spinoza's «Ethics», Indianapolis, Hackett, 1884, p. 162; E. CURLEY, Spinoza and Descartes on the Ethics of Belief, cit., p.168.

M. Della Rocca, The Power of an Idea, cit. (unpublished). My argument in the next section is largely based on the interpretation that Della Rocca sets out in this paper.

EIP17S.

²⁰ EIP31.

EIP32. 21

EIP32C1.

EIIP35. 23

EIIP48D. 24

EIIIP9S. 25

[«]Mens certus, & determinatus modus cogitandi est (per Prop. 11. hujus), adeoque (per Coroll. 2. Prop. 17. p. I) suarum actionum non potest esse causa libera, sive absolutam facultatem volendi & nolendi habere non potest».

read «be a free cause» as roughly equivalent to «have an absolute faculty» and to read «of its own action» as roughly equivalent to «of willing and not willing». Since Spinoza's argument still goes through so long as whatever is true of mental action is true of willing (but does not require the converse) we might take Spinoza to be saying that that willing is a form of mental action. The will cannot be free (or, alternatively, cannot be the result of an absolute, i.e. unconditioned, faculty) because mental action is not free. This implies that whatever is true of mental action is also true of willing. The most plausible interpretation of this claim is that willing must be a species of mental action, or all willing is mental action.

According to IID3, all ideas are also mental actions:

By idea I understand a concept of the mind which the mind forms because it is a thinking thing.

Exp.: I say concept rather than perception, because the word perception seems to indicate that the mind is acted on by the object. But concept seems to express an action of the mind 27.

Spinoza calls ideas concepts as opposed to perceptions (as Descartes would have it) because the term «perception» tends to imply something passive and Spinoza regards ideas as active or as actions of the mind. We can conclude from this that all ideas are mental actions (we shall consider what this means for ideas of sense perception in the next section). We have already seen that all willing is mental action; so both willing and ideas are mental actions. But this does not by itself support Spinoza's claim in the demonstration of IIP49 that all ideas involve affirmation (i.e. willing) simply in virtue of being ideas. All x are F and all y are F does not imply that x involves (cannot be conceived without) y. However, I think Spinoza has additional reasons for supposing that all ideas are affirmations. Before going into those reasons, it will be helpful to first note certain features of Spinoza's notion of action.

What does it mean for an idea to be a mental action? Spinoza frequently uses the word 'action' and its derivatives in a strong and weak sense. For Spinoza, a thing acts in a strong sense insofar as it is the adequate cause of something in or outside of it, and acts in a weak sense whenever it is partially responsible for some effect 28. Spinoza also recognizes two sorts of ideas, adequate and inadequate; the mind is the adequate cause of adequate ideas and is the partial cause of inadequate ideas. That is, whatever ideas follow from the nature of the mind alone are adequate and those that follow from the nature of the mind in conjunction with some external cause or causes are inadequate 29. Since Spinoza holds that all ideas are actions of the mind, even

inadequate ones, we can surmise that he here intends 'action' in its weak sense, i.e. effects that are at least partially caused by the mind. That is, all ideas are at least partially caused by the mind.

IIID2 defines the conditions under which we act in the strong sense; we act in this way when we are the adequate cause of an effect. In the weaker sense that Spinoza often employs, we act when we are the cause, either the adequate or partial, of an effect. Let these conditions define an agent. Thus, agents come in two varieties, strong and weak. Unless otherwise specified, every reference to an agent will be neutral with respect to strong or weak action. As the agent is a cause, it produces an effect. Let us call this effect the action. Each and every mode is thus an agent, because from every mode some effect follows, i.e. is a cause 30. Likewise, each and every mode is also an action, because every mode follows causally from some antecedent mode 31. In this way, an idea is an action of the mind insofar as antecedent ideas conforming to the mind's nature cause it, at least partially, to exist. Similarly, each idea is also an agent insofar as it will determine new modes of thought to exist.

Thus the activity of the mind is understood in causal terms. Now Spinoza understands causation (as it pertains to modes) as following from the conatus. He writes:

From the given essence of each thing, some things necessarily follow (by IP36), and things are able to produce nothing but what follows necessarily from their determinate nature (by IP29). So the power of each thing, or the striving by which it (either alone or with others) does anything, or strives to do anything that is (by P6), the power or striving [conatus] by which it strives to persevere in its being, is nothing but the given, or actual, essence of the thing itself 32.

