

Actual infinity: A note on the Crescas-Passus in Spinoza's letter (12) to Lodewijk Meijer
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At the end of his famous letter (12-4-1663) on infinity Spinoza makes a cursory remark, that has become a crux for all the commentators and quite a few editors of his text. To say it frankly: all are at their wit's end. Until recently I had the same problem, the same experience: I, too, was at a loss and did not understand the paragraph. Since I have now found a solution for the interpretation by means of a minor change of the text, based on two sources neglected in the secondary literature, I will try to explain and to justify my new reading, hoping that in this way things will become easier for the next generation of Spinoza scholars.

The paragraph in question is this:

Verum hic obiter adhuc notari velim, quod Peripatetici recentiores, ut quidem puto, male intellexerunt demonstrationem Veterum, qua ostendere nitebantur Dei existentiam. Nam, ut ipsam apud Judaeum quendam Rab Ghasdaj vocatum reperio, sic sonat. Si datur progressus causarum in infinitum, erunt omnia, quae sunt, etiam causata: Atqui nulli, quod causatum est, competit, vi suae naturae necessario existere: Ergo nihil est in natura, ad cuius essentiam pertinet necessario existere. Sed hoc est absurdum: ergo et illud. Quare vis argumenti non in eo sita est, quod impossibile sit, dari actu Infinitum, aut progressus causarum in infinitum, sed tantum in eo, quod supponatur, res, quae sua natura non necessario existunt, non determinari ad existendum a re sua natura necessario existenti.

Which Neo-Aristotelians Spinoza has in mind, he does not tell us. Since the letter is addressed to Lodewijk Meijer, recently returned from the Leiden university where he became acquainted with the neo-aristotelism of Heereboord, Burgersdijk and their master Suarez, these authors may have been denoted by Spinoza's 'Peripatetici recentiores'.¹ Meijer might have referred to their argument in his previous letter. Spinoza further says, that in his opinion - he is not sure about it - these neo-aristotelians did not well understand the demonstration of god's existence of the older Peripatetics. Spinoza does not write: "of Aristotle himself", but it cannot be excluded that this was part of his intention.

The exemplary case that he takes, is from the work of the Jewish author 'R. Chasdai Crescas' (± 1340 - ± 1410), who according to his summary argues like this:

- If there is an infinite regress of causes, then all things that are will also have been caused;
- but it does not pertain to anything which has been caused, to exist necessarily by the force of its own nature;

¹ Cf. Krop 1993. He writes, in fact about Suarez' 29th *Disputatio metaphysica*: "In all the arguments for the existence of the Supreme Being, the presupposition, that an infinite regress in the reduction of dependent beings is impossible, is vital" (p. 72).

- therefore, there is nothing in nature to whose essence it pertains to exist necessarily;
- but the latter is absurd;
- therefore, the former is also.²

Spinoza then continues his remark by emphasizing what is according to him the “power” (vis) of Crescas’ argument. He does so in two steps, by a negation and by an affirmation, i.e. by explaining what is not denied by Crescas and by explaining what is, in fact, asserted by him.

In the quoted argument Crescas does not claim the impossibility of actual infinity or (alternative indication:) of an endless or infinite progress (regress) of causes. However, when we look again to the first premiss of the argument, this does not appear to be so clear. Since the reasoning process is a *reductio ad absurdum*, we easily come to think, that the premiss must be meant as a counterfactual. But Spinoza does not hesitate in unconditionally affirming Crescas’ not rejecting actual infinity.

The second step is Spinoza’s underlining of the positive contents of Crescas’ argument. This is shown by the oppositional conjunction in this final sentence between its first and its second half; the ‘sed’ indicates the caesura. “Vis argumenti *non* sita est in eo, quod ..., *sed* tantum in eo”

On account of this structure one can only expect a sentence without a negation. The opposite, however, is the case; we find again a disclaimer, namely after the interjection “quod supponatur”. Crescas would assume or presuppose that things not existing by themselves are not determined to exist by a necessarily existing or uncaused³ thing.

