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<885, col. b>²

Utrum in actionibus naturalium et irrationalium agentium vera causalitas finalis intercedat.

Whether true final causality intercedes in the actions of natural and irrational agents.

1. Haec quaestio generalis est de omnibus agentibus carentibus intellectu et voluntate: quibus omnibus commune est ut non possint actiones suas vel media ad finem referre seu ordinare. Et hinc oritur dubitandi ratio: nam propria causalitas finis non est sine hac ordinatione, ut satis declarant illae particulae *cuius gratia*, et *propter quod aliquid fit*, quibus causalitas finis solet declarari: et ideo difficile est invenire aut declarare causalitatem finalem in actionibus horum agentium, et in effectibus eorum prout ab ipsis provenit. In contrarium vero est, quia haec etiam agentia agunt propter finem, ut late probat Aristoteles in 2. *Physicorum* cap. 7. non potest autem intelligi operatio propter finem sine causalitate finis. Et de brutis est specialis difficultas, nam illa vere moventur ad amandum ex aliqua cognitione boni: ergo intercedit in eo affectu et opere motio metaphorica boni cogniti: ergo illa pertinet ad veram causalitatem finalem. Atque hoc confirmat experientia, nam videmus hirundinem ita congregare paleas vel aliquid simile efficere, sicut expedit ad finem suum, et sic de aliis.

This general question concerns all agents lacking intellect and will, in all of which it is generally the case that they cannot refer or order their actions or means to the end. And from this arises the reason for doubting, for the proper causality of an end does not exist without this ordering as is sufficiently shown by those phrases by which the causality of an end is usually indicated: 'for the sake of which' (*cuius gratia*) and 'for the sake of which something happens' (*propter quod aliquid fit*). But to the contrary is the fact that even these agents act for the sake of an end, as Aristotle proves at length in *Phys.* II, c. 7. Action for the sake of an end, however, cannot be understood without causality of an end. And there is a special difficulty concerning brute animals, for they truly are moved to loving as a result of some cognition of good. Therefore, the metaphorical motion of cognized good intervenes in that affect and action. Therefore, that belongs to true final causality. And experience confirms this for we see that a swallow gathers chaff or effects something similar in such a way as to procure its end and likewise with other things.

A reason for doubting.

Aristotle.

25 *Vetus opinio de agentibus naturalibus.*

The ancient opinion concerning natural agents.

¹Latin text by and large follows the 1597 edition, with most abbreviations expanded and spellings modernized. Punctuation kept as is. I checked the text against the Vivès edition for significant variations. For recorded variants, A = 1597 edition and V = Vivès edition. Note that the Vivès edition does not have marginal notes; many, though not all, of the marginal notes from the 1597 edition are included in the Vivès edition as italicised text at the head of paragraphs.

²Numbers in angle brackets indicate page numbers in the Vivès edition for ease of reference, given that it is the most widely used edition.

Ratio
dubitandi.

Aristoteles.

2. In hac re fuit antiqua opinio veterum Philosopho-
 rum negantium opera naturae provenire ex inten-
 tione alicuius finis, sed casu ita constitisse, vel ex
 concursu atomorum temere ita concurrentium, vel
 5 ex necessitate materiae, ut citato loco 2. *Physicorum*
 cap. 7. et 8. contra Anaxagoram, Empedoclem, Dem-
 ocritum, et Epicurum disputat Aristoteles. Quae
 sententia adeo est absurda, ut refutatione non egeat.
 Oportet tamen advertere aliud esse agere de con-
 10 stitutione totius universi, et de actione universalis
 naturae ad ipsum componendum, et ita regendum ut
 conservari possit: aliud vero de actionibus propriis
 singulorum agentium naturalium. Prior actio seu ef-
 15 fectio revera non est actio alicuius agentis naturalis
 intellectus carentis, sed est actio supremi auctoris
 naturae, qui sua sapientia totam universi naturam
 condidit ac moderatur: et ideo actio illa ad praesen-
 tem quaestionem non spectat, nec de illa dubitari
 20 potest, quin propter finem ab auctore suo intentum,
 atque adeo ex causalitate finis profecta sit, iuxta
 doctrinam praecedentis sectionis. Atque hoc evi-
 dentissime docet ipsa universi pulchritudo, et mira
 partium eius, et causarum omnium consensio et or-
 25 dinatio. Ex qua non solum sancti Patres, sed etiam
 sapientiores Philosophi unum esse huius universi
 auctorem, et gubernatorem, qui in finem a se inten-
 tum omnia constituit et ordinavit, intellexerunt, ut
 30 latius infra tractabimus demonstrando Deum esse,
 et multa de hac re erudite et breviter indicarunt
 Conimbricenses, lib. 2. *Physicorum* cap. 9, q. 1.

3. Solum ergo hic inquirimus de actionibus nat-
 uralium causarum, sive illae sint om- <col. b> nino
 35 particulares, ut ignis, plantae, etc., sive aliquo modo
 universales, ut caeli. De quibus praeterea certum
 et clarum est, non casu aut contingenter certas ac-
 tiones operari, sed unumquodque agens naturale ex

2. In this matter, there was an ancient opinion of the old
 philosophers who denied that the works of nature result
 from the intention of some end but [maintained] that they
 came about by chance either from the concurrence of atoms
 5R blindly coming together in such and such a way or from the
 necessity of matter, as Aristotle argues against Anaxagoras,
 Empedocles, Democritus, and Epicurus in the cited place
 in *Phys.* II, c. 7 and 8. This view is so absurd that there is
 no need for a refutation.