The argument here rests on two premises: (1) that a thing produces those things which follow from its essence; and (2) the power whereby a thing does something is its conatus. Therefore, Spinoza concludes, the conatus is the essence which determines the causal properties of a thing. Every mode produces those effects which help it persevere in existence.

Now we can say why Spinoza thinks that intellect and will are one and the same thing. Since every mode produces those effects which help it persevere in existence and every idea is a mode, every idea has causal properties determined by its conatus.

[«]Per ideam intelligo Mentis Conceptum, quem Mens format, propterea quod res est cogitans. Explicatio: Dico potius conceptum, quam perceptionem, quia perceptionis nomen indicare videtur, Mentem ab objecto pati. At conceptus actionem Mentis exprimere videtur».

IIID2. The weak sense of action is employed in, for instance, III Definitions of the Affects (Desire), IIP13S, and IVP59.

For a more ample treatment of the notions of adequacy and inadequacy, see § 4 below.

EIP36. 30

EIP28. 3I «Ex data cujuscunque rei essentia quaedam neccessario sequuntur (per Prop. 36. P. I), nec res aliud possunt, quam id, quod ex determinata earum natura necessario sequitur (per Prop. 29. P. I); quare cujuscunque rei potentia, sive conatus, quo ipsa vel sola, vel cum aliis quidquam agit, vel agere conatur, hoc est (per Prop. 6. hujus) potentia, sive conatus, quo in suo esse perseverare conatur, nihil est praeter ipsius rei datam, sive actualem essentiam. Q.E.D.»: EIIIP7.

The conatus, as it pertains to thought, is called will 33. Thus every idea as such involves an act of will 34.

Although this helps us make sense of Spinoza's identification of will and intellect, it also raises a question as to whether mental action can be plausibly described as striving to persevere in being. Some recent commentators have suggested that in making the claim that all mental action (and thus all ideas) can be understood in terms of conatus, Spinoza appears to advance a sophisticated and compelling theory of belief 35. According to this interpretation, Spinoza is an early proponent of a conception of belief popular among contemporary philosophers, viz., that a belief is a behavioral disposition. In the words of Frank Ramsey, «a belief is a causal property [...] which we can vaguely express as the extent to which we are prepared to act» 36. A belief is thus a functional entity, the differentia of which lie in its causal efficacy and antecedents. This twentieth century view obviously accords with Spinoza's insistence that ideas are mental actions which invariably lead to further actions. In claiming that mental action aims at the preservation of existence Spinoza simply adds the reasonable qualification that beliefs are behavioral dispositions to act according to our own advantage. There is, of course, an obvious difference between Spinoza and neopragmatists like Ramsey. The neo-pragmatists make belief a behavioral disposition to avoid quantifying over mental entities, whereas Spinoza does not hesitate to both affirm the existence of many mental entities (his ontology of metal entities is probably as rich as any other philosopher's in history), and also presume to give a detailed account of what goes on in the mind 37. Nevertheless, the notion that belief is a causal property provides significant overlap, whatever differences in ontology might obtain.

We can better understand how this account of belief works in Spinoza by way of an example 38. Suppose that I am thirsty and I have an idea that represents a glass of water before me, i.e., I see a glass of water. This idea as such, ceteris paribus, produces the effect that I bring the glass to my lips. The idea is an affirmation or belief because it, by its very nature, produces this effect. But if I also believe that, contrary to appearances, the glass contains not water but turpentine, that idea will prevent me from bringing the glass to my lips. If the idea that the glass contains turpentine is more powerful then the idea that it contains water, then my urge to bring it to my lips will be suppressed. The idea still strives to produce its effect but it is thwarted by its more powerful rival.

This conception of ideas as beliefs retains a valuable feature of the Cartesian theory of judgment. As discussed earlier, Descartes theory of judgment solves a serious dilemma regarding the validity of modus ponens which vexes the traditional notion of judgment. The Cartesian theory eludes the problem by locating judgment outside of the content of thought, in an attitude or act of the will. Likewise, Spinoza makes judgment a matter of the will, or striving for self-preservation as it pertains to the mind. Since modes identical in representational content can differ in the way their conatus is expressed as a result of the mental context in which they occur (e.g. the idea that the glass contains turpentine affects the striving of the idea that the glass contains water), there is no difficulty in understanding how the proposition (or idea) that p express a judgment when it stands alone as the premise of an argument but does not when it occurs as the antecedent of a conditional. Since the mental context is different, the is no difficulty in understanding how the assertoric force differs.

