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Application of Ethics and Science in Life

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Abstract: Essentially, ethics and morals are guidelines for human action, and science seeks to explain reality as it is. Science is a systematic effort to investigate, discover and improve human understanding of various aspects of human nature. These aspects are limited to produce clear formulations. By limiting the range of their views, science provides confidence, and this confidence comes from its limitations. Science is not just knowledge, but encapsulates a body of knowledge that is based on recognized theories and can be tested with a set of recognized methods in a particular field.

Keywords: Ethics and Science

Introduction

Basically, science emerges and develops as a result of human efforts to understand natural resources, solve problems, and develop and preserve the findings that have been achieved by humans before. All these efforts accumulate and form a body of knowledge that has its own structure. Scientists not only stand alone (without value), but also function as tools (process and tool).

However, the study of ethics by Greek philosophers such as Socrates, Plato, and Aristotle has provided the basis for modern ethics.1. Ethics and morals are basically outlines of actions that humans should take if science seeks to reveal reality as it really is. Science is a systematic effort to investigate, discover and improve human understanding of various aspects of human nature. These aspects are limited to produce a clear formulation. By limiting the scope of its view, science gives confidence to 130 sciences. Science is not just knowledge, but summarizes a set of knowledge that is based on recognized theories and can be tested with a set of recognized methods in a particular field.

From a philosophical perspective, science emerges as a result of the human desire to think further about what they know. One of the outcomes of modern epistemology, science is now on the verge of advancements that impact human creation and reproduction.

Scientists no longer serve as tools to achieve the goals of human life; instead, they have the potential to change the very basis of humanity itself. In fact, since the beginning of science, moral issues have been discussed, but in different ways.

Science and ethics are inextricably linked, with ethics serving as the foundation of science. Science is the conscious endeavor to study and improve human understanding of various aspects of human natural reality. Meanwhile, ethics can be defined as the study of values and norms, as well as polite behavior, manners, and morals.

According to Frans Magnis Suseno, ethics is a science and not a teaching. The science of Ethics as part of philosophy gives us norms about how we should live is morality.

According to Endang Saefuddin Anshori (1987: 50) science is an effort of human understanding organized in a system regarding reality, structure, parts and laws about the things being investigated (nature, humans, and religion) as far as it can be reached by the power of thought assisted by sensing whose truth is tested empirically, research and experiment.

Methodology

The main approach to data collection and analysis used in this article is desk research, also known as literature review. Literature review is a research method that involves gathering information from various written sources relevant to the research topic. This method allows the researcher to gain a better understanding of the problem under study by analyzing and synthesizing the results of existing literature.

Researchers also use usable literature data, which means they are not limited by time and space. The researcher used literature information from various sources, such as books, journals, articles, official websites, and other internet sources, to compile basic material to the main topics on ethics and morals in science.

Result and Discussion

Ethics (ethict in English or ethica in Latin) originates from the ancient Greek word *ethos*, meaning "customary dwelling," "pasture," "habitat," customs, morals, character, feelings, attitudes, and ways of thinking. The latter meaning gave rise to the term "ethics." The Latin term *ethos* or *ethikos* is often associated with *mos*, from which "morality" and "moral" derive. "Ethics" is considered broader than "morality" because morality usually refers to external behavior assessed through actions, while ethics also addresses underlying principles and motivations.

Ethics is the discipline that studies values, morality, and distinctions between good and bad. Some even describe ethics as a branch of philosophy teaching universal morals,

encompassing good and bad. It focuses on human behavior, not just factual correctness but also the overall benefit or goodness of human actions (Suhrawadi K. Lubis, 1994).

K. Bertens defines ethics as "the science of customs or habits." According to Poerwadarminta's *Kamus Umum Bahasa Indonesia*, ethics is defined as the science of moral principles. The *Kamus Besar Bahasa Indonesia* (new edition) defines ethics in three ways:

1. The science of what is good and bad and moral rights and obligations.
2. A set of principles or values related to morality.
3. Values of right and wrong related to a group's or society's beliefs.

