
ANTI-TRINTARIANISM IN NEWTON'S GENERAL SCHOLIUM TO THE *PRINCIPIA*

Steffen Ducheyne*

*Centre for Logic and Philosophy of Science/Centre for History of Science, Ghent University,
Blandijnberg 2, Room 2.03, B-9000 Ghent, Belgium*

(Received 4 December 2008)

Abstract

Recent findings on Newton's heretical beliefs in the five draft versions of the *General Scholium*, which was added to the second edition of the *Principia* in 1713, are discussed here. We shall use these snapshots as a tool to gain understanding into the process of composition of the theological material from the *General Scholium*.

Keywords: seventeenth-century natural philosophy, seventeenth-century theology, Isaac Newton (1642-1727), General Scholium, heterodoxy

1. The General Scholium

On 2 March 1712/13 Newton declared to Roger Cotes, who was in charge of the editorial work for the preparation of the second edition of the *Principia*, that he wanted to add "one short paragraph" on the attraction of the small particles of bodies which would finish the book, but as he continued, "upon second thought I have chosen rather to add but one short Paragraph about that part of Philosophy" [1]. Newton's intention of doing so dates back to the time when he was wrapping up the first edition of the *Principia* – however, the intended preface and conclusion to this edition, in which this matter would be addressed, were suppressed by him. On 18 March 1712/13, Cotes suggested to Newton that: "I think it will be proper besides the account of the Book & its Improvements to add something more particularly concerning the manner of Philosophizing made use of & wherein it differs from that of De Cartes & others. I mean in first demonstrating the Principles it imployes. This I would not only assert but make evident by a short deduction of the Principle of Gravity from the Phænomena of Nature, in a popular way, that it may be understood by ordinary Readers & may serve at the same time as a Specimen to them of the Method of the whole Book." [1, p. 391] Newton accepted Cotes' suggestion but ultimately decided to go beyond both his own initial intention to dedicate some words to the phenomena of short-range attractive forces and Cotes' suggestion to clarify the methodology of the *Principia*. (For Newton's reply on 28 March and on 31 March, see respectively: [1, p. 396] and [1, p. 400].) Ultimately, he

* E-mail: steffen.ducheyne@ugent.be, Phone: ++32 9 264 39 79, Fax: ++32 9 264 41 87

decided to include some theological material as well. The result would become Newton's immensely famous and tersely written General Scholium [2, 3] (first published in the second edition of the *Principia* [4] in 1713) which is primarily known for its reference to the argument of design and Newton's *dictum* 'hypotheses non fingo'.

Let us turn to some recent contributions to our knowledge of the General Scholium. Recently, Rudolf De Smet and Karin Verhelst have claimed that the General Scholium [2, p. 274; 3, p. 748; 5; 6] highlights not only Newton's religious concerns but also his philosophical concerns (a claim that, as far as I know, has not been denied by any notable Newton scholars - especially not after the pioneering work of James E. McGuire on Newton's metaphysics [7]; in the original 1966 paper McGuire and Rattansi clearly wrote: "Thus the ontological problem of causation, conceived in the classical neoplatonic framework, was central to Newton's thought.") and, correspondingly, have attempted to explore, following Betty Jo Teeter Dobbs [5, p. 202], Newton's indebtedness to neo-Platonism and Stoicism by focussing on Philo Judaeus and Justus Lipsius [8]. Although they provide convincing evidence for their claims on Philo (especially on p. 8), similar evidence seems to be lacking for their claims on the Cambridge Platonists and Justus Lipsius. They merely succeed in demonstrating vague parallelisms. Characteristic of this is their conjectural conclusion on Ralph Cudworth: "It is clear that despite the absence of explicit proof, there are sufficient similarities and parallels to suggest that Newton's debt to Cudworth was greater than one might be led to believe from his manuscript *Out of Cudworth.*" [9]

Stephen D. Snobelen has further intriguingly scrutinized the General Scholium, which he characterizes as a "theologically-charged appendix", like a Russian doll and rendered explicit the underlying unitarian, anti-Trinitarian and, more specifically, Socinian layers [10]. He interestingly points to the fact that ca. 58 percent of the General Scholium is related to Theology.

