

**Dr hab. Zenon Eugeniusz ROSKAL, prof. KUL
KUL, Lublin**

DOES THE HUMAN SOUL HAVE WEIGHT?

The existence of the immortal human soul had been a deeply-rooted and unquestioned belief in the culture of medieval Europe until the reception of Aristotelian philosophy of nature, particularly its naturalistic (averroistic) interpretation¹. Strong influences of Platonism, strengthened by the authority of Saint Augustine, with his characteristic ontological dualism, who equipped the human soul with immortality and who made its relation to the body unnatural, sufficiently prevented any doubts from raising². A crop of philosophical treatises challenging this belief made the soul's immortality, and even its existence as a substance independent of the body, questionable. Hence a need arose for dogmatising the thesis of the soul's immortality, which was fulfilled by The Fifth Council of the Lateran (1512-1517). In the eighth session of the Council (on 19 December 1513), those who claimed it was possible on philosophical grounds to prove the mortality of the rational soul were condemned and university

¹ The debate over the possibility of proving the immortality of the human soul, understood in Aristotelian terms as the form of a living being, has not produced – as most philosophical debates – the universally accepted conclusions, but contemporary authorities in the history of philosophy claim we cannot formulate, on the grounds of Aristotelian conception of soul, correct arguments for the thesis of immortality of a single human soul. Cf. W. Bajor, *Benedicti Hesse Quaestiones disputatae super tres libros 'De anima' Aristotelis. Editio critica et inquisitio historico-philosophica*, Lublin: Wydawnictwo KUL 2011, p. 280-281.

² However Pietro Pomponazzi (1462-1525) in his treatise *De immortalitate anime* claims: „though Plato wrote so splendidly about the immortality of the human soul, he was not, in my opinion, fully convinced in this matter” (P. Pomponazzi, *O nieśmiertelności duszy* /transl. M. Cytowska/, Warszawa: PWN 1980, p. 157). Pomponazzi – one of the greatest experts of Aristotle's writings during the Renaissance – was also convinced, like present-day philosophy historians, that on the basis of Aristotle's philosophy (excluding revelations and miracles) it is not possible to prove the theory of the immortality of the human soul.

philosophers were commanded to point out the falsity of the thesis and defend the thesis of the immortality of the human soul³.

The current *Catechism of the Catholic Church* clearly states that

“In death, the separation of the soul from the body, the human body decays and the soul goes to meet God, while awaiting its reunion with its glorified body. God, in his almighty power, will definitively grant incorruptible life to our bodies by reuniting them with our souls, through the power of Jesus’ Resurrection”⁴.

Philosophy, which is to serve theology, in its numerous objectives, should seek arguments to support the thesis of the body-independent existence of soul after death, shortly referred to as the thesis of immortality of the human soul⁵.

This paper undertakes this task by examining to what extent science, which is today the main authority even also for believers, is capable of proving the existence of the human soul. The problem described in such general terms cannot be resolved in a short paper. Therefore I restrict myself to only one episode in the history of medicine when an attempt was made to identify the human soul in an experiment aiming at capturing the mass lost by a human when the soul departed the body at death. The title question gives therefore a positive answer, however only in the opinion of Dr. Duncan MacDougall (1866-1920) – the author of this experiment. Critics of this experiment disputed MacDougall’s thesis of the existence of the body-independent, though material, human soul, largely due to validity of this experiment in a philosophical debate on the immortality of the human soul. The answer to the question expressed in the title, whether it is possible by means of empirical methods to prove the existence of the human soul is presented in the second part of the paper. The first part presents the famous

³ Point Six in this session read that: „all those who stuck rigidly to this mistake should – as sowers of most condemned heresies, in all aspects as cursed and hideous heretics and infidels, diminishing the Catholic faith – be removed and punished”. In the next point it was advised: „to every single philosopher teaching publicly at universities of general studies and elsewhere, we strictly order in advance, when teaching their students or explaining philosophical assumptions and resolution, in which we recognize abandonment from the true faith, concerning for instance mortality or unity /numerical/ of soul, eternity of the world and the like – they are obliged in all their might to present the truth of the Christian faith, whenever possible to teach by persuasion and vigorously refute and deny the arguments of such philosophers because they are all to be refuted” (The Fifth Council of the Lateran – documents <http://soborowa.strefa.pl/code-20/> /access 14.05.2104/).

⁴ *Catechism of the Catholic Church* 997.