10R Nevertheless, one must note that it is one thing to deal
 with the setting up of the whole universe and with the
 action of universal nature composing it and ruling it so
 that it can be conserved but another thing [to deal] with
 the proper actions of individual natural agents. The former
 15R action or effecting is not really the action of some natural
 agent lacking intellect but is the action of the supreme
 author of nature who puts together the whole nature of
 the universe and guides it by his wisdom. And therefore
 that action is not relevant for the present question, nor can
 20R there be any doubt that it was made for the sake of the end
 intended by its author and for that reason was made by
 the causality of the end, according to the doctrine of the
 preceding section. And the very beauty of the universe and
 the marvelous harmony and ordering of its parts and causes
 25R teaches this most clearly. By this not only the holy Fathers
 but also the wiser philosophers understood that there is
 one author and governor of this universe who sets up and
 orders all things according to the end intended by himself.
 We will discuss this more thoroughly below in demonstrating
 30R that God exists, and the Coimbra [commentators] pointed
 out many things concerning this matter with brevity and
 erudition in *Phys.* II, c. 9, q. 1.

35R 3. Therefore, we inquire here only concerning the ac-
 tions of natural causes that are either entirely particular like
 fire, plants, and so on or that are in some way universal like
 the heavens. In addition, it is clear and certain concerning
 these that certain actions are done not by chance or contin-
 gently but that each natural agent has by the propensity of

Aristotle.

The Coimbra
commentators.

propensione propriae naturae habere definitam operationem, et operandi modum, ac certum terminum, in quem per suam operationem tendit. Quod etiam est evidens experientia, nam lapis sua motu naturali semper fertur deorsum, ignis semper calefacit; ex diversis seminibus diversa viventia procreantur, et aliae potentiae et organa ad hoc munus, aliae vero ad alia destinatae sunt, et eam formam, situm, et reliqua omnia ad operandum necessaria in ea proportione habent res singulae, quae ad tales actiones vel effectus necessaria sunt. Quod in omnibus rebus naturalibus, et praesertim in viventibus, et animalibus videre licet. Fuitque hoc necessarium ad convenientem ipsius universi compositionem et gubernationem, nam cum ex variis rebus et contrariis constet, quae varias etiam, et interdum contrarias actiones exercent, si non essent omnia ita constituta, ut singula ordinate sua munera obirent, in ipso universo summa confusio esset, et res ipsae minime conservari possent. Ut autem huiusmodi concentus et ordo ex tot rebus consurgere posset, necessarium fuit res singulas in destinatos fines seu terminos suis actionibus tendere, ex quibus totius universi bonum consurgeret. Item, hac ratione videmus naturales motus regulariter eodem modo perfici, raroque deficere, idque non absque aliquo extrinseco impedimento occurrente. Item, in suis operibus ita se gerunt res naturales sicut expedit ut ad connaturalem terminum perveniant, quo termino consecuto cessant ab operando. Haec ergo omnia sunt manifesta signa, haec agentia naturalia operari non casu ac temere, sed definito modo tendendo in certum aliquem scopum.

4. Iam vero solum superest quaestio (quae ex parte videtur pertinere posse ad loquendi modum) an ratione huius determinationis dicenda sint haec agentia agere propter finem, et (quod ad nos magis

its proper nature a definite action and way of acting and a fixed *terminus* to which it tends through its action. This is also evident from experience, for a stone is always brought downwards by its natural motion, fire always heats, from different seeds different living things are begotten, and some powers and organs are fixed for this function but others for another function. And individual things have in proportion that form, position, and all the remaining things necessary for acting which are necessary for such actions or effects. This may be seen in all natural things but especially in living things and in animals.

And this was necessary for the agreeable composition and governance of the universe itself, for it is composed of various things and contraries which exercise various and sometimes even contrary actions. If they were not all set up in such a way that each individual attended to its functions in an orderly way, there would be the greatest confusion in the universe itself and the things themselves could not be conserved at all. But so that this kind of harmony and order can arise from so many things, it was necessary that individual things tend to definite ends or *termini* by their actions. From this the good of the whole universe arises. Also, we see by this reasoning that natural motions are carried out regularly in the same way and that they only rarely fail (and this not apart from the occurrence of some extrinsic impediment). Likewise, natural things manage themselves in their action in such a way as is expedient for them to arrive at their connatural *terminus*, which *terminus* having been achieved they cease from acting. Therefore, all these things are manifest signs that these natural agents act not by chance and blindly, but by tending in a defined way to some fixed target.

4. But now there remains only the question (which it seems might in part only pertain to a manner of speaking) whether by reason of these determinations these agents should be said to act for the sake of the end and (what is

See
Lactantius, *De
Opificio Dei*,
and
St. Thomas,
SCG III, from
c. 2.

I reject the
error in which
the difficulty is
located.