Ethics has evolved to align with societal norms and human needs while maintaining its core substance: investigating human actions and distinguishing good from evil. Ethics is a research discipline, not a doctrine, and is called *akhlaq* in Arabic, derived from *khuluq* (customs, character, behavior).

As part of philosophy, ethics is one of six branches: metaphysics, epistemology, methodology, logic, ethics, and aesthetics. According to Magnis Suseno (2019), ethics can be divided into three types:

1. Descriptive ethics: Studying moral practices and societal norms.
2. Normative ethics: Establishing moral principles.

Ethics investigates moral foundations, serving as a guideline for individual or group behavior, often formalized in codes of ethics. It applies to various contexts—family, workplace, society, and digital environments—and emphasizes honesty, justice, responsibility, respect, and empathy.

Despite its importance, unethical actions (e.g., dishonesty, discrimination, or power misuse) can harm societal trust and harmony. Ethics helps individuals critically examine norms, ensuring rationality and autonomy in their adherence.

Definition of Knowledge

Knowledge, from the Latin *scientia* ("to know" or "study"), is distinct from scientific knowledge. While all science involves knowledge, not all knowledge qualifies as science. Knowledge arises from human curiosity and is either empirical (sensory-based) or rational (logical reasoning).

Science is systematically organized knowledge derived from empirical observation and logical reasoning, aimed at enhancing human understanding and capability. It involves rigorous verification through recognized methods within specific disciplines (Eldes, 2015).

According to Burhanudin Salma (2005), knowledge can be classified into:

1. Common sense: Everyday experiences.
2. Scientific knowledge: Objective and methodical.
3. Philosophical knowledge: Reflective and speculative.

4. Religious knowledge: Absolute, divine truths conveyed by prophets.

Scientific knowledge must be systematic, methodical, and verifiable, focusing on empirical and rational understanding of reality. It provides clarity, confidence, and a framework for human progress.

Relationship Between Ethics and Knowledge

Ethics and science are interconnected as both explore human values and truths. Ethics, as the study of moral principles, complements science's pursuit of factual knowledge. Together, they ensure that human curiosity and discoveries align with societal values, fostering responsible and meaningful application of knowledge. Ethics emphasizes rationality and accountability in scientific endeavors, bridging moral considerations with intellectual pursuits.

Basically, reason created man; as a result, man has knowledge known as “logos”, and with this knowledge, all activities of human life are based on it. This is the place where logos meets ethos, which means an endpoint, a home, a place, a date, and an attitude. It is the place where logos meets ethos, meaning an endpoint, a home, a place, a date, and an attitude of conscious living, where people keep their mouths shut in an effort to listen, instead of talking more. In relation to this, Karl Jespers states that science is man's attempt to find answers to his own world. This is the place where science and ethics come together.

Ethics and technology are inseparable. In addition, when viewed in terms of nature, human science and ethics are essentially derived from religion and religion comes from God. Taking into account the difficulties that exist in this modern era, how to combine ethics and knowledge for everyone so as to realize a functioning, synergistic and systematic relationship for both.

Ethics talks about what is good or bad for human behavior. Ethics is defined as a system of values used by humans, both as members of society and as individuals, to guide their behavior. Soelaiman (2019) Therefore, ethics can also be defined as a subdiscipline of philosophy that is normative in nature, covering the rules and principles used in human daily life. In addition, the existing value system emphasizes a critical approach, which uses the moral value system to look at problems.

The critical nature is a key feature of ethics. Ethics personalizes the customs that are considered good, investigates the basis of those customs, and questions the right of each institution, such as parents, the state, and religion, to give commands or prohibitions, which must be fulfilled. The right and authority to require such institutions to submit to rules and regulations must be proven. Ethics, therefore, requires one to act with rationality towards all rules, so ethics helps humans gain self-reliance. Ethics is therefore necessary as an objective basis of thought that can distinguish the legitimate from the illegitimate,

distinguishing the true from the false is not accurate. Therefore, ethics allows us to take A person's attitude towards themselves also affects the direction of society's development.