2. Newton's Theology

Recent studies have aptly brought the importance of Newton's 'God of Dominion' into perspective [10-13]. Stephen D. Snobelen has provided ample contextualisation of the Theology in the General Scholium by shedding light on how Newton, in several theological manuscripts written around the same time as the General Scholium, frequently stressed that only the Father is truly "God of Gods" [Deuteronomy 10.17] [Cf. Keynes Ms. 3 (*Irenicum*, post-1710), p. 29, p. 35, pp. 47-48; Keynes Ms. 7 (*A short Schem of the true Religion*, post-1710), f. 1^v; and, Yahuda Ms. 12 (*Treatise on Church History*, late 1670s), f. 1^r]

In an entry 'Deus pater' Newton wrote that "There is one Body, one spirit, even as ye are called in one hope of your calling One Lord, one Faith, one Baptisme, One God & Father of all, who is above all & through all & in you all. Ephesians 4.6." [Keynes Ms. 2 (*Theological Notebook*, composed ca. 1684-1690), part 1, p. XI]. In this manuscript, Newton also sharply contrasted "the

only true God” with “Jesus Christ whom thou hast sent” (*ibid.*). In a different manuscript, Newton called God’s son “the *Man* Christ Jesus” [Keynes Ms. 8 (*Twelve articles on religion*, post-1710), f. 1^r]. Newton further urged that a proper *monarchy* needs the dominion of only *one* principle (cf. “Poterit autem et ad istum modum dici unum esse principium Deitatis, non duo, propria Monarchia unius dominatus haberi debet” [Keynes Ms. 2 (*Theological Notebook*, composed ca. 1684-1690), part 2, p. 14; see also the entry ‘De Deo uno’, p. 85]). Newton’s radical subordinationist view of Christ is especially clear in the manuscript *Of the Church* [Newton Ms., Foundation Martin Bodmer, Geneva]. [10]

From the early-1670s until the end of his life, Newton consistently adopted a heretic anti-Trinitarian position that was composed of a complex mix of Arian critiques and Socinian elements [14, 15]. Newton concealed his heretical position for obvious legal and social reasons, but also because of Newton’s conviction that Theology (the ‘strong meats’) “should only be handled by the experienced and mature members of the remnant, and, even then, only in private” [14]. Since anti-Trinitarianism was in fact illegal at the time, Newton had good reasons to hide his heterodoxy. It is telling that when William Whiston went public with his own heretical views, at the danger of revealing Newton’s theological doctrines, Newton kept his lips sealed and ultimately their friendship went cold [16]. Correspondingly, in Newton’s Christology, the unity of the Father and the Son is merely moral, *not* metaphysical [14] [see note 41 for references to Newton’s manuscripts; cf. Bodmer, f. 402^r]. Traces of Newton’s heretical views can, as Snobelen has cogently argued, be found in the General Scholium.

At the focal point of Newton’s theology stood his conception of a Lord of Dominion, to whom exclusively religious worship was preserved [10-13]. Though, “Others may be called Gods, but thou shall not worship them as Gods” [Bodmer Ms., f. 390^v]. Cf. Yahuda 15.3, f. 44^r: “We are forbidden to worship two Gods but are not forbidden to worship one God, & one Lord in our worship: one God for creating all things & one Lord for redeeming us with his blood.”

