Philosophical Management of Stress based on Science and Epicurean Pragmatism: A Pilot Study

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Abstract

In the first months of the COVID-19 pandemic, we created and implemented from November 2020 to February 2021 a monthly educational pilot program of philosophical management of stress based on Science, Humanism and Epicurean Pragmatism, which was offered to employees of 26 municipalities in the Prefecture of Attica, Greece. The program named "Philosophical Distress Management Operation System" (Philo.Di.M.O.S.) is novel and unique in its kind, as it combines a certain Greek philosophical tradition (Epicurean) that concurs with modern scientific knowledge. The program was designed to be implemented in a period of crisis; therefore, it used a fast-paced, easy to learn and practice philosophical approach to stress management, based on cognitive psychotherapy. The philosophical approach to stress management has the advantage that it can be offered to most people, regardless of age and educational level. The pilot program was effective in achieving its objectives, shown by statistical comparisons of the trainees' responses to anonymous questionnaires before and after the month-long training. The successful Philo.Di.M.O.S. program, thus, based on a solid scientific and philosophical basis, offers a paradigm of stress management during crises and could be useful in Greece and internationally.

Keywords: *stress management; applied philosophy; science; brain function; biological psychology; Epicurus; Epicurean philosophy; pursuit of happiness; meaning of life; scientific humanism*

The unprecedented coronavirus pandemic and the associated great psychosocial stress being experienced by all humankind since 2020, have revealed the need for better emotional shielding of society in stressful situations. In the first months of the pandemic, we created and implemented a month-long educational program of Philosophical Management of Stress based on Science, Humanism and Epicurean Pragmatism, which was funded by the Prefecture of Attica, Greece.

We foresaw that a possibly prolonged psychological pressure during the pandemic would be particularly painful for the Greeks who are characterized by inability to cope with stress. According to the Gallup Global Emotions survey published in April 2019, the Greeks claimed to be the most stressed people of the planet among 140 countries, including areas with civil conflict, such as Libya, Somalia, and Syria.[1] The stress experienced by Greeks seemed to be based mostly on subjective beliefs and perceptions, and not so much on objective difficulties. Moreover, this observation highlights the fact that most Greeks do not know how to manage everyday stress.

Due to the emergency health crisis, the Prefecture of Attica decided it was imperative to address the increased local public health needs and the social impact of the COVID-19 pandemic, by supporting the training of the staff of its supervised social structures in Philosophical Management of Stress to better assist people in need during this period of crisis, as well as the ones that may follow in the future. Following an open call, a team, led by the Applied Philosophy Research Laboratory of the National and Kapodistrian University of Athens (NKUA), that included experts from both the School of Philosophy and the School of Medicine of the NKUA, undertook the task of implementing a pilot educational program on philosophical stress management supported by the Regional Development Fund of the Prefecture of Attica as an EU co-financed project (European Social Fund).

The object of the action "Educational Process of Pilot Implementation of the Philosophical Stress Management Program in selected structures of the European Social Fund" was the synchronous and asynchronous online training for staff members and executives working at several of the 240 selected co-financed social structures of the Operational Program *Attica 2014-2020* in three monthly seminar cycles on the philosophical management of stress. Here we present the main characteristics of the program we named Philosophical Distress Management Operation System (Philo.Di.M.O.S.), as well as the empirical results of its pilot implementation.

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[1] Gallup Inc, *Gallup Global Emotions*, 2019, http://cdn.cnn.com/cnn/2019/images/04/25/globalstateofemotions_wp_report_041719v7_dd.pdf.

I. Philosophical and scientific basis of Philo.Di.M.O.S.

The program Philo.Di.M.O.S. was innovative and unique in its kind worldwide, as it combined the Greek philosophical legacy (mainly the Epicurean tradition) that concurs with modern scientific knowledge.[2] The program was tailored for crisis periods, so it used a fast-paced, easy to learn and practice philosophical approach to stress management, based on cognitive psychotherapy, as well as on solid scientific knowledge of neuropsychological and biological mechanisms of stress in brain and body.[3] The philosophical approach to stress management comes hand in hand with feasibility, effectiveness, and applicability: it can be offered to everyone, regardless one's age and educational level. We decided that the key philosophical perspective of this program had to be Epicurean pragmatism (epistemologically) and humanism (morally).

