PART I

CHAPTER 1B

CATHOLIC PHILOSOPHY AND THEOLOGY

Tommaso D'Aquino, Saint Thomas Aquinas (1224/25-1274)

There is no suggestion of an official philosophy of the Church, writes Pope John Paul II, because the faith is not a philosophy. Theology needs philosophy as a dialogue partner, e.g. the Fathers of the Church and the medieval theologians adopted non-Christian philosophies. Nonetheless, Saint Thomas Aquinas and Thomism became the de facto Catholic philosophy and theology. Its concepts and language entered into the expressions of magisterial teachings, while presenting difficulties for non-Thomist thinkers. It would be helpful to trace its recent historical contexts and forms that Thomism has taken.

In the nineteenth century, to protect against the ideas of Descartes, Kant, German, French and Anglo-American thought, St.Thomas became central in the Catholic intellectual tradition.⁵ Pope Leo XIII's encyclical *Aeterni Patris* (1879) virtually named Aquinas as the 'official' philosopher in the Catholic Church to confront modernism.⁶

But Thomism was associated with seminary manuals of instruction, fortifying a manualistic method of presenting Thomas' ideas which emerged after the Council of Trent. Such manuals have been criticised as "often dogmatic, uncritical, and

¹ John Paul II, *Fides et ratio* (Faith and Reason), Encyclical Letter. (Strathfield NSW: St. Paul Publications, 1998). No.76, p.107

² John Paul II, Fides et ratio, No.77, pp.109-110

³ The Church's 1917 Code of Canon Law authoritatively mandates his teachings and principles, see *Codex Iuris Canonici*. (Rome: Typis Polyglottis Vaticanis, 1933), Can.1366 §2, p.372 and Can.589, p.176.

⁴ W.Norris Clarke, S.J. "The Future of Thomism," in Ralph McInerny (ed.), *New Themes in Christian Philosophy* (Notre Dame: University of Notre Dame Press, 1968), pp.187-207

⁵ Otto-Hermann Pesch, "Thomas Aquinas and Contemporary Theology," Trans. Colin Berry, in Fergus Kerr (Ed.), *Contemplating Aquinas – On the riches of interpretation*. (London: SCM Press, 2003), pp.185-216

⁶ Pope Leo XIII, "On The Restoration Of Christian Philosophy" (*Aeterni Patris*), August 4, 1879, Thomas Aquinas, *Summa Theologica, Volume One* (*I.QQ.1-119 & II-I QQ.1-114*, Trans. Fathers of the English Dominican Province. (New York: Benziger Brothers, 1947), I, QQ.84-86, pp.vii-xvi

dismissive of competing views."⁷ A certain 'Strict-Observance Thomism' was taught in Roman universities until the Second Vatican Council.⁸ Philosophy was examined in terms of Twenty-Four Thomistic Theses. Therein the teachings of Aquinas were divorced from their historical contexts, and turned into an immutable, absolute 'sacred metaphysic'. "Thomism, in essence, was what the great Thomistic commentators had said it was."⁹

Such a Thomism is also described as Paleo-Thomism, "a sclerotic Thomism" with the pretext of fidelity towards Thomas that caused progress to be ignored. These Thomisms were effectively rejected at Vatican Council II, which many there saw as a "narrow and sectarian Thomism" (Henri de Lubac) reducing Thomism to a set of determinate principles. After Vatican II, there is a recognised lessening of Aquinas' prescriptive influence in Catholic theology. The council document *Gravissimum Educationis* (Declaration on Christian Education) speaks about higher education's grasp of changing times and the convergence of faith and reason, all as a method which follows the "tradition of the Church and especially St. Thomas Aquinas." In discussing the formation of priests, Vatican II states that students ought to learn to "examine more deeply, with the help of speculation and with St.Thomas as teacher, all aspects of these mysteries, and to perceive their interconnection."

There was a growing historical consciousness in theology. Understanding Aquinas underwent a transformation from 'true teacher' to 'Father of the Church'. ¹⁴ This is reflected in magisterial documents. There is not the previous regulatory tone in the 1983 Code of Canon Law. Students, through lectures in dogmatic theology, "are to

⁷ Craig Paterson and Matthew S.Pugh (eds.), *Analytical Thomism: Traditions in dialogue* (Aldershot, Hampshire and Burlington, VT: Ashgate, 2006), p.xvii

⁸ Jürgen Mettepenningen and Ward De Pril, "Thomism and the Renewal of Theology. Chenu, Charlier, and their Ressourcement." *Horizons* Vol.39 No.1 (March 2012), pp.50-68

⁹ Mettepenningen & De Pril, *Thomism*, pp.53-54

¹⁰ Anton Adămuţ, "A Few Considerations Regarding Neo-Thomism," *European Journal of Science and Theology* Vol.9 No.5 (October 2013), pp.143-151 (p.145)

¹¹ Joseph A.Komonchak. "Thomism and the Second Vatican Council," in Anthony J. Cernera (ed.), *Continuity and Plurality in Catholic Theology: Essays in Honor of Gerald A. McCool, S.J.* (Fairfield, Connecticut: Sacred Heart University Press, 1998), pp.53-74 (p.68)

¹² Vatican II, "Gravissimum Educationis, 28 October, 1965, (Declaration on Christian Education), in Austin Flannery (Ed.), *Vatican Council II, The Conciliar and Post Conciliar Documents*, 1981 Edition. (Leominster: Fowler Wright Book Ltd., 1981), No.10, p.735.

¹³ Vatican II, "Optatam Totius, 28 October 1965, (Decree on the Training of Priests)," in Flannery (Ed.), *Vatican Council II*, No.16, pp.719-720

¹⁴ Pesch, *Aquinas and Contemporary Theology*, p.189. Pesch notes the strengthening position of Aquinas in the late Middle Ages and how the Council of Trent returned to emphasise him and the 'Thomist school' even more as reaction to the Reformation and Martin Luther.

learn to penetrate more deeply into the mysteries of salvation, with St.Thomas in particular as their teacher," an echo of Vatican II.¹⁵

However, there was a new return to St.Thomas Aquinas in Pope John Paul II's 1998 encyclical *Fides et ratio*. John Paul II applauds Aquinas' dialogue with Arab and Jewish thought as well as Aristotle, and the unity of faith and reason. Hence the Church has been justified in "consistently proposing Saint Thomas as a master of thought and a model of the right way to do theology." ¹⁶

While commonly regarded as more Augustinian than Thomist, Pope Benedict XVI described how with farsighted wisdom St Thomas Aquinas established a "fruitful confrontation with the Arab and Hebrew thought of his time, to the point that he was considered an ever up-to-date teacher of dialogue with other cultures and religions." Moreover, his Christian synthesis of reason and faith can be a source for Western civilization to draw upon to dialogue with the cultural and religious traditions of the East and South.