Vide
Lactantium,
lib. *De opificio
Dei*, et
D. Thomam 3.
*Summae
contra Gentiles*
a cap. 2.

Reiecto errore
in quo sita
difficultas.

55 confusio esset] esset confusio V.

75 spectat) an eorum actiones dici possint proprie
causatae a finali causa. Aliqui enim simpliciter ne-
gant utrumque loquendi modum, quia ipsa agen-
tia non moventur a fine, in quo proprie causalitas
<887> finis consistit. Item finis respectu harum
80 actionum non se habet ut principium, sed tantum
ut terminus: locus enim deorsum respectu lapidis
non est principium motus quo descendit, sed tan-
tum terminus: finis autem, ut saepe diximus, ut
habet solum rationem termini non est causa, sed
85 ut aliquo modo est principium. Alii vero simpliciter
putant admittendas esse illas locutiones, quia Aris-
toteles absolute ait agentia naturalia operari propter
finem, et formam dicit esse finem naturalis gener-
ationis, et significat esse proprie causam finalem.
90 Item quia natura summo artificio, et industria has
suas operationes exercere videtur, per media valde
proportionata fini.

*Resolutio de causalitate finis in agentibus mere nat-
uralibus.*

5 Nihilominus proprius modus loquendi in hac ma-
teria est, actiones horum agentium naturalium esse
propter finem, et esse effecta causae finalis. Non
tamen ut praecise egrediuntur ab ipsis naturalibus
agentibus, sed ut simul sunt a primo agente, quod
5 in omnibus et per omnia operatur. Vel e converso
(et fere in idem redit) prout ipsa proxima agentia
substant directioni et intentioni superioris agentis.
Et ideo ipsa agentia naturalia non tam dicuntur
10 operari propter finem, quam dirigi in finem a supe-
riori agente. Ita explicarunt rem hanc sapientiores
Theologi et Philosophi, D. Thomas 1 p. q. 103. art.
1. et 3. *Summae contra Gentiles* cap. [24]. ubi uti-
tur communi exemplo de sagitta, quae in certum

75R more relevant to us) whether their actions can properly be
said to have been caused by a final cause. For some simply
deny either way of speaking because the agents themselves
are not moved by an end, which is what the causality of
the end properly consists of. Also, the end does not stand
80R as a principle with respect to these actions, but only as a
terminus. For the place below with respect to a stone is not
the principle of motion by which it descends but only its
terminus. The end, however, as we have often said, is not
a cause insofar as it has only the nature of a *terminus*, but
85R [only insofar] as it is a principle in some way. But others
simply think that these locutions should be granted, since
Aristotle unreservedly says that natural agents act for the
sake of an end and says that form is the end of natural
generation and indicates that it is properly a final cause.
90R Also, because nature seems to exercise these actions with
the utmost skill and industry through means that are very
proportionate to the end.

*The resolution concerning the causality of the end in merely
natural agents.*

5 Nevertheless, the more proper way of speaking in this
matter is that the actions of these natural agents are for
the sake of an end and are effects of a final cause, yet not
precisely as coming out of the natural agents themselves
5R but as being at the same time from the first agent who acts
in all things and through all things.³ Or, conversely (and
perhaps it amounts to the same thing), as the proximate
agents themselves stand under the direction and intention
of a superior agent. And for that reason natural agents
10R themselves are not so much said to act for the sake of an
end as to be directed to an end by a superior agent. This
is the way in which the wiser theologians and philosophers
explain this matter. St. Thomas [explains it in this way]
in I, q. 103, art. 1, and *SCG* III, c. 24, where he uses the

D. Thomas.
Simplicius.

St. Thomas.

³Cf. *DM* 24.2.14.

15 scopum tendit, non tamen in illum se dirigit, sed a
iaculante dirigitur. Idem Albertus in 2. *Physicorum*
cap. 2. et ibi alii Philosophi, et Simplicius text. 78.
sumiturque ex Aristotele ibi, et 1. *De caelo* cap. 4.
20 text. 32. ubi dum coniungit Deum et naturam, di-
cens, nihil facere frustra, satis indicat naturam in
agendo propter finem subordinari Deo. Et eodem
modo lib. 2. *De partibus animalium* cap. 13. ait, nat-
uram nihil agere frustra, et ibidem ait naturam velle
hoc vel illud propter finem: quod non potest intelli-
25 de natura, nisi propter auctorem suum. Et eodem
sensu ait 4. *De generatione animalium* cap. 2. *Om-
nia, quae natura, vel arte fiunt, ratione aliqua sunt.*
Et hinc etiam manavit illud tritum axioma, *Opus
naturae esse opus intelligentiae*, ut est apud Aver-
roem 12. *Metaphysicae* comm. 18. et Themistium 1.
30 *Physicae* text. 81. et 1. *De anima* text. 23. Denique
ideo Hippocrates, quem <col. b> imitatur Galenus
lib. 1. *De usu part.* naturalia agentia, docta et in-
docta vocat, indocta in se, docta in directione primae
35 causae.