⁵ The Rev. Stanisław Kamiński, invoking the instruction of The Congregation for the Doctrine of the Faith of 6 August 1984, specifying the ancillary position of philosophy in relation to theology, claimed that „Philosophy as a conceptual apparatus and style of thinking serves theology when it does not disturb the deposit of faith. Theologian’s usage of those means has a subordinate character, hence it should always serve the faith, and not use it or constitute its proof reading, taking into account current paradigms of philosophical thinking” (S. Kamiński, *Czy filozofia służy teologii?*, in: *Jak filozofować? Studia z metodologii filozofii klasycznej*, Idem (red.), Lublin: TN KUL 1989, p. 373-380).

experiment in which, according to the author of the experiment, the human soul was weighed.

1. The experiment of weighing the human soul.

The sensational news about weighing the human soul appeared in the special to the „New York Times” in March 1907. The short article said that the human soul had a definite weight because in the presence of several physicians the „scales showed an ounce gone in one case”⁶. The reports, inaccurate as they were, brought about considerable interest to readers, which required more detailed clarification. To avoid any misunderstandings and react to critical opinion, the originator of the experiment, a doctor of Haverhill, Massachusetts Duncan MacDougall (1866-1920) published an in-depth article⁷, in which he described the experiment in detail and stated explicitly he had demonstrated the materiality of the human soul.

MacDougall’s experiment of weighing a patient dying of consumption⁸ was performed several times. The first one took place on 10 April 1901 between 17.30 and 21.10 and had great significance as it enabled to establish precisely the moment of patient’s death, which coincided, as MacDougall stressed in his publications, with a sudden weight loss by 3/4 of an ounce (21 grams⁹). Altogether, MacDougall weighed 6 persons at death (not all of them dying of consumption), whereas in one case no weight loss was noted. In the fifth patient, as in the first experiment, weight loss was noted but only by 10.5 g. The „soul” measurement in patient three and four showed at death in turn 10 g and 14 g. In the latter case, however, while weighing a patient in a diabetic coma, the scales appeared to be improperly balanced which made the results doubtful. One result was rejected by MacDougall himself as not credible, therefore on the basis of four

⁶ D. MacDougall, *Soul Has Weight, Physician Thinks*, in: „The New York Times” (11.03.1907), p. 5.

⁷ D. MacDougall, *Hypothesis Concerning Soul Substance Together with Experimental Evidence of The Existence of Such Substance*, in: „American Medicine. New Series” 4/2(1907), p. 240-243. The article, entitled likewise, was also published in: „Journal of the American Society for Psychical Research” 5/1(1907), p. 237-244.

⁸ Patients of this type were chosen by Dr. MacDougall because they had a very little body weight whose loss resulted from a progressing disease, and the death itself was not violent in nature. Such circumstances were very important for the experiment and noting a sudden weight loss. A systematic weight loss resulting from evaporation of water from the body was accurately established by MacDougall, because it corresponds with contemporary estimates. The smaller weight of an object, the greater the sensitivity of the measurement. In his experiment MacDougall estimated the sensitivity of the balance as 0,2 ounce = 5,7 g.

⁹ The number, though not proven in other patients, permanently entered into mass culture thus becoming a synonym of the human soul. *21 grams* is a 2003 American drama film directed by Mexican director Alejandro González Iñárritu.

measurements, of which only the first one with no reservations, the human soul was concluded to be material.

2. The significance of MacDougall's arguments.

The nature of the human soul is examined by means of philosophical and theological¹⁰ methods but not all philosophies are suitable to grasp this nature. The more so for scientific methods. A radical methodological dissimilarity of natural sciences and philosophy, especially neo-Thomism makes the research on human soul by empirical methods a methodological misunderstanding. The majority of modern philosophical theories are also unsuitable to accurately grasp, from the point of view of deposit of faith, the nature of the human soul. According to Rev. Stanislaw Kaminski, an accurate definition of the nature of the human soul is not possible also in a philosophical theory which would, even partly, rely on science. It is only possible within the theory of hylomorphism supplemented by the real difference between essence and existence. Thereby it can be said that only existential neo-Thomism¹¹ accurately defines the nature of the human soul. According to this definition, substantial qualities of the human soul understood as a substantialist form of body come down to the three ones: 1) simplicity, 2) spirituality and 3) intrinsicism. The simplicity of the human soul in neo-Thomism is explained as indivisibility and individuality, in particular simplicity is understood as not consisting of matter and form. Spirituality of the human soul is an uncontradictory condition of existing higher psychical acts, ie. acts of decision, or abstract perspective of relation. The spiritual soul was *sui generis* a „performer” of those acts. Intrinsicism of a substantialist form, such as the human soul is, arises not only from the fact that Man deserves the act of existence indirectly because of his soul, but mainly from the fact that the human soul was directly created by God.