The most obvious complaint that a Cartesian critic of Spinoza's theory might lodge concerns doubt and negation. How can Spinoza explain how it is that we frequently entertain ideas without committing ourselves to their truth or falsity, as when we consider a hypothesis, suppose things for the sake of argument, or doubt the truth of an idea without asserting its falsity? How can he explain how it is that we have ideas which we negate, as when we judge it false that Al Gore is President of the United States. Our example can help us imagine how Spinoza would answer these questions. Doubt, or suspension of judgment occurs when we have two opposite ideas of equal strength. If the idea that there is a glass of water is equal in strength to the idea that it contains turpentine, then we perform neither action (although both ideas continue to strive for expression). When we negate something, we do not actually perform an act of negation. Instead we posses an opposed idea of greater strength, as in the case where the idea that the glass contains turpentine and not water is stronger than the idea that it contains water.

This suggestion shows the plausibility of Spinoza's claim that every idea involves an affirmation or act of will insofar as ideas motivate action, i.e. publicly observable behavior, but we should bear in mind that it is meant to apply equally to mental behavior. Not only do ideas causally produce effects outside of the mind (as analogy with the neo-pragmatist account of belief would suggest), but they also produce effects within the mind itself 39. That is, they produce other ideas belonging to the mind. In this way, ideas are active not only in the sense that they motivate behavior, but also in that they generate further cognitive operations.

Thus when one, for example, works through a logical proof, the transition from one idea to the next, from axioms and lemmas to theorems, is determined by the conatus. How plausible is it to say that the transitions between ideas which occur during the course of a logical proof are governed by a striving to persevere in being? Claiming that a valid logical inference is a matter of life and death sounds melodramatic to say the least.

EIIIP9S.

This explanation of the identity of will and intellect is closely based on M. Della Rocca's account which he develops in The Power of an Idea, cit.

See W. I. MATESON, Spinoza on Belief, in Y. Yovel (ed.), Spinoza on Knowledge and the Human Mind, Leiden, E. J. Brill, 1994, and M. DELLA ROCCA, in The Power of an Idea, cit.

F. P. RAMSEY, Philosophical Papers, D. H. Mellor ed., Cambridge, Cambridge University Press, 1990, p. 61.

This was pointed out to me by Dan Garber.

My example closely follows the one developed by M. Della Rocca in his The Power of an Idea,

EIID2. 39

But, the being of an individual, considered under the attribute of extension, is the ratio of motion and rest obtaining between its parts. That is, preserving the being of the body is a matter of preserving a pattern of dynamic interaction between its parts. According to the parallelism, preserving the being of the mind is a matter of preserving a pattern of dynamic interaction between the ideas which constitute it. Reason is, for Spinoza, a kind of pattern (ratio) of interaction between ideas. The way ideas are connected to each other and generate each other is both the being of the mind and its rationality. So preserving the coherent pattern obtaining between its ideas is the object of the mind's conatus. The chain of ideas developed in the mind in the absence of inputs from external causes is what Spinoza calls rational thought, strictly speaking. Thoughts about logic and geometry, for example, are generated purely by the mind's internal resources and so long as they are not perturbed by external causes, the conatus ensures that they follow a purely rational course, i.e., a course determined by nothing other than the coherent organization or ratio of the mind. The conatus, then, strives to order the ideas and transitions between ideas, according to the coherent organization which defines the mind's being.

But even when the operations of the mind are disturbed by stimulus from the environment, the mind can retain its characteristic pattern or ratio by performing certain actions, as we shall see in the next section.

Sense Perception

Spinoza's identification of will and intellect might seem to founder on an important class of ideas, namely sense perceptions. Sense perceptions are not the result of the activity of our mind. They do not reflect our will or desires. In a very real sense, we are passive with respect to our sense perceptions. They are something we receive, not something that we do. This fact is nicely accounted for in Cartesian psychology by making perception a passive faculty independent of the will. Now of course we can exert some control upon what we perceive. By pressing my ear against the door, I may be able to hear the conversation in the next room. By turning my head, I can peer through the window. These are intentional actions, determined by an act of will. But this does not tell against the fundamental passivity at the heart of sense perception. What I hear through the door is not up to me. Wanting to see my friend approach will not affect what I see when I glance through the window. Sense perception is an area of our mental life over which we have no direct control.