6. Atque ita fit ut in his actionibus, ut sunt a
naturalibus agentibus, non sit propria causalitas
finalis, sed solum habitudo ad certum terminum: ut
vero sunt a Deo, ita sit in illis causalitas finalis, si-
40 cut in aliis externis et transeuntibus actionibus Dei.
Adequatam enim principium harum actionum non
est solum proximum agens naturale, nisi forte se-
cundum quid, scilicet in tali ordine; tamen absolute
praecipuum est prima causa: ideoque in adaequato
45 principio talium actionum includitur intellectualis
causa intendens finem earum.

7. Unde ulterius recte concludit Aristoteles, pri-
mam radicem ob quam res naturales habent has
dispositiones, vel haec organa, aut has partes, et
50 similia, non esse sumendam ex sola materia, sed ex
fine. Nam si materia sumatur secundum se, indiffer-
ens est, et nullam habet necessitatem harum disposi-

15R example of an arrow which tends to a fixed target yet does
not direct itself to it but is directed by the shooter. Likewise,
Albertus [Magnus] in *Phys.* II, c. 2, and other philosophers
in the same place and Simplicius in text. 78. And it is taken
20R from Aristotle here and in *De caelo* I, c. 4, text. 32, where,
provided that he conjoins God and nature, he indicates
sufficiently that nature in acting for the sake of an end is
subordinated to God when he says that nothing is done
in vain. And in the same way he says in *De part. an.* II,
c. 13, that nature does nothing in vain. And in that very
25R place he says that nature wills this or that for the sake of
an end, which cannot be understood of nature unless on
account of its author. And in the same sense he says in *De
gen. an.* IV, c. 2: 'All things which are done by nature or
art are for some reason.' And from here flows that familiar
30R axiom 'the work of nature is the work of intelligence' as it
is in Averroes, *Metaph.* XII, com. 18, and in Themistius,
Phys. I, text. 81, and *De anim.* I, text. 23. Finally, for this
reason Hippocrates in *De usu part.* I, whom Galen imitates,
calls natural agents trained and untrained, untrained in
35R themselves, [but] trained in the direction of the first cause.

6. And thus it happens that there is no proper final
causality in these actions insofar as they are from natural
agents but only a disposition to a fixed *terminus*. But insofar
as they are from God, there is final causality in them just
40R as in God's other external and transeunt actions. For the
adequate principle of these actions is not only the proximate
natural agent, except perhaps with qualification, namely,
in such and such an order. Still, without qualification
there is in particular the first cause. And therefore an
45R intellectual cause intending their end is included in the
adequate principle of such actions.

7. Hence, Aristotle rightly concludes further that the
first root on account of which natural things have these dis-
positions or these organs or these parts and similar things
50R should not be taken from matter alone but from an end. For
if matter is taken according to itself, it is indifferent and has
no necessity for these dispositions or properties. But if it is

Simplicius.

Averroes.
Themistius.
Hippocrates.
Galen.Why natural
things are
affected by
different
dispositions.Averroes.
Themistius.
Hippocrates.
Galenus.Cur res
naturales
diversis dispo-
sitionibus
affectae.

tionum seu proprietatum: si vero supponatur ut iam
 55 affecta his vel illis dispositionibus, iam illae intro-
 ductae sunt propter aliquem finem seu formam, et 55R
 ipsa forma indiget illis propter suam conservationem,
 vel propter aliquam operationem: ipsa vero operatio
 rursus est vel propter conservationem speciei aut
 60 ipsiusmet individui, aut saltem propter communica-
 tionem suae perfectiones; in his enim naturalibus 60R
 agentibus non sunt operationes, quae ipsaemet sint
 fines; hoc enim proprium est intellectualium rerum.
 Atque ita omnis connexio et necessitas connaturalis,
 quae per se est in his rebus naturalibus, sumitur
 65 ex ordine ad finem. Neque obstat quod naturales
 proprietates necessario conveniant propter intrin-
 secam dimanationem a forma, quia una habitudo
 non repugnat alteri, sed habent inter se subordina-
 tionem, nam illa necessaria dimanatio reducitur ad
 70 efficientem causam, quae subordinata est finali: ideo
 enim natura dedit tali formae vim ut ab ea dimanar-
 ent tales proprietates, quia illae sunt accommodatae
 ad finem propter quem est res quae per talem for-
 mam constituitur. Sic igitur tam in constitutione et
 75 formatione harum rerum, quam in earum actione
 reperitur concursus finalis causae: intentio autem
 propria talis finis non est in ipsis naturalibus agen-
 tibus, sed in prima causa.

Quae
 80 necessitas
 asserendi
 connexionem
 rerum
 naturalium et
 directionem in
 finem.
 Aristoteles.
 85
 90