Notwithstanding its changing status and varying expressions, Thomism has been seen as *the* Catholic philosophy and theology. This definitely includes its understanding of the human person and the soul. This section explores the thought of Tommaso d'Aquino on the soul, then concludes with comments on other Catholic thinking. *Tommaso* is the preferred name because firstly it acknowledges his historical context, born in the Kingdom of Sicily, a medieval Dominican friar who taught at the University of Paris. Secondly, to distinguish his thought from the subsequent centuries-long tradition called Thomism and its varieties.¹⁸

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¹⁵ See above and also *The Code of Canon Law* in English translation. (London: Collins Liturgical Publications, 1983), Can.252 §3, p.42. In the relatively recent Catholic Catechism, the Index of Citations has a section "Ecclesiastical Writers" St. Thomas Aquinas is one writer among sixty seven others, though one of the most cited, along with St.Augustine. See *Catechism of the Catholic Church*. (Homebush NSW: St Paul's, 1994), 689-752

¹⁶ John Paul II, Fides et ratio No.43, pp.67-68

¹⁷ Pope Benedict XVI, "Faith and reason in dialogue, Angelus, Memorial of St. Thomas Aquinas: 28 January," *L'Osservatore Romano* Vol.40 No.5 (31 January 2007), p.1

¹⁸ Fergus Kerr, *After Aquinas: Versions of Thomism* (Malden and Oxford: Blackwell Publishers, 2002)

The important sources are: Tommaso's second major work, *Summa Contra Gentiles* (1259-1264/65) ¹⁹ which contains a more extended discussion of the Soul than his largest work the *Summa Theologiae* (1265/66-1273). There is also a treatment in his academic forum of disputed questions, *Quaestio Disputata De Anima* (1265-1266), and *Quaestio Disputata De Spiritualibus Creaturis* (1267-1268). References to the soul are also found in his commentaries on Aristotle, *Sententia Libri De Anima* (1267-1268)²⁰ and commentaries on the Bible, in this case the letters of Saint Paul, *Expositio et Lectura super Epistolas Pauli Apostoli* (1265-1273) and *De Ente et Essentia ad fratres et socios suos* (1252-1256). The three areas are the nature of the soul, the union of body and soul, and the soul after death.

I. Nature of the Soul

Soul as Principle of Life and Understanding

The soul is "the root principal of life in living things within our experience." It is "the actuation of a body" meaning that because of the soul it is a body and is "organic and has power to live." Commenting on Aristotle's *De Anima*, Tommaso says "by organic body he [Aristotle] means one that has a diversity of organs. Diverse organs are necessary in the body receiving life because of the different activities of the soul." That is, the soul gives the body its organised existence like a

¹⁹ The dates come from the contemporary catalogue of Aquinas' works, G.Emery, "Brief Catalogue of the Works of Saint Thomas Aquinas (adapted for the English Edition)," in Jean-Pierre Torrell, *Saint Thomas Aquinas, Volume 1: the person and his work*, Trans. Robert Royal. (Washington, DC: Catholic University of America Press, 1996), pp.330ff; James A.Weisheipl, *Friar Thomas d'Aquinao: his life, thought and works*. (New York: Doubleday, 1974), pp.355-405

²⁰ Different to the *Disputed Questions on De Anima*, it is also known as the *Commentary on De Anima*, of that period when Questions 75-89 of the Prima Pars of *Summa Theologiae* was written. Cf Emery/Torrell, *Brief Catalogue*, p.341

²¹ St Thomas Aquinas, *Summa Theologiae, Volume 11: Man (Ia. 75-83)*. Trans. Timothy Suttor (London: Eyre & Spottiswoode, 1970), Q.75, Art.1, p.5 (Hereafter abbreviated as *Sum.Theol Vol 11*, I.); Thomas Aquinas, *Exposition of Aristotle on the Soul (In libros de anima expositio)*, I, Lect.1. Trans. K.Foster and S.Humphries, *Aristotle's de Anima with the Commentary of St.Thomas Aquinas*, in Vernon J.Bourke (Ed.), *The Pocket Aquinas*. (New York: Washington Square Press, 1960), p.93. Referred to as Aquinas (Bourke). Latin text *COMMENTARIA In Aristotelem, Sentencia libri De anima*, Textum Taurini 1959 editum. Electronic edition, www.corpusthomisticum.org/can1.html ²² Aquinas, *Sum.Theol. Vol 11*, I. Q.76, Art.4, ad.1, p.69; later he adds, "without taking the power in isolation from the soul. This leaves it clear that the soul's essence is not its power." Aquinas, *Sum.Theol. Vol 11*, I. Q.77 Art.1, pp.92-93

²³ Thomas Aquinas, "Definitions of Soul. On Aristotle's *De anima*, 2, 1-3 (1268)," in *Thomas Aquinas, Selected Writings*, Trans. Ralph McInerny. (London: Penguin Books, 1998), Text 17; Book 2, Lesson 1; no.230; p.417. This translation of *De Anima*, hereafter referred to as "Commentary on *On the Soul*," Aquinas (McInerny). Latin text: *COMMENTARIA In Aristotelem, Sentencia libri De anima*, Textum Taurini 1959 editum. Electronic edition, www.corpusthomisticum.org/can2.html

light which makes something lit.²⁴ The soul as the primary principle of life is not a body, but "that which actuates a body. Much as heat, as the source of the heating process, is not the body heated, but a certain actuation of it."²⁵

The soul is associated with understanding, which Tommaso calls the "principle of the act of understanding" and the human soul he also calls an "intellect" or "mind." ²⁶ Indeed what makes human beings human is reason, thus their characteristic form is a soul that reasons. "Understanding" is sometimes an activity (then its source is an ability or disposition), and sometimes is human existence as creatures of an understanding nature (then its source is the very essence of our intellectual soul). ²⁷ Understanding goes beyond an ability to comprehend; it is "much more a substance acting through that ability; and so what it understands is not just its own ability but also the substance." ²⁸

That the Intellectual Substance is not a Body²⁹

Tommaso argues that *if* the intellect were a body, we would not receive the intelligible forms of things except as individuated entities and would not be aware of universals, only particulars. This is incorrect; thus, no intellect is a body.³⁰ Furthermore as each body is divisible, it needs something to unite its parts. The body