This explicitly referred to the worship of Christ: Christ was but the visible Prince begotten by the invisible ‘God of Gods’. He is only “the image of the invisible God” [Bodmer Ms., f. 16^r]. Newton formulated his conception of the Biblical Pantokrator, as follows: “We must beleive that he is παντοκράτωρ Lord of all things with an [illegible] irresistible & boundless ↓power & ↓dominion that we may not hope to escape if we rebell & set up other Gods or transgress the laws of his monarchy & ↓that we may ↓expect ↓great ↓rewards if we do his will. We we [*sic*] must beleive [*sic*] that he is the ↓is the [illegible] is the God of the Jews who ↓created the heaven & earth all things therein as is exprest in the ten commandments that we may thank him for our being & for all the blessings of this life, & forbear to take his name in vain or worship images or other Gods. We are not forbidden to give the name of Gods to Angels & Kings, but we are forbidden to have them as ~~gods~~ ↓as Gods ↓in our worship.” [Bodmer Ms., f. 16^r; Yahuda 15.3, f. 65^r.]

Newton then developed the consequences of this credo: “There is one body, one spirit, one hope, one Lord, one faith, one baptism [on baptism see Yahuda, 15.5, f. 86^r], one God & father of all [...]. [Eph. iv.1]”. [Bodmer Ms., f. 32^r] Cf. Yahuda 15.6, f. 109^r: “He is simple not compound. He is all like & equal to himself, all sense all spirit, all perception all Ennoea, all λόγος all ear, all eye, all light. He is all sense w^{ch} cannot be separated from it self, nor is there any thing in him w^{ch} can be emitted from any thing else.” Christ could only be a servant of God and it is him exclusively that we should worship. Newton followed Cerinthus in his thesis that “Christ is a mere men assisted by certain virtues intermitted to him by the father” [Bodmer Ms., f. 408^{bis}].

3. Discussion of the Biblical References in the Draft-versions of the General Scholium

The General Scholium under its final published form consists of almost 60 percent of theological material. [The final version of the theological portion of the General Scholium appears in Newton’s list of corrections for the second edition (CUL Add. Ms. 3965, f. 526^{r-v} and again f. 539^{r-v}.)] In the first two paragraphs of the General Scholium, Newton set the stage for his treatment of God: the motion of the celestial bodies acts according to the law of universal gravitation, but their regular position (the primary planets revolve in concentric circles around the sun, in the same direction and very nearly on the same plane) can only be explained by “the design and dominion of an intelligent and powerful being” [4, p. 940]. Newton subtly added that the fixed stars are “constructed according to a similar design and subject to the dominion of *One* [*Unius* dominio]” [4, p. 940]. Although Newton’s usage of the predicate ‘unus’ might *prima facie* appear as an aside, it hints at Newton’s anti-Trinitarian intentions [10]. (This is, as we shall see, further confirmed in the C-E draft versions of the General Scholium.) Newton clarified in the following paragraph that ‘God’ is a relative term (*vox relativa*) which refers to dominion, and that, while lesser ‘Gods’ might have *some* dominion, there is *only one* ‘Lord of Lords’, constituted by *supreme* domination. Implicitly this entailed that Christ could not be the ‘Lord of Lord’.

In the fourth paragraph Newton began expounding his theological view: “He rules all things, not as the world soul [*anima mundi*] but as the lord of all. And because of his dominion he is called Lord God *Pantokrator*. For ‘god’ is a relative word and has reference to servants, and godhood [*deitas*] is the lordship of God, not over his own body as is supposed by those for whom God is the world soul, but over his servants. The supreme God [*Deus summus*] is an eternal, infinite, and absolutely perfect being; but a being, however perfect, without dominion is not the Lord God. For we do say my God, your God, the God of Israel, the God of Gods [*deus deorum*], and Lord of Lords [*dominus dominorum*], but we do not say my eternal one, your eternal one, the eternal one of Israel, the eternal one of the gods; we do not say my infinite one, or my perfect one. These designations [*appellationes*] do not have reference to