8. <888>Sed videri potest alicui sine causa
 conflictus hic modus agendi propter finem, esseque
 praeter Aristotelis intentionem. Nam imprimis Aris-
 80 toteles in 12. *Metaphysicae* videtur sentire Deum
 haec inferiora non agnoscere, nedum curare illa:
 et in lib. *De mundo ad Alexandrum* significat, non
 recte sentire de Deo qui putant Deum in curandis
 his inferioribus actionibus occupari. Deinde si per
 impossibile Deus non concurreret ad actiones agen-
 85 tium naturalium, sed eas independenter suos motus
 agere sineret, nihilominus lapis descenderet deor-
 sum, ignis generaret sibi simile, et sic de caeteris:

supposed as already affected by these or those disposition,
 then these having been introduced are for the sake of some
 end or form and the form itself requires these for the sake
 of its conservation or for the sake of some action. But the
 action itself is in turn either for the sake of the conservation
 of the species or of the individual itself or at least for the
 sake of the communication of its perfections. For there
 60R are no actions which themselves are ends in these natural
 agents, for that is proper to intellectual things. And thus ev-
 ery connection and connatural necessity which is *per se* in
 these natural things is taken from the order to an end. Nor
 is it an objection that natural properties necessarily agree
 65R on account of the intrinsic dimanation of the form, since
 one disposition is not repugnant to another but they have
 a mutual subordination. For that necessary dimanation is
 reduced to the efficient cause which is subordinate to the
 final [cause]. For nature gave the power of such a form in
 70R order that such properties would emanate from it, because
 these are appropriate to the end for the sake of which the
 thing exists which is constituted through such a form. Thus
 for this reason the concursus of a final cause is found in the
 constitution and formation of these things as in the action
 75R of them. But the proper intention of such an end is not in
 the natural agents themselves but in the first cause.

8. But it can seem to someone that this mode of acting
 for the sake of the end was fabricated without cause and is
 contrary to the intention of Aristotle. For, in the first place,
 Aristotle in *Metaph.* XII seems to think that God does not re-
 80R cognize these lower things, much less care about them. And
 in *Lib. de mundo ad Alex.* he indicates that those who think
 God is occupied in cares about these lower actions do not
 think rightly concerning God. Next, if, *per impossibile*, God
 85R were not to concur with the actions of natural agents but
 were to permit them to conduct their motions independently,
 a stone would still descend downwards, fire would still beget
 what is similar to itself, and so on for the remaining things.

This necessity
 in asserting a
 connection
 between
 natural things
 and a
 direction to
 the end.

non est ergo haec finalis causalitas, sed mera naturalis necessitas. Et confirmatur, nam si agentia naturalia agerent ex intentione divina, nunquam errarent in suis actionibus, nec deficerent a consequendis terminis earum: consequens est contra experientiam, cum saepe generentur monstra, quae peccata naturae appellantur. Sequela patet, quia divina intentio nec frustrari potest, nec errare.

9. Respondetur, de Aristotelis mente iam satis ex dictis constat, latiusque infra ostendemus ex eius sententia, habere Deum scientiam et providentiam harum rerum singularium et inferiorum: quod non obscure indicat infra lib. 12. in fine, dum totum universum subiicit Deo tamquam supremo principi et duci. Ad primam vero rationem respondetur primo, ex illa hypothesis impossibili sequi, naturam ordinatissime operari tendendo in finem, sine ulla directione vel intentione finis, quod per se est satis absurdum. Etenim eodem modo posset quis argumentari, quod licet hic mundus non esset ab alio conditus, si ex se ita esset sicut nunc est, habere convenientissimum ordinem sine causalitate finis. Hoc tamen non obstat quominus de facto, sicut non potest esse nisi causatus, ita non potest esse nisi causatus a fine. Ita ergo dicimus, motus et actiones rerum naturalium, sicut non possunt esse sine concursu alicuius intellectualis agentis, ita non posse esse sine causalitate finis. Addo deinde, quod si per impossibile Deus per se et immediate non concurreret ad omnes actiones agentium naturalium, nihilominus mediate dici deberent ordinatae in finem ab auctore naturae, qui et naturalibus agentibus dedit tales virtutes propter tales actiones, et ipsas actiones esse voluit propter certos fines, et generatim propter bonum et conservationem universi. <col./ b>

10. Unde tandem addo, plures esse motus, vel actiones in his rebus naturalibus, quarum non

Multi in natura effectus quorum nulla reddi potest sufficiens causa, praeter finem intentum a prima causa.

⁴Cf. *DM* 29.3.29.

Therefore, there is none of this final causality but mere natural necessity. And it is confirmed: for if natural agents acted according to divine intention, they would never err in their actions nor fail to reach their *termini*. [But] the consequence is contrary to experience, since monsters—which are called sins of nature—are often generated. That the consequence would follow is clear, because divine intention cannot be frustrated and cannot err.

9. It is responded: concerning the mind of Aristotle it is already clear enough from what was said. And we will show more thoroughly below that according to his view God has knowledge and providence of these singular and lower things. He indicates this not obscurely later in book XII at the end provided that the whole universe is subject to God as to a supreme prince and guide. But to the first argument it is responded, first, that from that impossible hypothesis it follows that nature acts most ordinately by tending to an end without any direction or intention of an end. This is absurd enough in itself.⁴ And indeed in the same way someone could argue that, even if this world were not created by another, if out of itself it would be then just as it is now, it has a most agreeable order without the causality of an end. Nevertheless, this is no objection to the fact that just as it cannot be except if it was caused, so it cannot be except if it was caused by an end. So therefore we say that the motions and actions of natural things cannot be without the causality of an end just as they cannot be without the concursus of some intellectual agent. I add, next, that if, *per impossibile*, God were not to concur *per se* and immediately with all the actions of natural agents, they ought still to be called mediately ordered to an end by the author of nature who also gives to natural agents such strength for the sake of such actions and who wills such actions to be for the sake of fixed ends and for the sake of the good and conservation of the universe generally.