²⁴ Thomas Aquinas, "Thomas's public disputation on the Soul 1, (Quaestio Disputata de Anima)" in *Selected Philosophical Writings*, translated by Timothy McDermott. (Oxford: Oxford University Press, 1993), Passage 18 'Soul in Human Beings', reply to 15, p.191; this Passage 18 hereafter as *Quaestio Disputata de Anima*. Latin text from *Sancti Thomae de Aquino Quaestio disputata de anima*, Corpus Thomisticum, Textum Taurini 1953 editum ac automato translatum a Roberto Busa SJ in taenias magneticas denuo recognovit Enrique Alarcón atque instruxit – electronic edition, www.corpusthomisticum.org/qda01.html

²⁵ Aquinas, Sum. Theol. Vol 11, I. Q.75 Art.1, p.6-7

²⁶ Aquinas, Sum. Theol. Vol 11, I. Q.75 Art.2, p.11

²⁷ Thomas Aquinas, *Quaestio Disputata de Spiritualibus Creaturis*, in Aquinas (McDermott), Art.1, reply to 14, p.128. The soul is the substantial form, the essence of the living body, "a body constituted in a species by such a form.

²⁸ Aquinas, *Quaestio Disputata de Spiritualibus Creaturis*, in Aquinas (McDermott), Art.11, reply to 18, p.129.

²⁹ Saint Thomas Aquinas, *Summa Contra Gentiles, Book Two: Creation.* Trans. James F. Anderson. (Notre Dame: University of Notre Dame Press, 1975). Chapter 49, pp.146-149. References to Aquinas' *Summa Contra Gentiles* are to this edition, abbreviated as *SCG*, using the extra square brackets enumeration of this edition, eg. [2]

³⁰ Aquinas, SCG, Book 2, Ch.49, [4], p.147; In other words, "it is precisely because soul's substance is free from matter that it has a power of intellect, but that power is not its substance." Aquinas, Quaestio Disputata de Spiritualibus Creaturis, Aquinas (McDermott), Article 11, reply to 17, p.128. See also Aquinas' earlier metaphysical discussion on the various uses of the term "body" (corpus) in his treatise De ente et essentia ad fratres et socios suos, better know simply as De Ente et Essentia, in Aquinas on Being and Essence, a translation and interpretation by Joseph Bobik. (Notre Dame: University of Notre Dame Press, 1965), Nos.27-30; pp.82-83. Paragraph numbers are used by the translator. Chapter references are omitted to avoid confusion.

disintegrates when the soul departs, and if the integrating principle is itself divisible, "we must at least arrive at something indivisible and incorruptible, which will be the soul, or go on to infinity; which is impossible. Therefore, the soul is not a body."³¹

Likewise if the intellect (understanding) was corporeal (a body), its action would know only corporeal entities, and therefore it would understand nothing but corporeal things. This is false says Tommaso, for we understand many things that are not corporeal.³² Moreover, reasoning souls do not share that specific activity with any bodily organ, where having a bodily organ for thinking is like an eye is the bodily organ for seeing. Hence, the "life-principle of a thing with understanding has to act on autonomously. Mind is a kind of undecomposable substance."³³

Nonetheless, Tommaso teaches that the intellect cannot be autonomous of the body because the body is necessary for the intellect's activity, "not as the organ through which it acts, but in order to supply it with its object; for images stand in relation to the intellect as colour in relation to sight. This dependence on the body does not show that the intellect is non-subsistent."³⁴ Bodily dependence and independent existence are both possible.

He rejects the idea that life arises from the body only (materialism). In his rather contested interpretation R.Pasnau³⁵ thinks that for a modern materialist who might associate the soul with an area of the brain, the soul would be incorporeal but not subsistent, and the mind would be corporeal and subsistent (the mind here is a corporeal organ, the brain, actualised by the soul). Tommaso would reject this type of materialism since the soul undertakes the functions of mind alone.³⁶ Today's

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³¹ Aquinas, SCG, Book 2, Ch.65, [4], p.200

³² Aguinas, *SCG*, Book 2, Ch.49, [5], p.147

³³ mind (intellectus) is "substantia quaedam et non corrumpitur". Aquinas, *Quaestio Disputata de Anima* 1, Aquinas (McDermott), Passage 18 "in reply" (Respondeo), p.188 and "to 11", "to 12" p.191. ³⁴ Aquinas, *Sum.Theol. Vol* 11, I. Q.75 Art.2 ad.3, pp.12-13

³⁵ Pasnau's book has received mixed reviews. There is criticism of his "ahistorical method," in John O'Callaghan, review of *Thomas Aquinas on Human Nature: A Philosophical Study of Summa Theologiae*, by Robert Pasnau, *Journal of the History of Philosophy* Vol.42 No.1 (January 2004), pp.99-100. Another reviewer remarks, "the central feature of Pasnau's reading of Aquinas is its emphasis upon the naturalism of Thomistic thought....Ultimately, Pasnau is unwilling to let the historical Aquinas challenge the presuppositions of his own, thoroughly modern, rationalism." Philipp W.Rosemann, review of *Thomas Aquinas on Human Nature: A Philosophical Study of Summa Theologiae*, and 2 other books, *Speculum* Vol.80 No.3 (July 2005), pp.948-951

³⁶ Robert Pasnau, *Thomas Aquinas on Human Nature*, *A Philosophical Study of Summa Theologiae Ia* 75-89. (Cambridge: Cambridge University Press, 2002), p.72.

reductive materialism aims to reduce everything; even living things can be "cashed out in terms of microlevel material events." Pasnau sees Tommaso as a kind of materialist who objects to reductive materialism as it eliminates forms from having an explanatory role. What is unique about living creatures: their coherence, endurance over time, the complicated behaviours, must be found beyond their constituent material parts. 38

II. Union of Soul with Body

For Tommaso, such living things are composed of matter and form; respectively, body and soul which makes them actually alive. Yet, the body cannot be the form since the body is not present in another thing as its subject and matter. It follows that the soul is the form,³⁹ an intellectual substance united to the body.⁴⁰

Intellectual Principle united to the body as its form

As noted above, it is by virtue of the soul that the body has life, but the soul is

the ultimate principle by which we conduct every one of life's activities; the soul is the ultimate motive factor behind nutrition, sensation and movement from place to place, and the same holds for the act of understanding. So that this prime factor in intellectual activity, whether we call it mind or intellectual soul, is the formative principle of the body.⁴¹