servants. The word 'god' is used far and wide to mean 'lord', but every lord is not a god. The lordship of a spiritual being constitutes a god, a true lordship constitutes a true god [vera [dominatio] verum [deum]], a supreme lordship a supreme god [summa [dominatio] summum [deum]], and imaginary lordship an imaginary god [This is almost certainly a sneer at the Cartesians and Leibniz's *intelligentia supra-mundana* – Ducheyne's note]. And from true lordship it follows that the true God is living, intelligent and powerful; from the other perfections that he is supreme, or supremely perfect. He is eternal and infinite, omnipotent and omniscient, that is, he endures from eternity to eternity [ab aeterno in aeternum], and he is present from infinity to infinity [ab infinito in infinitum]; he rules all things, and he knows all things that happen or can happen. He is not eternity and infinity, but eternal and infinite; he is not duration and space, but he endures and is present. He endures always and is present everywhere, and by existing always and everywhere he constitutes [constituit] duration and space [see references 7 and 17]. Since each and every particle of space is *always*, and each and every indivisible moment of duration is *everywhere*, certainly the maker and lord of all things will not be *never* or *nowhere*." [4, p. 940] In the third edition, Newton added that "God is one and the same God always and everywhere".

God thus constitutes space and time, because "if space had not existed, God would have been nowhere, and hence he either created space later, where he himself was not, or else, which is no less absurd to reason, he created his own ubiquity." [18] (For further details on Newton's onto-theology, see reference [19].) This does not mean that space and time are independent entities, which exist autonomously from God. Space and time are the direct (logical) consequence of God's omnipresence. Hence, Newton's parlance of space and time "as if an emanative effect" ("tanquam Dei effectus emanativus") of God's existence [CUL Add. Ms. 4003, f. 11^r]. Here Newton is careful enough to add "tanquam" and not to commit himself to an ontological emanation. Were Newton omit the "tanquam" (on two occasions) nothing suggests an ontological emanation but rather a logical relation (cf.: "Deus est ubiq, mentes creatæ sunt alicubi, et corpus in spatio quod implet, et quicquid nec ubiq nec ullibi est id non est. Et hinc sequitur quod spatium sit entis primariò existentis effectus emanativus." [*ibid.*, ff. 17^r/18^r] and "Deniq spatium est æternæ durationis et immutabilis naturæ, idq quòd sit æternis et immutabilis entis effectus emanativus. Siquando non fuerit spatium, Deus tunc nullibi adfuerit, et proinde spatium creabat postea ubi ipse non aderat, vel quod non minùs absonum est, creabat suam ubiquitatem." [*ibid.*, p. 19^r]). In later theological work, Newton would write: "He is simple not compound. He is all like & equal to himself, all sense all spirit, all perception all Ennœa, all λόγος all ear, all eye, all light. He is all sense w^{ch} cannot be separated from it self, *nor is there any thing in him w^{ch} can be emitted from any thing else.*" [Yahuda 15.6, f. 109^r (1710s) (author's italics)] Yahuda 15.1, f. 7^r, Yahuda 15.5, f. 87^v, Yahuda 15.6-7, Yahuda 15.6-7, f. 83^v, f. 88^r, f. 108^r, f. 111^v, and Bodmer, f. 116^r, f. 116^r, f. 147^r, f. 400^r, f. 410^r,

are full with criticism on emanationist cosmogonies which would compromise God's unity [20].

Once God is posited space and time are posited [CUL Add. Ms. 4003, f. 18^r]. Newton continued by noting that, as "active power [virtus] cannot subsist without substance [substantia]", God is substantially omnipresent and that in him "all things are contained and move". Because God is a spiritual, incorporeal being bodies do not act on him, nor conversely. Adopting such relative notion of 'God' in terms of dominion, Newton rejected absolute characterisations of 'God'. We cannot, as Trinitarian orthodoxy would want it, define God's substance or essence [4, p. 942] by using predicates such as 'eternal', 'infinite', 'omnipotent' or 'omniscient' to characterize His essence. We can only know God's attributes, not his substance. God acts "in a way utterly unknown to us". Correspondingly, Newton stressed that, when we utilize human-like expressions to discourse about God, such language is purely allegorical and not literally true. Newton drew close analogy here with our knowledge of the primary, i.e. substantial, properties of bodies: "We see only the shapes and colors of bodies, we hear only their sounds, we touch only their external surfaces, we smell only their odors, and we taste only their flavors. [Cf.: "Hypoth 5. The essential properties of bodies are not yet fully known to us. Explain this by y^e cause of gravity, & by y^e ↓metaphysical↓ power of bodies to cause sensation, imagination & memory & mutually to be moved by o^e thoughts." (CUL Add. Ms. 3970, f. 338^v)] But there is no direct sense and there are no indirect reflected actions by which we know innermost substances, much less do we have an idea of the substance of God. We know him only by his properties and attributes and by the wisest and best construction of things and their final causes, and we admire him because of his perfections, but we venerate and worship him because of his dominion. For we worship him as servants, and a god without dominion, providence, and final causes is nothing other than fate and necessity." [4, p. 942]

