

17
Descartes [Endegeest] to Regius
[April 1641]

CLE, I, 429 (no. 96).
AT, IV, 239–240 (no. 387).
AM, VI, 253–254; RL, 126–129; B, 239–241.

Vir Clarissime,

Nescio quid obstiterit, cur non prius ad tuas responderim, nisi quod, ut verum fatear, non libenter à te dissentiam.¹ Et quia non videbar in eo quod scribebas debere assentiri, idcirco cunctantiùs calamum assumebam. Mirabar enim te illa, quae horariae disputationis examini 5 committere non auderes, indelebilibus typis credere velle, magisque vereri extemporaneas et inconsideratas adversariorum tuorum criminationes, quam attentas et longo studio excogitatas. Cumque meminerim me multa legisse in tuo compendio Physico, à vulgari opinione planè 10 aliena, quae nudè ibi proponuntur, nullis additis rationibus, quibus lectori probabilia reddi possint, toleranda quidem illa esse putavi in Thesibus, ubi saepe paradoxa colliguntur, ad ampliorem disputandi materiam [240] adversariis dandam; sed in libro, quem tanquam novae Philosophiae Prodigium videbaris velle proponere, planè contrarium iudico esse 15 faciendum: nempe rationes esse afferendas, quibus lectori persuadeas quae vis concludere vera esse, priusquam ipsa exponas, ne novitate suâ illum offendant. Sed iam audio à D. Van S(urck)² te consilium mutasse, multòque magis probo id quod nunc suscipis, nempe Theses de Physiologia in ordine ad Medicinam;³ has enim et firmiùs stabilire, et 20 commodiùs defendere te posse confido, et minus facilè de ipsis malè loquendi occasionem adversarij tui reperient. Vale.

11 probabilia AT] probabiles CLE 19 Physiologia] Physiologia CLE 20 defendere] deffendere CLE

1 In the Clerselier collection there is no trace of the letter meant. In the letter, Regius apparently disclosed his plan to publish his work in physics, a precursor of the New Philosophy (ll.13–14 below; cf. my commentary on R/D 12).

2 On Anthony Studler van Surck, see the *Biographical Lexicon*.

3 In April 1641, Regius indeed commenced a series of medical disputations entitled *Physiologia sive cognitio sanitatis* (REGIUS 1641A), which project covered most of the correspondence in 1641 (see my commentary on R/D 18).

COMMENTARY

Date and context

Against the date proposed by Adam and Tannery, Verbeek has argued convincingly that the letter cannot date from July 1645. Verbeek's acceptable alternative is April 1641.⁴

In D/R 17, Descartes asks Regius to reconsider his plan to publish a book; he would rather have Regius discussing his ideas in disputations. The *ExI*, followed by Adam and Tannery, considers D/R 17 to be Descartes' reply to Regius' letter of [13/] 23 June 1645 (R/D 55), thus assuming that the book in question is REGIUS 1646.⁵ The traditional view is corroborated by the first lines of Descartes' subsequent letter (D/R 57), in which he repeats the point of a preceding letter, namely that Regius' method of presenting his ideas is only acceptable in disputations.

Verbeek, however, argues that the traditional date cannot be correct. By 1645, Regius had publicly discussed his ideas many times, whereas Descartes suggests that Regius did not have the courage to defend his philosophy in a disputation (ll. 5–6). Moreover, Regius' book is said to be a precursor (*Prodromus*, l. 14) of the New Philosophy, whereas Descartes had published his own *Principia* in 1644. Finally, mention is made of a change of plans, resulting in Regius discussing 'physiology in relation to medicine', which suggests a theoretical approach, whereas Regius' 1645 disputations all deal with practical medicine.⁶

The allusion to a change of plans — the decision not to publish a textbook on physics but to submit theses on 'physiology in relation to medicine' instead — is the key to fix a new date. Verbeek points to a course of events in the spring of 1641 that correspond to the change of plans mentioned. Early in 1641, Regius went to visit Voetius. He showed him his work on physiology, and he asked Voetius whether it could be published without affronting theologians. Voetius pointed out some passages that might be harmful to the teaching of theology, but he also replied that he did not wish to assume authority in medical matters, and that Regius should take care not to offend his colleagues.⁷ Shortly thereafter, after his appointment as rector of the university, on 16/26 March 1641, Voetius received another visit of Regius who informed him of his plans to publish his philosophy. He would like to know what Voetius thought best: to publish a book or to submit disputations. Voetius preferred that Regius would publish a book, probably because this would not commit the university. Regius, however, insisted on having disputations, and Voetius then suggested that they should not be philosophical — Senguerd, the professor of philosophy, might resent this as an intrusion of his domain — but medical: 'This would allow [Regius] to integrate into his text, either in the form

⁴ *Querelle*, 451–452, n. 41; VERBEEK 1993B, 6–7; VERBEEK 1994, 539–540.

⁵ *ExI*, I, 429, *in margine*: 'La missive de Mr le Roy est du 13 juin 1645, p. 70. La reponse de Mr le Roy est du 6^e Juillet 1645, p. 71' (the note was canceled but it is still legible). A second note on an inserted leaflet reads: 'La 96 lettre du I Vol. est de M. D. a M. Reg. Elle repond a la 32e de Reg. datée du 23 Juin 1645 [...] la reponse de M. R. a cette lettre est du 6^e juillet 1645'.

⁶ In 1645, Regius started an exhaustive series of disputations on the treatment of all sorts of diseases, afterwards collected in REGIUS 1657B.

⁷ NH, 16–18/*Querelle*, 88–90; cf. *Epistola ad Voetium*, AT VIII B 29. Regius had Descartes tackle at least one of Voetius' objections, see R/D 18B and D/R 19B.

of corollaries or as part of the theses, his own opinions on the first part of medicine, which is physiology.⁸ Regius followed Voetius' advice and he initiated, on 17/27 April, a series of medical disputations entitled *Physiologia sive cognitio sanitatis* (REGIUS 1641A).⁹ In the present letter, Descartes seems to approve of the outcome of Regius' meeting with Voetius: 'I hear that you have changed your mind, and I wholeheartedly approve of your decision to embark on theses on physiology in relation to medicine.' (ll. 17–19). As a result, Verbeek proposes to date the letter April 1641, between 26 March and 27 April.¹⁰

It remains to be explained why Regius changed his mind. Perhaps he did because he realised he could have it both ways: he would submit disputations, but have them printed as a book, so the collected disputations would form a coherent unity, perhaps not the precursor Regius had hoped for but nonetheless a specimen of the New Philosophy.

⁸ NH, 18/*Querelle*, 90.

⁹ Regius' *Physiologia* consists of three series of three disputations. The disputations in the first series, *Physiologia* I–III, each have two parts, which were defended separately between 17/27 April and 30 June/10 July 1641. The second series (*Physiologia* IV–VI) commenced after the summer recess, and were submitted in September, on [10/20] November and finally on 15/25 December 1641. The project was brought to an end only in 1643, with the defence of the last three disputations (*Physiologia* VII–IX) on 25 March OS, 13/23 May and in June. The texts of *Physiologia* I–III and a part of *Physiologia* VI, which are the most interesting disputations from a philosophical and medical point of view, are found in the Appendix.

¹⁰ Verbeek does not consider the possibility that D/R 17 dates from the spring of 1640, when Regius turned his thoughts to publishing his physics as well, but eventually chose to submit a disputation (cf. R/D 12B). The change of plans in D/R 17, however, does not seem to refer to this episode. First, because the description 'theses on physiology in relation to medicine' sounds more ambitious than a single disputation on blood circulation. Second, Regius' reluctance to submit disputations, as shown in D/R 17, may indicate a previous experience, the disputation on blood circulation of June 1640.

Regius to Descartes [Endegeest]

21 April [/1 May] 1641

Vie, II, 62–63 [A], 140 [B], 141 [C], 142 [D] (no. 14).
AT, III, 366–367 [B, C, D] (no. 238–I).

[A]

Monsieur | Regius voulant marquer qu'il ne voulait aussi rien faire que du con- 63
sentement et de l'avis de ses collègues, communiqua sa réponse¹ à ceux d'entre
eux qu'il savait sur tout n'être pas si bien intentionnés pour lui que les autres.
Il la fit voir à Voetius, à Liraeus, et à Charles de Maets, dit *Dematius*, l'un des
5 Professeurs en théologie, qui se contentèrent de lui dire de traiter simplement
son sujet, et de retrancher ce qui pourrait s'y trouver de piquant et de railleur.
Ces Messieurs appellent cet adversaire *Primerosius*, comme fait aussi M. Regius.²
[*I.m.*: Narrat. hist. pag. 15. Reg. Epist. 14.]

[B]

Le Recteur charmé de la déférence et des honnêtetés de M. Regius, [*i.m.*: Lettr. 14
de Regius. MS. à Desc.] qui lui avait apporté ses thèses à corriger, se contenta d'y
faire quelques remarques pour sauver l'honneur de la philosophie ancienne [...].³

[C]

M. Regius, pour défendre ses sentiments contre la médisance et les vers satyriques
de ses envieux, jugea à propos de faire imprimer une exposition simple de cette
première dispute.⁴ Il en écrivit le XXI d'Avril à M. Descartes pour l'informer

1 Regius' reply to Primrose (REGIUS 1640B).

2 The marginal reference to R/D 18 accounts solely for Regius mentioning Primrose in his letter. All other information in the passage is derived from NH, 15/*Querelle*, 88. Perhaps Regius commented on the misfortune that befell on Primrose's proposed response to him (see my commentary on R/D 16).

3 Regius showed Voetius his *Physiologia* before he submitted the text, asking the theologian if there were any points that were in conflict with Calvinist doctrine (see my commentary on D/R 17). Voetius marked out some points that could harm the theological programme, but he did not wish to judge any medical opinion. The first disputation *Physiologia* Ia, *De sanitate, pars prior* took place on 17/27 April, the respondent being Johannes de Raey. Four days later, Regius wrote Descartes R/D 18, and sent him the printed text of the disputation along with the drafts of *Physiologia* Ib and *Physiologia* IIIa–b. Descartes discusses one of Voetius' remarks in D/R 19, ll. 37–45.

4 Regius' abandoned his plan to publish 'une exposition simple'. NH records that Regius' 1641 disputations were particular rowdy events. Moreover, both parties distributed satirical poems (NH, 19/*Querelle*, 91). None of these satirical poems, of which only a small number were printed, have been preserved. Descartes refers to two poems in the *Epistola ad Voetium*, AT VIII B 32, and *Lettre apologétique*, AT VIII B 235–236 (cf. BOS 1999B, 422). Three laudatory poems for Regius' respondents Hayman (see my commentary on D/R 13), Petrus Pueteman (REGIUS 1641B-II), and Henricus van Loon (REGIUS 1641B-III) are printed behind the texts of the disputations. The last two poems, by I. Camp and Cornelis Bruinvisch, overtly call for combatting and purging traditional philosophy.

de toutes choses, et pour lui marquer que ces oppositions ne servaient qu'à lui
 5 augmenter le courage avec lequel il espérait soutenir les efforts des adversaires de
 leur philosophie commune. Mais pour lui faire sentir les besoins qu'il avait de
 son secours, il lui donna avis que la plus grande partie de l'Université se soulevait
 contre lui par les pratiques de Voetius, qui prétendait employer le crédit de son
 Rectorat à la ruine du Cartésianisme. [*I.m.*: Lettr. 14 MS. de Reg.] Il lui exagéra
 10 surtout la fierté du jeune Voetius, Maître-ès-Arts,⁵ qui ne manquait pas d'esprit,
 mais que l'autorité de son père semblait avoir rendu insolent dans les accusations
 fausses et ridicules dont il avait prétendu le charger.

Il lui envoya en même temps la suite des thèses qu'il devait encore faire le v
 jour de Mai, avec les remarques que le Recteur y avait faites avant que de les lui
 15 passer.