Pragmatism is the philosophical outlook that focuses on objective reality, and considers important what may be practically useful. As a consequentialist tradition, pragmatism assumes that stressful thoughts stem from real-life problems, to which practical solutions should be proposed. Any theory or aim should be judged according to criteria such as applicability, practicality and utility. The major figures in this tradition are William James and John Dewey.[4]

Humanism, in turn, holds that humanity, that is, being human, constitutes the ultimate value, and assumes that the ultimate end of any law-abiding civilized society is to defend basic human rights such as life, freedom, and happiness (eudaimonia). The declared objective of humanism is to defend the dignity and personality of every human, and facilitate the development of our capabilities in such way, as to live harmoniously in any given society, emphasizing that the actual meaning of life consists in the pursuit of happiness. The elaborated moral status of this notion, happiness, can be traced back to the Ancient Greek philosophical tradition, while it has also maintained its dominant status during the Renaissance, the Enlightenment, and Modernity. Among the major representatives of Humanism are usually listed Epicurus,

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[2] Christos Yapijakis, "Ethical Teachings of Epicurus Based on Human Nature in the Light of Biological Psychology," *Proceedings of the XXIII World Congress of Philosophy* 2, no. 3 (2018): 83-88.

[3] George P. Chrousos, "Stress and Disorders of the Stress System," *Nature Reviews Endocrinology* 5, no. 7 (2009): 374-381; George P. Chrousos, "Empathy, Stress and Compassion: Resonance between the Caring and the Cared," in *Providing Compassionate Healthcare: Challenges in Policy and Practice*, eds. Sue Shea, Robin Wynward, and Christos Lionis, 35-39 (London: Routledge, 2014).

[4] John Dewey, *Liberalism and Social Action* (New York: G. P. Putnam's Sons, 1935); John Dewey, *Freedom and Culture* (Amherst, N.Y.: Prometheus Books, 1989); William James, *Pragmatism: A New Name for Some Old Ways of Thinking* (New York: Dover Publications, 1995).

Erasmus, Voltaire, as well as the American statesman Thomas Jefferson.[5] On the other hand, happiness – or, eudaimonia – has been celebrated by the Utilitarians as the only good that may rightfully be desirable *per se*.[6]

The key conceptual features of Philo.Di.M.O.S. include the scientific and empirical acceptance of physical reality and stress (pressure) as a natural phenomenon, the realization that stress may be objective (due to objective stressors) or subjective (due to an idiosyncratic way of thinking), the biological and neuropsychological capabilities of the human brain,[7] the philosophical way of thinking that may, or may not, correspond to physical reality, and the effectiveness of philosophical management of stress, aiming for peace of mind and tranquility (mental health).

Absence of mental agitation (ataraxia) combined with absence of physical pain (aponia) are the core elements of happiness as a permanent, stable state of mind (eudaimonia), according to Epicurus.[8] Contemporary utilitarian ethicists also consider the absence of mental and physical pain the core-element of happiness,[9] while to others the pursuit of happiness by means of eliminating pain, physical and mental alike, is a mandate of common sense.[10] The Epicurean account of happiness is echoed in the definition of

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[5] Christos Yapijakis, "Ancestral Concepts of Human Genetics and Molecular Medicine in Epicurean Philosophy," in *History of Human Genetics*, eds. Heike L. Petermann, Peter S. Harper, and Suzanne Doetz, 41-57 (Dordrecht: Springer, 2017); Jan Papy, "Erasmus, Europe and Cosmopolitanism: The Humanist Image and Message in his Letters," in *Erasmus of Rotterdam and European Culture*, eds. Enrico Pasini, and Pietro B. Rossi, 27-42 (Florence: SISMEL, 2008); Peter Gay, *The Bridge of Criticism. Dialogues among Lucian, Erasmus, and Voltaire on the Enlightenment* (New York: Harper & Row, 1970); Panagiotis Panagiotopoulos, *Thomas Jefferson 'I am also an Epicurean' His life and his Inspiration from the Ancient Greeks* (Athens: Independent Publication, 2021).