In one way, it is easy to see how sense perceptions can be active. Just like any idea, they have behavioral implications; they can be thought of as dispositions to action. Seeing the bottle hurtle toward my head makes me duck. Painful sense perceptions make me wince, cry out, and flee. In the terminology established in §3.1 above, sense perceptions are agents. Ideas of sense perception have causal consequences, both behavioral and cognitive.

I want to further argue, we can make sense of the notion that the mind is active with respect to having sense perceptions from within Spinoza's system. It is not just

that sense perceptions have causal outputs, but also that, in order to have sense perceptions at all, the mind must act. We are not, according to Spinoza, purely passive with respect to the reception of external stimuli, but our minds actively incorporate such stimuli, and in this sense not even sense perception is passive.

Spinoza sets out his account of sense perception in propositions 14-17 in Part II of his Ethics. First Spinoza establishes the equivalence between the respective capacities of the human mind and body to be affected by (and to affect) external causes and its ability to perceive external causes:

The human mind is capable of perceiving a great many things, and is the more capable, the more its body can be disposed in a great many ways. Dem: For the human body (by Post. 3 and 6) is affected in a great many ways by external bodies, and is disposed to affect external bodies in a great many ways. But the human mind must perceive everything which happens in the human body (by P12). Therefore, the human mind is capable of perceiving a great many things, and is the more capable, as the human body is more capable, q.e.d. 40.

The human mind has a greater ability to represent different things the more its body can be affected by external causes. This claim follows quite directly from the parallelism. Since God's power of thinking is equal to his power of acting, whatever he produces in the attribute of extension will be represented in the attribute of thought. The mind is the idea of the body; i.e., it is the idea which represents the body. So if there were a modification or affection of the body which was not represented by an idea in the mind, then either there is a mode of extension that is not represented by any mode of thought (but this would contradict the premise that God's power of thinking is equal to his power of acting), or there is a mode of thought which represents that affection but which is not in the mind (but this would contradict IIP12 which states that the mind is the idea of the body, i.e. any idea which represents the human body, a part of the body, or some affection of the body is ipso facto the human mind, a part of the mind, or an affection of the mind).

But why does Spinoza speak of the capacity that the mind has to represent various affections of the body in terms of the capacity to perceive many things? Would it not be more accurate to say that the mind perceives only the body but that its perception of the body varies as the affections of the body vary? By saying that the mind perceives a great many things, Spinoza seems to imply that the mind represents external bodies in addition to the human body. But the claim that the mind is the idea of

IIP14: «Mens humana apta est ad plurima percipiendum, & eo aptior, quo ejus Corpus pluribus modis disponi potest.

Demonstratio: Corpus enim humanum (per Post. 3. & 6.) plurimis modis a corporibus externis afficitur, disponiturque ad corpora externa plurimis modis afficiendum. At omnia, quae in Corpore humano contingunt (per Prop. 12. hujus), Mens humana percipere debet; est ergo Mens humana apta ad plurima percipiendum, & eo aptior, [Corpus humanum bequamer is]. Q.E.D.».

the body means, among other things, that the mind represents the body and nothing else, e.g. external bodies even if they causally interact with the human body. That is, the mind does not directly represent anything outside of its body. So it would seem to follow that the mind does not perceive any external bodies in the sense that it does not directly represent them.

Nevertheless, Spinoza can speak of the mind perceiving external bodies in the following way, which is consistent with IIP12. The mind perceives affections of the body which involve the nature of external bodies (by IIP16) and those natures imply the existence of those bodies (by IIP17). Thus states of the body which imply the existence of external bodies correspond to ideas in the mind which imply the existence of external bodies. In this sense, Spinoza speaks of the mind perceiving the nature and existence of external bodies 41.

CONATUS AND SENSE PERCEPTION

Does this account of sense perception involve the conatus in any way? Spinoza's explanation of the physiological processes parallel to sense perception in the attribute of extension gives us grounds for supposing that it does. First of all, when Spinoza says that external causes affect a complex extended body (e.g. the human body), he seems to mean that they can move such a body. In axiom 1" of the SPT, Spinoza writes:

All the modes by which a body is affected by another body follow both from the nature of the body affected and at the same time from the nature of the affecting body, so that one and the same body may be moved differently according to differences in the nature of the bodies moving it. And conversely, different bodies may be moved differently by one and the same body 42.