Tommaso observes too that the more nobler a form is, the more it dominates matter, transcends it in activity and power to act, and the less it is immersed in matter. The form of a "chemical compound" has activities which are not in its constituent elements. The more valuable the form, the more its powers are seen to exceed those of the elements of matter, e.g. vegetable life (soul) transcends the activities of metals; sense-life (sensitive soul) has operations vegetative life lacks. The human soul is the noblest and highest form. Thus its powers "so transcend the material world that it has

³⁸ Pasnau, Aquinas on Human Nature, p.99

³⁷ Pasnau, Aquinas on Human Nature, p.98

³⁹ Aquinas, *SCG*, Book 2, Ch.65, [1], pp.199-200

⁴⁰ Aquinas, *SCG*, Book 2, Ch.91 [2], p.312

⁴¹ Aquinas, Sum. Theol. Vol 11, I. Q.76 Art.1, pp.42-43.

an activity and a permanent power to act which material forces contribute nothing. This is the power we call understanding."⁴²

He agrees with Aristotle that the human soul is "at once non-material yet immattered." Humans are *non-material* because the power of understanding is not the power of any organ. But it is *material* insofar as the soul is the form of the body. The human soul "is not a form wholly embedded in matter, but among all other forms occupies a most exalted place above matter. That is why it can produce an operation without the body, as being operationally independent of the body."

For contrast, it is worth hearing Tommaso's remarks about Plato, who holds a form of dualism.⁴⁵ He says Plato sees the intellectual soul's relationship to the body is not as form to matter; but by only as mover to the movable, or as a sailor in a ship.⁴⁶ This is only a contact of power, and is a being by accident, not absolutely. Tommaso says for Plato, "man" is the soul using the body, not a being comprised of body and soul, like Peter is not composed of man and clothes but a man using clothes. It would not give the body or its parts their specific nature, which surely it does because when the soul leaves the body the differing parts lose the names they first had or retain them in a changed sense.⁴⁷

Being and operating, according to Tommaso, belong not to the form alone, nor the body alone but to the *composite*. Life and sensation are credited to both the body and

 $^{^{42}}$ Aquinas, Sum. Theol. Vol 11, I.Q.76 Art.1, pp.46-47, cf also Aquinas, S.T. Vol One, I.Q.76 Art.1, p.372

⁴³ "scilicet anima humana, est quidem separata, sed tamen in materia." Aquinas, *Sum.Theol. Vol 11*, I. Q.76 Art.1 ad.1, pp.48-49; cf Aristotle, *Physics*, Book II, 2; 194^b10-151; p.332

⁴⁴ Aquinas, *SCG*, Book 2, Ch.69 [6], p.208

⁴⁵ Aquinas, *SCG*, Book 2, Ch.57, pp.168ff. It is noteworthy that Rickaby doubts whether Thomas Aquinas even knew Plato through the Latin translation; only through Aristotle and Neoplatonic commentators, in Joseph Rickaby, *An Annotated Translation (With some Abridgement) of the Summa Contra Gentiles of Saint Thomas Aquinas*. (London: Burns and Oates, 1905), online edition, www.nd.edu/Departments/Maritain/etext/gc2_49.htmAquinas, footnote Ch.69 title

⁴⁶ Insightful again is Rickaby's note, "There is no such saying in the works of Plato: but Aristotle, *De anima*, lib. II, c. i, *ad fin.*, mentions it as "a point not cleared up, whether the soul is the form of the body in the same sense as a sailor is of his boat," probably referring to a saying which he had heard from his master Plato, and did not agree with." in Aquinas, Rickaby (trans.), *Contra Gentes*, footnote Ch.69

⁴⁷ "for a dead man's eyes are eyes only in the sense that eyes in a picture or a statue are." Aquinas, *Quaestio Disputata de Anima*, Aquinas (McDermott), Passage 18, Art.1, 'in reply', p.188

soul. But significantly, "we live and sense by the soul as the principle of life and sensation. The soul, is therefore, the form of the body." 48

*Not Three souls*⁴⁹

Tommaso notes how it has been thought that things attributed to the same subject according to diverse forms are predicated one from the other by accident. If the nutritive (vegetative), sensitive (sentient) and intellective (intelligent) soul in us are diverse forms or powers, then things which pertain to us in respect of those forms will be predicated by accident. Then, in accord with the nutritive soul we are living beings, with the sensitive soul, animals; and in accord with the intellective soul, people. Therefore the predications that 'man is an animal' or 'an animal is a living being', are accidental. But Tommaso replies, this predication is essential, since man as man, is an animal; and animal is a living thing. Hence, likewise humans are one, animal and living.⁵⁰

He follows Aristotle's example of different types of souls and geometric shapes. Just as a pentagon includes a quadrilateral (it does not have to be reshaped), the intellective soul contains everything the sense-soul of animals and nutritive soul of plants have. Similarly, Socrates is not constituted as man by one soul, and animal by a second soul.⁵¹ Tommaso quotes Plato's position where Plato placed the rational soul in the brain, the nutritive soul in the liver and the appetitive in the heart.⁵² This is false because there is a part of the soul which cannot be located in any part of the body, the intellect, as noted earlier that the intellectual substance is not a body.

The soul is one with many powers though ordered, e.g. vegetative, sensitive, appetitive, locomotive, intellective. The intellectual powers have dominance over the sense powers in guiding them, just as the sense powers have ascendancy over the nutritive. However, the nutritive powers come first in development; and the sense powers precede the intellectual.⁵³

⁴⁸ Aquinas, *SCG*, Book 2, Ch.57, [15] p.172

⁴⁹ Aquinas, *Quaestio Disputata de Anima* 13, Aquinas (McDermott), Passage 10, Art.13, 'in reply', pp.131-135

⁵⁰ Aquinas, *SCG*, Book 2, Ch.58, [1-3] p.173

⁵¹ Aquinas, *Sum.Theol. Vol 11*, I. Q.76 Art.3, pp.62-63; cf Aristotle, *On the Soul*, Book II, 3; 414^b19-32; p.660

⁵² Aquinas, SCG, Book 2, Ch.58, [9], p.176; Plato's Timaeus, 69C-71A

⁵³ Aquinas, Sum. Theol. Vol 11, I. Q.77 Art.4, pp.102-103; and Q.78 Art.1, pp.120-121