[D]

Les secondes thèses, soutenues le 5 de Mai, n'eurent pas moins d'éclat que les
 premières, et elles ne firent pas moins de peine aux Professeurs de philosophie, de
 médecine et de mathématique, auxquels Voetius voulut persuader que Regius avait
 juré la ruine de la philosophie qu'ils professaient, et qu'il sapait les fondements de
 5 leurs connaissances.⁶ Après les disputes de physiologie, il en eût d'autres dans le
 cours de l'été touchant les opérations de l'esprit, touchant les passions de l'âme, la
 substance, la quantité, le mouvement, et sur les principales questions de médecine.
 [*I.m.*: Lettr. 14 MS. de Reg.]

5 Paulus Voet graduated on 29 June/9 July 1640 in philosophy and the arts (VOET 1640). On 24 May 1641 OS, he was appointed associate professor of metaphysics (*Resolutiën*, 154).

6 The second disputation, *Physiologia Ib, De sanitate, pars posterior*, was defended by Cornelis Bruinvisch (c.1623–1652). Baillet's *Vie* is the only source for the date of the disputation, 5 May, without indication of the calendar used. However, as 25 April/5 May was Easter Sunday, the precise date of the disputation needs to be 5/15 May. Bruinvisch pursued his studies not in medicine but in theology. He defended several theological disputations for Meinardus Schotanus and Voetius in 1642 and 1643; the latter are specifically directed against Cartesianism (POSTMA 1980, 79–80. VOETIUS 1648–1669, I, 808–868). He became a minister, first at Zuidland (1645) and finally at Zierikzee in 1650 (VAN LIEBURG 1996, 41).

COMMENTARY

Date

Baillet gives the date of the letter, 21 April 1641, without indication of the calendar used. According to the *ExI*, the exact date is 21 April/1 May 1641.⁷ Another indication that the date is indeed 21 April OS, is the fact that in text C Regius relates the reaction of his opponents to the disputation *Physiologia* Ia, which took place on 17 April OS.⁸

Text

My presentation of R/D 18 differs from AT in two respects. First, another selection from Baillet's *Vie* is added, text A, because it contains a reference to Regius' letter 14 in the Clerselier collection.

Second, I omit a passage added by Adam and Tannery to text B, because it is not connected to any of Regius' letters:

La première dispute publique de ces thèses se fit le XVII jour d'Avril de l'an 1641. M. Regius y présidait; et celui qui la soutenait sous lui était le jeune Monsieur *de Raey*, qui s'est rendu depuis fort célèbre par ses écrits et son savoir, et qui est encore aujourd'hui au nombre des vivants.⁹

There is no reference to Regius' letter in the passage. Baillet probably retrieved the date of the disputation from NH, and the respondent's name from D/R 19B (l. 1).

The third difference concerns text D. In AT the selection concludes with a passage where Baillet refers to Regius' letter 15 in the Clerselier collection. I have placed this fragment in its proper context, i.e. R/D 30 ([14/] 24 February 1642).

⁷ *ExI*, I, 392, in the margin of letter no. 84 (which I divide in D/R 19B and D/R 20): 'Celle cy sert de reponse a celle de Mr le Roy du 21^e Avril 1641'. A note on an inserted leaflet reads: 'La 84e du I Vol. p. 392 est de M. Desc. a M. le Roy, c'est une reponse a une lettre de M. le Roy datée du 21^e Avril/1 May 1641'.

⁸ The date of the disputation is found in NH, 18/*Querelle*, 90. In 1641, Easter fell on 25 April (Julian calendar), so the disputation was submitted on a Saturday, the last day before the Easter holiday of the university.

⁹ *Vie*, II, 140.

19 A
Descartes [Endegeest] to Regius
[early May 1641]

CLE, I, 396 (no. 85).
AT, III, 369–370 (no. 239).
AM, IV, 344–345; RL, 34–37; M, 352–353; CSMK, 181; B, 113–115.

Vir Clarissime,

Tota nostra controversia de *anima triplici*, magis est de nomine quam de re.

5 Sed primò, quia Romano-Catholico non licet dicere *animam* in homine esse *triplicem*, vereorque ne mihi homines imputent quod in tuis thesibus ponis, mallet ab isto loquendi modo abstineas.¹

2. Etsi *vis vegetandi et sentiendi* in brutis sint actus primi, non [370] tamen idem sunt in homine, quia *mens* prior est, saltem dignitate.

3. Etsi ea quae sub aliqua generali ratione conveniunt, possint à
10 logicis tanquam eiusdem generis partes poni, omnis tamen eiusmodi generalis ratio non est verum genus; nec bona est divisio nisi veri generis in veras species, et quamvis partes debeant esse oppositae ac diversae, ut tamen bona sit divisio, non debent partes à se mutuo nimium distare.² Nam si quis, exempli causa, totum humanum corpus in duas
15 partes distingueret, in quarum unâ solum nasum, et in aliâ caetera omnia membra poneret, peccaret ista divisio, ut tua, quod partes essent nimis inaequales.

4. Non admitto *vim vegetandi et sentiendi* in brutis mereri *animae* appellationem, ut *mens* illam meretur in homine; sed vulgus ita voluisse,
20 quia ignoravit bruta *mente* carere, atque idcirco *animae* nomen esse aequivocum, respectu hominis et brutorum.³

5. Denique,⁴

⁴ Sed ... in CLE, D/R 19A is not divided into paragraphs

¹ See 19B, n. 2. All four points raised in D/R 19A, the draft of Descartes' letter, are repeated in the final version of the letter, D/R 19B, ll. 10–30.

² In his draft of *Physiologia* Ib, Regius seems to have conceived the soul as a genus consisting of the species mind, vegetative power and animal locomotive power, see below, D/R 19B, ll. 10–17.

³ For Descartes' deliberate choice of the term *mens* over *anima*, which Regius accepted, see FOWLER 1999, 161–186, 356. In his discussion of D/R 19, Fowler notes that in Descartes' estimation, the centuries old dispute about the plurality of the soul was based on the equivocal use of *anima*, and neatly solved by replacing it by the word *mens*, thus signalling the elimination of all 'soul functions' below that of *cogitatio* (FOWLER 1999, 315–320). Cf. ROTHSCUH 1968, 54.

⁴ Clerselier adds: *Deest reliquum*.

19 B
Descartes [Endegeest] to Regius
[early May 1641]

CLE, I, 392–395 (no. 84–I).
AT, III, 371–374 (no. 240–I).
AM, IV, 346–351; RL, 38–42; M, 353–356; CSMK, 181–183 (partly); B, 115–118.

Vir Clarissime,

Queri sane non possum de tua et Domini de Raey humanitate, quod
meum nomen vestris thesibus praemittere volueritis;¹ sed neque etiam
scio qua ratione à me gratiae vobis agenda sint; et tantum video novum
5 opus mihi imponi, quod nempe homines inde sint credituri, meas opi-
| niones à vestris non dissentire, atque adeo ab iis quae asseruistis, pro 393
viribus defendendis, me imposterùm excusare non debeam; et tantò
diligentius ea quae legenda misisti debeam examinare, ne quid in iis
praetermittam, quod tueri recusem.

10 Primum itaque, quod ibi minus probo, est quod dicas *Animam ho-*
mini esse triplicem; hoc enim verbum, in mea religione, est haeresis;² et
reverà, sepositâ religione, contra Logicam etiam est, *animam* concipere
tanquam genus, cuius species sint *mens, vis vegetativa, et vis motrix*
animalium. Per *animam* enim *sensitivam* non aliud debes intelligere,
15 praeter *vim motricem*, nisi illam cum *rationali* confundas. Haec autem
vis motrix à *vi vegetativa* ne specie quidem differt; utraque autem toto
genere à *mente* distat. Sed quia in re non dissentimus, ego rem ita
explicarem.

20 *Anima* in homine unica est, nempe *rationalis*; neque enim actiones
ullae humanae censendae sunt, nisi quae à ratione dependent. *Vis* autem

1 On 17/27 April 1641, Johannes de Raey defended the disputation *Physiologia* Ia. No copy of the original title page of the disputation is extant, so it is not known how Descartes' name was brought up, but in any case Regius disoblged Descartes in this respect (see above, D/R 13, l. 38–41). In the series of the *Physiologia*, De Raey also defended *Physiologia* IIIb (30 June/10 July), *Physiologia* VI (15/25 December) and *Physiologia* IX (June 1643).

2 Regius was well aware of this, as he knew Descartes' letter to Plemp, in which the philosopher reminds his correspondent that it is an article of faith that the rational soul is indivisible and has no other sensitive or vegetative soul attached to it (15 February 1638, AT I 523; cf. R/D 1B, ll. 28–31). Both at the Council of Vienne (1311–1313) and the Fifth Lateran Council (1512–1517) the theory of plurality of souls was condemned (FOWLER 1999, 317). Bitbol-Hespériès, however, points out that in medical tracts the discussion of the human soul as threefold was commonplace (BITBOL-HESPÉRIÈS 1993, 66–67). It was also generally admitted that the theory of the threefold nature of the soul had advantages in establishing the immortality of the soul (FOWLER 1999, 316–317). For the Neo-Scholastic background of Descartes' discussion of the soul in D/R 19, see DES CHENE 2000, especially pp. 155–169 on the tripartite soul.

vegetandi, et corporis movendi, quae in plantis et brutis anima vegetativa et sensitiva appellantur, sunt quidem etiam in homine, sed non debent in eo *animae* appellari, quia non sunt primum eius actionum principium, et toto genere differunt ab *anima rationali*.³ [372]

25 *Vis autem vegetativa* in homine nihil aliud est quam certa partium corporis constitutio, quae etc.⁴ Et paulo post:

Vis autem sensitiva est, etc.⁵ Et postea:

Hae duae itaque nihil aliud sunt quam corporis humani, etc.⁶ Et postea: Cumque *mens, sive anima rationalis*, à corpore sit distincta etc., non immerito *sola* à nobis *anima* appellatur.⁷ 30

Denique, ubi ais: *Volitio vero et intellectio differunt tantum, ut diversi circa diversa obiecta agendi modi*, mallem: *differunt tantum ut actio et passio eiusdem substantiae*. Intellectio enim propriè mentis passio est, et volitio eius actio; sed quia nihil unquam volumus, quin simul 35 | intelligamus, et vix etiam quicquam intelligimus, quin simul aliquid velimus, ideo non facile in iis passionem ab actione distinguimus.⁸ 394

Quod autem tuus Voëtius hic annotavit, nullo modo tibi adversatur.⁹ Cum enim dicunt Theologi nullam substantiam creatam esse immediatum suae operationis principium,¹⁰ hoc ita intelligunt, ut nulla creatura 40 possit absque concursu Dei operari, non autem quod debeat habere facultatem aliquam creatam, à se distinctam, per quam operetur; absurdum enim esset dicere istam facultatem creatam esse posse immediatum alicuius operationis principium, et ipsam substantiam non posse. Alia vero quae annotavit, in iis quae misisti non reperio, ideoque nihil possum 45 de ipsis iudicare.¹¹

3 With a minor change, the whole paragraph occurs verbatim in *Physiologia* Ib, 15 (Appendix, 209, ll. 28–33). The suggestions that follow were adopted as well.

4 Cf. *Physiologia* Ib, 15 (Appendix, 209, ll. 34–35).

5 Cf. *Physiologia* Ib, 15 (Appendix, 210, l. 1).

6 Cf. *Physiologia* Ib, 15 (Appendix, 210, ll. 5–6).

7 Cf. *Physiologia* Ib, 16 (Appendix, 210, ll. 15–17).

8 Descartes' modification and subsequent explanation reoccurs verbatim in *Physiologia* Ib, 16 (Appendix, 210, ll. 33–37).

9 Voëtius saw the text of the disputation beforehand. See R/D 18B, and 18C, ll. 13–15.

10 It is probably Regius' explanation of the definition '*Anima humana est actionum humanarum primum in homine principium*' which induced Voëtius to place his remark (*Physiologia* Ib, 15 (Appendix, 209, l. 23)). In the published text, Regius gives a perfectly Scholastic interpretation of the 'first principle', but adds '*alii tamen statuunt ab animâ immediatè operationes fieri, ut à calore fit calefactio*'.

11 As Voëtius had seen all of *Physiologia* (see my commentary), Descartes' remark suggests that Regius had not sent the complete manuscript.