The relationship between science and ethics is similar. Human ethics and science are essentially derived from religion, and God is the source. In this modern era, it is a challenge for all of us to combine ethics and science effectively, systematically and efficiently.

Overall, integrating ethics and science is crucial to creating a generation that is not only knowledgeable but also has a high moral consciousness. For science to continue to develop in a way that is beneficial and sustainable for society and the environment, the relationship between science and morality must be maintained and strengthened. For morality ensures that the use of science always considers humanity and the common good.

Application of Ethics and Science

Ethics in research studies is the responsibility of scholars working in an academic and scientific environment. It is the responsibility of human rights to develop science as a cultural institution. academic society. Research is widely utilized by scientists. additional experts. We should also be grateful to those who suggest our research ideas, which are expressed in the work of previous researchers "Thoughts and results" in the field or problem should be appreciated by reviewing them and acknowledging them sufficiently. We should keep in mind that without the basis of the work, the research would not have been possible at the current stage now, they should give permission before using the available data. who is responsible for the data, such as the chairperson of the section or the head of the institution and others.

Ethics in a profession consists of the standards, principles, values, and measures adopted by the officers or employees in a particular organization. Professional ethics can also be defined as rules, orders, and regulations that all employees of the organization must comply with. In addition, it can be said that good habits are professional ethics. or rules that are accepted and obeyed by employees and have settled into normative.

Science in life. Humanity has experienced the growth and development of science and technology in a fundamental, comprehensive, and ambivalently rapid manner, which sometimes has a positive and sometimes negative impact. Van Peursen is because he has seen it, he states that the relationship between science and ethics; knowledge and action. should be sorted into science, technique, and ethics.

The importance of philosophy of science in modern education has many advantages. First of all, understanding the characteristics and techniques of Information science can help students strengthen their critical and analytical thinking skills. They have the ability to learn to make appropriate questions, evaluate evidence, arrive at conclusions based on logical thinking.

Conclusion

In shaping human civilization, ethics and science are interconnected. While science helps develop technology and understand reality, ethics establishes principles and ethics. To ensure that scientific advancements keep in mind the impact on people and the environment, the integration of the two is important.

The Importance of Ethics in Professional and Academic Life Ethics are not only important in everyday life but also in professional fields. Research ethics help maintain scientific honesty, while professional ethics set standards of behavior that govern relationships between people in the workplace.

The Importance of Philosophy for Science: Philosophy provides a theoretical foundation for all areas of science, including ontology, epistemology, and axiology. It helps scientists think critically, reflectively, and think about what they discover.

Impact of Science: Science is very beneficial for human progress, but it can also be harmful if it is not based on moral principles. Therefore, it is imperative to develop sustainable and responsible science.

References

Ahmad Tafsir, Filsafat Ilmu: Mengurai Ontologi, Epistemologi dan Aksiologi Pengetahuan. (Bandung: PT Remaja Rosdakarya, 2010), hlm. 73.

Amzah Selle. 2019. Hakekat Ilmu Pengetahuan. Vol 3 No 1. Jurnal Pendidikan dan Pemikiran Islam.

Aprillia Sherli Manullang, Cindy Widia Rahmatul Jannah, Eva Sofiana, Fabio Aji Oktavianto, Pavel Muhammad Alfayed, Zaky Muammar, Kiki Amaliah. 2024. Sosialisasi Etika Dalam Kehidupan Sehari-Hari Di Sdn 151 Bengkulu Utara. Vol 2 No 12. Jurnal Krepa: Kreativitas Pada Abdimas.

Asrulla, Ahmad Syukri, Maryani, Firdaus Jeka, Roni Junaidi. 2024. Konsepsi Etika, Moral, Dan Ilmu Pengetahuan Dalam Perspektif Humanisme. Vol 15 No.1. Jurnal Genta Mulia.