In stark contrast, God, "who is ~~being indivisibly~~ in all places, after some such manner as that w^{ch} thinks in us in all parts of our sensorium", perceives "all things accurately in their true solid dimensions by the immediate presence of the things themselves, while that w^{ch} thinks in us perceives only the superficial pictures of the things made in our sensorium by motion conveyed thither from the things;" [CUL Add. Ms. 3970, f. 286^r]. By the study of Natural philosophy we can get to know God's dominion, his providence and the final causes he installed. (This is another sneer at Descartes' view that only efficient and not final causes are desirable in natural philosophy. The page of Newton's copy of Descartes' *Principia Philosophiae* (René Descartes, *Principia Philosophiae* (3rd edition) (apud Ludovicum & Danielem Elzevirios, Amsterdam: 1656); Wren Library, Trinity College, Cambridge, NQ.9.116, p. 8) which contains this statement (*Pars prima*, ¶ XXVIII) is dog-eared.) Correspondingly, Newton concluded that "to treat of God from phenomena is certainly a part of natural philosophy". [4, p. 943] (In the second edition Newton wrote "experimental philosophy". Cf. CUL Add. Ms. 3965, f. 152^v [notes on comets].) In manuscript material related to the *Queries* in *The Opticks*, Newton recorded that: "The

business of Experimental Philosophy is ~~only~~ to find out by experience & observation not how things were created but what is the present frame of Nature.” [CUL, Add. Ms. 3970, f. 242^v, cf. f. 243^r] This quest is conducive to theological-moral outlook of the natural world: “– – – Moral Philosophy. ffor ~~when~~ ↓it↓ we ~~know~~ ↓see↓ clearly by the light of Nature that there is a God, we shall see ↓clearly↓ by the same light of Nature that he is to be ↓acknowledged feared honoured & ↓feared & honoured praised thanked & worshipped with fear wth fit expressions of gratitude for the benefits we receive wth gratitude & supplication & adored.” [*Ibid.*, f. 244^v]

Let us now probe into the five draft versions of the General Scholium. We shall use these snapshots as a tool to gain understanding into the process of composition of the theological material from the General Scholium. In the first edition of the *Principia* there is only one reference to God. (*Scilicet*: “Collocavit igitur Deus Planetas in diversis distantiis a Sole, ut quilibet pro gradu densitatis calore Solis majore vel minore fruatur.” [4, vol. II, p. 582]) Snobelen notes that the drafts only “offer some insight in variant wording and additional material”, that “the theological material largely conforms to the final published version and is every bit as terse”, and that especially the lack of access to Newton’s unpublished manuscript treatises on Theology and Church history have obstructed the decipherment of the General Scholium [10]. Here we point to the fact that the draft versions, on minute inspection, already give away Newton’s heretical agenda. In the various consecutive drafts (A-E) of the General Scholium, Newton increasingly adds more and more theology. In the A-version of drafts of the General Scholium, Newton’s only explicit reference to God is the following: “If the fixed stars are the centres of similar systems, all these are under the same one dominion [unius dominio]: This being rules all things not as the soul of the world but as the Lord of the Universe. He is omnipresent and in him all things are contained and move, and without resistance since this Being is not corporeal and is not resisted by body.” [CUL Add. Ms. 3965.12, f. 357^r] [21]