The way that one body affects another is by imparting some motion to it. For example, when the object of sensation affects the organs of sense perception, some motion is imparted to those organs. In lemmas 6 and 7 of the SPT, Spinoza describes two ways in which a complex body can be affected, i.e. be moved, by external causes and yet still survive: (1) it can either be moved as a whole in such a way that the pattern of

motion and rest of its parts is not disturbed, or (2) if the motion of one or more of its parts is altered with respect to the whole, but that motion is communicated to the rest according to the fixed ratio which defines the individual, then the complex body survives. The new motions imparted to some part or parts of the body and communicated to its remaining parts according to its fixed ratio result in an affection of the body.

From this we can see how the physiological processes parallel to sense perception must involve the conatus. If the organs of sense perception of the human body are affected, that is to say moved, by some external body in such a way that an affection of the human body results, then the human body must survive the encounter with the external body. If the human body survives, then the motion which the organs of sense perception received must be communicated to the other parts of the body according to the fixed ratio of motion and rest which defines the body's nature.

I contend that the communication of motion according to the body's ratio of motion and rest provides an example of conatus-behavior. Reading causal productivity for striving (as licensed by IIIP7) and ratio of motion and rest for being (as licensed by IVD1, IVP8, and IVP39) Spinoza's conatus doctrine as it applies to extended things can be given the following characterization:

Each human body, insofar as it is in itself, causes, both inside and outside itself, effects that maintain the pattern of motion and rest which constitutes its nature, so long as external causes do not prevent it from doing so.

If one wanted to deny that the communication of motion whereby a complex individual body survives an encounter with an external cause provides an example of conatus-behavior, one must assert either: (1) that the communication in question does not preserve the existence of the body, or (2) such communication is not an action of the body (i.e. caused (at least partially) by the complex individual body).

Let us consider option (1). Spinoza tells us in IIL7S that communication of motion according to the body's ratio allows a part of a complex body to be affected (i.e. moved) by an external cause while still preserving its nature and the nature of the body as a whole. Denying that communication of motion according to the body's ratio implies preserving its existence, would involve claiming that preserving the body's nature does not suffice for preserving its existence. But the nature or essence of a thing is «that which being given, the thing is also necessarily posited and which taken away, the thing is also necessarily taken away» 43. Therefore the preservation of the nature of the thing entails the preservation of the existence of the thing. For this reason, one cannot deny that the communication of motion according to the body's ratio preserves the existence of the thing.

Let us now consider option (2). Is the communication of motion an action of the body, i.e. is it an effect produced (at least partially) by the body? Clearly, it is an effect produced by something. So it is either produced by the body, by something else,

Commentators have varied widely on how the ways in which a mind might represent both the body and external causes which act upon it should be understood. See J. BENNETT, Study, cit., pp. 153-158; D. RADNER, Spinoza's Theory of Ideas, «Philosophical Review», LXXX, 1971, pp. 338-359; M. Della Rocca, Representation and the Mind Body Problem in Spinoza, Oxford, Oxford University Press, 1996, chap. 3.

[«]Omnes modi, quibus corpus aliquod ab alio afficitur corpore, ex natura corporis affecti, & simul ex natura corporis afficientis sequuntur; ita ut unum, idemque corpus diversimode moveatur pro diversitate naturae corporum moventium, et contra ut diversa corpora ab uno, eodemque corpore diversimode moveantur». (My emphasis).

⁴³ IID2.

or both. If it is produced either by the body or by the body in conjunction with something else, then it is an action of the body. Therefore, if one wanted to deny that communication of motion in accordance with the bodies ratio is an example of conatus-behavior by denying that it is an action of the body, then one must claim that the communication might be entirely produced by some external cause. Could there be external causes such as would affect our bodies with a motion that accords completely with our bodies' ratio? It seems unlikely, but in any event, even if we allowed this possibility, I think that Spinoza would maintain that the nature of the body provides part of the explanation of why an encounter with such an external cause results in the preservation of the body's existence. That a given external cause produces motions in my body which maintain its pattern of motion and rest follows from both the nature of the external cause and my own nature. For it is quite conceivable that if I had a different nature, the very same external cause would destroy rather than preserve me. For example, if my nature were different, I might shatter like glass instead of experiencing a painful bump when I fall out of bed. Since the affection which results from the external cause is in part explained by reference to my own nature, I am the partial cause of the affection, because, for Spinoza, explanation implies causation 44. Since the nature of my body partially causes the affection, it is an action (in the weak sense) of my body. Therefore, the transformation of such motions into motions that are communicated throughout my body in accordance with its ratio requires an action of the body. That is to say, the occurrence of such communication is at least partially explained by the nature of our body.