The indestructibility (immortality) of the human soul in neo-Thomism is understood as a consequence of intrinsicism, simplicity and spirituality. Strictly speaking the most important is intrinsicism. The annihilation of the human soul is only possible by the same means as its creation. This reasoning leads to the

¹⁰ A review of updated concepts of soul can be found in B. Bejze's paper, *W poszukiwaniu współczesnego pojęcia duszy ludzkiej*, in: *W nurcie zagadnień posoborowych* vol. 2, B. Bejze (ed.), Warszawa 1968, p. 51-78. The concept of self-containedness of soul from the perspective of Saint Thomas Aquinas presented by M.A. Krapiec, *Człowiek w perspektywie śmierci*, in: *O Bogu i człowieku. Problemy filozoficzne* vol. 1, B. Bejze (ed.), Warszawa 1968, p. 123-148; cf. V. Possenti, *Anima, mente, corpo e immortalità: la sfida del naturalismo*, in: „Roczniki Filozoficzne” 62/2(2014), p. 27-73, which presents in detail the relations between immaterial soul, mortal body and mind.

¹¹ Cf. S. Kamiński, *Metodologiczna problematyka poznania duszy ludzkiej*, in: *Jak filozofować? Studia z metodologii filozofii klasycznej*, Idem (red.), Lublin: TN KUL 1989, p. 263-277 /273/.

conclusion that the human soul cannot cease to exist as a result of another (less perfect) cause than the one which created it¹². The immortality of the human soul on the basis of existential neo-Thomism – as Etienne Gilson puts it – is obvious. It is the analytical a priori truth:

„If we understand that the human soul is an immaterial substance, we are thereby convinced it is immortal. Actually, the immortality of the soul need not be proven, at least when we know its nature. In a sense it is *per se nota* obviousness, resulting from the definition of the rational soul, as the definition of a whole shows it is bigger than its part”¹³.

The notion of the rational soul requires therefore a closer look. Its immateriality can be expressed from two different, independent of each other, perspectives. From the first one, on the basis of Aristotelian-Thomist philosophy, matter is opposed to form. Matter in hylomorphism is a dependent component of being and in no case can it be regarded as substance. According to Aristotle substance is „only potentiality without being actuality”¹⁴. Matter is passive (receptive), but to some extent it opposes form (the resistance of matter). The rational soul is then *ex definitione* immaterial, since it is non-material form¹⁵. However – as Antoni B. Stępień puts it:

„The problem of immateriality (incorporeality) of the human soul is a complicated matter (...). The difficulty lies in a positive determination of the nature of matter. In any case, when talking about the materiality of the soul, we do not mean the Aristotelian concept of matter as potentiality or principle (right) of potentiality as a basis for

¹² The significance of these problems was assessed by Pomponazzi in the context of the question if tropical regions can be populated. Aristotle (384-322 BC.) and most of all his great commentator Averroes (1126-1198) proved by a priori arguments it is not possible. Meanwhile, during his lecture on this problem, Pomponazzi presented a letter from Antonio Pigafetta (1491-1534) – one of 18 survivors of Magellan’s expedition which described discoveries of numerous islands and peoples in tropical zones. Pomponazzi’s commentary was as follows: „I leave it to your own reflections, what is the worth of those arguments which the Commentator calls incontrovertible evidence (...). So give it good thought what our situation is like. If we do not know those things which are on earth and can be predicted, how can we get to know those which are in heaven?” (B. Nardi, *Studisu Pietro Pomponazzi*, cit: L. Szczucki, *Pomponazzi – arystotelik wątpiący*, in: P. Pomponazzi, *O nieśmiertelności duszy*, /transl. M. Cytowska/, Warszawa: PWN 1980, p. LIV). It is worth noting, however, that Unknown Southern Land (*Terra Australis Incognita*) whose existence was postulated by ancient cartographers (Ptolemy among others) on the basis of Aristotle’s a priori arguments was discovered by sailors (Antarctica), but the continent does not possess all the features of the *Unknown Southern Land*.