But this disclaimer is straightly against the minor of his argument! Any serious reader of the text, who takes Spinoza on his word, as he always is entitled to do, must be confused now. The details of Spinoza’s comment do not fit to each other. They do show an excellent fitting, however, if the ‘non’ of the last sentence, i.e. the ‘non’ before the word ‘determinari’, is cancelled. In that case the sentence gives to understand, that Crescas does not at all prove God’s existence by denying the possibility of actual infinity, but by excluding the possibility that things not existing by themselves do not require, as the condition of their existence, a “thing existing necessarily by its own nature”, by which they are caused. Such a thing, of course, cannot be conceived to be a thing comparable to them, a thing that is the first in a series, a thing which is a being apart from other beings.

That the sentence in question (with the ‘non’, as it is printed in the ‘editio princeps’, the *Opera Posthuma*) cannot be approved by Spinoza may become clear from his other works. In his *Korte Verhandeling*, sent to his Amsterdam friends a year before the date of his letter (cf. Klever 1989), Spinoza writes that the opinion that the contingent things (gebeurlyke dingen) would not be dependent on the necessarily working cause, which is god, is clearly false (openbaar vals).⁴ In another work of

² I make use of Edward Curley’s translation (1985).

³ I have used this word ‘uncaused’ for explaining ‘necessarily existing’ under the inspiration of the oldest translation, the *Nagelate Schriften*, which has: “van een zaak, die uit haar natuur nootzakelijk wezentlijk is, en die oorzaak, geen veroorzaakte is...”

⁴ Chapter 6 and chapter 4 of the first part.

the same period, edited by Lodewijk Meijer himself in the same year (1663) of the letter, Spinoza writes about the impossibility, that finite things should exist and work by themselves: “Quare nulla res creata propria vi aliquid facit, eodem modo ac nulla res creata sua propria vi incepit existere. Ex quo sequitur, nihil fieri, nisi vi causae omnia creantis, scilicet Dei, qui suo concursu singulis momentis omnia procreat” (CCM 1/3/9). It cannot be doubted, therefore, that the final phrase of our passus, as it says, is not Spinozistic. Our conclusion must be that the text is corrupt.

What kind(s) of corroboration can we find for this conclusion? First of all, I think, we must try to explain, how it may have come about to the corrupted copy of Spinoza’s letter. We need some psychological justification of the error of the copy-writer. I guess that the words “quod supponatur”, which precede the wrong phrase, have in fact misled him towards the unconscious introduction of the negation. In Spinoza’s Neo-Latin ‘suppositio’ can have the meaning of a false opinion or an unwarranted supposition, just as in our modern languages, when it is said, that a certain assertion is nothing more than an unjustified supposition, an improbable hypothesis.⁵ At the moment that the copy-writer had to write the words “quod supponatur”, he may have forgotten what was at stake, namely the information about a clear premiss behind and in Crescas’ argument. For lack of attention he may have thought that Spinoza was going to mention what was wrong with it. The dependence of contingent things from the ‘causa sui’ was clear stuff for him; accordingly the ‘non’ slipped from his pen.

More substantial evidence for my rejection of the negation in the final phrase is to be expected, of course, from Crescas’ own work. The first scholar, who checked this background of the passus, was H.A. Wolfson in his 1934 monograph on Spinoza. A few years earlier he had translated and commented Crescas’ work, which was written in Hebrew under the title *Or Adonai*.⁶ He writes in the first mentioned work “It is evident that Spinoza understood well the portent and significance of Crescas’ proof” (p. 197) and quotes from *Or Adonai* I/3/2

Whether causes and effects are finite or infinite, there is no escape from the conclusion that there must be something which is the cause of all of them as a whole, for if there were nothing but effects, those effects would have only possible existence per se and would thus need something to cause the preponderance of their existence over their non-existence. But that which would bring about this preponderance of their existence would be the cause of those effects, and that is what is meant by God.⁷

⁵ Examples of this detractive meaning in Spinoza’s text are: 1) “Quum igitur haec absurda sequantur, ut putant, ex eo, quod quantitas infinita supponitur, inde concludunt...” (Ethica I/15s); 2) “eaeque supponatur aliquando non exstitisse, vel non exstitura” (Ethica I/21d); 3) “Omnia enim illa Substantiam corpoream ex partibus conflata supponunt” (same Letter 12).