The B-version already contained the essentials of Newton’s Hebraic credo of God as a universal ruler (‘Imperator universalis’) [CUL Add. Ms. 3965, f. 366^v] or Παντοκράτωρ, albeit that the relevant paragraph is somewhat shorter near the end [Cf. Keynes Ms. 3 (*Irenicum*, post-1710), p. 43]. In this version, Newton is also more explicit on how the discourse of God from phenomena pertains to experimental philosophy properly: “And thus much concerning God, to discourse of whom from the phenomena undoubtedly pertains to experimental philosophy. The intermediate causes of things appear from the phaenomena, and from these the more profound causes, until one arrives at the highest cause.” [CUL Add. Ms. 3965.12, f. 359^r] [21, p. 348, footnote 1]

According to Newton, our scientific knowledge progresses from knowledge of ‘intermediate’ causes, to knowledge of ‘more profound’ causes, and, ultimately, to knowledge of the highest cause. In this version Newton began adding several scriptural references, which are also included in the published version: Acts 17.27-28 [“That they should seek the Lord, if haply they might feel after him, and find him, though he be not far from every one of us: For in him

we live, and move, and have our being; as certain also of your own poets have said, For we are also his offspring.”], Deuteronomy 4.39 [“Know therefore this day, and consider *it* in thine heart, that the LORD he *is* God in heaven above, and upon the earth beneath: *there* is none else.”] and 10.14 [“Behold, the heaven and the heaven of heavens *is* the LORD's thy God, the earth *also*, with all that therein *is*.”], I Kings 8.27 [“But will God indeed dwell on the earth? behold, the heaven and heaven of heavens cannot contain thee; how much less this house that I have builded?”], Job 22.12 [“*Is* not God in the height of heaven? and behold the height of the stars, how high they are!”], Psalms 139.7 [“Whither shall I go from thy spirit? or whither shall I flee from thy presence?”], and Jeremiah 23.23-24 [“*Am* I a God at hand, saith the LORD, and not a God afar off? Can any hide himself in secret places that I shall not see him? saith the LORD. Do not I fill heaven and earth? saith the LORD.”] [22]. These references relate to and give the necessary scriptural backing to Newton's views on God's omnipresence.

In the C-version Newton's list of scriptural references verses is more extended. [2, p. 941]. In addition to the references of the B-version, Newton now added: John 1.18 [“No man hath seen God at any time; the only begotten Son, which is in the bosom of the Father, he hath declared *him*.”] [Cf. Keynes Ms. 8 (*Twelve articles on religion*, post-1710), f. 1'] and 5.37 [“And the Father himself, which hath sent me, hath borne witness of me. Ye have neither heard his voice at any time, nor seen his shape.”], I John 4.12 [“No man hath seen God at any time. If we love one another, God dwelleth in us, and his love is perfected in us.”], I Timothy 1.17 [“Now unto the King eternal, immortal, invisible, the only wise God, *be* honour and glory for ever and ever. Amen.”], and 6.16 [“Who only hath immortality, dwelling in the light which no man can approach unto; whom no man hath seen, nor can see: to whom *be* honour and power everlasting. Amen.”], Colossians 1.15 [“Who is the image of the invisible God, the firstborn of every creature:”], Exodus 28.4 [“And these *are* the garments which they shall make; a breastplate, and an ephod, and a robe, and a brodered coat, a mitre, and a girdle: and they shall make holy garments for Aaron thy brother, and his sons, that he may minister unto me in the priest's office.”] - (This *prima facie* curious reference probably relates to the fact that in the Bible mortal beings are sometimes called “gods”. In the second edition Newton wrote in footnote b: “And in this sense princes are called gods, Psalms 82.6 and John 10.35. And Moses is called a god of his brother Aaron and a god of king Pharaoh (Exod. 4.16 and 7.1)” (*ibid.*, p. 941, footnote g.) - Deuteronomy 4.12 [“And the LORD spake unto you out of the midst of the fire: ye heard the voice of the words, but saw no similitude; only *ye heard* a voice.”] and 4.15-16 [“Take ye therefore good heed unto yourselves; for ye saw no manner of similitude on the day *that* the LORD spake unto you in Horeb out of the midst of the fire: Lest ye corrupt *yourselves*, and make you a graven image, the similitude of any figure, the likeness of male or female,”], and Isaiah 40.18-19 [“To whom then will ye liken God? or what likeness will ye compare unto him? The workman melteth a graven image, and the goldsmith spreadeth it over with gold, and casteth silver chains.”]. The references from the Old Testament support Newton's view that,