10. Whence, finally, I add that there are many motions or actions in these natural things for which no sufficient

The many effects in nature of which no sufficient cause can be given beyond the end intended by the first cause.

potest sufficiens ratio reddi ex privatis proprietatibus vel inclinationibus singularum rerum: aqua
 130 enim sursum ascendit ad replendum vacuum, cuius ratio ex peculiari aquae natura ac proprio impetu reddi non potest, sed ex fine, qui in perfectione totius
 135 universi sit positus, quem oportet ab alio superiori agente intendi. Simile est de aqua maris, quae ita in littore continet impetum, et tumentes fluctus suos, ut terram nunquam cooperiat; utique propter mixtorum et viventium salutem, quem finem intendit
 140 supremus naturae gubernator. Ex his ergo intelligimus, quando hae res naturales moventur vel operantur iuxta proprias et peculiare inclinationes suas, cum per illas etiam deserviant commodis et conservationi totius universi, et suarum specierum,
 145 vel etiam individuorum, et praecipue hominis, in eis etiam operari ex directione in finem, per subordinationem ad superius agens.

Lege
 Aristotelem lib.
 2. *Physicae*
 cap. 8. et 2. *De anima* cap. 4.
 et 1. *Politicae* 150
 cap. 5.
 Aristoteles.

11. Ad confirmationem respondetur simpliciter
 145R negando sequelam: quin potius Aristoteles 2. *Physicae* text. 82. inde confirmat haec agentia naturalia agere propter finem, quia sicut ars intendens finem, interdum illum non assequitur, ita in actionibus naturae, eo quod certum finem intendant, inde sequi
 150R monstra seu peccata naturae, quia non semper possunt finem suum assequi propter impedimentum occurrens. Alioqui, si natura non tenderet in certum finem, nulla essent monstra in natura, quia
 155 non magis aberraret ab scopo, efficiendo monstrum, quam efficiendo quodlibet aliud: nam monstrum proprie est vitium naturae a fine suo deficientis. Quod vero obiiciebatur de intentione auctoris naturae, nil
 160 obstat, quia illa intentio non semper est absoluta et efficax, seu (ut Theologorum more loquamur) per voluntatem beneplaciti, vel consequentem, sed per voluntatem generalem, vel antecedentem: quae est quasi conditionata intentio, quae in hoc consistit,

reason can be given from the private properties or inclinations of the individual things. For water ascends up again to fill the vacuum, the reason for which cannot be given from the specific nature of water and its proper impetus. But [it can be given] according to the end which is placed in the perfection of the whole universe, which must be intended by another superior agent. It is similar with the water of the sea which contains the water's driving force and swelling waves at the shoreline in such a way that it never covers up the earth. This is certainly for the sake of the well-being of mixed and living things, which end the supreme governor of nature intends. From these things, therefore, we understand that when these natural things are moved or act according to their proper and special inclinations, in them they also act according to the direction of an end through subordination to a superior agent, since through those they also serve the advantages and the conservation of the whole universe and its species, and even of individuals, especially of humans.

11. To the confirmation is responded by simply denying the consequence. Rather, Aristotle confirms in *Phys.* II, text. 82, that these natural agents act for the sake of an end, because just as an art intending an end sometimes does not achieve its end, so also in the actions of nature in the case where they intend a certain end, monsters or sins of nature follow thereupon because as a result of an impediment that occurs they cannot always achieve their end. Otherwise, if nature did not tend to a fixed end, there would be no monsters in nature because it would no more deviate from the target when effecting a monster than when effecting anything else. For a monster properly is a vice of nature falling short from its end. But what was objected concerning the intention of the author of nature is no objection at all because that intention is not always absolute and efficacious or, to speak in the manner of theologians, not through the consequent will or the will of good pleasure but through the general or antecedent will, which is, as it were, a conditioned intention that consists in this: that God will a perfect effect

Read Aristotle,
Phys. II, c. 8,
 and *DA* II, c. 4,
 and *Polit.* I,
 c. 5. Aristotle.

165 quod Deus vult effectum perfectum sequi, quantum
iuxta ordinem naturalium causarum sequi potuerit, 165R
cum quibus quantum in ipso est, vult concurrere.
Simul autem vel permittit, vel etiam interdum vult,
et intendit monstra vel pec- <889> cata naturae, vel
170 propter universi pulchritudinem et varietatem, vel ut
causas naturales suos motus et cursus agere sinat. 170R
Et ideo neque cum causa impedita ab alia extraordi-
nario modo vult concurrere, neque etiam impedi-
entem causam peculiari cura aut providentia remove-
re, regulariter loquendo, quamvis ob commune bonum
175 interdum id efficiat, de quo latius Theologi partim 175R
in 1. dist. 45. partim in 2. dist. 37. et D. Thomas
1. q. 22. et q. 105. et legi potest Augustinus 16. *De*
civitate Dei cap. 8. et *Liber 83 quaestionum*, q. 24.

D. Thomas.
Augustinus.

Quomodo bruta animalia propter finem operentur.