[6] Jeremy Bentham, *The Collected Works of Jeremy Bentham: An Introduction to the Principles of Morals and Legislation*, eds. James H. Burns, and Herbert Lionel Adolphus Hart (Oxford: Clarendon Press, 1996); John Stuart Mill, *Utilitarianism* (Indianapolis: Hackett, 2002); Henry Sidgwick, *The Methods of Ethics* (Cambridge: Cambridge University Press, 1874).

[7] Christos Yapijakis, "Ethical Teachings of Epicurus Based on Human Nature in the Light of Biological Psychology," *Proceedings of the XXIII World Congress of Philosophy* 2, no. 3 (2018): 83-88.

[8] Christos Yapijakis, and George P. Chrousos, "Epicurean (Eustatheia): A Philosophical Approach of Stress Management," *Conatus – Journal of Philosophy* 7, no. 2 (2022): 173-190; Evangelos D. Protopapadakis, "'Death is Nothing to Us:' A Critical Analysis of the Epicurean Views Concerning the Dread of Death," *Antiquity and Modern World: Interpretations of Antiquity* 8 (2014): 316-323.

[9] Peter Singer, *Practical Ethics* (Cambridge: Cambridge University Press, 1991).

[10] Julian Savulescu, and Evangelos D. Protopapadakis, "'Ethical Minefields' and the Voice of Common Sense: A Discussion with Julian Savulescu," *Conatus – Journal of Philosophy* 4, no. 1 (2019): 125; Christos Yapijakis, "The Need of the Epicurean Concept of 'the Pursuit of Happiness' in the European Union," http://www.epicuros.gr/arthra/Yapijakis_EU_Happiness_Need.pdf.

health as provided by the World Health Organization (WHO 1948), that is, "A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."[11]

II. Investigation of the effectiveness of Philo.Di.M.O.S.

The purpose of the pilot educational program of Philosophical Management of Stress (Philo.Di.M.O.S.) has been the investigation of its potential effectiveness. As far as we know this was the first time worldwide that a fast-track, monthly training process of stress management combined the Greek philosophical tradition (mainly Epicurean), that is in accordance, with both modern scientific knowledge, and the cognitive psychotherapeutic approach. The program was designed in such a way as to be offered to every person of the general population, who just had to speak Greek and to have completed, at least, secondary education.

The research questions, which the pilot educational program aimed to objectively answer, were:

1) Can Applied Philosophy be applicable to stress management?
2) Can Science be effective when combined with Epicurean Pragmatic Philosophy, which is based on the observation of reality, and not on intellectual constructions?
3) Can basic concepts of the Science and Medicine of stress be taught in a simple way to any individual of the general population?
4) Similarly, can basic concepts of Philosophy be taught in a simple way to any individual of the general population?
5) Can some basic brain functions be taught in a simple way to any individual of the general population?
6) Can some basic methods of Philosophical Management of Stress be taught in a simple way to any individual of the general population?
7) Can all of the above be taught in one month and have an effect on stress management by individuals of the general population?

We applied mixed methods of research conducting traditional qualitative and quantitative research and using pragmatism as a philosophical framework.[12] It was decided that the putative effectiveness of the pilot program would be evaluated based on specific criteria. The pilot program would be considered to be effective if it would objectively achieve two criteria:

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[11] World Health Organization. *Constitution of the World Health Organization – Basic Documents*, 45th edition (Geneva, 2006).

[12] R. Burke Johnson, and Anthony J. Onwuegbuzie, "Mixed Methods Research: A Research Paradigm Whose Time Has Come," *Educational Researcher* 33, no. 7 (2004): 14-26.

a) A statistically significant increase of the level of the trainees' knowledge on stress and its management,

b) A statistically significant reduction in the subjective perceived stress of the trainees in conjunction with the simultaneous stability of the objective stress.

If both criteria could be met, it would follow that knowledge acquired by the pilot educational program could be used by the trainees to manage their everyday stress. The reduction of the subjective perceived stress may be apparently considered as an indirect indicator of the effective management of stress.