whenever we apply human-like properties to God, our talk of God is purely allegorical. The content of the references from the New Testament is, however, striking: they imply that Christ is but a messenger of God and certainly not His worldly incarnation. In the Bodmer manuscript Newton wrote: "Christ is a mere man assisted by certain virtues intermitted to him by the father" (Bodmer Ms., f. 408^r_{bis}). Christ's relation to God was not ontological or essential but merely moral: "Si filius et pater unus essential tunc illa unitas his denotatur: Ego et pater unum sumus. Ego in patre et pater in me. Qui videt me videt patrem. *Sed his non denotatur essentialis unitas sed moralis tantum.*" (*ibid.*, f. 402^r [author's italics]).

In other words: in the C-version Newton revealed his anti-Trinitarian agenda through these scriptural references. That Newton himself distinguished between orthodox and heretical references is further confirmed in the D-version.

In the D-version Newton dropped reference to Exodus 28.4, Deuteronomy 4.12, 14-15 and Isaiah 40.18-19 and regrouped the biblical references into two groups: on CUL Add. Ms. 3965, f. 363^r, (1) Acts 17.27-28, Deuteronomy 4.39 and 10.14, I Kings 8.27, Job 22.12, Psalms 139.7, Jeremiah 23.23-24, and (2), on CUL Add. Ms. 3965, f. 363^v: John 1.18 (also referred to in Keynes Ms. 2 (*Theological Notebook*, 1684-1690), part 1, p. 12^v) and 5.37, Colossians 1.15 (also referred to in *ibid.*, p. XII), I Timothy 1.17 and 6.16, and I John 4.12. The former group relates to the omnipresence of God, the latter to Newton's subordinationist view of Christ. In the second edition of the *Principia* Newton referred to Acts 17.27-28, John 14.2, Deuteronomy 4.39 and 10.14, Psalms 139.7-9, I Kings 8.27, Job 22.12-14 and Jeremiah 23.23-24. In the third edition, he omitted John 14.2 (*ibid.*, p. 942, footnote j). The latter group is identical to the references given in the E-version [2].

In the E-version group (2) has completely disappeared and, like in the B-version, Newton, by way of compromise, underscored and capitalized "unius" (initially Newton wrote "unius" in small capitals).

4. Conclusions

Newton chose to withdraw these all but too revealing references and decided to hide his intention behind a more subtle typography. As stating group (2) would have made Newton's anti-Trinitarianism obvious, Newton preferred to suppress them and write a more complex anti-Trinitarian hermeneutics into the General Scholium [10].

Acknowledgements

The author is much obliged to the Provosts and Syndics of Cambridge University Library for allowing me to quote from the Portsmouth and Maclessfield Collection (and to Adam Perkins and his staff at the Manuscript Department at Cambridge University Library) and to the Master and Fellows of Trinity College Cambridge for permission to quote from the material in their care (and to Jonathan Smith, chief-librarian at Wren Library, and his staff for

their kind assistance). Sincere thanks also to Elisabeth Macheret-Van Daele for her kind permission to quote from and study the Bodmer Ms. and to her staff at the Fondation Martin Bodmer (Geneva) for their assistance. For the manuscripts pertaining to the Keynes and Yahuda Collection, the author has relied on the online transcriptions provided by the Newton Project (<http://www.newtonproject.ic.ac.uk>).

