

De Mixtio Elementorum

- [TEXT OF WORK](#)
- [NOTE ON TRANSLATION](#)

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A work of St. Thomas Aquinas translated by Peter Orlowski

DE MIXTIONE ELEMENTORUM

ON THE BLEND OF THE ELEMENTS

1. dubium apud multos esse solet quomodo elementa sint in mixto.

- *There is usually a question among many men how the elements exist in a blend.*

2. videtur autem quibusdam quod, qualitatibus activis et passivis elementorum ad medium aliququaliter reductis per alterationem, formae substantiales elementorum manent:

- *Now it seems to certain ones that the substantial forms of the elements remain, with the active and passive qualities of the elements having been reduced somehow to a mean through alteration.*

3. si enim formae substantiales non maneant, corruptio quaedam elementorum esse videbitur et non mixtio.

- *For if the substantial forms do not remain, there will seem to be a corruption of certain elements, and not a blend.*

4. rursus si forma substantialis corporis mixti sit actus materiae non praesuppositis formis simplicium corporum, simplicia corpora elementorum rationem amittent.

- *On the other hand, if the substantial form of the blended body be the act of matter, with the forms of the simple bodies not having been presupposed, the simple bodies would lose the notion of elements.*

5. est enim elementum ex quo componitur aliquid primo, et est in eo, et est indivisibile secundum speciem;

- *For an element is [that] from which something is primarily composed, and it is in that [something], and it is indivisible according to species.*

6. sublatis enim formis substantialibus, non sic ex simplicibus corporibus corpus mixtum componetur, quod in eo remaneant.

- *For with the substantial forms having been withdrawn, the blended body is not then composed from the simple bodies such that they would remain in it.*

7. est autem impossibile sic se habere;

- *But it is impossible that they exist this way.*

8. impossibile est enim materiam secundum idem diversas formas elementorum suscipere.

- *For it is impossible that matter admit the different forms of the elements in the same respect.*

9. si igitur in corpore mixto formae substantiales elementorum salventur, oportebit diversis partibus materiae eas inesse.

- *Therefore, if in a blended body the substantial forms of the elements be preserved, they must be present in diverse parts of matter.*

10. materiae autem diversas partes accipere est impossibile, nisi praeintellecta quantitate in materia;

- *However, it is impossible that diverse parts of matter receive [these forms] unless through the quantity in matter having been pre-understood.*

11. sublata enim quantitate, substantia indivisibilis permanet, ut patet in primo physic. .

- *For when the quantity has been withdrawn, the substance remains indivisible, as is clear in I. Physics [185b 16].*

12. ex materia autem sub quantitate existente, et forma substantiali adveniente, corpus physicum constituitur.

- *Now a physical body is constituted out of matter under existing quantity and through the arriving substantial form.*

13. diversae igitur partes materiae formis elementorum subsistentes plurium corporum rationem suscipiunt.

- *Therefore, the diverse parts of matter subsisting by means of the forms of the elements admits the notion of many bodies.*

14. multa autem corpora impossibile est esse simul.

- *But it is impossible that [a thing] be many bodies at the same time.*

15. non igitur in qualibet parte corporis mixti erunt quatuor elementa;

- *Therefore, the four elements will not be in any part of the blended body whatever;*

16. et sic non erit vera mixtio, sed secundum sensum, sicut accidit in aggregatione corporum insensibilium propter parvitatem.

- *and thus there will not be a blend in truth, but according to sense, just as happens in the aggregation of bodies imperceptible because of [their] smallness.*

17. amplius, omnis forma substantialis propriam dispositionem in materia requirit, sine qua esse non potest:

- *Furthermore, every substantial form requires a proper disposition in matter, without which it is not able to be;*

18. unde alteratio est via ad generationem et corruptionem.

- *whence the way towards generation and corruption is alteration.*

19. impossibile est autem in idem convenire propriam dispositionem, quae requiritur ad formam ignis, et propriam dispositionem quae requiritur ad formam aquae, quia secundum huiusmodi dispositiones ignis et aqua sunt contraria.

- *But it is impossible that the proper disposition which is required for the form of fire, and the proper disposition which is required for the form of water should come together in the same thing, because according to such dispositions fire and water are contraries.*

20. contraria autem impossibile est esse in eodem.

- *Now it is impossible that contraries be in the same thing.*

21. impossibile est igitur quod in eadem parte mixti sint formae substantiales ignis et aquae.

- *Therefore, it is impossible that the substantial forms of fire and water be in the same part of the blend.*

22. si igitur mixtum fiat remanentibus formis substantialibus simplicium corporum, sequitur quod non sit vera mixtio, sed solum ad sensum, quasi iuxta se positis partibus insensibilibus propter parvitatem.