Ubi agis de coloribus, non video cur nigredinem ex illorum numero eximas, cum alii etiam colores sint tantum modi. Sed dicerem tantum: *nigredo etiam inter colores censeri solet, sed tamen nihil aliud est quam certa dispositio, etc.*¹² [373]

50 De iudicio, ubi ais: *Haec nisi accurata et exacta fuerit, necessario in decidendo etc.*, pro *necessario* ponerem *facile*. Et paulo post, pro *itaque haec potest suspendi etc.*, ponerem *atque haec etc.*; neque enim quae subiungis ex praecedentibus deducuntur, ut verbum *itaque* videtur significare.¹³

55 Quod dicis de affectibus, *illorum sedem esse in cerebro*, est valde paradoxum, atque etiam, ut puto, contra tuam opinionem. Etsi enim spiritus moventes musculos veniant à cerebro, sedes tamen affectuum sumenda est pro parte corporis quae maxime ab illis alteratur, quae proculdubio est cor; et idcirco dicerem: *Affectuum, quatenus ad corpus*
60 *pertinent, sedes praecipua est in corde, quoniam illud praecipue ab illis alteratur; sed quatenus etiam mentem afficiunt, est tantum in cerebro, quoniam ab illo solo mens immediatè pati potest.*¹⁴

Paradoxum etiam est dicere, *receptionem esse actionem*, cum reverà tantum sit passio actioni contraria; sed eadem tamen quae posuisti, videntur sic posse retineri: *Re- | ceptio est actio (vel potius passio)*
65 *animalis automatica, quâ motus rerum recipimus; hîc enim, ad omnia quae in homine peraguntur sub uno genere comprehendenda, passiones cum actionibus coniunximus.*¹⁵ 395

Quae denique habes in fine *de temperie ad calidum aut frigidum etc.*

12 Regius accepted Descartes' suggestion, cf. *Physiologia* IIIa, 37 (Appendix, 226, l. 32–33). The disputation was defended by Jacobus Blocquius, or Block, (c.1619–1645), who matriculated as a student of theology at Leiden University in October 1639 and again in September 1641 (*Album Stud. Acad. Lugd.-Bat.*, 308, 326). In between he studied in Utrecht, and after his second stay in Leiden he went back again to Utrecht, where he defended a theological thesis under Meinardus Schotanus in May 1642. He became a minister at Scherpenisse in 1644, possibly through the mediation of the professor of theology Dematius, who had been minister at Scherpenisse and Middelburg, the birthplace of Block, before his appointment at Utrecht University (POSTMA 1980, 79. VAN LIEBURG 1996, 25).

13 Descartes' suggestions are adopted in *Physiologia* IIIb, 43 (Appendix, 234, l. 40, 235, l. 3).

14 Descartes' explanation is taken over verbatim by Regius, *Physiologia* IIIb, 44 (Appendix, 235, l. 19–21). Cf. REGIUS 1650A, 4. In *Passions de l'âme* (1649) Descartes rejects the traditional view that the heart is the passions' seat; the principal seat of the passions is the brain, or more specifically, the pineal gland, but the soul nevertheless feels the passions chiefly as they were in the heart (art. 33, 36, AT XI 353–354, 356–357/CSM I 340–341, 342). In adjusting the draft of *Physiologia* IIIb after Descartes' suggestions, Regius incorporated a thesis on passions, which did not meet with Descartes' approval when he reviewed the published text, see D/R 23.

15 Taken over verbatim in *Physiologia* IIIb, 46 (Appendix, 237, ll. 13–15).

70 *deflectente*, non examinavi; quia nullis talibus, tanquam Evangelio,¹⁶
credendum puto.¹⁷

Gaudeo tuum respondentem rectè functum fuisse officio, nec puto
quicquam tibi esse metuendum ab iis qui contra te stilum exercebunt.
Quaecumque mittes libenter legam, et cum solita mea libertate, quicquid [374]
75 sensero, rescribam. Nihil scripsi de Centro gravitatis, sed de vario
pondere gravium, secundum varia à centro terrae intervalla. Quod non
habeo nisi in libro, in quo multa alia simul compacta sunt; sed tamen, si
legere vis, prima occasione qua D. Van S(urck) Ultraiectum ibit, illum
ad te per ipsum transmittam.¹⁸

COMMENTARY

Date

Clerselier printed both a preliminary draft (19A), and what appears to be a final version (19B) of Descartes' reply to R/D 18 (21 April [1 May]). In the first half of D/R 19B Descartes discusses the draft of *Physiologia* Ib, which comments Regius received before the disputation took place, as the comparison with the printed text of the disputation shows. Baillet reports that *Physiologia* Ib was scheduled for 5 [15] May (cf. R/D 18D), and consequently the date of the letter lies between 2 and approximately 10 May 1641.

Text

In CLE and AT the texts of D/R 19 (A and B) and D/R 20 are configured differently than in the present edition. Previous editors consider D/R 19A to be a separate letter, and they take D/R 19B and D/R 20 together, printing D/R 20 without break behind D/R 19B. D/R 19A corresponds to letter AT no. 239, and D/R 19B and D/R 20 correspond to AT no. 240.

72 Gaudeo ... *no new paragraph in CLE*

16 A similar expression is found in Descartes' letter of 11 October 1638, AT II 378.

17 Regius closes *Physiologia* IIIb with a traditional classification of disease according to the principles of the humoral doctrine. Disease is defined as the deviation from the right balance (*temperies*) of one or more of the qualities of the humours, warm (*calidus*), cold (*frigidus*), moist (*humidus*) and dry (*siccus*) (*Physiologia* IIIb, 48–49 (Appendix, 239, ll. 2–39); cf. *Physiologia* Ib, 9–10 (Appendix, 205)). Descartes did not examine the account, stating that one should not put too much faith in the theory of the humours developed by Galen. For Galen's classification of disease, see SIEGEL 1968, 198–215.

18 The book is probably the manuscript of *Le Monde*, and not, as is generally believed, *Examen de la question géostatique* (an appendix to a letter to Mersenne, [13 July 1638], AT II 222–245/CM VII 347–368), see VERBEEK 1994, 543–544. In his *Responsio*, Regius makes a clear reference to *Le Monde*: 'Etiam si omnia naturae arcana nondum specificè ex nostris principiis (uti ingenue fatemur) possimus explicare, eo tamen res jam pervenit (ut iis constat qui Principis nostrae Philosophiae mundum viderunt, aut Physica nostra Fundamenta sunt edocti) ut caelum et terra [...] à nobis jam perfecte intelligantur', REGIUS 1642, 20. The impact of *Le Monde* is noticeable in Regius' second series of disputations in 1641, for example in thesis 22 of REGIUS 1641B-II: '*Motus* (ut primus observavit et docuit Author gallicae dioptricae, horum sacrorum mystagogus) in creatione variis materiae partibus, à Deo variè fuit inditus; isque perseverabit in eodem gradu, donec haec rerum stabit universitas' (cf. *Le Monde*, ch. 8, AT XI 48–56).

In an additional note to the letters AT nos. 239 and 240, Adam and Tannery express their doubts about the unity of AT no. 240 (AT III 703). Descartes' last remark in AT no. 240 suggests that the text consists of two different letters. While Descartes discusses Regius' definition of the threefold human soul in the first part of AT no. 240, he concludes AT no. 240 by saying 'In my previous letter, which I have sent two days ago, I already replied to the question of the threefold human soul' (D/R 20, ll. 19–20). In their note, Adam and Tannery divide AT no. 240 therefore in two parts, taking *Gaudeo* (D/R 19B, l. 72) as the start of a new letter (AT no. 240-B). They suggest the following chronological order: 1. AT no. 240-A, in reaction to a lost missive containing the draft of Regius' first disputation, and therefore written before 17/27 April. Adam and Tannery think it is unlikely that Regius would not have consulted Descartes about the draft of the disputation. 2. AT no. 239, a quick reply to R/D 18, in which Descartes reiterates his objections against the thesis on the tripartite soul; and finally 3. AT no. 240-B, a response to the remainder of R/D 18 sent two days after AT 239.

After Adam and Tannery, several other scholars have tried to solve the difficulties regarding AT nos. 239 and 240. De Vrijer advances the idea that AT no. 239 is a preliminary sketch for paragraphs 2–7 of AT no. 240 (D/R 19B, ll. 10–36).¹⁹ He considers AT no. 240 to be a unity; the letter to Regius referred to in the last paragraph of AT no. 240 would then be lost.

Lacking the actual text Descartes comments upon, Regius' *Physiologia*, Adam and Tannery as well as De Vrijer could not push their hypotheses any further. Micheli, after his rediscovery of a copy of the *Physiologia* in the 1960s, was able to shed more light on some aspects of AT no. 239 and AT no. 240. He rightly deduces that *Physiologia* Ia and Ib were subsequently submitted on 17/27 April and 5 [15] May. Moreover, he notes that much of Descartes' remarks in AT no. 240 can be found in Regius' disputations *Physiologia* Ib, IIIa and IIIb. Micheli concludes that AT no. 240 is a reply to R/D 18, which Regius received before *Physiologia* Ib was printed.²⁰ Unfortunately, Adam and Tannery's additional note on the letters seems to have escaped Micheli, for he does not examine the question of the unity of AT no. 240.²¹

In sum, AT nos. 239 and 240 pose three unsolved questions. 1. The unity of AT no. 240. 2. The relation between AT no. 239 and the first part of AT no. 240. 3. The question of their respective dates.

In order to solve the question of the inner inconsistency of AT no. 240, I accept Adam and Tannery's solution that AT no. 240 is made up of two different letters, which

¹⁹ DE VRIJER 1917, 108, n. 1.

²⁰ M, 352–357. Micheli dates AT no. 239 'fine aprile 1641', but he does not deviate from AT in this respect because he supplies all dates in the Old Style.

²¹ More or less at the same time as Micheli, Roths Schuh discovered a copy of the *Physiologia* in Neuburg a/d Donau. I refrain from discussing Roths Schuh's contribution to the issue at hand, for, in spite of having Regius' text at his disposal, his comparison with Descartes' letters AT no. 239 and AT no. 240 is defective (ROTHSCHUH 1968, 43–44, 48, 61–62). Roths Schuh wrongly concludes that Descartes had not seen the drafts of *Physiologia* Ib, IIa–b, that both parts of *Physiologia* I were submitted on 17/27 April and *Physiologia* II likewise on 5 May. Verbeek, on the one hand recognising that *Physiologia* Ib shows the influence of AT no. 240, but on the other hand maintaining that on 17/27 April both parts of *Physiologia* I were defended, reckons that the date of AT no. 240 is probably wrong (VERBEEK 1992A, 103, n. 22).

I list as D/R 19B and D/R 20. However, I do not regard the paragraph *Gaudeo* as the start of a new letter. To me it seems to be the natural conclusion of the preceding text. Descartes returns to the subject of the first paragraph as he congratulates Regius with the performance of his respondent during the disputation. Next, he kindly offers to read carefully whatever Regius will send him, which is reminiscent of the closure of D/R 13, and probably meant to soften his words of the first paragraph where he said that he is forced to do so.

With respect to the relation between AT no. 239 and the first part of AT no. 240 (D/R 19B), I agree with De Vrijer that the first is a preliminary and unfinished sketch of the latter. I therefore list AT no. 239 as D/R 19A. In both cases Descartes is discussing one and the same passage in the draft of *Physiologia* Ib, namely the definition of the human soul, *Animam homini esse triplicem*. That the final text (19B) turned out to be different from the draft, can be accounted for by supposing that Descartes decided to move from a mere explanation of his objections to offering Regius a ready-made alternative for the passage in question. Nevertheless, the first five paragraphs of 19A still resemble paragraphs 2–7 of 19B to such an extent, that paragraph 8 of 19B probably continues where the 6th paragraph of 19A breaks off (*Denique*, 19A, l. 22; 19B, l. 31). Placing 19A after 19B, Adam and Tannery have been led astray by the opening phrase of 19A, ‘Our entire dispute (*controversia*) concerning the threefold nature of the soul’ (CSMK 181), which may suggest an ongoing discussion between Descartes and Regius.²² However, in the published text of *Physiologia* Ib, paragraphs 3–8 of 19B reappear *verbatim*, and this indicates that Regius readily adopted the alternative proposed in 19B. There was no ongoing controversy.