The investigation of the possible effectiveness of the pilot program "Philosophical Management of Stress" was done using anonymous questionnaires, which were given to the trainees at the beginning and at the end of the educational process. The investigation was carried out in accordance with the General Personal Data Protection Regulation (2016/679) of the European Union[13] and the four key bioethical principles,[14] respecting the privacy and individual rights of the trainees.

Before and after the one-month educational program, the trainees anonymously answered questionnaires containing:

a) Six questions regarding their knowledge of stress as a natural phenomenon, the possibility of stress management, humanism, correlation of philosophy and science,

b) Twelve questions regarding their stress due to objective factors (personal illness, illness or death of a close relative or close friend, dismissal or severe problems at workplace, severe financial problems, separation from a longtime relationship, recent marriage, or recent birth of a child, etc.),

c) Fourteen questions regarding their perceived stress in the last month (how often they felt stressed, nervous, angry, hopeless), as well as their perceived ability to manage stressful situations.

Due to the preservation of anonymity, the comparative statistical analysis of the answers was not done per person but in the total cohort of trainees.

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[13] Council of the European Union, *Proposal for a Regulation of the European Parliament and of the Council on the Protection of Individuals with Regard to the Processing of Personal Data and on the Free Movement of such Data* (Brussels: 2015), https://data.consilium.europa.eu/doc/document/ST-9565-2015-INIT/en/pdf.

[14] Evangelos D. Protopapadakis, *From Dawn till Dusk: Bioethical Insights into the Beginning and the End of Life* (Berlin: Logos Verlag, 2019).

The answers for each knowledge question were grouped into the correct group on one hand and the group of all incorrect ones, and Fischer exact test was used to compare statistically the trainees' response numbers in the two groups, before and after the one-month educational program. The answers for the objective and perceived stress were grouped into three groups (never/almost never, sometimes, often/very often) and Fischer exact probability test of 2X3 tables was used for statistical comparison of the trainees' numbers of responses in the three groups, at the beginning and at the end of the educational process. The level of statistically significant test result was set for probability value less than 0.05.

III. Implementation of Philo.Di.M.O.S.

The pilot educational program of Philosophical Management of Stress (Philo. Di.M.O.S.) was designed to take place during the pandemic of coronavirus, therefore, the training was scheduled to take place through videotaped one-hour lessons and live online discussions. The duration of the educational process was four weeks long. The program took place in three monthly cycles (November 2020, December 2020 and February 2021) with three different groups of trainees. After publicized calls of the Prefecture of Attica, the first 100 applicant employees of 55 social structures located in 37 of the most populous municipalities of Attica, were accepted as trainees without any further selection.

The trainees were employed in social structures of the Prefecture of Attica and belonged to a wide range of staff members, including psychologists, sociologists, social workers, teachers, pharmacists, nurses, physical therapists, speech therapists, financial executives, administrative employees, and technicians. They worked in community centers, hostels for abused women, counseling centers for women, day care centers for elderly people, day centers and dormitories for homeless people, as well as social structures for provision of basic goods (social grocery stores, pharmacies, free meals, etc.).

The wide spectrum of trainees regarding age, education level and specialty, created the imperative of collecting some demographic information for research purposes, therefore, an anonymous self-referential questionnaire was completed by the trainees during their registration in the pilot educational program of Philosophical Management of Stress (Philo.Di.M.O.S.). Furthermore, the trainees also answered the anonymous questionnaire regarding their knowledge in stress and philosophy, as well as their objective and perceived stress status before attending the program.

The pilot educational program included a gradual process of training with a different thematic focus each week on issues of:

a) Philosophy (Aim of Philosophy, Pragmatism, Humanism, Applied Philosophy),

b) Stress (Science of Stress, Brain function and Stress, Medicine and Stress, Psychology and Stress),

c) Philosophical Management of Stress on a Personal Level (Various Philosophical Approaches of Stress Management, Epicurean Cognitive Management of Stress, Behavioral Management of Stress, Philosophical aspects of Brain function),

d) Philosophical Management of Stress on an Interpersonal Level (Mental Health and the Biopsychosocial Model, Diet and Mental Health, Philosophical aspects of Social Behavior, Experiential approach to Living according to Nature).