⁶ See Wolfson 1929. Pages 130-315 are the English version of the Hebrew text, reproduced on pp. 1-130.

⁷ What Spinoza ascribes to Chasdaj must be his own summary of Chasdaj’s argument, because the passus as such is not to be found in *Or Adonai*.

Searching myself in *Or Adonai* I found (in the third proposition, p. 227-229) a text, which much clearer, I think, supports Spinoza's claim about the 'vis argumenti':

We likewise posit a first common cause for all the effects, and yet we have shown that those effects can be infinite, inasmuch as an infinite number is not impossible in the case of things, which have no order in position or nature. By the same token, no impossibility will happen, if we assume those infinite effects to be each successively the cause of the other [...]

But what this proposition really brings out [...] is the fact that there must exist a first cause which is uncaused by anything else *regardless* the view whether its effects, when they are one the cause of the other are infinite or finite (my emphasis).

This 'regardless' strongly underlines Spinoza's interpretation, according to which actual infinity is, indeed, not refuted nor excluded by Crescas, but is neither the basis of his argument for God's existence. Spinoza seems to be right in opposing the 'old-peripatetics' to the 'neo-peripatetics'. The latter ones decidedly disagree with Spinoza's and Crescas' proposition about actual infinity. Suarez e.g. writes: "Primum afferri hic possunt rationes omnes quibus probatur non posse esse in rebus multitudinem actu infinitum ..."⁸ In line with this neo-scholastic thought every student of philosophy knows by heart the expression, that the series of effects to causes cannot go on indefinitely but must stop somewhere in order to be explainable.⁹ Nonetheless it seems to be true in the case of Suarez too, that "the main thrust of his argument is not to show the impossibility of an actual infinity" (Krop 1993: 72).

The third argument for my proposal to change the text of Letter 12 is drawn from a Leibniz manuscript, kept in the Niedersächsischen Landesbibliothek in Hannover (no. LBr 886 B1. 6 v⁰). Leibniz, who visited Amsterdam in late 1676, transcribed himself Spinoza's letter *De Infinito*, probably from a copy handed over to him by Spinoza's friend Schuller. In this manuscript of the text one can see some minor differences (as 'quod supponant' instead of 'quod supponatur') in comparison with the text printed in the *Opera Posthuma*. But also an important one. The final phrase sounds here:

Quare vis argumenti non in eo sita est, quod impossibile sit dari actu infinitum, sed tantum in eo, quòd supponant sc., res quae sua natura non necessariò existunt, non determinari ad existendum *[+ nisi +] a re sua natura necessariò existenti.

According to the experts of Leibniz' handwriting, the addition 'nisi' is an addition of Leibniz himself.¹⁰

⁸ Quoted according to Krop 1993: 72.

⁹ Spinoza, as is well known, explicitly denies this reasoning in *Ethica* I, proposition 28, by his radical "usque in infinitum".