Finally, the question of the respective dates of D/R 19A, D/R 19B and D/R 20. Micheli established that Regius received D/R 19B and D/R 20 before he submitted *Physiologia* Ib. Adam and Tannery’s conjecture that Descartes had also seen the text of *Physiologia* Ia prior to its defence, is, however, unfounded. The first paragraph of D/R 19B shows that Descartes reacts to *Physiologia* Ia after the disputation has taken place. For he draws a sharp distinction between, first, the things Regius had (already) publicly stated and which Descartes will now have to defend as his own, and second, the things Regius is going to defend in public and which Descartes has to check to be sure that they do not contain anything he would not dare to defend himself. Descartes is forced to this course of action because he finds his name on the title page; had Descartes been consulted about the text beforehand, he would probably have objected to this practice as he had done in the case of Regius’ first disputation in 1640 (D/R 13, ll. 2, 38–41).

²² This is probably the reason why Clerselier had AT no. 240 followed by AT no. 239.

CLE, I, 395–396 (no. 84-II).
 AT, III, 374–375 (no. 240-II).
 AM, IV, 351–353; RL, 42–44; M, 356–357; CSMK, 183 (partly); B, 118–119.

Non probo quod nolis *squammas piscium etc. vocari corpora lucida, quia non impellunt ipsaemet globulos aethereos*. Id enim etiam non facit carbo ignitus, sed sola materia subtilissima, quae tunc carbonis partes terrestres, tunc globulos illos aethereos impellit.¹

5 Quod etiam *venae Mezeraiicae Chylum in Pancreate² à venis lacteis accipiant*, mihi non constat; nec sanè affirmare debes, nisi certissimâ experientiâ cognoveris, nec etiam eâ de re scribere, tanquam si nullae venae lacteae ad hepar usque chylum deferant, quoniam sunt qui affirmant se id expertos, et admodum verisimile mihi videtur.³

10 Vellem etiam ut ea deleres quae habes contra Waleum *de motu cordis*, quia vir ille est pacificus, et tibi nihil gloriae potest accedere, ex eo quod ipsi contradicas.⁴

Non etiam tibi assentior, cum definis *actiones esse operationes ab homine vi animae et corporis factas*; sum enim unus ex illis qui negant
 15 hominem corpore intelligere. Nec moveor argumento quo contrarium [375]

5 Quod ... in CLE, D/R 20 is not divided into paragraphs 10 Vellem ... no new paragraph in CLE 13 Non ... no new paragraph in CLE

1 Next to some examples of luminous bodies (*Physiologia* IIIa, 35 (Appendix, 234, l. 40–235, l. 1)), Regius may have listed in his draft of the disputation some of what he believed to be pseudo-luminous bodies.

2 This is probably not the pancreas properly speaking, but the gland which Aselli called *pancreas* (*pancreas aselli*, cf. SCHOUTEN 1972, 230–231, n. 148) and Walaeus *glandula mesenterii*. See the following note.

3 One usually points to Thomas Bartholin (1616–1680) following a note in the *ExI* (*ExI*, I, 395, in *marginē*: ‘C’est l’opinion de Bartholin. V. la remarque de M^r. de la Forge sur l’art. 3 de l’Homme de M^r. Desc.’), but the reference is in fact to Walaeus’ first of two letters to Th. Bartholin on blood circulation — published in early 1641 (WALAEUS 1641, 385–408; the dedication dates from 18 December 1640, the letters themselves of 22 September and 1 December 1640 respectively). The letter contains the observation that chyle from the intestines is assembled in a gland (*glandula mesenterii*, the modern term is *cisterna chyli*), from where the chyle reaches the liver via tiny chylous vessels (WALAEUS 1641, 387). Regius, however, was confident enough to maintain in his disputation that other vessels besides chylous vessels transport chyle to the liver (*Physiologia* IIa, 19–20 (Appendix, 213, ll. 14–15); idem in REGIUS 1646, 175). See also D/R 13, ll. 56–65. Trevisani deserves credit for identifying Walaeus as the person Descartes alludes to in his letter (TREVISANI 1992, 244, n. 152). The particular passage in Walaeus’ first letter to Bartholin referred to by Trevisani, however, was added only in the fourth edition of Walaeus’ letters (WALAEUS 1645).

4 No specific attack on Walaeus’ views, which Regius possibly inserted in his draft to provoke a polemic, is present in the *Physiologia*. On the difference of opinion on the working of the heart between Descartes/Regius and Harvey/Walaeus, see p. 46.

probare contendis; etsi enim mens impediatur à corpore, ab illo tamen ad intellectionem rerum immaterialium iuvari planè non potest, sed tantummodò impediri.⁵

20 De *Anima* | hominis *triplici* iam respondi in praecedentibus quas 396
misi nudius-tertiùs, et idcirco hic tantum addo, me tibi addictissimum
semper futurum.

COMMENTARY

Date

In the last paragraph of D/R 20, Descartes refers to a previous letter sent two days earlier, in which he had already discussed Regius' thesis of the threefold human soul. The previous letter in question is D/R 19B, which I date between 2 and approximately 10 May 1641. The present letter also contains a comment on the draft of *Physiologia* Ib, the influence of which is retraceable in the final version of the disputation (ll. 13–18). Regius thus received D/R 20 before the disputation was defended, on 5 [15] May 1641.

Text

In CLE and AT the text of D/R 20 is printed without a break behind D/R 19B (AT no. 240). For the argument to divide the text, see my commentary on D/R 19.

19 De ... no new paragraph in CLE

5 To some extent Regius appears to have taken Descartes' criticism into account, for nothing similar to the argument referred to is found in *Physiologia*. On the other hand, Regius still defines 'actions' as *operationes ab homine vi animae humanae, vel corporis, vel utriusque factae* (*Physiologia* Ib, 15 (Appendix, 209, ll. 21–22)). 'Actions' are further subdivided into 'natural' and 'animal'. The latter actions, which are either actions of thought (*actiones cogitativae*) or automatic or sensitive (*automaticae seu sensitivae*) actions, depend on the body but need the rational soul (*vis animae seu mentis*) for their accomplishment (*Physiologia* IIa, 17; IIIa, 33 (Appendix, 211, ll. 1–3; 233, 1–3)). Here emerges the difference of opinion on the relationship between mind and body (ROTHSCHUH 1968, 48).

Descartes [Endegeest] to Regius

[second half of May 1641]

CLE, I, 397–398 (no. 86).
 AT, III, 454–456 (no. 255).
 AM V, 76–78; RL, 56–59; M, 358–359; CSMK, 199 (partly); B, 128–129.

Vir Clarissime,

Accepi tuas theses, et gratias ago; nihil in ipsis invenio quod non arideat.¹ Quae ais de actione et passione, nullam mihi videntur habere difficultatem, modò illa nomina rectè intelligantur: nempe, in rebus
 5 corporeis omnis actio et passio in solo motu locali consistunt, et quidem actio vocatur, cum motus ille consideratur in movente, passio vero, cum consideratur in moto.² Unde sequitur etiam, cum illa nomina ad res im-
 10 materiales extenduntur, aliquid etiam motui analogum in illis esse considerandum; et actionem dicendam esse, quae se habet ex parte motoris, [455] qualis est volitio in mente, passionem vero ex parte moti, ut intellectio et visio in eâdem mente.³ Qui vero putant perceptionem dicendam esse actionem, videntur sumere nomen actionis pro omni reali potentia, et passionem pro sola negatione potentiae; ut enim perceptionem putant esse actionem, ita etiam haud dubiè dicerent in corpore duro recep-
 15 tionem motus, vel vim per quam admittit motus aliorum corporum, esse actionem; quod rectè dici non potest, quia passio isti actioni correlativa esset in movente, et actio in moto. Qui autem dicunt actionem omnem ab agente auferri posse, rectè, si per actionem motum solum intelligant, non autem, si omnem vim sub nomine actionis velint comprehendere:
 20 ut longitudo, latitudo, profunditas, et vis recipiendi omnes figuras et motus, à materia sive quantitate tolli non possunt, nec etiam cogitatio à | mente. 398

1 Descartes had received the printed version of *Physiologia* Ib, on which he comments in ll. 2–22, and the draft of *Physiologia* IIa, which is discussed in the second part of D/R 21. *Physiologia* IIa was defended in late May or early June 1641 by Johannes Hayman, who defended REGIUS 1640A and *Physiologia* IIb as well.

2 Thesis 21 of REGIUS 1641B-II (2/12 December 1641) is reminiscent of Descartes' explanation here: 'Hinc constat omnes actiones et passiones corporum naturalium tantum esse motiones locales, tum activas, tum passivas'.

3 The last paragraph of *Physiologia* Ib is devoted to the difference between will and intellect as *action* and *passion* of the soul (*Physiologia* Ib, 16 (Appendix, 210, ll. 31–37)), to which subject Descartes already contributed in D/R 19B, ll. 31–36.

In Chartulis quas misisti, pag. 2, linea 7, *ac praecipuè cordis*: videtur ibi esse aliquis error calami; non enim premuntur partes à corde,
 25 sed sanguis ad hepar ex aliis partibus missus, ac praecipuè ex corde, iuvat coctionem. Non intelligo etiam quae ibi sequuntur de ligatura geminata, et alternatim dissoluta.⁴

Pagina 4, experimentum de corde follibus inflando, nisi feceris, non author sum ut apponas; vereor enim ne, corde exciso et frigido,
 30 tam rigidum evadat, ut ita inflari non possit; sed facile est experiri, et si succedat, pones ut certum, non autem cum verbis *iudico* et *videntur*.⁵ [456]

Pagina 5, quae habes de magnete, mallet omitti; neque enim ad-
 huc planè sunt certa; ut neque illa quae habes, pag. 6, de gemellis, et
 35 similitudine sexûs.⁶ Vale et me ama, et communes amicos⁷ meo nomine plurimùm saluta.

COMMENTARY

Date

Together with D/R 24 and D/R 25, Adam and Tannery place D/R 21 in December 1641, being the latest possible date of the letter. They rightly conjecture that the letters were written in 1641, between April and December, but not having a copy of Regius' *Physiologia* at their disposal, they could not be more specific, nor could they establish the exact chronological order of the letters. Micheli answers both questions. He places D/R 21 in May 1641, pointing out that from Descartes' comments on the *chartulis* (l. 23) sent by Regius, we can conclude that Descartes had received the draft of *Physiologia* IIa. Unfortunately, we do not know exactly when this disputation was defended, but it probably took place in late May or early June. In the first lines of D/R 21 Descartes thanks Regius for sending what appears to be the printed text of a disputation, which, in that case, would be *Physiologia* Ib, for he has already received the published text of *Physiologia* Ia (see D/R 19B). Disputation *Physiologia* Ib was held on 5 [15] May, which means that the present letter dates from the second half of May 1641.

23 In ... *no new paragraph in CLE* 28 Pagina ... *no new paragraph in CLE* 32 Pagina ... *no new paragraph in CLE*

4 Possibly a reference to *Physiologia* IIa, 19 (Appendix, 213, l. 9–11).

5 Descartes' description of the experiment matches the one Regius uses to illustrate his theory of the heartbeat, viz. that the heart expands vigorously during the diastole: 'Porro si quis etiamnum de tempore diastoles cordis dubitet: ille cor canis adhuc calens duobus simul follibus per venam cavam et arteriam venosam alternatim inflatum inspiciat: ea enim ratione clarissime diastole et systole cordis possunt dignosci' (*Physiologia* IIa, 22 (Appendix, 215, ll. 21–24)).

6 No discussion of magnetism or twins is present in *Physiologia*.

7 These mutual friends include Van der Hoolck, Van Haestrecht, Æmilius, and Van Waessenaer Jr. See R/D 53.

CLE, I, 385–386, (no. 81-II).
 AT, III, 65–66 (no. 190-II).
 AM, IV, 60–61; RL, 26; M, 332; B, 93.