Each week, the trainees were able to log in a special website (https://philodimos.net) and to watch four videotaped one-hour PowerPoint presentations, as well to read some supplementary texts. After watching a presentation, the trainees had to answer correctly three relative multiple-choice questions per hour, which were saved under their name as a proof of the course attendance. At the end of the week, there was a two-hour live online discussion with one or two of the educators regarding the weekly presentations. During the discussion, some experiences from everyday life were used as examples for illustration of basic issues and counselling of stress management.

The trainees had an age range of 26-64 years (median 39 years), therefore, adult education techniques were applied, such as repetition of some basic concepts and information, interactive weekly discussions, and consolidation of new knowledge based on existing experience, counselling for simulated everyday stressful situations, encouraging active participation, and development of critical thinking. The repetition of some basic information about stress management was semantically connected at the level of physical reality, neurobiology, psychology, sociology and philosophy.

In order for trainees to be considered as having successfully completed the educational process and to receive a certificate of attendance, they had to answer correctly at least 36 of the 48 multiple-choice questions (at least 75%). The trainees received a certificate of the educational program, which has been certified by the Center of Continuing Education and Lifelong Learning of the National and Kapodistrian University of Athens with 2.4 credits of the European Credit system for Vocational Education and Training (ECVET).

IV. Results of the pilot program Philo.Di.M.O.S.

The educational program of Philosophical Management of Stress (Philo. Di.M.O.S.) was applied in three monthly training courses. Out of 100 initial employees from structures of 37 municipalities of Attica, in the end, 62 employees successfully completed the educational process and received a certificate of attendance. The common characteristic of the successful trainees was a high interest in the program, while they had a wide range of age (26-64 years), education (from high school graduates to postgraduate degree holders) and profession (technicians, administrative officers, teachers, health professionals, social workers and psychologists). They originated from 26 large municipalities of the Prefecture of Attica (Athens, Acharnes, Aghios Dimitrios, Amarousion, Aspropyrgos, Byron, Daphne, Glyfada, Hellenikon-Argyroupolis, Helioupolis, Heraklion, Kallithea, Keratsini-Drapetsona, Lykovrysi-Pefki, Megara, Metamorphosis, Moschato-Tavros, Nea Smyrne, Nikea-Aghios Redis, Pallini, Peania, Penteli, Peristeri, Petroupolis, Spata-Artemis, Fyli), reflecting the possible effective dissemination of the pilot program.

The pilot program was proved to be effective in achieving its objectives, based on the set evaluation criteria. Comparison of the trainees' responses of the anonymous questionnaires before and after the monthly training revealed:

> a) that due to the educational program there was statistically significant difference in knowledge of stress (P=0.00011) and stress management in general (P=0.004), and in personal confidence to manage stress (P=0.003); at the same time, there was no statistical difference in knowledge about Humanism, and about the fact that Science is closely related to Pragmatism and not to Idealism,
> b) that there was a statistically significant difference in some parameters related to the subjective perceived stress of the trainees, such as minimal surprise by stressful events (P=0.008), confidence of controlling oneself (P=0.02), and minimal anger response to stressful events (P=0.02), while their objective stress remained constant and did not differ significantly over the period of one month (P>0.05); furthermore, there was no statistical difference in experiencing stressful events in everyday life, in recognizing that many times stressful situations are not avoidable and in feeling overwhelmed by stressful events.

These observations were indirect evidence that most trainees learned to consider the occurrence of stressful events as part of life, and at the same time to effectively manage their perceived stress. They learned they should not

respond to stressful events with surprise or anger, but instead to anticipate them and be confident that they are resilient in stressful conditions.

The validity of the obtained results is enhanced by the fact that completion of questionnaires before and after the educational process was anonymous out of respect for personal data. This allowed the trainees to report information of objective stressful situations (e.g., illness, death of a close relative, or divorce), but also to honestly express their subjective perceptions regarding stress and their confidence to cope with it.

Most trainees expressed their satisfaction from the program, mainly because their expectations regarding the acquisition of new knowledge and skills were met. The majority of the trainees answered that they completely or very much agreed (75.4%) that they acquired new knowledge and that they benefited completely or very much (82%) from the "Philosophical Management of Stress" program. Approximately half of the trainees felt that they learned completely or very much to manage perceived stress (52.5%), while a further 37.7% said that they gained a moderate ability to manage perceived stress. Furthermore, about half said that they learned completely or very much to advise others to manage their subjective perceived stress (45.9%), and as many (44.3%) stated that they acquired a moderate ability to advise others to manage their subjective perceived stress.