The whole soul is in the whole body and in each of its parts

This is so because act must reside in the subject; the soul is the act of a whole organic body, not of one organ alone. The soul is also the form each part, since if it were the form of the whole minus the parts, it would not be the substantial form of that body. The soul is the substantial form "both of the whole and of the parts... This explains why it is that, when the soul departs, neither the whole body nor its parts remain of the same species as before; the eye or flesh of a dead thing are so called only in an equivocal sense." Pasnau says that if it seems peculiar to think of soul as spread throughout the body, this shows one has a mistaken notion of soul. Soul is not a "mysterious nonextended force, located at some central point within the body and moving the body as one would move a puppet. Soul exists throughout our body, giving it life." 56

Nuances in Unity

Yet there are subtleties in Tommaso's account. "Man" is also understood as the Aristotelian 'rational animal," composed of both soul and body as "some third thing constituted of two other things, and which is neither of them. For man is neither soul nor body." It is not an eye or hand subsisting in itself nor acting in itself, but the work of the parts are ascribed to the whole. Tommaso states that we can say "the soul understands just as the eye sees; but is much better to say that the man understands with his soul." Even though sensation is not an activity of the soul alone, "sensing is an activity of the whole man, even though not peculiar to man. And hence it is plain that man is no mere soul, but a compound of soul and body."

 $^{^{54}}$ Aquinas, Sum. Theol. Vol 11, I. Q.76, Art.8, pp.84-85; also Aquinas (Robb), Questions on the Soul, Q.10, pp.136-144

⁵⁵ Aquinas, SCG, Book 2, Ch.72, [3], p.213; the soul also exists "as a part in a whole", Aquinas, Quaestio Disputata de Anima 1, Aquinas (McDermott), Passage 18, Art.1, 'reply to 9', p.190 ⁵⁶ Pasnau, Aquinas on Human Nature, p.94

⁵⁷ James Lehrberger's study of *De ente et essentia* notes that early in this work Aquinas defines man as a rational animal in places where the human soul is not his goal of study, but this use of Aristotle's term is partial in light of Aquinas's fuller metaphysical vision of man. See James Lehrberger, "The anthropology of Aquinas's *De Ente Et Essentia*," *The Review of Metaphysics* Vol.51 No.4 (June 1998), pp.829-847

⁵⁸Aquinas, De Ente et Essentia, No.37; p.92.

⁵⁹ Aquinas, *Sum.Theol. Vol 11*, I. Q.75 Art.2 ad.2, pp.12-13

⁶⁰ Aquinas, Sum. Theol. Vol 11, I. Q.74 Art.4, pp.18-19

Against the notion that the soul is a particular substance and thus a hypostasis or person and 'the soul is the man', Tommaso argues that not every particular substance is a hypostasis or person, "but rather, that which has the full species. Thus a hand or foot cannot be called a hypostasis or person. Nor, likewise, can the soul, as it is a part of human nature." The soul is not the whole human being, merely part of one: "my soul is not me. So that even if soul achieves well-being in another life, that doesn't mean I do nor any human being does. Moreover, since it is by nature that humans desire well-being, including their body's well-being, a desire of nature gets frustrated." ⁶²

There are also activities of the soul which occur in bodily organs eg. sight/eye, hearing/ear and "all the other activities of nutrition and sensation. And so the powers which are the source of such activities have the body-soul unity as their subject of inhesion, not just the soul alone." In fact, the soul "does sense some things with the body, that is, happening in the body, as when it feels a wound or something of the sort; while it does sense some things without the body, that is, not happening in the body but solely in the mind (*animae*), as when it feels saddened or gladdened by something it hears." Emotions are a mental phenomenon. Tommaso comments that the sensitive appetite can be moved by instinct (eg. in animals) and cogitative power, also by sensation and imagination. Conflict can be felt between reason, desire and aggression.

Tommaso insists that it belongs to the very essence of the soul to be united to a body, like it belongs to a light body to float upwards. Just as a light body remains light when forcibly moved keeping its suitability for its location, so too the human soul, "remaining in its own existence after separation from the body, has a natural aptitude and a natural tendency to embodiment."⁶⁶ It is natural to the soul to be united to the body; it is unnatural to be without a body. It is thence deprived of its natural perfection; against its nature with separation being imposed.⁶⁷

⁶¹ Aguinas, Sum. Theol. Vol 11, I. 0.75 Art. 4 ad. 2, pp. 20-21

Aquinas, "Thomas's commentary on St.Paul's first letter to the Corinthians, 15:17-19" (Super Epistolam Pauli Apostoli), in Aquinas (McDermott), Passage 19 "My Soul is not Me," pp.192-193
 Aquinas, Sum.Theol. Vol 11, I. Q.77 Art.5, pp.106-107; I. Q.77 Art.8, pp.116-117

⁶⁴ Aquinas, Sum. Theol. Vol 11, I. Q.77 Art.5 ad.3, pp.106-107

⁶⁵ Aquinas, Sum. Theol. Vol 11, I. Q.81 Art.3 ad.2, pp.212-213

⁶⁶ Aquinas, Sum. Theol. Vol 11, I. Q.76 Art.1 ad.6, pp.48-49; I. Q.76 Art.2 ad.2, pp.54-55;

⁶⁷ Aquinas, S.T. Vol One. I. Q.118 Art.3, p.576;

Why is the soul united to the body?

The ultimate end of everything for Tommaso is that which it strives to attain by its operations. ⁶⁸ The soul is joined to a body for its own perfection: to complete its species and a supervening perfection in the knowledge gained through he senses. ⁶⁹ The human soul's perfection is to know the truth with the mind. ⁷⁰ Through their proper operations and right directions, humans seek to reach the contemplation of truth. "It is for this purpose, then, that the soul is united to the body, and in this union does man's being consist." This knowledge is new; not caused by recalling to memory things previously known. ⁷²

III. The Soul After Death

Separation of body and soul

Tommaso thinks that "when the soul departs, the body is dissolved," or "the body disintegrates." Neither the whole body nor its parts stay the same. The act of being which the soul communicates to matter, this matter and intellectual soul form a unity whereby "the act of being of the compound whole is the soul's act of being. This does not happen in other forms which are non-subsistent. And for this reason the human soul continues in its act of being when the body is destroyed, whereas other souls do not." Elsewhere he says that if breathing is taken away (*subtracto spiritu*) the union of body and soul breaks up, not because breath is an intermediary but "because it is a disposition fitting the body for the union."