Venio nunc ad Theses quas misisti;¹ et quia scio te velle, ut liberè
 scribam meam mentem, tibi hic obtemperabo. Ubi habes: *vicinus aër* [66]
cuius particulae, etc., mallet: *vicinus aër qui*, etc. *potest*; neque
 enim singulae particulae condensantur, sed totus aër, per hoc quod eius
 5 particulae ma- | gis ad invicem accedant.² 386

COMMENTARY

Date

This fragment is all that survives of Descartes' remarks on the draft of disputation *Physiologia* IIb, *De actionibus naturalibus, Pars posterior (Physiologia, 25–32)*. The exact date of the public defence of the disputation is unknown, but it probably took place in June 1641 and before Whitsun holiday, which lasted from 11/21 to 17/27 June. Regius incorporated Descartes' suggestion in the final text of the disputation, and the fragment therefore dates from June 1641.

Text

Clerselier pasted the fragment into a text that consists of fragments of several letters, the main body of which concerns Descartes' discussion of the draft of Regius' 1640 disputation on blood circulation (REGIUS 1640A, see my commentary on D/R 13). The phrase Descartes quotes in the present fragment, *vicinus aër, cuius particulae*, is found in REGIUS 1640A, but without the change Descartes required.³ This makes it unlikely that the fragment belongs to D/R 13, for Regius accepted all Descartes' proposals there.

1 The theses in question concern the draft of *Physiologia* IIb. The text of D/R 22 is the only extant fragment of Descartes' discussion of *Physiologia* IIb, see my commentary. The disputation was defended by Hayman in the first half of June 1641.

2 Regius accepted Descartes' emendation: 'Aër itaque in inspiratione pectus ingreditur, [...] quia thoracis dilatatione *vicinus aër, qui*, teste experientia, nec poros pectoris penetrare, nec nisi magna vi condensari *potest*, de loco deturbatur, ac porro alium loco movet', *Physiologia* IIb, 26 (Appendix, 217, ll. 29–33). Emphasis added. The disputation *Physiologia* II contains an elaborated version of REGIUS 1640A.

3 'Aër itaque in inspiratione pectus ingreditur, [...] quia thoracis dilatatione *vicinus aër, cuius particulae* tam crassae sunt, ut poros pectoris penetrare non possint, de loco deturbatur; qui porro alium loco movet', REGIUS 1640A, [6]/AT III 733–734 (my italics).

[June 1641]

D/R 22

Moreover, a keyword in Descartes' comment, *condensari*, which must have been in the text commented, is absent in REGIUS 1640A. By contrast, Descartes' suggestion is adopted in *Physiologia* IIb, where one finds the wanted keyword as well. In CLE both the part before and the part after the present fragment can definitely be dated June 1640 (D/R 15) and July 1641 (D/R 23) respectively, and the fragment is therefore listed as a separate letter.

Descartes [Endegeest] to Regius
[July 1641]

CLE, I, 386, (no. 81-III).
AT, III, 66 (no. 190-III).
AM, IV, 61; RL, 26; M, 333; CSMK, 148 (partly); B, 93.

Neque video cur velis *perceptionem Universalium magis ad imaginationem quam ad intellectum pertinere*.¹ Ego enim illam soli intellectui tribuo, qui ideam ex se ipsâ singularem ad multa refert.² Mallet etiam non dixisses *affectum esse tantum duplicem, laetitiam et tristitiam*, quia
5 planè aliter afficimur ab *ira* quam à *metu*, quamvis in utroque sit *tristitia*, et sic de caeteris.³

COMMENTARY

Date

In D/R 23 Descartes voices his objections to two theses he found in the text of Regius' disputation *Physiologia* IIIb, submitted on 30 June/10 July 1641. Descartes' remarks relate to the published text, because his use of the *plusquamperfectum* in *Mallet etiam non dixisses* (ll. 3–4) excludes the possibility that Regius' text could still be changed. Assuming that Regius sent the publication shortly after the disputation took place, the fragment D/R 23 is dated July 1641.

Text

In CLE and AT, D/R 23 is part of a much larger text (AT no. 190), which consists of fragments of five different letters. Because D/R 23 is written after 10 July 1641, it cannot

1 Neque ... *no new paragraph in CLE (in continuation of D/R 22)*

1 'Perceptio universalium ad imaginationem pertinet', *Physiologia* IIIb, 42 (Appendix, 234, l. 8). Despite Descartes' remark, Regius maintained the thesis in REGIUS 1646, 285.

2 Cf. *Principia*, I, art. 58 and 59, AT VIII A 27–28/CSM I 212–213.

3 'Affectus itaque est tantum duplex: *Laetitia* et *Tristitia*', *Physiologia* IIIb, 44 (Appendix, 235, l. 25). Regius names the principal passions in five pairs, viz. *amor, odium; laetitia, tristitia; spes, desperatio; audacia, timor; ira* (*pudor* is added only in REGIUS 1646). These passions are then reduced to two, *laetitia* and *tristitia*. Although Regius does not reiterate the reduction in REGIUS 1646, 289–290, *laetitia* and *tristitia* are still treated as exemplary of the other passions. In REGIUS 1650A, 8, Regius advances *voluptas* and *dolor* as the two principal passions (cf. DE VRIJER 1917, 194; HOHN 1990, 28–30). For Descartes' classification of the passions, see *Passions de l'âme*, art. 69, AT XI 380. Regius added the theses Descartes objects to in D/R 23 after he had sent the draft of *Physiologia* IIIb to the French philosopher for his comments, see D/R 19B, ll. 50–62.

[July 1641]

D/R 23

belong to the fragments of AT no. 190 which are certainly of an earlier date, D/R 13, D/R 15 (resp. 24 May and June 1640), and D/R 22 (June 1641). Nor does it seem to be connected to D/R 27 — the fragment immediately following D/R 23 in AT no. 190 — which fragment I date November 1641. Since there is no indication that Descartes commented upon the published text of *Physiologia IIIb* in the other letters he wrote in the summer of 1641 (D/R 24 and D/R 25), I have listed the fragment D/R 23 separately.

CLE, I, 398–399 (no. 87).
 AT, III, 456–457 (no. 256).
 AM V, 79–80; RL, 60–61; M, 359–360; B, 130.

Vir Clarissime,

Legi raptissimè illa omnia quae iusseras ut perlegerem, nempe partem primi, et partem secundi quaternionis, et quinque alios integros.¹

Quae in primò de adstringentibus, incrassantibus et narcoticis, de
 5 tuo habes, mihi non placent; peculiarem enim aliquem modum, quo fortè
 potest aliquandò contingere ut res fiat, tanquam universalem proponis,
 cum tamen plures alij possint excogitari, ex quibus probabile est eosdem
 effectus saepius sequi.²

In secundo, ais *Idiopathiam esse morbum per se subsistentem*;
 10 mallem dicere *esse ab alio non pendentem*, ne quis philoso- | phus 399
 indè concludat, te fingere morbos esse substantias.³ [457]

De febribus autem breviter hic dicam quid sentiam, ne nihil in hac
 epistola contineatur; de reliquis enim vix quicquam dicam. Itaque febris
 est ...⁴

4 Quae ... in CLE, D/R 24 is not divided into paragraphs

1 Regius had sent Descartes a manuscript of at least seven quires, which included the draft for disputation *Physiologia IV, De morbis*, scheduled for September 1641 (cf. ll. 9–11). In print, *De morbis* consists of 20 pages (*Physiologia*, 51–70), so it is likely that Regius sent more material than the draft of *De morbis* alone, which is probably the material for *Physiologia V (Physiologia, 73–94*, scheduled for [10/20] November), on which Descartes comments in D/R 25. The respondent of both disputations, Johannes van Horn (1621–1670), defended REGIUS 1641B-1 (24 November OS) as well. Van Horn first studied in Leiden under Walaeus, carried on his studies in Utrecht, and then made a long tour to Italy. In November 1642 he graduated in Padua (DSB, 6, 508–509; NNBW, VII, 624–626; SCHOUTEN 1972, 117; LINDEBOOM 1984, 908–910; POELHEKKE 1961, 329; *Alb. Stud. Acad. Lugd.-Bat.*, 280). On his way home he travelled through France, Switzerland and England. In 1651, he was appointed associate professor at Leiden University, and two years later he became full professor of anatomy and surgery.

2 Descartes' disapproval induced Regius to drop the subject; no exposé on these particular medicaments is present in the *Physiologia*. In *Physiologia Ib*, 6 (Appendix, 202, ll. 35–36), Regius announces that 'vires detergendi, incidendi, adstringendi, laxandi, aperiendi, obstruendi, purgandi etc.' will be dealt with when curation is discussed. A disputation *De curatione* is not known, but 'Vires adstringendi ... incrassandi ... somnum conciliandi' are listed, among many others, as 'facultates medicamentorum' in *Physiologia IX, De therapeutica*, 155 (June 1643).

3 '*Idiopathia est morbus ab alio morbo non dependens*', *Physiologia IV*, 56.

4 Clerselier adds: *Deest reliquum. Et si candidè et generosè D. Regius velit agere, illud supplebit*. Clerselier refers to Regius' device to his portrait in REGIUS 1654: *Candide et Generose* (another portrait with the same device is reproduced in DE VRIJER 1917). It is regrettable that the promised account of fever is not

COMMENTARY

Date

Descartes' suggestion in ll. 9–11, on idiopathy, is adopted in *Physiologia IV, De morbis*, a disputation scheduled for September 1641. In ll. 12–14 Descartes sets out to expound his ideas on fever, which is a subject in the same disputation. Unfortunately, the precise date of the disputation is not specified, but it is safe to assume that the letter was written between June and October 1641.⁵

Micheli dates the letter in June 1641, because in his view the second paragraph would deal with the draft of *Physiologia IIIb* (M, 360). According to Micheli, the passage Descartes objects to, and which was subsequently dropped by Regius, would have been a digression on the text of the first page of *Physiologia IIIb*. Micheli probably aims at the last paragraph of the page where Regius names opium as a soporific.⁶ However, since the discussion of the nature and causes of sleep is in itself a digression of the general topic of *Physiologia IIIb*, the internal or common senses, I fail to see how the treatment of drugs would fit in. Admittedly, it is also difficult to see how it could be part of *Physiologia IV*, but the sole reference to opium in *Physiologia IIIb*, defended on 30 June/10 July, is too weak to warrant a date in June 1641.

extant, for Descartes only sporadically discusses the subject elsewhere (cf. AT I 532–533; AT IV 190–191; AT XI 535–537, 602–603). Descartes' concept of fever and that of some Dutch Cartesians, including Regius, is analysed in VERBEEK 1989.

⁵ In AT, D/R 24 is dated December 1641; cf. my commentary on D/R 21.

⁶ *Physiologia IIIb*, 41 (Appendix, 233, l. 26).

Descartes [Endegeest] to Regius
[between June and October 1641]

CLE, I, 399–400 (no. 88).
AT, III, 457–459 (no. 257).
AM V, 81–84; RL, 62–65; M, 360–362; B, 131–133.

Vir Clarissime,

Accepi tuas litteras, in quibus duas proponis difficultates circa ea quae de febribus ad te scripseram.¹ Ad quarum primam: *cur scilicet causam regularium recursuum in febribus fere semper oriri dixerim à materia, quae maturatione quâdam indiget, antequam sanguini misceri possit;*
5 *irregularium verò, ab eâ quae, cavitatem aliquam implendo, solâ distentione poros aperit,* facile intelliges, si advertas non dari rationem cur istae cavitates tantae sint magnitudinis, et tantus fiat in illis materiae affluxus, ut semper in omnibus hominibus, vel singulis diebus, vel alternis,
10 vel quarto quoque die, vacuentur; dari autem rationem cur aliquis humor unà tantum die, alius duobus, alius tribus indigeat ad maturescendum. [458]

Alteram etiam: *cur nempe, poris apertis, tota aut ferè tota materia expurgetur,* facilè solves, advertendo multò difficilius esse poros planè clausos aperire, quam, postquam semel aperti sunt, impedire ne rursus
15 claudantur; adeo ut satis magna copia materiae debeat effluere, antequam claudantur; imo ferè tota debet effluere, cum nulla est cavitas, nisi quae ex affluxu istius materiae, partes vi distendentis, efficitur; quia partes distentae ad | situm naturalem redire debent, antequam pori claudantur. Si autem sit cavitas per exesionem partium facta, concedo quidem
20 illam materiâ corruptâ plenam manere post expurgationem; adeo ut, cum pori aperti sunt, non nisi pars exsuperans, et latera cavitatis impellens, expurgetur, quae potest esse decima vel vigesima tantum pars materiae in illa cavitate contentae: sed quia sola est haec pars exsuperans, quae febris paroxysmum accendit, ideo sola videtur esse
25 numeranda, et ita semper verum est, totam materiam febris expurgari in singulis paroxysmis.

