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Article

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EPICUREAN CALCULUS OF JEREMY BENTHAM ON THE PRINCIPLE OF UTILITY

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Abstract

The Epicurean Calculus, associated with Jeremy Bentham's utilitarian philosophy in the late eighteenth century, provides a systematic framework for evaluating the moral worth of human actions according to their consequences. Rooted in the principle of utility, Bentham argues that actions should be judged by their tendency to promote pleasure or happiness and reduce pain or suffering. The calculus therefore seeks to determine the net consequences of an action by examining seven important criteria: intensity, duration, certainty, propinquity, fecundity, purity, and extent. Intensity refers to the strength of pleasure or pain produced, while duration considers how long the consequence is likely to last. Certainty examines the probability of the consequence occurring, and propinquity concerns how soon it will be experienced. Fecundity assesses whether an initial pleasure or pain is likely to produce further consequences of the same kind, while purity considers whether pleasure is likely to occur without accompanying pain. Extent refers to the number of people affected by an action. Collectively, these criteria provide a framework for assessing whether an action is likely to maximize happiness or minimize suffering. The study adopts a qualitative philosophical and doctrinal methodology, appropriate for examining the conceptual foundations and ethical implications of Bentham's theory. It relies on Bentham's philosophical writings, relevant books, scholarly articles, and other academic literature. Through conceptual, critical, and interpretive analysis, the study examines the meaning, application, strengths, limitations, and contemporary relevance of the seven criteria. No

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empirical data are employed, as the study focuses on philosophical arguments and ethical reasoning. The Epicurean Calculus represents a significant attempt to make moral decision-making systematic and consequence-oriented. Its strength lies in encouraging individuals and institutions to consider the broader effects of their actions on human welfare. However, pleasure and pain are difficult to measure objectively, and people may value happiness differently. Despite these limitations, the calculus remains a useful ethical tool for evaluating consequences and encouraging decisions aimed at maximizing overall happiness while minimizing suffering.

Introduction

Epicureanism is a system of philosophy founded in 307 BCE and based upon the teachings of Epicurus, an ancient Greek philosopher. Epicurean calculus, also known as the hedonic or felicific calculus, is a utility theory that rates the making of ethical decisions by weighing present and future pleasures against pains. A method that applies the Principle of Utility to determine the morality of an action. According to Marimuthu Prahasan (2024)., he proposed that the right action is the one that produces the greatest happiness for the greatest number of people by quantitatively measuring the pleasure and pain of an act using factors. This understanding was properly developed by the British philosopher Jeremy Bentham (1748 - 1832) in the late 18th century as a way to rationalise and compute the pleasure and pain produced by an act or occurrence. It is a tool used in utilitarian ethics to assess the moral worth of an action based on its ability to generate contentment or reduce anguish. The theory revolves around how human beings are driven by the passion for contentment and the avoidance of pain, and that the right course of action is the one that maximizes happiness. (Eden Lin 2022).

The Principle of Utility posits that actions are right if they promote pleasure or happiness and wrong if they produce pain or unhappiness. David Gordon McFarland (2023) asserted that it involves choosing actions that result in the greatest net pleasure over the long term, even if it means tolerating a short-term pain for a greater future pleasure or avoiding an immediate pleasure that could lead to more significant pain later. It is a rational way to judge actions based on their overall consequences. The core principle is to compare the potential pleasure and pain that will emanate from each action as humans make different choices. It explains that it is better to look beyond immediate gratification and consider the long-term effects of an action. Sometimes, small pain may be worth enduring if it leads to a greater pleasure; more lasting pleasurable benefits; and immediate pleasure should be avoided if it will cause a greater amount of pain in the future. (MA Vilar · 2017)

Jerome Warren (2020) opined that calculus is not a precise calculation but a careful reasoning that involves the weighing of options, advantages and disadvantages to determine the best path to follow. For example, intensive studying in a higher institution might involve a short-term sacrifice of less fun because of determination to succeed, but it will lead to the greater, long-term pleasure of a good grade and a sense of accomplishment. Based on the Epicurean calculus, studying would be the better choice since it leads to greater overall pleasure and less future pain. MacGillivray, E. (2015) stated that it is a seven-factor system—intensity, duration, certainty, propinquity, fecundity, purity, and extent—that is used to evaluate the total pleasure or pain of an action to determine the most favourable ethical choice, and the above formed the basis of his utilitarianism. Expanding on the felicific or hedonic calculus, which is the same as Jeremy Bentham's. (1789) Epicurean calculus stated that the principle of utility is the rock on which Bentham's philosophy of calculus is laid, asserting that all actions should be evaluated based on their consequences for human well-

being. He argued that human life is governed by pleasure and pain, and the goal of morality is to maximize pleasure and minimize pain. For Bentham, "greatest happiness for the greatest number" is the guiding principle for moral and political decision-making that can lead to greater pleasure for the people. This is a moral theory which exemplifies the principle of the best action or decision to take in order to maximize utility or pleasure, usually defined as that which produces the greatest well-being of the individual. In other words, it is a system for calculating the total utility of an action by measuring its potential for pleasure or pain. (Kusev P., van Schaik P., Martin R., Hall L., Johansson P.2020)