- *Therefore, if the blend is made when the substantial forms of the simple bodies remain, it follows that it is not a blend in truth, but only to sense, as it were, when the juxtaposed parts are imperceptible because of their smallness.*

23. quidam autem utrasque rationes vitare volentes, in maius inconueniens inciderunt.

- *Some, however, wishing to avoid both accounts, have fallen into more unfitting [ones].*

24. ut enim mixtionem ab elementorum corruptione distinguerent, dixerunt formas substantiales elementorum aliququaliter remanere in mixto.

- *For in order that they might distinguish the blending from the corruption of the elements, they said that the substantial forms of the elements somehow remain in the blend.*

25. sed rursus ne cogerentur dicere esse mixtionem ad sensum, et non secundum veritatem, posuerunt quod formae elementorum non manent in mixto secundum suum complementum, sed in quoddam medium reducuntur;

- *But on the other hand, lest they should be forced to say that it is only a blend to sense, and not according to truth, they maintained that the forms of the elements do not remain in the blend according to their entirety but are reduced into some mean.*

26. dicunt enim quod formae elementorum suscipiunt magis et minus et habent contrarietatem ad invicem.

- *For they say that the forms of the elements admit of more and less, and they have contrariety to one another.*

27. sed quia hoc manifeste repugnat communi opinioni et dictis aristotelis dicentis in praedic. , quod substantiae nihil est contrarium, et quod non recipit magis et minus;

- *But because this is manifestly repugnant to common opinion and to the statement of Aristotle saying in the*

Categories [5 (3b 24)] that nothing is contrary to substance, and that it does not admit of more and less,

28. ulterius procedunt, dicentes quod formae elementorum sunt imperfectissimae, utpote materiae primae propinquiores:

- *they go on further, saying that the forms of the elements are most imperfect, as [they are] nearer to prime matter.*

29. unde sunt mediae inter formas substantiales et accidentales;

- *Hence they are middles between substantial and accidental forms.*

30. et sic, inquantum accedunt ad naturam formarum accidentalium, magis et minus suscipere possunt.

- *And thus, insofar as they approach to the nature of accidental forms, they are able to admit of more and less.*

31. haec autem positio multipliciter improbabilis est.

- *This position, however, is multiply improbable.*

32. primo quidem quia esse aliquid medium inter substantiam et accidens est omnino impossibile:

- *First, indeed, because to be a certain mean between substance and accident is wholly impossible;*

33. esset enim aliquid medium inter affirmationem et negationem.

- *for there would be some mean between affirmation and negation.*

34. proprium enim accidentis est in subiecto esse, substantiae vero in subiecto non esse.

- *For it is proper to an accident to be in a subject, but to a substance not to be in a subject.*

35. formae autem substantiales sunt quidem in materia, non autem in subiecto:

- *Substantial forms, however, are in fact in matter, but not in a subject;*

36. nam subiectum est hoc aliquid; forma autem substantialis est quae facit hoc aliquid, non autem praesupponit ipsum.

- *for a subject is a "this something", but a substantial form is what makes a "this something" - it does not, however,*

presuppose it.

37. item ridiculum est dicere medium esse inter ea quae non sunt unius generis; ut probatur in decimo metaph. ,

- *Likewise, it is ridiculous to say that the mean is something between those which are not of one genus, as is proved in X. Metaphysics [7 (1057a 20)].*

38. medium enim et extrema ex eodem genere esse oportet;

- *For the mean and extremes must be from the same genus.*

39. nihil igitur medium esse potest inter substantiam et accidens.

- *Nothing, therefore, is able to be a mean between substance and accident.*

40. deinde impossibile est formas substantiales elementorum suscipere magis et minus.

- *Furthermore, it is impossible that the substantial forms of the elements admit of more and less.*

41. omnis enim forma suscipiens magis et minus est divisibilis per accidens, inquantum scilicet subiectum eam potest participare vel magis vel minus.

- *For every form admitting of more and less is divisible per accidens, inasmuch as, namely, the subject can partake of it either more or less.*

42. secundum autem id quod est divisibile per se vel per accidens, contingit esse motum continuum, ut patet in sexto physic. .

- *However, it happens that a motion is continuous according as something is divisible per se or per accidens, as is clear in VI. Physics [1 (231b 15)].*

43. est enim loci mutatio et augmentum et decrementum, secundum quantitatem et locum quae sunt per se divisibilia, alteratio autem secundum qualitates quae suscipiunt magis et minus, ut calidum et album.