¹³ E. Gilson, *Tomizm. Wprowadzenie do filozofii św. Tomasza z Akwinu* (transl. J. Rybał), Warszawa: PAX 1960, p. 266.

¹⁴ Aristotele, *Metaphysics* 1042a.

¹⁵ A well-known scholastic formula encapsulated it explicitly: *immaterialis est radix cognitionis*. René Descartes, in accordance with this point of view, equated soul with mind: *mens sive anima, immaterialis sive cogitatonis*.

substantial changes (first matter) or affliction changes (second matter). Here matter is a body or collection of bodies, it is something physical"¹⁶.

Due to the fact that from the second (physical) perspective matter is understood as space-time objects, immateriality of the human soul rests mainly on the fact that:

„both experienced acts and facts (with their content) and their foundation, bodily self-consciousness and its characteristics and disposition are characterised by a lack of spatial extent, sensory quality and measurability in physical units"¹⁷.

Specifying the first presentation of the materiality of the human soul it is necessary to add that:

„the ‘non-material’ side of being is not so much the ‘form’ as an identity element, as the being-becoming existence. For existence is a form of being, as the form is an act of being (in an Aristotelian sense). However the form is an act only in essential order, and not in real-being order. For it is not due to the form that being is something real, but due to the act of existence. If existence is an act of incomposite substance, then we can speak of essential immateriality; and the whole being is truly immaterial. And it is in this sense that we can speak of the immateriality of the human soul. The soul is a (substantial) form which exists by virtue of being a spirit and therefore it is an immaterial being, and not only has it immaterial sides"¹⁸.

3. Conclusion.

In the light of the above, MacDougall's experiment is meaningless for the philosophical debate on the immortality of the human soul. If the human soul – as existential Thomism anthropology maintains – is immaterial, then in no case can we grasp the existence of the human soul by means of empirical methods. Immateriality of the human soul is understood first of all as immateriality of the structure of intellectual cognition, i.e. conceptualising, or reasoning. For it is believed those acts are not space-located. Accordingly, they do not possess other features typical of material beings, i.e. being subject to gravitation, or weight. Hence by means of empirical methods such as weighing, it is not possible to identify the human soul. The soul, as immaterial substance, does not possess weight, therefore it cannot be identified by means of weight deficit at the moment of death¹⁹.

¹⁶ A. Stępień, *Wstęp do filozofii*, Lublin: TN KUL 2001⁴, p. 230.

¹⁷ Tamże.

¹⁸ M. Krapiec, *Ja człowiek*, Lublin: Wyd. KUL 2005, p. 146.

¹⁹ As Krapiec points out in note 47 to his monograph on philosophical anthropology „*A fortiori* basing on empirical cognition we cannot maintain the impossibility of the existence of being which is not subject to such cognition” (M. Krapiec, *Ja człowiek*, Lublin: Wyd. KUL 2005, p. 145).

SUMMARIUM

Artykuł podejmuje problem oceny jednego z empirycznych argumentów za istnieniem duszy ludzkiej. Argument taki został wysunięty na kanwie eksperymentu mającego na celu uchwycenie zmiany masy ciała człowieka w momencie śmierci. W opinii Duncana MacDougalla (1866-1920) – autora tego eksperymentu – dusza ludzka została zważona i tym samym jej istnienie zostało wykazane przy pomocy metody empirycznej. Krytycy tego eksperymentu kwestionowali tezę MacDougalla o istnieniu niezależnej od ciała, choć materialnej, ludzkiej duszy głównie z uwagi na wady metodologiczne tego eksperymentu. Autor artykułu zwraca przede wszystkim uwagę na kwestię ważności wyników tego eksperymentu w filozoficznej debacie na temat nieśmiertelności ludzkiej duszy.

Zdaniem autora artykułu eksperyment MacDougalla nie ma żadnego znaczenia dla filozoficznej debaty nad nieśmiertelnością ludzkiej duszy. Jeżeli ludzka dusza – jak twierdzi antropologia tomizmu egzystencjalnego – jest niematerialna, to w żadnym wypadku nie można uchwycić istnienia ludzkiej duszy przy pomocy metod empirycznych. Dusza jako substancja niematerialna nie posiada ciężaru zatem nie można ją identyfikować przy pomocy deficytu masy ciała w momencie śmierci.

Zenon E. Roskal

Słowa kluczowe: dusza ludzka, waga, ciało, eksperyment.