12. Superest ut de Brutis animantibus pauca dica-
mus, in eis enim maior quaedam apparet participa-
tio causalitatis finalis. Primo quidem, quia a bono
sibi conveniente et cognito, metaphorice alliciuntur,
5 atque ita in illud tendunt per actum a se elicatum, 5R
et ab illa motione metaphorica causatum: illa ergo
motio aliqua realis causalitas est, et non nisi finalis.
Deinde ut consequantur illud obiectum conveniens
quod appetivere, certa media etiam a se cognita ap-
petunt tanta industria et prudentia, ut videantur 10R
10 plane et cognoscere utilitatem eorum ad finem, et
propter illam ea appetere. De qua sagacitate et in-
dustria animalium, et multa scribunt Philosophi, et
quotidiana experientia nobis satis constat. Quae
15 adeo moverunt nonnullos Philosophos, ut existimar- 15R
ent bruta uti ratione, licet imbecilliori et imperfectiori
quam homines. Quae sententia referri solet ex Por-
phyrio lib. 3. *De abstinentia*. Est tamen non solum

Lege Plinii, lib.
6. suae
Historiae.
Plutarch in
proprio lib. *De*
Industria
animalium.
Porphyrus.
Aristoteles.

to follow insofar as it can follow according to the order of
natural causes since he wills to concur with these insofar
as he is concerned. But at the same time he either permits
or sometimes even wills and intends monsters or sins of
nature, either for the sake of the beauty and variety of the
universe or in order to permit natural causes to conduct
their motions and courses. And for this reason he neither
wills to concur with an impeded cause in some extraordinary
way nor even to remove the impeding cause by special care
or providence, regularly speaking, although he sometimes
effects it on account of the common good, concerning which
the theologians [speak] more thoroughly in I, dist. 45, and
in II, dist. 37, as well as St. Thomas in I, q. 22 and q. 105.
Augustine can also be read: *De civ. Dei* XVI, c. 8, and *De*
div. quaest. octoginta tribus, q. 24.

Augustine.

In what way brute animals act on account of an end.

12. It remains for us to say a little about brute animals, for
in these there appears a certain greater participation in final
causality. First, indeed, because they are metaphorically
drawn by a good that is agreeable to them and cognized, and
thus they tend to it through an act elicited from themselves
and caused by that metaphorical motion. Therefore, that
motion is some real causality but not unless final. Next, in
order to follow that agreeable object which they desired, they
also desire certain means cognized by themselves with such
diligence and prudence that they clearly seem also to cognize
their utility towards the end and to desire them for its sake.
Many philosophers write⁵ about this sagacity and diligence
of animals and it is obvious enough to us from our daily
experience. This is why some philosophers were moved
to think that brute animals use reason, although more
feebly and imperfectly than humans. This view is usually
attributed to Porphyry, *De abstinentia* III. Nevertheless, it
is not only alien to the doctrine of our faith, but in truth

Read Pliny's
History, book
6; Plutarch in
his own book
De industria
animalium.
Porphyry.

⁵First name in marginal note difficult to make out in original, so I'm not sure that it is 'Plinii'. Book 8 of his *Naturalis Historia* would make sense, though it is not as clear that book 6 makes sense.

20 a doctrina nostrae fidei aliena, verum etiam ab omni
ratione et communi hominum sensu, nam poten-
tia rationalis, ut Aristoteles dixit 9. *Metaphysicae*
valens est ad opposita, nam medio discursu in rebus
agendis nunc hoc medio, postea alio utitur: belluae
25 autem non ita operantur, sed semper eodem modo:
quod sufficiens signum est non ratione, sed impetu
naturae duci. Adde, quod si animae brutorum ratio-
nales essent, etiam essent immortales.

Bruta nihil
vere
cognoscere,
aut vitaliter
appetere,
absurdum.

13. Alii vero, ut hoc vitarent incommodum, in
alium extremum errorem inciderunt, negantes bruta
30 quidquam <col. b> vere cognoscere aut appetere
appetitu elicito, sed solum naturali pondere ferri,
ut lapidem, aut extrinsecus mota et attracta, sicut
ferrum trahitur a magnete. Verum hoc aequè absur-
dum est, et contra evidentem experientiam, immo
35 et contra divinam Scripturam. Verumtamen contra
hos duos errores in scientia de anima agendum est
latius.

Bruta
rationem finis
formaliter non
norunt.

14. Quod ergo ad praesens attinet, dicendum
est bruta non cognoscere formaliter rationem finis
40 aut medii, quia non possunt unum cum alio con-
ferre: unde nec in ipso fine cognoscunt propriam
rationem convenientiae propter quam est per se am-
abilis, immo nec discernunt inter obiectum quatenus
est conveniens per se, vel propter aliud, quia hoc to-
45 tum magnam discretionem rationis requirit. Aliquo
tamen modo cognoscunt et apprehendunt rem ali-
quam, aut motionem ut sibi convenientem: et natu-
rali instinctu iudicant sibi esse appetendum, prose-
quendum, vel fugiendum tale obiectum. Qui natu-
50 ralis instinctus nihil aliud est, quam quidam actus
phantasiae seu aestimativae, necessitate naturali ab
illa profluens posito phantasmate talis rei: quo actu
practice (ut humano modo loquar) iudicat brutum
hoc esse sibi vitandum, vel prosequendum aut appe-
55 tendum, quamvis non valeat rationem convenientiae
vel disconvenientiae discernere. Hoc autem natu-