Interestingly, Tommaso says that what decomposes is actually neither the form nor matter nor existence but the composite. "We talk of the body having a decomposable

⁶⁹ Aquinas, *Quaestio Disputata de Anima* 1, Aquinas (McDermott), Passage 18, Art.1, 'reply to 7', p.190

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⁶⁸ Aquinas, SCG, Book 2, Ch.83 [28], p.280

⁷⁰ "ultima perfectio animae humanae consistit in cognitione veritatis, quae est per intellectum", Aquinas, *Quaestio Disputata de Anima* 1, Aquinas (McDermott), Passage 18, Art.1 "But against that" [2]

⁷¹ Aquinas, *SCG*, Book 2, Ch.83 [28], pp.280-281.

⁷² Aquinas, *SCG*, Book 2, Ch.83 [29], p.281. Aquinas also rejects the notion that if all souls existed before their bodies, it would mean the same soul is united to different bodies or that there is an infinite number of pre-existing souls for all the bodies to come. Aquinas also dismisses the theory of transmigration of souls, and the idea of one's soul being united to different bodies. See *SCG*, Book 2, [33]-[37], pp.282-284

⁷³ Aquinas, *SCG*, Book 2, Ch.58 [8], p.175; Ch.65 [4], p.200; Ch.72 [3] p.213.

⁷⁴ Aquinas, *Sum.Theol. Vol 11*, I. Q.76 Art.1 ad.5, pp.48-49

⁷⁵ Aquinas, Sum. Theol. Vol 11, I. Q.76 Art.7 ad.2, pp.82-83

existence inasmuch as body through decomposition loses the existence it shared in common with soul, an existence which remains in the subsistent soul."⁷⁶ He cites Aristotle's case of an axe. The form of the axe is its essential 'whatness', since due to it the axe is an axe. Aristotle calls this form the substance of the axe. Further, if the axe was a living body, not just a natural body, the form of axe would be its soul which, if separated from it, would leave an axe only equivocally, like when soul is separated there is eye and flesh only equivocally.⁷⁷

That the human soul does not perish when the body is corrupted

Tommaso's discussion of how intellectual substances (subsistent intelligences) are incorruptible, has been already noted. 78 The human soul is an intellectual substance 79 and it follows that the human soul is incorruptible. A thing corrupts either per se or per accidens. It is impossible he says for a subsisting thing to come into being or corrupt by accident. What has being per se can only come to be or corrupt per se or from within itself. The human soul cannot corrupt of its own accord.⁸⁰

No thing is corrupted by that which gives it perfection. Tommaso views the perfection of the human soul, however, as a kind of withdrawal from the body. For the soul is perfected by knowledge and virtue, "it is perfected in knowledge the more it considers material things, the perfection of virtue consisting in man's not submitting to the passions of the body, but moderating and controlling them in accordance with reason. Consequently, the soul is not corrupted by being separated from the body."81

A form is corrupted in three ways: the action of its contrary e.g. heat is destroyed by cold; the corruption of its subject in which it resides e.g. the power of sight is destroyed if the eye is destroyed; or the failure of its cause, like the atmosphere fails through the sun's absence. Tommaso finds the human soul cannot be corrupted by a contrary action as there is nothing contrary to it. The human soul cannot be destroyed

⁷⁶ Aquinas, *Quaestio Disputata de Anima* 1, Aquinas (McDermott), Passage 18, Art.1, 'reply to 14',

⁷⁷ Aquinas, *Commentary on On the Soul*, Aquinas (McInerny), Book 2, Lesson2, no.237; p.420 Aquinas, Rickaby (trans.), *Contra Gentes*, Ch.55

⁷⁹ Aquinas, SCG, Book 2, Chapters 56-68, passim; Aquinas (Robb), Questions on the Soul, Q.14, pp.173-181

⁸⁰ Aquinas, Sum. Theol. Vol 11, I. Q.75 Art.6, pp.28-29

⁸¹ Aquinas, SCG, Book 2, Ch.79, pp.254-255

via corruption of its subject because it is a form not dependent of the body for its being. Neither can the soul be destroyed due to a failure of its cause, for the soul's only cause is an eternal one.⁸²

There is also an argument from natural appetite, which Tommaso finds impossible to be in vain. Humans naturally yearns to exist forever as seen where being is that which all seek; and by intelligence humans apprehend being not just in the present as brute animals do, but absolutely. Accordingly humans attain permanent existence on the part of their souls. Here, being is apprehended absolutely and for all times. A drive of nature has an end; thus no intellectual substance can pass away.⁸³

The intellect (soul's faculty of understanding) is a power of the soul that needs no organ;⁸⁴ it is not weakened either in itself or by accident, nor by old age or infirmity. Now, if fatigue or some other bodily hindrance affects the operation of intellect (working of understanding), "this is due not to any weakness of the powers which the intellect needs, namely, of the imagination, the memory, and the cogitative power. Clearly, therefore, the intellect is incorruptible. And since it is an intellective substance, the human soul is likewise incorruptible."⁸⁵

Can the separated soul understand anything at all?

Tommaso notes that the soul when separated from the body understands in a different way. Understanding, the soul's proper operation, has phantasm as its object, in the body, even though this operation does not depend on the body. Therefore, when the soul is in the body, it cannot understand without a phantasm; neither can it remember except via memory and cogitation. But the separated soul exists away from the body. This means its understanding will not be occur through the body's organs. However it will "understand through itself, in the manner of substances which in their being are totally separate from bodies...the separated soul will be able to receive a more abundant influx, productive of a more perfect understanding on its own part."

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⁸² Aquinas, SCG, Book 2, Ch.79 [7], p.255; Aquinas, Rickaby (trans.), Contra Gentes, Ch.79

⁸³ Aquinas, SCG, Book 2, Ch.79 [6], p.255; cf also Sum. Theol. Vol 11, I. Q.75 Art.6, pp.30-31

⁸⁴ Aquinas, SCG, Book 2, Ch.68 [12], p.206-207

⁸⁵ Aquinas, SCG, Book 2, Ch.79 [11], p.257

⁸⁶ Aquinas, *SCG*, Book 2, Chs.80 & 81, [12], pp.264-265; Cf also *Sum.Theol. Vol 11*, I.Q.75 Art.6 ad.3, pp.32-33 and Aquinas (Robb), *Questions on the Soul*, Q.16-Q.18, pp.194-222

But if the nature of the soul has to understand via sense images, and if the soul's nature is not changed by the death of the body, it would appear the soul could understand nothing with no images to process. Tommaso's solution is that the soul has different modes of being when united with the body and after separation its nature remains the same. He raises a doubt. Nature tends to the better; if understanding by turning to purely intelligible objects is superior than turning to sense objects, God ought to have created the soul for the higher mode and it would not need the body.