We have seen that the communication of motion associated with sense perception preserves the body's existence because communicating the motions that the organs of sense perception receive from external causes to the rest of the body in accordance with its *ratio* maintains the existence of the body. Furthermore, this communication is an action of the body, in the sense that the body's nature plays a role in causing this communication (every affection of the human body involves both the nature of the external body and the nature of the human body itself, by IIP16). Thus the communication of motion that occurs within the human body during sense perception is an action of the body that maintains the *ratio* of motion and rest obtaining between the parts of the body – the very definition of the conatus as it pertains to the human body ⁴⁵.

Because Spinoza holds that the order and connection of ideas is the same as the order and connection of extended things, we can conclude that the conatus must play the same role, *mutatis mutandis*, in sense perception as it does in the parallel physiological processes in the attribute of extension. External causes determine some of the

ideas which form part of the mind to some new affection. Since this affection involves the nature of these external causes, the ideas represent those causes, or the mind perceives them. Because external causes affect part of the mind, the ideas that form this part must communicate their new affections to the rest of the mind in such way as to preserve the *ratio* of the mind as a whole. This communication is an action of the mind which tends toward the preservation of the mind's *ratio*; i.e. this communication amounts to an instance of the striving to persevere in existence, or conatus. The will is simply the tendency of ideas to produce effects that help maintain the pattern of ideas definitive of our mind's *esse*. Every idea that belongs to our mind has such causal dispositions. For this reason, every idea belonging to our mind as such involves an act of will. Thus we see the significance of Spinoza's identification of the intellect and the will – of the cognitive and the appetitive – as it relates to sense perception.

Now one might wonder if Spinoza ever saw the connections between sense perception and the conatus that I have described above. No matter how good the argument in favor of these connections may be, Spinoza never explicitly made them himself. So did Spinoza himself really believe that sense perception involves the conatus? There is evidence that he did. Consider the following passages:

[...] in proportion as a Body is more capable than others of doing many things at once, or being acted on in many ways at once, so its Mind is more capable than others of perceiving many things at once 46.

Whatever so disposes the human Body that it can be affected in a great many ways, or renders it capable of affecting external Bodies in a great many ways, is useful to human beings⁴⁷.

Those things are good that bring about the preservation of ratio of motion and rest the human Body's parts have to one another 48.

In the first passage Spinoza asserts a correlation between being able to perceive many things and a capacity for action and for being affected. The second and third passages say that whatever brings it about that the body's capacity for acting and being affected increases is good in that it brings it about that the body more effectively preserve its *ratio*. This accords with what I have argued above, that sense perception draws upon the body's ability to preserve its *ratio* of motion and rest in the face of countervailing external causes. Thus, Spinoza seems to acknowledge the role that conatus has in sense perception.

⁴⁴ EIA4.

Indeed, Spinoza seems to imply in IVP38 that ability to perceive external things is proportional to the ability to persevere in existence. That is, the more things we are capable of perceiving, the greater our power of striving. On the account of the role of conatus in sense perception that I have given here, the claim made in IVP38 follows.

⁴⁶ IIP13S: «quo Corpus aliquod reliquis aptius est ad plura simul agendum, vel patiendum, eo ejus Mens reliquis apitor est ad plura simul percipiendum».

⁴⁷ IVP38: «Id, quod Corpus humanum ita disponit, ut pluribus modis posit affici, vel quod idem aptum reddit ad Corpora externa pluribus modis afficiendum, homini est utile»

⁴⁸ IVP39: « Quae efficiunt, ut motus, & quietis ratio, quam Corporis humani partes ad invicem habent, conservetur, bona sunt».

4.2 Sense Perception and Desire: A Summary

Recall that Spinoza's identification of will and intellect means that every idea is a mental action and all mental action can be accounted for in terms of conatus, or will. Given this claim, it is natural to ask, can the kind of mental action involved in having an idea or the transition from one idea to another be plausibly explained in terms of conatus? Taking sense perception as a test case we have seen how Spinoza tries to describe this operation in terms of conatus.