Lege D.
Thomam 1 p.
q. 78. art. 4. et
q. 87. art. 1.
ad 3. et 2. 2. q.
72. art. 1. ad 3.

also to all reason and to humans' common sense. For
rational power, as Aristotle said in *Metaph.* IX, is a power for
opposites, for in the middle of thinking about things to be
done it now uses this means and then another. But beasts
do not act in this way, but always in the same way. This is
a sufficient sign that they are led not by reason but by the
25R impulse of nature. Add that, if the souls of brute animals
were rational, they they would also be immortal.

Aristotle.

13. But others, in order to avoid this disadvantage,
fell into the error of the other extreme, denying that any
brute animals truly cognize or desire by an elicited appetite,
30R [saying] instead that they are only carried off by a natural
weight as a stone is or by something extrinsic having moved
or attracted [them] as iron is drawn by a magnet. But this
truly is equally absurd and contrary to obvious experience
and, indeed, contrary to divine Scripture. Nevertheless,
35R more time should be spent against these two errors in the
science of the soul.

[The view] that
it is absurd
that brute
animals truly
cognize or
vitally desire.

14. Regarding what matters for the present, therefore, it
should be said that brute animals do not formally cognize
the concept of the end or of means, since they cannot relate
40R one to the other. Hence, they also cannot cognize in the
end itself the proper aspect of agreeability for the sake of
which it is lovable in itself. Indeed, they also cannot distin-
guish between an object insofar as it is agreeable in itself
or for the sake of something else, because all this requires
great discrimination of reason. Still, in another way they
45R cognize and apprehend some thing or motion as agreeable
to themselves and judge by natural instinct that they ought
to desire, pursue, or flee such an object. This natural in-
stinct is nothing other than a certain act of imagination or
the estimative power flowing by a natural necessity from
that posited phantasm of such a thing. By this act a brute
animal practically (to speak in a human way) judges that
50R this is to be avoided or to be pursued or to be desired, al-
though it does not have the power to discern the concepts of
agreeability or disagreeability. Moreover, once this natural
55R

Brute animals
do not
formally know
the concept of
the end.

Read
St. Thomas,
Ia.78.4,
Ia.87.1 ad 3,
and
IIaIIæ.72.1 ad
3.

		rali iudicio posito, appetitus etiam naturaliter illud sequitur.		judgement is posited, desire naturally also follows it.	
Bruta quam finis causalitatem participant.	60	15. Ex quo fit primo ut causalitas finis aliquo modo participetur a brutis, ut argumentum factum convincit, quia illa appetitio elicita sine dubio causatur ex metaphorica motione obiectiva boni convenientis, quae non potest ad aliud genus causalitatis revocari. Nihilominus tamen addendum est	60R	15. From this it happens, first, that brute animals in some way participate in the causality of the end, as the argument that was made establishes, since that elicited desire is without doubt caused by the objective metaphorical motion of the agreeable good, which cannot be referred to another genus of causality. Nevertheless, it should still	How brute animals participate in the causality of the end.
D. Thomas.	65	illam causalitatem adeo esse imperfectam in eo genere, ut sit quasi materialis motio finis potius quam formalis, ut significavit D. Thomas 1. 2. q. 1. art. 2. et q. 6. art. 2. Et ratio est, quia non cognoscunt formalem rationem convenientiae vel utilitatis:	65R	be added that this causality is for this reason imperfect in that genus insofar as it is, as it were, a material motion of the end rather than formal, as St. Thomas indicated in [ST] IaIIæ.1.2 and 6.2. And the reason is that they do not cognize the formal aspects of agreeability or utility. Therefore, they	St. Thomas.
	70	ergo non ita moventur ut possint ordinare unum in aliud, nec etiam aliquid formaliter appetere ut propter se amabile: ergo non tendunt formaliter in finem ut finem, nec in me- <890> dium ut medium; neque in finem propter se, et in medium propter	70R	are not moved in such a way that they can order one to another nor can they formally desire something as lovable for its own sake. Therefore, they do not formally tend to	
	75	finem, sed quantum est suo modo operandi, aequè tendunt in utrumque; et ideo merito dicuntur materialiter potius, quam formaliter propter finem operari. Quapropter quantum ad formalem relationem in finem ita existimandum est de actionibus brutorum, sicut aliorum agentium naturalium. Idemque iudicium est de appetitu sensitivo hominis si per se solum consideretur, et non ut subest motioni voluntatis vel rationis, de quo alias.	75R	an end as an end, to a means as a means, to an end for its own sake, nor to a means for the sake of the end, but insofar as it is in its way of acting they tend equally to either and therefore are rightly said to act materially for the sake of the end rather than formally. Wherefore, with respect to a formal relation to the end, one should think about the actions of brute animals just as one thinks about the other natural agents. And the judgement about the sensitive appetite of human beings is the same if it is only	
	80		80R	considered in itself and not as subordinate to the motion of will or reason. [More] about this elsewhere.	