- *For there is change of place and augmentation and diminution according to quantity and place which are divisible per se; but alteration [is] according to qualities which admit of more and less, such as hot and white.*

44. si igitur formae elementorum suscipiunt magis et minus,

tam generatio quam corruptio elementorum erit motus continuus, quod est impossibile.

- *Therefore, if the forms of the elements admit of more and less, both the generation and corruption of the elements will be a continuous motion, which is impossible.*

45. nam motus continuus non est nisi in tribus generibus, scilicet in quantitate et qualitate, et ubi, ut probatur in quinto physic.

- *For motion is not continuous except in three genera, namely, in quantity and quality, and where, as is proved in V. Physics [1 (225b9)].*

46. amplius, omnis differentia secundum formam substantialem variat speciem.

- *Furthermore, every difference according to substantial form variegates the species.*

47. quod autem recipit magis et minus, differt quod est magis ab eo quod est minus et quodammodo est ei contrarium, ut magis album et minus album.

- *But that which receives more and less distinguishes what is more from that which is less and which in some way is contrary to it, such as the more white and the less white.*

48. si igitur forma ignis suscipiat magis et minus, magis facta vel minus facta speciem variabit, et non erit eadem forma, sed alia.

- *If, then, the form of fire admits of more and less, the more having been made or the less having been made, it will variegate the species, and it will not be the same form, but another.*

49. et hinc est quod philosophus dicit in octavo metaph. , quod sicut in numeris variatur species per additionem et subtractionem, ita in substantiis.

- *And this is what the Philosopher says in VIII. Metaphysics [3 (1043b 36)], that just as in numbers the species is variegated through addition and subtraction, so also in substances.*

50. oportet igitur alium modum invenire, quo et veritas mixtionis salvetur, et tamen elementa non totaliter corrumpantur, sed aliququaliter in mixto remaneant.

- *Therefore, one must find another way by which both the truth of blends is preserved and yet the elements are not totally corrupted but, in some way, remain in the blend.*

51. considerandum est igitur quod qualitates activae et passivae elementorum contrariae sunt ad invicem et magis et minus recipiunt.

- *It ought to be considered, therefore, that the active and passive qualities of the elements are contraries to each other, and they receive of more and less.*

52. ex contrariis autem qualitatibus quae recipiunt magis et minus constitui potest media qualitas, quae sapiat utriusque extremi naturam, sicut pallidum inter album et nigrum, et tepidum inter calidum et frigidum.

- *Now a medium quality can be constituted from contrary qualities which receive of more and less, which are flavored with the nature of both extremes, such as gray between white and black, and tepid between hot and cold.*

53. sic igitur, remissis excellentiis qualitatum elementarium, constituitur ex his quaedam qualitas media, quae est propria qualitas corporis mixti, differens tamen in diversis secundum diversam mixtionis proportionem:

- *So, then, by remitting the greatest qualities of the elements, there is constituted from out of these qualities some medium quality which is the proper quality of the blended body, differing nevertheless in diverse things according to the diverse proportion of the blend.*

54. et haec quidem qualitas est propria dispositio ad formam corporis mixti, sicut qualitas simplex ad formam corporis simplicis.

- *And this quality is, in fact, the proper disposition for the form of the blended body, just as the simple quality is for the form of the simple body.*

55. sicut igitur extrema inveniuntur in medio, quod participat naturam utriusque, sic qualitates simplicium corporum inveniuntur in propria qualitate corporis mixti.

- *Therefore, just as the extremes are found in the mean, which partakes of the nature of both, so the qualities of the simple body are found in the proper quality of the blended body.*

56. qualitas autem simplicis corporis est quidem aliud a forma substantiali ipsius, agit tamen in virtute formae substantialis.

- *The quality of the simple body, however, is indeed other than the substantial form itself; nevertheless, it acts in virtue of the substantial form.*

57. alioquin calor calefaceret tantum, non autem per eius actionem forma substantialis educeretur in actum; cum nihil agat ultra suam speciem.

- *Otherwise, the hot would only heat, but the substantial form would not be educed into act through its action, since nothing acts beyond its own species.*

58. sic igitur virtutes formarum substantialium simplicium corporum in corporibus mixtis salvantur.

- *So, therefore, the virtues of the substantial forms of the simple bodies are preserved in the blended bodies.*

59. sunt igitur formae elementorum in corporibus mixtis non quidem actu, sed virtute:

- *Therefore, the forms of the elements are in blended bodies, not indeed by act, but by virtue:*

60. et hoc est quod aristoteles dicit in primo de gener. : non manent igitur elementa scilicet in mixto actu, ut corpus et album, nec corrumpuntur nec alterum nec ambo: salvatur enim virtus eorum.