¹⁰ Dr. Herber Breger (Hannover) wrote me in his letter 6-10-1994: "In der Handschrift findet sich das "nisi" in eckigen Klammern un in +-Zeichen eingeschlossen. Zwischen solchen Zeichen setzt Leibniz seine eigenen Kommentare und Bemerkungen innerhalb eines Exzerpts. Es handelt sich also tatsächlich, wie in der Akademie-Ausgabe angegeben, um einen Zusatz von Leibniz." I think, that Breger will agree with me, when I state that this procedure of Leibniz does not exclude the possibility that he corrects Spinoza's text according to a

Leibniz' transcript was not unknown to the Spinoza-editors and translators, but they did not use it appropriately. Gebhardt, responsible for the so-called critical edition of the Heidelberger Academy, *Opera omnia*, keeps to the text of the *Opera Posthuma*.¹¹ The Dutch edition of the *Briefwisseling* (Spinoza 1977) makes good sense of the passage by taking the text, in the wake of Willem Meijer, in this way, that the 'quod impossibile sit' is not only valid for the first half of the final sentence, but also for the second half, as if there was written: "sed tantum in eo, [quod impossibile sit,] quod supponatur..." However, this is rather unusual Latin; one can hardly imagine that Spinoza would have written such a twisting sentence or have intended it. The philosophical commentary on the text in the 'Aantekeningen' (for which H. Hubbeling signed) testifies to a correct understanding.¹² Other translators don't seem to see a problem in the text and simply translate it literally.¹³ It is only Antilano Dominguez who really takes advantage from Leibniz' correction (Spinoza 1988).¹⁴

corrected copy, made by Schuller or by Van Gent, who copied Spinoza's text in cooperation with Schuller. See Klever 1991a. Van Gent about himself: "Spinozae opera maximam partem describendo" (p. 174).

¹¹ He writes: "Meijer möchte entweder nach 'supponatur' einfügen 'quod impossibile sit', oder mit der Leibniz-Abschrift hinter 'ad existendum' einfügen 'nisi'. Beide Lesearten lassen sich im gleichen Sinne interpretieren, die von Leibniz vorgeschlagene in dem Sinne, daß Spinoza den Wert des Arguments in der Annahme der Dependenz des Endlichen vom Unendlichen findet, die in dreimaliger Redaktion überlieferte in dem Sinne, daß Spinoza die festgestellte Widersinnigkeit aus der Annahme herleitet, daß es keine derartige Dependenz gebe. *Man wird darum an der überlieferten Lesart festhalten dürfen*" (my emphasis). I confess that I am not capable to follow Gebhardt's argument. The reference to Meijer is to the Dutch Spinoza scholar Willem Meijer, who published in 1897 a translation of Spinoza's letters (Meijer 1897), in which we find the translation: "Het zwaartepunt van dit bewijs is dus niet gelegen in de onmogelijkheid dat er in werkelijkheid een Oneindig wezen bestaat, of dat de reeks der oorzaken in 't oneindige is voort te zetten, maar alleen in (het ongerijmde van, Vert.) de vooronderstelling, dat zaken die van nature niet onvermijdelijk bestaan, hun bestaan niet te danken hebben aan iets, dat van nature wel onvermijdelijk bestaat." Apart from the wrong translation of 'actu infinitum' it must be remarked that the construction is too artificial and too free.

¹² "Wij mogen volgens Crescas uit het causaliteitsbeginsel niet de conclusie trekken dat alles wat is, ook veroorzaakt is: er is ten minste één zijnde dat geen oorzaak heeft. Spinoza sloot zich hierbij aan, omdat er hem alles aan gelegen was aan te tonen dat er wél een actueel oneindig is; ook Spinoza aanvaardde een oneindige reeks oorzaken. Voor Spinoza is God ook niet de eerste oorzaak in een rij van oorzaken, maar de oorzaak (grond) van het geheel van oorzaken, Zie Ethica I, prop. 28 schol" (in: Spinoza 1977: 456).

¹³ Like E. Curley (in: Spinoza 1985: 205) and R. Misrahi (in Spinoza, *Oeuvres complètes*, Edition Pléiade, 1954: 1101). Also F. Mignini leaves the text as it is presented in the OP, and comments that in our passage "non si dichiara inconcepibile l'infinito o il processo delle cause all'infinito, ma solo la *mancata giustificazione* di ciò che non esiste per sua natura mediante qualcosa che esiste per sua natura" (in: Spinoza 1986: 694). I thought that Spinoza meant just the opposite, namely that this justification is the power of the argument and that this argument is right.