¹² Alteram ... *no new paragraph in CLE*

¹ Cf. D/R 24, II, 12–14. Descartes' remarks on intermittent fever in the next two paragraphs are retraceable in Regius' — disappointingly short — discussion of fever in *Physiologia* IV, 60–61. The phenomenon receives scarcely more attention in REGIUS 1647, 23–26.

Quantum autem ad gangrenam, etsi sanguinis circulatio, in aliquâ parte impedita, possit aliquandò esse remota eius causa, proxima tantum est corruptio sive putrefactio ipsius partis, quae ab aliis causis quam ab
 30 impeditâ circulatione potest oriri, atque, ipsâ iam factâ, circulationem impedire.²

Quae de palpitatione habes, non mihi satisfaciunt, et tam varias iudico esse posse eius causas, ut non ausim etiam aggredi ipsas hîc enumerare.³

[459]

35 Non etiam existimo excrementa difficiliùs egredi per pilos amputatos quam per integros, sed planè econtra facilius, nisi fortè cum radicitùs extirpantur, et pori, per quos egressi fuerant, occluduntur; multique capitis dolores experiuntur, cum longos alunt pilos, iisque postea liberantur, capillis amputatis. Causam autem cur capilli amputati crescant, puto esse quod excrementa copiosius per amputatos egrediantur.
 40 Hocque etiam confirmat experientia: quia maiores recrescunt quam si nunquam fuissent amputati, quia nempe ob maiorem copiam excrementorum per ipsorum radices transeuntium, ii ampliores evadunt.

Denique convulsionem non puto fieri propter tunicarum densitatem,
 45 sed tantum quia valvulae quaedam, in nervorum tubulis existentes, praeter ordinem aperiantur aut claudantur, quod et spirituum crassities, et organi laesio, ut punctura in tendine vel nervo, causare potest.⁴
 Vale.

27 Quantum ... no new paragraph in CLE 35 Non ... no new paragraph in CLE 43 ii (another possible emendation is eo)] eae CLE 44 Denique ... no new paragraph in CLE

2 No discussion of the cause of gangrene is present in the disputations *Physiologia* IV–VI.

3 Despite Descartes' critical remark, Regius included an analysis of the causes of palpitation in *Physiologia* V, *De symptomatis specialibus*, 75. Indeed, it would have been embarrassing not to discuss the principal symptom of pulse, something Descartes understood quite well (cf. D/R 28, ll. 2–9).

4 Descartes' comment is incorporated almost verbatim in *Physiologia* V, 92 (against GARIEPY 1990, 201, n. 24): '*Spasmus est involuntaria et violenta musculorum à spiritibus animalibus dilatatio et intensio. Haec ex eo oritur, quod valvulae quaedam in nervorum tubulis existentes praeter ordinem aperiantur aut claudantur: quod et spirituum crassities, et organi laesio, et [Descartes: ut] punctura in tendine vel nervo, efficere [Descartes: causare] potest*'. In *Physiologia* V, Regius discusses a range of diseases, for the etiology of which he uses Cartesian neuroanatomy (GARIEPY 1990, 201–202, 203). The existence of valves in the nerves — a notion which Regius without a doubt borrowed from Descartes — is introduced in the analysis of the cause of catalepsy (*Physiologia* V, 87). The fact that Regius had an explanation of convulsions of his own but readily exchanged it for Descartes', may suggest that Descartes indicated the presence of these valves to Regius for the first time in the present letter. Gariépy's conclusion that Regius possessed a copy of Descartes' unpublished *L'Homme* (AT XI 135ff), in which the idea is developed, is by no means warranted.

COMMENTARY

Date

Many of Descartes' remarks are adopted in Regius' disputations *Physiologia IV* (September 1641) and *Physiologia V* ([10/20] November 1641). D/R 24 ends abruptly after Descartes' announcement that he will set forth his ideas on fever. It is nevertheless certain that Descartes did send the exposé, because in the present letter he answers two questions raised by Regius regarding Descartes' essay on fever. If the present letter is the immediate sequel to D/R 24, it is likely to have been written shortly thereafter.⁵

⁵ M, 362. In AT, D/R 25 is dated December 1641, cf. my commentary on D/R 21.

26
Descartes [Endegeest] to Regius
[before mid–October 1641]

CLE, I, 389–390 (no. 82).
AT, III, 440–441 (no. 252).
AM V, 64–66; RL, 46–49; M, 362–363; B, 120–121.

Vir Clarissime,

Cum tuae litterae allatae sunt, hic non eram, iamque primùm domum reversus ipsas accipio. Non magni momenti Silvij obiectiones mihi videntur, nihilque aliud quam ipsum Mechanicae parum intelligentem esse testantur; sed tamen vellem ut paulo blandiùs ei responderes.¹
5 Transversâ lineâ in margine notavi ea loca quae duriuscula mihi videntur.

Ad primum punctum, vellem adderes: *etsi paucus sit sanguis in corpore, venas nihilominus ipso esse plenas, quia se contrahunt ad eius mensuram.*² Imo hoc ipsum posuisti, sed obiter tantum, et puto esse
10 praecipuum ad eius difficultatem dissolvendam.

Ad secundum, puto sanguinem moribundi ascitici refriguisse in eius venulis minoribus et à corde remotioribus, ibique coagulatum impediisse ne novus ex arteriis in venas per circulationem influeret, dum interim
15 sanguis, adhuc calens in cavâ iuxta cor, in dextrum eius ventriculum incidebat, atque ita cavam fuisse vacuatam.³ [441]

Ad tertium, gravitas est quidem plerumque causa concomitans et adjuvans, sed non est causa primaria; nam contra, situ corporis inverso, et gravitate repu- | gnante, sanguis tamen in cor non quidem incideret, 390
20 tractionem.⁴

⁷ Ad ... in CLE, D/R 26 is not divided into paragraphs

¹ D/R 26 and D/R 28 (cf. l. 10ff.) give evidence of an exchange of letters between Regius and Sylvius on the working of the heart. Before replying to Sylvius, Regius showed both Sylvius' letters and his own draft response to Descartes. Several of Descartes' suggestions in D/R 26 and D/R 28 turn up in Regius' disputation *Physiologia VI, De morborum signis* (15/25 December 1641), in which the two classical diagnostic signs, pulse and urine, are analysed. The relevant section on pulse (diastole and systole), composed in discussion with Sylvius, is included in the Appendix, 243–248.

² See *Physiologia VI*, 96 (Appendix, 243, l. 34–244, l. 2).

³ See *Physiologia VI*, 96 (Appendix, 244, ll. 8–12). For Regius' discussion of ascites, see *Physiologia V*, 73. For Sylvius' description of ascites, cf. M, 362.

⁴ In comparison to *Physiologia IIa*, 22, Regius gives in *Physiologia VI*, 96 (Appendix, 243, ll. 21–30) a more elaborate account of the heart's diastole — probably developed in reaction to Sylvius. Added is an explanation why blood enters the heart chambers, for which Regius supplies three causes, viz. the circular blood flow, the spontaneous contraction of the vessels, and gravity (*et plerumque etiam suâ gravitate*).

Ad quartum, ubi loqueris de effervescentiâ sanguinis, mallet agere de eius rarefactione; quaedam enim magis fervent, quae tamen, non adedò rarescunt.⁵

Ad quintum, ubi te accusat, quod affinxeris ipsi obiectionem quam non agnoscit pro sua,⁶ responderem me nihil ipsi affinxisse. Nam cum dixisti: *neque his adversatur quod ventriculi in sistole non sint omnino corpore vacui*, idem sensus fuit, ac si dixisses: *sufficere quod maximam partem saltem vacui sint*;⁷ quâ ratione verò maxima ex parte vacuentur, te postea fusè explicuisse, nullamque eius argumenti vim declinasse.

Denique, circa auriculas cordis, malè videris ipsas distinguere ab ostiis venae cavae et arteriae venosae; nihil enim aliud sunt quam ista lata ostia.⁸ Et malè etiam aliquam ipsis tribuis sanguinis coctionem per ebullitionem specificam, etc. Vale.

COMMENTARY

Date

The overall topic in D/R 26 and D/R 28 is Regius' dispute with Franciscus de le Boe Sylvius. Because D/R 26 clearly precedes D/R 28 — D/R 28 talks about Regius' final reply to Sylvius — we have a *terminus ante quem* in D/R 28, which letter cannot predate 4/14 October 1641.⁹ Consequently, D/R 26 is a reply to a letter by Regius written before 14 October 1641 NS.¹⁰

28–29 quâ ratione ... declinasse *italics* CLE, AT

⁵ Descartes asks Regius not to use *effervescentia*, a term favoured by Sylvius (cf. BAUMANN 1949, 67, 87–89), when referring exclusively to the rarefaction of the blood. Cf. *Physiologia* VI, 100 (Appendix, 246, ll. 20ff.).

⁶ This suggests a previous letter by Regius to Sylvius.

⁷ Cf. *Physiologia* VI, 101 (Appendix, 247, ll. 1–2).

⁸ In distinguishing the auricles from the *vena cava* and pulmonary vein, Regius inclines to the modern view. Descartes, however, imposes the traditional Galenic opinion, see *Physiologia* VI, 102 (Appendix, 248, ll. 5–6). Cf. *Description du corps humain*, AT XI 231, 233.

⁹ See the commentary on D/R 28.

¹⁰ In the mistaken assumption that D/R 26 is in reply to R/D 16, Baillet and the *ExI* date D/R 26 in 1640. See my commentary on the text of R/D 16.

27
Descartes [Endegeest] to Regius
[Autumn 1641]

CLE, I, 386, (no. 81-IV).
AT, III, 66 (no. 190-IV).
AM, IV, 61–62; RL, 26; M, 333; B, 94.

Quantùm ad auriculas cordis, addidissem, id quod res est, nos de ipsis curiosiùs non egisse, quia tantùm illas ut extremitates Venae Cavae et Arteriae Venosae, reliquo ipsarum corpore, etc.¹

5 Omiseram dubium tuum de cordis ebullitione, quod mihi videris iam ipse satis solvisse; cum enim partes cordis spontè subsident, vasis per quae sanguis egreditur adhuc patentibus, non desistit egredi nec clauduntur vasa ista, donec cor subsederit.

COMMENTARY

Date, text and context

Both the date and the context of this fragment are conjectural. In CLE and AT, the fragment is part of a larger text (AT no. 190), consisting of five fragmentary letters, which I have successively separated in D/R 13, D/R 15, D/R 22, D/R 23 and finally D/R 27. In contrast with the other two short fragments, D/R 22 and D/R 23, the contents of D/R 27 offer no positive indication of its date or context. It is certain though that it does not pertain to any of the other texts of AT no. 190. Not to D/R 13 or D/R 22, because in those letters Descartes comments upon the draft of a disputation still to come (REGIUS 1640A and *Physiologia* IIa), whereas the *plusquamperfectum* ‘addidissem’ in D/R 27, l. 1 rules this out. Not to D/R 15 or D/R 23, because the physiology of the heart is out of line with the subjects discussed there (respectively Descartes’ *Meditationes* and *Physiologia* IIIb, *De actionibus animalibus*).