- *and this is what Aristotle says in I. De Generatione [10 (327b 30)]: "Therefore, the elements evidently do not remain in the blend by act, as body and white do; nor are they corrupted, neither the other nor both: for their virtue is preserved."*

NOTES TO THE READER ON MY TRANSLATION

First, a word about my method of translation. Wherever possible, I try to avoid interpretation by strictly following the latin text, even if that means giving unnatural english expressions. Less of a translation, this is meant to be an aid to the reader who wishes to tackle the latin, but who is not altogether confident in his own latin grammar and vocabulary. With this end, I have divided the text up into 60 phrases, each individually translated into english.

Only a few points of the translation might require explanation. First of all, one may wonder why I have translated "mixtio" as "blend" throughout this work since there are several more common translations which one could use, such as "mixture" and "compound." I have preferred "blend," however, since it seems closer to the meaning of the doctrine of St. Thomas. It calls to mind something like the painter's blending of colors, wherein a medium is achieved which shares some of the powers of each of the colors blended. The reader ought to be aware of this bit of interpretation on my part, and verify for himself whether "blend" is the best word-choice here.

I think that the problem with using the transliteration "mixture" is that it has a different meaning than "mixtio" as it is used in this context. The modern usage of "mixture," especially amongst chemists, corresponds to what Aquinas would call "non vera mixtio sed solum ad sensum." Examples of this would be a mixture of iron filings and sand. The components remain distinct in truth, though they appear to combine.

I think that "compound" is closer than "mixture" to "mixtio" in Aquinas' sense, but it carries certain nuances that "mixtio" does not. When a chemical is called a compound, it implies that the parts continue to exist in some other ways in addition to power. For example, when the chemist says that water is compounded of hydrogen and oxygen, he implies not only that these elements go into the makeup of the new unity, which unity retains certain powers of the components, but that the compound retains a certain heterogeneity of parts whose parts have some of the properties corresponding to the those of the original components. Thus, when a college student calls something a compound, e.g. water, he imagines a mickey mouse head, with the ears being more hydrogen-like and the face more oxygen-like. This modern understanding of chemical unity, where the components are like the organs of the whole, may not be inconsistent with the doctrine of Aquinas, but I think it would be inaccurate to imply Aquinas was intending this notion by translating "mixtio" as "compound."

In any case, I think "blend" is better than either of the alternatives which occurred to me.

I debated how I ought to translate to few instances of "virtus." In my first draft, I preferred "power," as did my proof reader, (despite a possible ambiguity with "potesta",) but while I was studying another latin text which used "virtus" in a similar context, (sci. "De Occultis Operibus Naturae,") I decided that "virtue" was a better translation, since it retained the equivocation of the latin and the association with excellence that this implied. I changed my translation here, but I hesitate nonetheless, since in many circles "virtue" is primarily understood to mean a Victorian woman's chastity, and not manly excellence nor power, as it does in the latin or greek.

I have tried as much as possible to be literal, so as to avoid too much interpretation, even when the correct sense seemed clear. This is difficult, especially for constructions like the ablative absolute. One can translate these into english using the preposition "by" and the perfect passive particle, but it is not a natural construction in english. My personal preference is to torture the english so as to leave the interpretation up to the reader, but I received so many objections from my proof reader for indulging in this, that I have not always followed my preferences in this version.

Finally, I decided not to footnote the text. I was tempted to identify the various objections with Avicenna et al. in footnotes, and reference the parallel texts, but decided that this might distract a student from the argument. A parallel passage in the Summa can be referred to should the student wish to identify these objectors. Since Aquinas himself supplements his arguments with those of Aristotle, and refers to his works, I did take the liberty to suggest in square brackets the exact place in the text of Aristotle of which Aquinas is thinking. Eventually, I hope to hypertext link all these references.

In any case, I offer this translation for your use. Since the latin is next to the english, it is very easy to check the translation against the original, and alter it as one prefers, e. g. changing the rarely used adverb "multiply" in line 31 to "in many ways", or the particle "saying" in line 27 to "who says". The latin is not difficult and minor changes could easily be

made. If greater changes are needed, the reader should be free to make them, e.g. if one preferred to have the latin in a column beside the english, or if one wanted the latin removed altogether, or if one wanted a more idiomatic english construction. The reader need simply download the electronic text and make one's own private changes. If the reader thinks that some portion of the translation is misleading, however, or correct, but overinterpreted, he can readily reach me by e-mail and suggest the corrections -

God bless,

Peter Orlowski

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