Tommaso remarks that although the superior image way is better, it would not be so well for the soul. The power of intelligence for all intellectual substances is from divine light. Arguing from the way higher intellectual substances understand things using fewer and more universal forms because their mind's strength, if human souls used that mode of understanding of immaterial things, it would be a confused and imperfect knowledge. Human souls were thus made to be joined with bodies and gain knowledge from things themselves so they might have perfect and proper knowledge of things.

For Tommaso, when the soul is freed from preoccupation with its body, it is better able to understand higher things. He sees the soul

on the boundary line between corporeal and incorporeal substances, as though it existed on the horizon of eternity and time, it approaches to the highest by withdrawing from the lowers. Consequently, when the soul shall be completely separated from the body, it will be perfectly likened to separate substances in its mode of understanding, and will receive influx abundantly.⁸⁷

There will be a higher mode of understanding. He concludes that "it is for the good of the soul to be joined to the body and to understand by turning to sense images; yet all the same it can be separated from the body and enjoy another mode of understanding."88

⁸⁷ Aquinas, SCG, Book 2, Chs.80 & 81, [12], pp.265-266

⁸⁸ Aquinas, Sum. Theol. Vol 12. I. Q.89 Art.1, pp.142-143

The Resurrection of the Body

Nonetheless, separation is temporary. The resurrection of Christ which frees us from death is achieved at the end of the world, when all shall rise by the power of Christ (1 Cor. 15:12-14). 89 Tommaso stresses it is bodies not souls that rise (1 Cor. 15:44, 53; John 5:25, 28). 90 It is contrary to the nature of souls to be without bodies; but what is contrary to nature cannot be perpetual, thus "the soul will not be without the body. Since, then, it persists perpetually, it must once again be united to the body; and this is to rise again. Therefore, the immortality of souls seems to demand a future resurrection of bodies." 91

On final happiness, Tommaso finds that that complete and final happiness is only in the vision of God and union of the mind with God. 92 Nevertheless, separation of soul from the body is said to "retard the soul from pressing on with all its might to the sight of God, in the sense that it still wants its joy to overflow into the body, as is possible. And therefore so long as the soul enjoys God without its partner, its desire, though at rest with what it has, still longs for the body to enter in and share." When the body is reassumed happiness will not grow in depth but in extent.

IV. Origins of the Human Soul

Tommaso anticipates some claims of those who think that as the human soul continues in existence, it would have always been. For instance, "that which will never cease, at no time begins to be." Nonetheless, he grants that the soul has the power to exist constantly, but the power and potentiality of a thing applies not to what was: "from the fact that the soul has the power to exist always it can be concluded, not that the soul always was, but that it always will be." ⁹⁶

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⁸⁹ Saint Thomas Aquinas, *Summa Contra Gentiles, Book Four: Salvation,* translated by Charles J.O'Neil (Notre Dame and London: University of Notre Dame Press, 1975), Ch.79, para.4, pp.297-298

⁹⁰ Aquinas, Summa Contra Gentiles IV, Ch.79, para.7-8, p.298

⁹¹ Aquinas, Summa Contra Gentiles IV, Ch.79, para.10, p.299; see also Ch.79, para.11, p.299

⁹² Thomas Aquinas, *Summa Theologiae, Volume 16 (Ia2ae. 1-5)*, Trans. Thomas Gilby, O.P. (London: Eyre & Spottiswoode & New York: McGraw-Hill Book Compnay1969), Q.3 Art.8, pp.84-87. Hereafter abbreviated as *Sum.Theol Vol 6, Ia2ae*

⁹³ Aquinas, Sum. Theol Vol 6, Ia2ae, Q.4 Art.6, ad.4, pp.104-107

⁹⁴ Aquinas, Sum. Theol Vol 6, Ia2ae, Q.4 Art.6, ad.5 pp.106-107

⁹⁵ Aquinas, *SCG*, Book 2, Ch.83, [2], p.273

⁹⁶ Aquinas, SCG, Book 2, Ch.84, [2], p.285

The soul comes to be by creation. Tommaso teaches that a thing is said to be if it has an actual "is" and subsists on its own. Whereas something such as whiteness has being because something else is white with it. The soul as a subsistent form is said both to be and to come to be. It does not come out of matter already present nor of a bodily kind which would confer a bodily nature, nor "of a spiritual kind, because that would involve spiritual substances being transmuted into each other; so it has to be said that it can only come to be by creation." ⁹⁷

Only God can create and bring into being the human soul. ⁹⁸ Unlike other forms which come to be by accident through composite parts, the human soul is not made of matter and cannot be made from matter. "And thus, it is created...creation is the proper work of God, it follows that the soul is created immediately by God alone." Tommaso also considers that above man's intellectual soul there must be a higher intelligence accounting for the power of understanding, since it does not understand everything and does so incompletely. This is the soul's creator, God, in whom alone the soul finds happiness. ¹⁰⁰

Conclusions

The Aristotelian-Thomistic concept of soul is philosophical but Christian. It was acceptable for Tommaso to "write of Christ after 472 questions and 2000 other articles in the *Summa Theologiae* because he was writing in an age that was, at least in theory, Christian." Tommaso's overall account of the human body-soul relationship uses 'hylomorphic' (matter-form) theory, repudiates Plato's dualism and favours psycho-physical unity of the human being/person. However, his understanding is not a crude materialism either; rather it involves the material *and* spiritual nature of human beings. The Aristotelian-Tommasian *soul* is the intelligent life principle, seeking unity with the body, has a post-mortem existence, and destined

⁹⁷ Aquinas, Sum. Theol. Vol 13. I. Q.90 Art.2, pp.8-9

⁹⁸ Aquinas, SCG, Book 2, Ch.87, [2], pp.293-294; Aquinas, S.T. Vol One. I.Q.118 Art.2 ad.2/ad.3, p.575

⁹⁹ Aquinas, SCG, Book 2, Ch.87 [3], p.294

¹⁰⁰ Aguinas, Sum. Theol. Vol 11, I. O.79, Art.4, pp.158-161

¹⁰¹ Raphael Gallagher, "Bernhard Häring's *The Law of Christ*, Reassessing its contribution to the renewal of moral theology in its era," *Studia Moralia* Vol.44 No.2 (July-December 2006), pp.317-351 (pp.348-349). Gallagher continues, "That way of thinking must be reversed...a return to a patristic way of thinking that places Christ at the centre of the human question."