The text Descartes comments upon in the first paragraph of D/R 27 must in any case be something meant to be read by a third party, and which, furthermore, could not be changed anymore. But it does not relate to any of Regius’ published works between 1640 and 1646. A possibility that remains, is that the text in question concerns one of Regius’ letters to Sylvius. During his correspondence with Sylvius, Regius showed Descartes Sylvius’ letters and the replies he prepared (cf. D/R 26 and D/R 28). He may

1 Quantùm ... no new paragraph in CLE (in continuation of D/R 23) 4 Omiseram ... no new paragraph in CLE

1 Cf. D/R 26, n. 8.

have supplied Descartes with copies of the final version of his letters to Sylvius as well. In that case, it is possible that D/R 27 concerns Regius' reply to Sylvius discussed by Descartes in D/R 26. In the final paragraph of D/R 26, Descartes objects to Regius' distinction between the auricles and the extremities of the *vena cava* and the *arteria venosa* or lung artery, because Descartes himself upholds the traditional view that the auricles are nothing but these extremities. In *Physiologia VI* Regius adopts this view, but he may have left the matter undecided in the final text of his reply to Sylvius, and simply have said *nos de ipsis [the auricles] curiosius non egisse* (cf. ll. 1–2). On receiving a copy of Regius' letter to Sylvius, Descartes would then have stipulated his opinion once more in D/R 27. If so, it would place the fragment in the autumn of 1641.

The second paragraph is in line with this interpretation. In a previous letter Regius had put to Descartes a particular problem concerning the ebullition of the heart to which Descartes had not responded, because, as he explains, he thought Regius had already solved the question himself in a satisfactory way. In a second letter, Regius repeated his request, and the present fragment is Descartes' answer. The question at hand appears to be Regius' doubt whether or why blood, after the expulsion of the blood during the diastole, still continues to flow from the heart. Related questions are extensively discussed in *Physiologia VI*, in a section devoted to the dispute between Regius and Sylvius.² Regius' letter, then, in which he regretted that Descartes had not answered his question concerning the boiling of the heart, could be the letter Regius sent along with a copy of his reply to Sylvius.

² *Physiologia VI*, 101–102 (Appendix, 247, ll. 1–24).

28
Descartes [Endegeest] to Regius
[November 1641]

CLE, I, 390–392 (no. 83).
AT, III, 443–446 (no. 253).
AM, V, 67–71; RL, 50–54; M, 363–365 (partly); B, 122–125.

Vir Clarissime,

Legi omnia quae ad me misisti, cursim quidem, sed ita tamen ut non
putem quicquam in iis contineri quod impugnem.¹ Sed sanè multa sunt
in Thesibus tuis, quae fateor me ignorare, ac multa etiam, de quibus si
5 fortè quid sciam, longe aliter explicarem quàm ibi explicueris. Quod
tamen non miror; longè enim difficilius est, de omnibus quae ad rem
medicam pertinent suam sententiam exponere, quod docentis officium
est, quam cognitu faciliora | seligere, ac de reliquis prorsus tacere, quod 391
ego in omnibus scientiis facere consuevi.²

10 Valdè probo tuum consilium, de non amplius respondendo Sylvij [444]
quaestionibus, nisi forte ut paucissimis verbis illi significes, tibi quidem
eius litteras esse pergratas, eiusque studium investigandae veritatis, et
gratias agere quod te potissimum elegerit cum quo conferret; sed quia
putas te abundè in tuis praecedentibus ad omnia, quae circa motum
15 cordis pertinebant, respondisse, nuncque videtur tantum disputationem
ducere velle, atque ex una quaestione ad alias transire, quae res esse
posset infinita, rogare ut te excuset si, aliis negotiis occupatus, ipsi non
amplius respondeas.

Initio enim, cum disputat an venae, contractae ad mensuram sangui-
20 nis quem continent, dicendae sint plenae vel non plenae, movet tantum
quaestionem de nomine.³

Ac postea, dum petit sibi ostendi alligatum ferro sanguinem,⁴ et
quaenam sit vera gravitatis natura,⁵ novas quaestiones movet, quales

10 Valdè ... in CLE, D/R 28 is not divided into paragraphs

1 Descartes had received the draft of *Physiologia* VI, and Sylvius' reply to Regius' letter, the draft of which Descartes discussed in D/R 26.

2 Descartes uses words of similar meaning in a letter to Mersenne (22 July 1640, AT III 95–96/CM IX 492–493; quoted in my commentary on D/R 13).

3 See the first point in D/R 26, ll. 7–10.

4 See *Physiologia* VI, 98 (Appendix, 245, ll. 8–11).

5 Cf. D/R 26, ll. 16–20.

imperitissimus quisque plures posset proponere, quàm omnium doctis-
 25 simus in totâ vitâ dissolvere.

Cum ex eo quod sanguis ex venis in cor possit insilire, infert venas
 ergo debere pulsare, facit aequivocationem in verbo *insilire*, tanquam si
 dixeris sanguinem salire in venis.⁶

Cum in comparatione inflationis vesicae notat aliquam dissimili-
 30 tudinem, quod sit violenta, et puer à patente fistulâ os auferat,⁷ nihil agit,
 quia nulla comparatio in omnibus potest convenire; ut neque cum aliâ rati- [445]
 one quam per spontaneam venarum contractionem vult explicare san-
 guinis propulsionem; affert enim fibras transversas vasa coarctantes,
 quod non est diversum à venarum contractione; idem enim significat
 35 fibras vasa coarctare, ac venas contrahere.⁸ Caetera persequer, sed
 omnia per te meliùs potes, et iam ex parte solvisti in Thesibus.

In his autem adiungis corollarium de maris aestu, quod non probo;
 non enim rem satis explicas, ut intelligatur, nec quidem ut aliquo modo
 probabilis fiat; quod iam in multis aliis, quae eodem modo proposuisti,
 40 à plerisque reprehensum est.⁹

Qui motum cordis aiunt esse | Animalem, non plus dicunt quam si 392
 faterentur se nescire causam motus cordis, quia nesciunt quid sit motus
 Animalis. Cum autem partes anguium dissectae moventur, non alia in
 re causa est quam cum cordis mucro etiam dissectus pulsat, nec alia
 45 quam cum nervi testudinis in particulas dissecti, atque in loco calido
 et humido existentes, vermium instar se contrahunt, quamvis hic motus
 dicatur Artificialis, et prior Animalis; in omnibus enim istis causa est
 dispositio partium solidarum et motus spirituum, sive partium fluidarum,
 solidas permeantium.¹⁰

50 Meditationum mearum impressio ante tres menses Parisiis abso-

6 Cf. D/R 26, II. 18–20.

7 The example is given in *Physiologia* VI, 97 (Appendix, 244, II. 14–19).

8 Cf. *Physiologia* VI, 97 (Appendix, 244, I. 24–28).

9 No corollary on the tides was added to Regius' disputations of 1641. Regius explained the phenomenon in his course on physics (quoted in SCHOOCK 1643/*Querelle*, 299–300) and in REGIUS 1646, 90–93. Regius' explanation is essentially the same as Descartes', for which see *Le Monde* (AT XI 80–83) — Regius' source — and *Principia*, IV, art. 49–56 (AT VIII A 232–238).

10 The paragraph reoccurs almost verbatim in *Physiologia* VI, 99 (Appendix, 245, I. 38–246, I. 8). It is, once more, directed against Sylvius. According to Sylvius, the contraction of the heart during systole is an active movement, caused by the contraction of the heart muscle resulting from the cooling animal spirits. The arteries dilate passively as a result of the blood's influx, and subsequently tighten due to the contracting transverse fibres in the wall of the arteries, for which the animal spirits are responsible. BAUMANN 1949, 89.

luta est, necdum tamen ullum exemplar accepi, et idcirco secundam editionem hic fieri consensi.¹¹

Causam, cur in vorticibus iniecta corpora ad centrum ferantur, puto esse, quia aqua ipsa, dum circulariter movetur in vortice, tendit versus exteriora; ideo enim alia corpora, quae nondum habent istum motum
55 circularem tam celerem, in centrum protrudit. [446]

Gratulor D. Vander H(oolck) iterum Consuli, et dictaturâ perpetuâ dignum existimo, tibi que gratulor quod in eo fidum et potentem habeas defensorem.¹² Vale.

COMMENTARY

Date

The text of D/R 28 contains three indications to fix the date of the letter: 1. lines 41–49 reoccur almost verbatim in Regius' disputation *Physiologia* VI (15/25 December 1641); 2. in lines 50–52 Descartes mentions that the printing of the *Meditationes* was completed three months ago (28 August 1641¹³); 3. in the last paragraph (ll. 57–58) Regius is asked to congratulate Van der Hoolck on Descartes' behalf because of his election as Burgomaster (4/14 October 1641¹⁴). Consequently, the letter was written some time between late October and early December 1641.

11 On 17 November 1641, Descartes wrote the same to Mersenne: '[il y a] desia 3 mois que le livre est achevé d'imprimer, [mais Soly] ne m'en a pas toutefois encore envoyé aucun exemplaire', AT III 448–449/CM X 780. Descartes announces in the same letter to Mersenne that the Amsterdam printer Lodewijk Elsevier (1604–1670) is going to provide a second edition. The *Meditationes* left the Paris printing office on 28 August 1641 (cf. AT VII 448). The printer Soly shipped a set of copies to Maire in Leiden, but it did not arrive before May 1642 (cf. Mersenne to Sorbière, [1 June 1642], AT IV 60/CM XI 161).

12 Van der Hoolck was elected second Burgomaster on 4/14 October 1641 (VANDE WATER 1729, 192). Frederik Ruysch became first Burgomaster.

13 Cf. AT VIII v. In his letter to Mersenne of 17 November 1641, Descartes mentions the same delay (AT III 448/CM X 780).

14 VANDE WATER 1729, III, 192.

Descartes [Endegeest] to Regius
[second half of December 1641]

CLE, I, 416–417 (no. 90).
AT, III, 460–462 (no. 258).
AM, V, 85–88; RL, 66–69; CSMK, 200–201; B, 133–136.

Vir Clarissime,

Vix quicquam durius, et quod maiorem offensae ac criminationis occasionem daret, in Thesibus tuis ponere potuisses, quam hoc: *quod homo sit ens per accidens*; nec video quâ ratione meliùs possit emendari, quàm si dicas te, in nonâ thesi, considerasse *totum hominem in ordine ad partes ex quibus componitur*, contra verò, in decimâ, considerasse *partes in ordine ad totum*.¹ Et quidem in nonâ, te dixisse *hominem ex corpore et anima fieri per accidens*, ut significares dici posse *quodammodo* accidentarium corpori, quod animae coniungatur, et animae quod corpori, cum et corpus sine animâ, et anima sine corpore esse possint. Vocamus enim accidens, omne id quod adest vel abest sine subiecti corruptione, quamvis fortè, in se spectatum, sit substantia, ut vestis est accidens homini. Sed te non idcirco dixisse *hominem esse ens per accidens*, et satis ostendisse, in decimâ thesi, te intelligere illum esse ens per se. Ibi enim dixisti animam et corpus, ratione ipsius, esse substantias incompletas; et ex hoc quod sint incompletae, sequitur illud quod componunt, esse ens per se. Utque appareat, id quod est ens per se, fieri posse per accidens, nunquid mures generantur sive fiunt per accidens ex sordibus?² Et tamen sunt entia per se. Obiici tantum potest, non esse accidentarium humano corpori, quod animae coniungatur, sed ipsissimam eius naturam; quia, corpore habente omnes dispositiones requisitas ad animam recipiendam, et sine quibus non est propriè humanum corpus, fieri non potest sine miraculo, ut anima illi non uniatur; atque etiam non esse accidentarium animae, quòd iuncta sit corpori, sed

¹ The notorious thesis that the union of mind and body is accidental, or an *ens per accidens*, which sparked the Utrecht crisis, occurs in the third disputation of the series *De illustribus aliquot quaestionibus physiologicis* (REGIUS 1641B-III), defended on 8/18 December 1641. See my commentary.

² The argument is obviously *ad hoc*, but neither Descartes nor Regius dispute the possibility of spontaneous generation, see AT XI 505–506 and REGIUS 1646, 216–219. See also Aucante’s appendix on spontaneous generation in DESCARTES 2000, 217–218.