¹⁴ "De ahí que la fuerza del argumento no reside en que sea imposible que sea dé el infinito en acto o el proceso de las causas al infinito, sino sólo en que suponen que las cosas que no existen necesariamente por su naturaleza no son determinadas a existir, a no ser (nisi) por una cosa que existe necesariamente por su naturaleza" (in: Spinoza 1988: 136).

The introduction of 'nisi' in the final phrase comes down to the cancelling of the 'non', since 'non...nisi' equals to the absence of any negation. Leibniz made a telling annotation to the so corrected passage, which confirms his conviction that the 'non' is spurious in Spinoza's text and betrays his understanding of Spinoza's intention. He remarks:

Hoc recte observatum est, et convenit cum eo quod dicere soleo, nihil existere, nisi cuius reddi possit ratio existentiae sufficiens; quam in serie causarum non esse facile demonstratur.

This does not mean, however that he fully agrees with Spinoza as we understand him. According to him the 'ratio sufficiens' for the infinite series, i.e. the actual infinite, lies *outside* it, as he remarks further on: "unde reddenda *extra ipsam* ratio, cur sic sit." This is against Spinoza's explicit theory of the immanence of the prime cause, elaborated in *Ethica*, part I.¹⁵

My conclusion is, that there are enough reasons for cancelling the 'non' in the paragraph on *Crescas* or to follow Leibniz' suggestion for the introduction of a 'nisi'. Spinoza's text evokes sometimes difficulties concerning affirmations or negations. In one case a negation was unduly introduced,¹⁶ in another case the introduction of a 'non' is heavily discussed,¹⁷ in a third case a negation was overlooked by the commenatators.¹⁸ Here, in our case, the negation is redundant and spoils Spinoza's message.

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¹⁵ Proposition 18: "Deus omnium rerum causa immanens, non vero transiens."

¹⁶ In note 1 to § 31 of the *Tractatus de intellectus emendatione* Spinoza writes: "Per vim nativam intelligo illud, quod in nobis a causis externis causatur." Gebhardt was the first to introduce a non between 'externis' and 'causatur'. All editors and translators followed his corruption of Spinoza's text. See Spinoza/Klever 1986: 139.

¹⁷ TIE § 46: Si quis forte quaerat, cur non (?) ipse statim ante omnia veritates naturae isto ordine ostenderim ..."
I tried to justify the 'non' in my commentary (p. 150-151), following Koyré 1974. However, the latest commentator, Bernard Rousset (Paris: Vrin 1992) writes: "De nombreux éditeurs et traducteurs ont cru bon d'ajouter une négation, qui n'est ni dans OP, ni dans NS; le commentaire montrera que ce serait une complication inutile, à la limite du contresens" (p. 258).

¹⁸ In letter 43, in which Spinoza answered Van Velthuysen that he does *not* agree with those people who think that the philosophy is *not* the interpreter of the Scripture. The question is here, whether he agrees with Meyer or not. See my 1991.

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ZUSAMMENFASSUNG

In diesem Artikel wird historisch, textkritisch und psychologisch argumentiert, daß die Negation im letzten Satz des Crescas-Fragments im 12. Brief Spinoza's nicht authentisch sein kann. Es wird vorgeschlagen, 'non' entweder zu streichen oder, wie Leibniz es getan hat, mit einem 'nisi' positiv umzubauen.

Bron

"Actual infinity: A note on the Crescas-passus in Spinoza's letter (12) to Lodewijg Meijer", *Studia spinozana*, vol. 10 (1994), Königshausen & Neumann, Würzburg, 1996, 111-119. N XX, 19 (Jacqueline Lagrée). (Anglais).