¹⁰² A compound word, from the Greek, *hyle* meaning matter and *morphe* meaning form, appearing in English relatively recently in the nineteenth century. Gideon Manning, "The History of 'Hylomorphism'," *Journal of the History of Ideas* Vol.74 No.2 (April 2013), pp.173-187

for a resurrected body. A simple reading may suggest that Tommaso's thinking is dualistic, however he stresses unity of body and soul.

Several contemporary Thomist philosophers acknowledge the brain and associated questions, as we shall see. But Thomism, which has been dominant in Catholic scholarship, uses a different language and method to science. Indeed, different versions and usages of Thomistic thought over time have only been more or less successful at capturing the complexity and subtlety of Tommaso's thoughts. There is a need for new dialogues which is the setting for this thesis.

There appear to be no substantive Catholic schools of thought on body and soul, which rival the Thomistic tradition. However, there are individual contributors, e.g. Christian and Catholic thinkers have studied the "soul" at least etymologically as psychology (*psyche* = soul). Christians have researched mind and brain matters, ¹⁰³ and Catholics are active in psychology e.g. Peter J.Hampson, ¹⁰⁴ and William W.Meissner, S.J. (1931-2010). In other sciences, John Haught and Rev. Denis Edwards investigate the science-theology dialogue, seriously incorporating cosmic and biological evolution. ¹⁰⁵ However, there is an overall lack of Catholic thinkers in neuroscience, although some scholars have published in that subject e.g. Rev. Tadeusz Pacholczyk, ¹⁰⁶ and Ilia Delio, OSF. ¹⁰⁷ Others are neuroscientists from a Catholic background, like Sir John Eccles (1903-1997), ¹⁰⁸ and Christof Koch. ¹⁰⁹

¹⁰³ Most in the science/theology dialogues quoted in the thesis are from the United States and the United Kingdom. There are Christians in the U.S., and notably in the U.K., scientists who are ordained ministers in the Anglican Church, or from British universities, such as the late Rev. Canon Arthur R.Peacocke (1924-2006), Rev. Dr.John C.Polkinghorne, Rev. Dr.Fraser Watts, Rev. Dr.Alasdair Coles

¹⁰⁴ See later in the thesis and in the bibliography

¹⁰⁵ See later and in the bibliography

¹⁰⁶ Tadeusz Pacholczyk, Randy D.Blakely and Susan G.Amara, "Expression cloning of a cocaine-and antidepressant-sensitive human noradrenaline transporter," *Nature* Vol.350 No.6316 (28 March 1991), pp. 350-354

¹⁰⁷ D.A.Delio, M.G.Fiori and H.E.Lowndes, "Motor unit function during evolution of proximal axonal swellings," *Journal of the Neurological Sciences* Vol.109 No.1 (May 1992) pp.30-40 ¹⁰⁸ Nobel laureate J.Eccles is called a "Roman Catholic neuroscientist" in Philip R.Sullivan, "Are Current Philosophical Theories of Consciousness Useful to Neuroscientists?," *Behavior and Philosophy* Vol.34 (2006), pp.59-70 (p.34). Also, Alexander G.Karczmar, "Sir John Eccles, 1903-1997: Part 2. The brain as a machine or as a site of free will?," *Perspectives in Biology and Medicine* Vol.44 No.2 (Spring 2001), pp.250-262 (p.257)

¹⁰⁹ In an interview, Dr.Koch described his Catholic upbringing, his conflict with the world of science, then rejection of the Catholic view. Transcript "*Brain Science Podcast*, With Ginger Campbell, MD, Episode #84. Originally aired 04/25 /12, Interview with Christof Koch, PhD, Author of *Consciousness: Confessions of a Romantic Reductionist*," Transcript p.13, online at www.brainsciencepodcast.com/storage/transcripts/year-6/84-brainscience-Koch.pdf.

New thinkers may be less inclined to contribute due to past restrictions by church authorities, e.g. of P.Teilhard de Chardin S.J. 110 Other plausible reasons for less Catholic neuroscience discussions are difficulties grasping the sciences, and establishing the optimum science-theology relationships. The favoured sciences are cosmology, creation and evolution. This seems to align with one interpreter, how rather than dramatic conflict, the relationship between Roman Catholicism and science is "characterized by long periods of support for certain branches of science and indifference toward others, punctuated by occasional instances of controversy (chiefly heliocentrism in the seventeenth century and evolutionary theory in the twentieth)." Other likely factors are: past distrust of mental health matters by the Catholic faith, though the situation has developed; 112 or that the philosophical/ethical implications of neuroscience are relatively recent. 113

Part I Retrospective

In Barbour's typology of the science-religion relationship, Part I's magisterial Catholic 'soul' as founded on Tommaso's hylomorphic philosophy of soul, could be regarded as type 1 (conflict) or perhaps 2 (independence), because of past challenges to scientific theories; and the ITC thinking maybe type 2 with a look towards type 3 (dialogue) as it is open to the sciences in its discussion. Tommaso has been interpretated equivocally, thus even if he and the Catholic teachings are presented as a coherent account, it may not be intelligible for scholars today as it uses different concepts. This suggests Independence where there are two worlds of separate methods and language.

Next in Part II we explore this other world of contemporary science and critically evaluate it in light of Part I, looking for contributions to new insights on the soul.

¹¹⁰ John F.Haught, "More Being: The Emergence of Teilhard de Chardin," *Commonweal* Vol.136 No.11 (5 June, 2009), pp.17-19

¹¹¹ Steven J.Harris, "Roman Catholicism since Trent," in Gary B.Ferngren (ed.), *Science and Religion: A Historical Introduction* (Baltimore and London: The Johns Hopkins University Press, 2002), pp. 247-260 (p259)

^{Len Sperry, "Psychology and Catholicism, An Evolving Relationship,"} *Human Development*Vol.32 No.2 (Summer 2011), pp.3-7; Robert Kugelmann "The American Catholic Psychological
Association: A Brief History and Analysis," *The Catholic Social Science Review* Vol.5 (2000), pp.233-249; and Abraham Nussbaum, "Profession and Faith: The National Guild of Catholic Psychiatrists, 1950-1968," *The Catholic Historical Review* Vol.XCIII No.4 (October 2007), pp.845-865
Paul Root Wolpe, "The neuroscience revolution," *The Hastings Center Report* Vol.32 No.4 (July/August 2002), p.8