The qualitative analysis of some characteristic phrases of the trainees during online discussions showed a progressive advancement of learning and awareness of philosophical management of stress per week of educational process. In the first week, they commented on the experience of stress in everyday life, their great interest in the program, and some thoughts on how philosophical thinking could contribute to stress management. In the second week, the trainees expressed their amazement regarding the increased risk of chronic noncommunicable diseases among people that do not manage their stress, the acceptance of objective stressors as part of life, and their understanding of the importance of managing subjective perceived stress, but some expressed doubts on how it is possible that they may not be affected by perceived stress or that it is possible to manage it. In the third week, some trainees expressed the view that they understand what they need to do to manage stress, but found it difficult to actually do it, while others said that they were able to manage their perceived stress. In the last week, some trainees stated that they still found it somewhat difficult to manage their perceived stress, even though they knew what to do, while others said they knew how to manage stress and apply it successfully. Nevertheless, the vast majority of the trainees learned that in order to be helpful to others in stressful situations, they first have to manage their own personal perceived stress.

Two characteristic comments of trainees during online discussions are worth mentioning. A female social worker reported: "A person with special needs in our structure became very angry because he thought that he did not receive some information because of impatient colleagues. While he was very angry, I talked to him with empathy and composure and explained to him in detail as many times as he needed to understand something. I offered to help and spend all the time he needed in order to understand. Finally, the man relaxed, we were able to communicate and all tension and fuss stopped." A male philologist with a Master's degree remarked: "I have learned in this seminar to try to manage things in a cool way and not to create stressful scenarios in my head. I have been trained in humanities, but I had learned only superficially what the philosophers taught. Only now I have understood what Epicurus said about serenity, about happiness. A seminar that lasted so little time has covered six years of education and I finally comprehended all the essentials."

In an evaluation feedback, most of the participating educators expressed their enthusiasm for the innovative program, and suggested the need for more interactive experiential workshops and better diffusion of the program in the future. The trainees also expressed suggestions for future improvement of the program, with more prominent among them to increase the number of experiential exercises and practical applications, as well as to develop longer duration seminars and lifelong learning.

V. Conclusions

The pilot educational program of Philosophical Management of Stress (Philo. Di.M.O.S.) has proven quite successful and answered affirmatively questions that were raised and researched. It seems that Science could be effectively combined with Pragmatism and Epicurean Philosophy, which are based on the observation of reality and not on intellectual constructions. Applied Philosophy can be practically used in stress management. The basics of the Science and Medicine of Stress, as well as basic concepts of Philosophy were offered in a simple manner to interested people from the general population of a wide variety of age, education, and occupation. Some basic functions of the brain can be taught and some basic methods of Philosophical Management of Stress may be presented in a simple manner to most people, in the tradition initiated by Epicurus. Moreover, all these matters can be taught in a month and can produce results in stress management by people from the general population.

The successful implementation of the pilot program of Philosophical Management of Stress verified the initial assumption that cognitive restructuring with philosophical psychotherapy is feasible even when taught

to a heterogeneous group of people within a month. Basic requirements for such an educational program are to, first, provide real scientific data, so that trainees can be convinced that there is a need to manage stress to prevent psychosomatic health problems, and second, to follow a clear pragmatic Epicurean approach in the management of perceived stress, which someone can learn to apply in every real-life situation.

The program has many innovative features that create a unique content worldwide, combining certain Greek philosophical traditions that concur with modern scientific knowledge. The innovative Philosophical Distress Management Operation System (Philo.Di.M.O.S.) is based on a solid scientific and philosophical background and offers a public utility paradigm in the Greek society and internationally, especially at times of crises.

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References

Burns, James H., and Herbert Lionel Adolphus Hart, eds. *The Collected Works of Jeremy Bentham: An Introduction to the Principles of Morals and Legislation*. Oxford: Clarendon Press, 1996.