First of all, sense perception occurs when the mind has inadequate ideas, i.e. ideas which result, at least partially, from external causes. These external causes affect or (considered from the point of view of extension) impart new motions to parts of the body. According to Spinoza's account of complex individual bodies, if some part of a complex individual body acquires a new motion as a result of interaction with external causes, then this new motion must be communicated to the rest of the body in accordance with the fixed ratio governing the motion of the parts of the body. This communication results from the striving to persevere in existence exhibited by all things. Thus sense perception involves the conatus.

To summarize:

Communication of motion is an action of the body.

An action of the body is an effect produced by the body.

- A body produces those effects which follow, at least partially, from its essence.
- The conatus is the source of a mode's action (by 2 and 3).

The essence of any mode is its conatus (by 1 and 4).

- Communication of motion results from the conatus (by 1, 2, 3, and 5).
- The order and connection of ideas is the same as the order and connection of
- The mental process parallel to the communication of motion also results from the conatus (by 6 and 7).
- Sense perception is parallel to physiological processes involving the communication of motion received by a part of the body from external causes to the rest of the body.

Conclusion:

(10) Sense perception results from the conatus in the context of external causes(by 8 and 9).

Spinoza's Mechanical Psychology

We have seen that Spinoza identifies the will and intellect for a number of reasons. First, and most importantly, central features of his metaphysics and philosophy of mind commit him to it. Secondly, it allows him to preserve an important feature of Descartes' new theory of judgment without countenancing a faculty of free will. This second reason points the way to two desiderata of Spinoza's philosophy: a naturalistic conception of physics and a mechanistic conception of psychology.

Michael Della Rocca has pointed out how Spinoza's identification of will and intellect runs parallel to his naturalistic critique of Cartesian physics. At the end of his life, Spinoza engages in a correspondence with Tschirnhaus concerning the inadequacy of Descartes conception of physics. As is well known, Descartes thinks that matter is in itself causally inert, and that all change and motion in matter ultimately derives from divine action. Without the intervention of the divine will, matter would permanently stand at rest. Spinoza thinks that this conception of matter is too passive, and that we must think of matter as expressing a divine attribute, that is, divine power. Since matter, for Spinoza, expresses divine power, it must itself be active.

Spinoza likely sees the Cartesian understanding of physics as involving the intervention of a divine will as incompatible with his own basic conception of causality. According to Spinoza, if one thing is the cause of another, then they can be understood through one another 49. This claim is taken to license the inference that only bodies can causally affect bodies. If non-bodies could causally affect bodies, then bodies could be understood through non-bodies and vice versa. But this would contradict the explanatory closure of each attribute; no attribute is explained by or understood through any other 50. If the motions of bodies were explained by the causal influence of a non-body, e.g. the divine will, the explanatory closure of the attributes would be violated. Likewise, if ideas were causally affected by non-ideas, e.g. wills, then the causal and explanatory closure of the attribute of thought would be violated; thoughts would be caused by non-thoughts. It will not do to claim that wills are non-representational modes of thought and thus causally determine ideas from within the attribute of thought. First of all, what would non-representational thoughts (wills) have in common with representational thoughts (ideas) in virtue of which they are both comprised by the same attribute? In the absence of an answer to this question, including both wills and ideas in the same attribute seems arbitrary. More importantly, Spinoza's parallelism explicitly rules out non-representational thoughts. Thought and extension are isomorphic; for every mode of extension there is a mode of thought which represents it, and for every mode of thought there is a mode of extension whose representation it is. As Spinoza puts it, «whatever follows formally from God's infinite nature, follows objectively in God from his idea in the same order and connection» 51.

The identification of will and intellect has an important further benefit. It allows Spinoza to simultaneously retain both the Cartesian insight that judgement requires an act of will and his aspiration for a mechanistic psychology, one that describes the

EIP3D.

EIP10, EIIP5, 6.

EHP7C.

mind as determined by laws - an automa spirituale⁵². Recall that a valuable feature of Descartes' theory of judgment is that allows ideas with the same representational content to be given different assertoric forces. Difference in assertoric force is determined not by logical form or representational content but by an act of will (affirmation, negation, or suspension of judgment). Making judgment an act of will emphasizes the similarities between conatative and cognitive mental acts. The greater and lesser intensity of both are crucial to the explanation of action and track representational features (goodness and plausibility respectively) of the ideas toward which they are directed. This innovation in the theory of judgment is both intuitively plausible and solves an important puzzle about the logical validity of modus ponens, as discussed above.