25 tantum accidentarium esse illi post mortem, quod à corpore sit seiuncta.
 Quae omnia non sunt prorsus neganda, ne Theologi rursus offendantur;
 sed respondendum nihilominus, ista ideo dici posse accidentaria, quod,
 considerantes corpus solum, nihil planè in eo percipiamus, propter quod
 animae uniri desideret; ut nihil in animâ, propter quod corpori debeat
 30 uniri; et ideò paulo antè dixi, esse *quodammodo* accidentarium, non
 autem *absolutè* esse accidentarium.

Alteratio simplex est illa quae non mutat formam subiecti, ut cale-
 factio in ligno; generatio verò, quae mutat formam, ut ignitio, et sanè,
 quamvis unum alio modo non fiat quam aliud, est tamen magna dif-
 35 ferentia in modo concipiendi, ac etiam in rei veritate. Nam formae,
 saltem perfectiores, sunt congeries quaedam plurimarum qualitatum,
 quae vim habent se mutuo simul conservandi; at in ligno est tantum
 moderatus calor, ad quem sponte redit, postquam incaluit; in igne vero
 est vehemens calor, quem semper conservat, quamdiu est ignis.³

40 Non debes irasci Collegae illi, qui consilium dabat de addendo
 corollario ad interpretandam tuam Thesim; amici enim consilium fuisse
 mihi videtur.

Omisisti aliquod verbum in tuis thesibus manu scriptis, thesi deci-
 mâ: *omnes aliae*. Non dicis quae sint illae aliae, nempe *qualitates*.
 45 In caeteris nihil habeo quod dicam; video enim vix quicquam in iis [462]
 contineri, quod non iam ante alibi posueris, et laudo: esset enim labo-
 riosum nova semper velle invenire. Si huc adveneris, semper mihi tuus
 adventus erit pergratus. Vale.

32 Alteratio ... in CLE, D/R 29 is not divided into paragraphs

3 The second part of D/R 29, ll. 32–48, deals with the draft of a disputation. According to NH, on 17/27 December Regius and the professors of theology, in a joint attempt to ease the tension, agreed that Regius would cancel a disputation which had been scheduled before the start of the winter holiday on 24 December/3 January (NH, 31/*Querelle*, 100; also cited in AT III 489–490). The suppressed disputation probably was a fourth disputation in the series *De illustribus aliquot quaestionibus physiologicis*. Descartes remarks that he has little to comment upon, as the draft does not contain much that was new (ll. 45–47). Apart from Copernicanism and the thesis *ens per accidens*, the REGIUS 1641B disputations indeed borrow their material mainly from *Physiologia* I–III.

COMMENTARY

Date

The letter contains Descartes' criticism on the third disputation in the series *De illustribus aliquot quaestionibus physiologicis* (REGIUS 1641B), defended on 8/18 December, in particular on Regius' dictum that man, being a union of mind and body, is an *ens per accidens* (ll. 2–3). Since Voetius' counter-attack during his disputations of 18/28 December, 23 December/2 January and 24 December/3 January is not mentioned, the letter must be dated in the second half of December 1641.⁴

*Context**The disputations De illustribus aliquot quaestionibus physiologicis*

In the last weeks of 1641, Regius lost much of his credit with his colleagues. The professors started to attack each other in their disputations, not only *viva voce*, but also in print. Despite mitigating attempts by the magistracy, the climate deteriorated by the week. The confrontation began when the professor of mathematics, Ravensberger, allowed a medical student to defend a corollary against Harvey.⁵ Regius protested against this intrusion in medical matters to the first Burgomaster and the Senate, but Ravensberger did not give in. Challenged, Regius decided to put the question of the circulation of the blood back on the agenda. The first of a series of disputations on 'famous physiological questions', defended on 24 November OS by Van Horn, is a vigorous defence of his theory on blood circulation (REGIUS 1641B-I). In the last five theses, Regius specifically attacked — without mentioning their names — the hesitations and objections of Ravensberger and the medical student. The last thesis states that those who are still in doubt about blood circulation, walk around with their eyes shut.

Except for the topical matters, the first disputation did not contain anything new compared to the *Physiologia*. The material in the second disputation — an exposition of the Cartesian theory on matter and motion — is largely taken from the *Physiologia* as well.⁶ However, whereas in the *Physiologia* new and controversial ideas are mixed with

4 Adam and Tannery date the letter mid-December, not taking into account that the disputation took place on 8 December OS, i.e. 18 December NS (AT III 459–460). Verbeek has argued that it is not certain that Descartes comments upon the published text and that he may very well be dealing with a draft (*Querelle*, 452–453, n. 101; 484, n. 55; VERBEEK 1992B, 278–279). Descartes' frequent use of the *plusquamperfectum*, however, indicates that he was confronted with a *fait accompli* (cf. *potuisses*, l. 2; *considerasse*, ll. 5 and 6; *dixisse*, ll. 7 and 13; *ostendisse*, l. 14; *dixisti*, l. 15). Moreover, Regius is warned not to give the theologians any *further* offence (*rursus*, l. 26), which implies that the harm had already been done.

5 NH, 20ff/*Querelle*, 91ff. The disputation in question is RAVENSBERGER 1641, submitted on 17/27 November. NH acknowledges that the corollary reflected the respondent's opinion, whereas Ravensberger was in favour of Harvey's theory. The respondent, Bernardus Pandelaert, had already shown himself an adversary of Regius in a satirical poem (cf. BOS 1999B, 422). NH claims that at the last moment some changes were made in the text of the corollary, after complaints by Regius to the magistracy and the rector (Voetius), but there is no proof of that (cf. *Querelle*, 466, n. 40). NH also states that the theses in REGIUS 1641B-I directed against Ravensberger and Pandelaert (see below) were set in a different typeface, which is, again, not the case.

6 The respondent of REGIUS 1641B-II (2/12 December 1641) is a certain Petrus Pueteman, of whom we know nothing.

purely medical matters, Regius now presents the hard core of his natural philosophy on its own, giving it an aggressive turn.⁷

In the second disputation, general form is defined as the general properties of matter.⁸ Special form, or the human rational soul, is dealt with in the third disputation, defended on 8/18 December by Henricus van Loon:⁹ ‘Together with the body, it forms not one being by itself but by accident, because taken separately each is a perfect or complete substance’.¹⁰ The second part of the disputation is equally daring, as it contains a defense of Copernicanism.

According to NH, the actual dispute went on with the usual rowdiness, but when a theological student attacked the paradoxical thesis on man as a being *per accidens*, Regius’ students stamped, whistled and made it impossible for the opponent to speak.¹¹ The tumult grew worse and worse and did not even stop when the *praeses* and the other professors left the auditorium. Voetius lectured Regius for including the dangerous thesis on man as an *ens per accidens*. Regius apologised and said he had read it in Gorlaeus’ *Exercitationes* and had had no idea that it posed a threat to orthodox theology.¹²

Both Ravensberger and Stratenus reacted in their disputations of 11 and 22 December OS.¹³ The professors of theology prepared their own answer, partly out of concern for the attraction the New Philosophy had on some of their students. Indeed, Henricus van Loon, the respondent of the third disputation, was a theological student, who had

7 VERBEEK 1992A, 15.

8 ‘XIV. *Forma rerum materialium est, per quam, cum materia, res naturales id sunt, quod sunt. XV. Ea est, vel generalis, vel specialis. XVI. Forma generalis, quae vulgo materialis nuncupatur, consistit in comprehensione, motus, quietis, situs, et figurae partium tam sensibilium quam insensibilium materiae, rebus naturalibus conveniente*’, REGIUS 1641B-II, §§ 14–16.

9 Henricus van Loon (c.1617–1659) matriculated in Leiden in November 1637 (*Album Stud. Acad. Lugd.-Bat.*, 291). His move to Utrecht is not recorded. In June 1642, he defended a theological disputation presided over by Meinardus Schotanus. After his studies he became minister at Zandvoort in 1646 (POSTMA 1980, 79; VAN LIEBURG 1996, 154).

10 Translation from VERBEEK 1992A, 16. ‘VIII. *Forma specialis est mens humana, quia per eam cum forma generali in materiâ corporeâ homo est, id quod est. Haec ad formam generalem seu materialem nullo modo potest referri: quoniam ipsa (utpote substantia incorporea) nec est corpus, nec ex motu aut quiete, magnitudine, situ aut figura partium oriri potest. IX. Ex hac et corpore non fit unum per se, sed per accidens, cum singula sint substantiae perfectae seu completae. X. Cum autem dicuntur incompletae, hoc intelligendum est ratione compositi, quod ex harum unione oritur*’, REGIUS 1641B-III, §§ 8–10. Olivo shows that the two expressions *unum per se* and *ens per se*, respectively used by Regius and Descartes, are equivalent (OLIVO 1993, 76–79).

11 NH, 22–23/*Querelle*, 93–94

12 In R/D 32A (ll. 46–47) Regius wrote to Descartes that the respondent had inserted the thesis in the text without his knowledge, which is very unlikely (cf. *Epistola ad Patrem Dinet*, AT VII 585). In his posthumous *Exercitationes philosophicae* (Leiden: J. Comelin, 1620) the theological student David van Goirle or Gorlaeus (1591–1612) expounds an atomist philosophy, rejecting most Aristotelian doctrines, including the theory of substantial forms. According to Gorlaeus, the union of body and soul is *per accidens* and man is no less an aggregate being than a heap of sand. In a recently published study, Lüthy assesses that Gorlaeus’ source for his thesis on man is the German physician and philosopher Nicolaus Taurellus (1547–1606). Lüthy argues convincingly that Gorlaeus developed his theory as a philosophical counterpart of Arminian theology (LÜTHY 2001). Voetius’ reaction, who immediately sided Gorlaeus with Taurellus and the Arminian theologian Conrad Vorstius (1569–1622), can be seen as a confirmation of Lüthy’s conclusion.

13 Both disputations appear to be lost, but the relevant corollaries, in Stratenus’ case no less than 18, are found in NH (NH, 22, 24–25/*Querelle*, 93, 95).

the audacity to dedicate his disputation to all three professors of theology.¹⁴ However, the professors' principal motivation was the inadmissible undermining of Aristotelian philosophy, the true *ancilla theologiae*. The theologians decided that Voetius would add three corollaries to a disputation scheduled for 18/28 December. The first corollary states that Taurellus' claim, adopted by Gorlaeus, that man is an accidental being, runs counter to philosophical and theological truth. The second corollary criticised the Copernican world-view, and the last one accused the New Philosophy of paving the way — just like the philosophy of Taurellus, Gorlaeus and Basso — for skepticism and irreligion in its rejection of substantial forms.¹⁵

Alarmed, Regius asked Van der Hoolck to intervene. The burgomaster conferred with the theologians, and the latter agreed to cancel the announcement that the corollaries would be submitted on behalf of the Faculty of Theology. More importantly even, Voetius dropped his accusation, potentially very dangerous to Regius, that the proponents of the idea that man is an accidental being are generally known as atheists. From his side, Regius consented to postpone one of his disputations, scheduled before the winter-recess.¹⁶

After the public discussion of the corollaries on 18/28 December, however, Voetius prepared an elaborated sequel, "Appendix to the corollaries. On the natures and substantial forms of things", which he scheduled to be defended on 23 and 24 December OS.¹⁷ The first part is a strong defence of the theory of substantial forms, which Voetius considers as the cornerstone of Aristotelian philosophy. He carefully examines — and refutes — the arguments against substantial forms brought forward by anti-Aristotelians as Basso, Taurellus, Gorlaeus and Descartes/Regius. The second part focuses on specific points, including the Copernican world view and the substantial nature of the union of body and soul.

14 Besides Van Loon, two other respondents of Regius, Bruinvisch and Block, were theological students, see R/D 18, n. 6, and D/R 19B, n. 12.

15 For Sebastian Basso (c.1580–after 1625), see LÜTHY 1997.

16 See n. 3.

17 *Appendix ad corollaria theologico philosophica nuperae disputationi de Iubileo Romano, De rerum naturis et formis substantialibus*. NH, 36–51/*Querelle*, 103–115; for the greater part also in AT III 511–519. Reprinted in VOETIUS 1648–1669, I, 870–881. A detailed study of Voetius' *Appendix* is VAN RULER 1995. See also VERBEEK 1992A, 17–18; FOWLER 1999, 324–327.