Chrousos, George P. "Empathy, Stress and Compassion: Resonance between the Caring and the Cared." In *Providing Compassionate Healthcare,* edited by Sue Shea, Robin Wynward, and Christos Lionis, 35-39. London: Routledge, 2014.

Chrousos, George P. "Stress and Disorders of the Stress System." *Nature Reviews Endocrinology* 5, no. 7 (2009): 374-381.

Council of the European Union. *Proposal for a Regulation of the European Parliament and of the Council on the Protection of Individuals with Regard to the Processing of Personal Data and on the Free Movement of such Data*. Brussels: 2015. https://data.consilium.europa.eu/doc/document/ST-9565-2015-INIT/en/pdf.

Dewey, John. *Freedom and* Culture. Amherst, NY: Prometheus Books, 1989.

Dewey, John. *Liberalism and Social Action*. New York: G. P. Putnam's Sons, 1935.

Gallup Inc. *Gallup Global Emotions*. 2019. http://cdn.cnn.com/cnn/2019/images/04/25/globalstateofemotions_wp_report_041719v7_dd.pdf.

Gay, Peter. *The Bridge of Criticism: Dialogues Among Lucian, Erasmus, and Voltaire on the Enlightenment – on History and Hope, Imagination and Reason, Constraint and Freedom – and on Its Meaning for Our Tide*. New York: Harper & Row, 1970.

James, William. *Pragmatism: A New Name for Some Old Ways of Thinking*. New York: Dover Publications, 1995.

Johnson, Burke R., and Anthony J. Onwuegbuzie. "Mixed Methods Research: A Research Paradigm Whose Time Has Come." *Educational Researcher* 33, no. 7 (2004): 14-26.

Mill, John Stuart. *Utilitarianism*. Indianapolis: Hackett, 2002.

Panagiotopoulos, Panagiotis. *Thomas Jefferson "I too Am an Epicurean." His Life and his Inspiration from the Ancient Greeks*. Independent Publication, Athens, 2021.

Papy, Jan. "Erasmus, Europe and Cosmopolitanism: The Humanist Image and Message in His Letters." In *Erasmus of Rotterdam and European Culture*, edited by Enrico Pasini, and Pietro B. Rossi, 27-42. Florence: SISMEL, 2008.

Protopapadakis, Evangelos D. "'Death is Nothing to Us:' A Critical Analysis of the Epicurean Views Concerning the Dread of Death." *Antiquity and Modern World: Interpretations of Antiquity* 8 (2014): 316-323.

Protopapadakis, Evangelos D. *From Dawn till Dusk: Bioethical Insights into the Beginning and the End of Life*. Berlin: Logos Verlag, 2019.

Savulescu, Julian, and Evangelos D. Protopapadakis. "'Ethical Minefields' and the Voice of Common Sense: A Discussion with Julian Savulescu." *Conatus – Journal of Philosophy* 4, no. 1 (2019): 125-133.

Sidgwick, Henry. *The Methods of Ethics*. Cambridge: Cambridge University Press, 1874.

Singer, Peter. *Practical Ethics*. Cambridge: Cambridge University Press, 1991.

World Health Organization. *Constitution of the World Health Organization – Basic Documents*, 45th edition. Geneva, 2006.

Yapijakis, Christos, and George P. Chrousos. "Epicurean (Eustatheia): A Philosophical Approach of Stress Management." *Conatus – Journal of Philosophy* 7, no. 2 (2022): 173-190.

Yapijakis, Christos. "Ancestral Concepts of Human Genetics and Molecular Medicine in Epicurean Philosophy." In *History of Human Genetics*, edited by Heike L. Petermann, Peter S. Harper, and Suzanne Doetz, 41-57. Dordrecht: Springer, 2017.

Yapijakis, Christos. "Ethical Teachings of Epicurus Based on Human Nature in the Light of Biological Psychology." *Proceedings of the XXIII World Congress of Philosophy* 2, no. 3 (2018): 83-88.

Yapijakis, Christos. "The Need of the Epicurean Concept of 'the Pursuit of Happiness' in the European Union." http://www.epicuros.gr/arthra/Yapijakis_EU_Happiness_Need.pdf.