The downside of the Cartesian theory of judgment, for the Spinozistic point of view, is that it posits a mental faculty that stands outside of the natural causal order. For the purposes of epistemological theodicy, it is important, for Descartes, that our wills are free. That is, they are not determined by the causal order ordained by God. In the case of absolutely clear and distinct ideas, our wills may not be indifferent between alternatives (and they never go wrong), but for less clear cut cases, we must decide to affirm, deny, or suspend judgment. In such cases, there is no law or principle which determines our will.

From his earliest writings onward, Spinoza takes his most original contribution to the philosophy of mind to be the idea that the mind is governed by natural laws. This position sharply distinguishes him from Descartes. In his preface to Spinoza's geometrical exposition of Descartes' Principles, Lodewijk Meyer (a close friend and frequent interlocutor of Spinoza's), cautions the reader that not every position discussed in that work is endorsed by Spinoza. He singles out for explicit mention, Descartes' conception of the will and its role in the theory of judgment. In describing Spinoza's own position, he writes:

[...] just as the human body is not extension absolutely, but only an extension determined in a certain way according to the laws of extended nature by motion and rest, so also the human mind, or soul, is not thought absolutely, but only a thought determined in a certain way according to the laws of thinking nature [...] From this definition, he thinks, it is not difficult to demonstrate that the will is not distinct from the intellect, much less endowed with that liberty that Descartes ascribes to it; that the faculty of affirming and denying is a mere fiction; that affirming and denying are notion but ideas 53.

In this passage, Meyer indicates that Spinoza aspires to such rigor in psychology as had been sought in physics. Progressive philosophers of the seventeenth century characteristically seek to explain natural phenomena in terms of mechanical interactions governed by universal laws of motion. Spinoza attempts to extend this general strategy further by treating the mind as a natural phenomenon whose psychological mechanisms are equally determined by universal laws. In fact, for Spinoza the same law which governs body under the rubric of appetite governs mind under the rubric of will. The law of the conatus, or desire, is one and the same thing, manifested under the attribute of extension in the case of appetite, under the attribute of thought in the case of will.

Let us now consider how this picture of the mind can help us understand the case of the triangle from IIP49. According to Spinoza, geometrical thinking takes place when the mind's own ratio suffices for explaining the occurrence of various ideas and the relationships between them. In general, such thinking is called reason (ratio). Reason is the coherent pattern of ideas and relationship between ideas which defines the nature of the mind. Given this pattern, if the mind has an idea that represents the three angles of a triangle as equaling two right angles, then so long as no external causes disturb it, then this idea will causally produce other ideas representing the properties of a triangle that follow deductively from the initial idea. The whole process can be described in entirely mechanistic terms 54.

The causal power which results from in the generation of one idea from another is intrinsic to ideas themselves. In this way, Spinoza is able to avoid including anything like a Cartesian will in his account of cognition. This is clearly desirable given Spinoza's interest in developing a mechanistic psychology. What role could a free will have in such an account of mind? Furthermore, the inclusion of a non-ideational source of affirmation, i.e., causal efficacy, would force Spinoza either to deny that all modes of thinking correspond to some mode of extension, or to allow that there are modes of extension other than bodies in motion. The former would both violate the parallelism and deflate the hope for a mechanistic psychology. The latter would deflate the hope for a mechanistic physics 55.

By focusing on efficient, proximate causes which operate in accordance with universal laws of motion, the mechanical philosophers had initiated a research program which proved much more productive than the old metaphysics of form and quality. In advancing a theory of cognition in terms of conatus, Spinoza hopes to clear the way for a science concerning the causal mechanisms which generate mental activity, and thus live up to his aspiration for a naturalistic theory of human nature.

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TEI, II/32.

⁵³ «[...] quemadomondum Corpus humanum non est absolute, sed tantum certo modo secundum leges naturae extensae per motum & quietem determinata extensio, sic etiam Mentem sive Animam humanam non esse absolute, sed tantum secundum leges naturae cogitantis per ideas certo modo determinatam cogitationem [...] Ex qua definitione, non difficile demonstratu esse putat, Voluntatem ab intellectu non distingui, multo minus ea, quam illi Cartesius adscribit, pollere libertate; quin imo ipsam affirmandi & negandi facultatem prorsus fictivam»: G I 132.

Hobbes advances a similar conception of reason according to which reason is simply computation (addition or subtraction), or what he calls reckoning. As such, it can be specified in mechanical terms. See Leviathan, chap. V.

On this point see M. Della Rocca, The Power of an Idea, cit.