References

- [1] H.W. Turnbull, J.F. Scott, A. Rupert Hall, and Laura Tilling (eds.), *The Correspondence of Isaac Newton*, vol. V, Cambridge University Press, Cambridge, 1959-1977, 384.
- [2] I.B. Cohen, *Introduction to Newton's 'Principia'*, Cambridge University Press, Cambridge, 1971, 240 and 249.
- [3] R.S. Westfall, *Never at Rest, A Biography of Isaac Newton*, Cambridge University Press, Cambridge, 1998 [1980], 744.
- [4] A. Koyré, I.B. Cohen and A. Whitman (eds.), *Isaac Newton's 'Philosophiae Naturalis Principia Mathematica': The Third Edition (1726) with Variant Readings*, Cambridge University Press, Cambridge, 1972.
- [5] B.J. Teeter Dobbs, *The Janus Faces of Genius, The role of alchemy in Newton's thought*, Cambridge University Press, Cambridge, 1991, pages 35, 83, 169, 224, 226 and 243.
- [6] D. Gjersten, *The Newton Handbook*, Routledge & Kegan Paul, London/New York, 1986, 463.
- [7] J.E. McGuire, *Tradition and Innovation, Newton's Metaphysics of Nature*, The University of Western Ontario Series in Philosophy of Science, vol. 56, Kluwer, Dordrecht/Boston/London, 1995, 125.
- [8] B.J.T. Dobbs, *Newton's Alchemy and His 'Active Principle' of Gravitation*, in *Newton's Scientific and Philosophical Legacy*, P.B. Scheurer and G. Debrock (eds.), Kluwer, Dordrecht/Boston/London, 1988, 55.
- [9] R. De Smet and K. Verhelst, *Hist. Sci.*, **39(1)** (2001) 13.
- [10] S.D. Snobelen, *Osiris*, **16** (2001) 169.
- [11] J.E. Force, *Newton's God of Dominion: The Unity of Newton's Theological, Scientific and Political Thought*, in J.E. Force and R.H. Popkin, *Essays on the Context, Nature, and Influence of Isaac Newton's Theology*, Kluwer, Dordrecht, 1990, 75.
- [12] J.E. Force, *The Nature of Newton's 'Holy Alliance' between Science and Religion: From the Scientific Revolution to Newton (and Back Again)*, in M.J. Osler (ed.), *Rethinking the Scientific Revolution*, Cambridge University Press, Cambridge, 2000, 247.
- [13] L. Stewart, *Hist. Sci.*, **34(2)** (1996) 123.
- [14] S.D. Snobelen, *British Journal of the History of Science*, **32** (1999) 381.
- [15] S. Mandelbrote, *British Journal for the History of Science*, **26(3)** (1993) 281.
- [16] S.D. Snobelen, *Stud. Hist. Philos. Sci.*, **35A** (2004) 573.
- [17] J.E. McGuire, *The Fate of the Date; The Theology of Newton's Principia Revisited*, in *Rethinking the Scientific Revolution*, M.J. Osler (ed.), Cambridge University Press, Cambridge, 2000, 271.

- [18] J.E. McGuire, *Space, Infinity and Indivisibility: Newton on the Creation of Matter*, in *Contemporary Newtonian Research*, Z. Bechler (ed.), D. Reidel, Dordrecht, 1982, 147.
- [19] S. Ducheyne, *Theology and Science*, **4(1)** (2006) 71.
- [20] M. Goldish, *International Archives of the History of Ideas*, **161** (1999) 145.
- [21] A.R. Hall and M.B. Hall (eds.), *Unpublished Scientific Papers of Isaac Newton*, Cambridge University Press, Cambridge, 1978, 352.
- [22] R. Carroll and S. Prickett (eds.), *The Bible, Authorized King James Version with Apochrypha*, Oxford University Press, Oxford, 1997.