Astuti Darmiyanti, Saprialman , Nursyifa. 2023. Penerapan Etika Profesi Kepala Sekolah di Mi Tarbiyatul Islam 01. Volume 9. Jurnal Ilmiah Wahana Pendidikan.

Desi Fatma, Sri Melisawati, Reni Renanda, Ardimen. 2024. ETIKA DAN MORAL DALAM ILMU PENGETAHUAN. Vol. 8, No. 1. Jurnal Manajemen Pendidikan dan Pelatihan.

Dila Rukmi Octaviana, Reza Aditya Ramadhani. 2021. Hakikat Manusia: Pengetahuan (Knowladge), Ilmu Pengetahuan (Sains), Filsafat Dan Agama.Vol. 5 no. 2. Jurnal Tawadhu.

Diman Suryanto. 2005. Etika Penelitian. Volume 25 No. 1. Berkala Arkeologi.

Fadhila Humaira, Rahma Yanti, Fathiyyah Putri Pasaribu, Nunu Burhanuddin. 2024. HUBUNGAN KONSEP ISLAMISASI ILMU DENGAN ETIKA DAN TEKNOLOGI. Vol. 8 No. 5. Jejak Pembelajaran: Jurnal Pengembangan Pendidikan.

Fahrul Siregar. 2015. Etika Sebagai Filsafat Ilmu (Pengetahuan). Volume 1 Nomor 1. Jurnal De'Rechtsstaat.

Henny Hamdani Basri, Heliwasnimar, Ardimen. 2024. Etika dan Moral Dalam Ilmu Pengetahuan. Volume 4, Nomor 1. Indonesian Research Journal on Education.

Henny Saida Flora. 2019. Etika Dan Tata Tertib Disiplin Mahasiswa. Vol. IV No. 2. Jurnal Law Pro Justitia

Izzatur Rusuli, Zakiul Fuady M. Daud. 2015. Pengetahuan Dari John Locke Ke Al-Attas. Volume 9, Nomor 1. Jurnal Pencerahan.

Juwita Puspita Sari, Neng Aisyah, Duski Ibrahim, Syarnubi. 2024. FILSAFAT ILMU PENGETAHUAN DALAM PEMBELAJARAN ABAD 21. Vol. (08) (01). Jurnal Pendidikan Dan Pemikiran Islam.

M. Nafiur Rofiq. 2018. PERANAN FILSAFAT ILMU BAGI PERKEMBANGAN ILMU PENGETAHUAN. Institut Agama Islam Al-Falah as-Sunniyyah

Muh Irfhan Muktapa. 2021. Implikasi Filsafat Ilmu dan Etika Keilmuan dalam Pengembangan Ilmu Pengetahuan Modern. Vol. 3., No. 2. Jurnal Belaindika :Pembelajaran dan Inovasi Pendidikan.

Mung Pujanarko. 2018. Etika Komunikasi Verbal Dalam Penulisan Berita Di Media Online. Volo 6 No.1. Jurnal Citra.

Reza M. Syabani. 2019. Ilmu Pengetahuan Dan Etika. Vol 4 No.1. Jurnal Manajemen Pendidikan Islam.

Sri Rahayu Wilujeng. 2013. Filsafat, Etika Dan Ilmu: Upaya Memahami Hakikat Ilmu dalam Konteks Keindonesiaan.Vol 17 No 1. HUMANIKA,17(1).

Tri Ariyatun, Abu Anwar. 2023. Pengertian Ilmu Pengetahuan, Ciri-Ciri, Persamaan dan Perbedaan Dengan Agama dan Filsafat. Volume 5 No. 2. Jurnal Sains dan Teknologi.

Yosa Rief Dela, Azmi Fitrisia, Ofianto. 2022. Peran Ilmu Pengetahuan Dalam Kehidupan Manusia. Volume 4 Nomor 6. Jurnal Pendidikan dan Konseling.