Factorial Fundamentals

The theory of Epicurean, hedonic or facilitic calculus is based on some tested factors. They involve methods of calculating the net pleasure or pain from an action to determine the best course of conduct. In the Social Sciences, Gustav Klimt (2022) observed that to use the calculus, one must consider the pleasure and pain for each individual affected by an action. Sum the total pleasure and subtract the total pain to get a net utility score. Repeat this process for all possible alternative actions. The action with the highest net score is considered the most ethically right one. Bentham used the calculus as a guide for legislators to create laws that would maximize the "greatest happiness for the greatest number". However, application of it to every decision is often impractical; it serves as a model for ideal calculation in ethical dilemmas or policy decision-making. Bentham's Epicurean Calculus proposes that the value of an action can be measured based on several criteria. Such as detailed below:

- i. **Intensity:** Intensity shows how strong the pleasure or pain is to the individual, the impact of the pleasure or pain on human well-being and what the action or event will lead to for individuals. It is a key enabler used to determine the overall value of an action as it affects the individual, the significance and the consequences of the action on human well-being. (Andrew Moore 2019).Ole Martin Moen (2016). Posited that the more intense the pleasure or pain, the greater its impact on the overall calculation of happiness or suffering; therefore, intensity is an essential element in moral decision-making (Davies, R. 2017)
- ii. **Duration:** How long the pleasure or pain lasts and its effect on well-being. This is an uncontested consideration of the utility calculus since the length of time that a pleasure or pain will last as a result of an action or event is significant to all. Duration is used to evaluate how long an individual can endure the effects of pleasure or pain from an action because duration plays a significant role in determining whether an action is morally right or wrong, as the lasting effects of an action can contribute more to overall happiness or suffering than short-lived ones. Therefore, when calculating the net effect of pleasure or pain resulting from an action, it is important to consider not only the intensity of the experience but also how long it persists. The calculus is not about immediate gratification but about achieving lasting pleasure. (Kusev P., etal 2018). Additionally, actions that lead to long-lasting happiness or pain are more significant in the Epicurean Calculus, as their effects contribute to a greater or lesser amount of well-being. Essentially, calculating the consequences of an action aimed at achieving greater benefit is valuable when applying this theory. (Ivar Labukt 2012).
- iii. **Certainty:** Certainty refers to the likelihood or probability that an action will lead to a particular outcome, whether pleasure or pain. The concept of certainty is critical in making moral decisions, as individuals must consider how certain or uncertain the results of their actions are. Secondly, the calculation is to find out how the pleasure or

pain is to occur or the probability that an action when occurs will lead to pleasure or pain outcome. It is used to assess the overall value of an action in terms of its potential impact on human well-being. This is critical in making moral decisions, as individuals must consider how certain or uncertain the results of their actions will be. The Calculus was not just about calculating potential pleasure or pain, but also about evaluating the reliability of those outcomes. The more certain an action is to result in a positive outcome (pleasure), the more favorable it is considered. Conversely, the more uncertain the outcome, the less reliable an action is in terms of producing happiness or minimizing suffering. (Connolly, Patrick J., 2021).

- iv. **Propinquity:** Propinquity which means Nearness, measures how soon the pleasure or pain will be felt. It is all about the closeness or immediacy of the pleasure or pain resulting from an action. It considers how soon the effects of an action will be experienced, helping to distinguish between short-term and long-term consequences. The closer the consequence is to the action, the more relevant it becomes in determining the choice considering the ethical value attached to the action. (Ole Martin Moen 2016).
- v. **Fecundity:** It examines the likelihood of a pleasure leading to more pleasures, pain leading to more pains. Secondly, fecundity determines the overall moral value of an action in terms of its long-term impact on human well-being. Fecundity focuses on the idea that certain actions can trigger a chain reaction, where the initial experience of pleasure or pain may lead to additional experiences of the same kind. (Jerome Warren 2020) An action's ability to produce more pleasure or pain in the future is an important consideration when calculating its overall effect according to Bentham. A pleasurable action that leads to additional positive experiences is deemed more valuable, just as an action causing pain that leads to further suffering is seen as more harmful. The potential for future outcomes plays a significant role in moral evaluations, as it helps account for the cumulative impact of actions.
- vi. **Purity:** It indicates whether the action will lead to pain, and level of freedom that will accompany the pain or the likelihood of the pleasure not being followed by pain, or pain not being followed by pleasure. Conversely, it refers to the degree to which pleasure is free from any associated pain, or vice versa. Purity considers whether the pleasure or pain experienced from an action is mixed with the opposite emotion, influencing how "clean" or untainted the experience is. Calculating the moral value of an action, for Bentham, it is important to assess whether the resulting pleasure is pure or accompanied by pain.
- vii. **Extent:** The concept incorporates the number of people who are affected by the action, the degree of pleasure or pain it generates for them. The concept of extent emphasizes that the consequences of an action are not limited to the individual performing the act but can affect a broader group of people. When calculating the moral value of an action, the number of people affected is crucial in determining the total amount of happiness or suffering generated. An action that leads to widespread happiness or minimizes pain for a large number of people is considered more morally favorable than one that affects only a few individuals. (Chappell, R.Y. and Meissner, D. 2023). The calculus reveals the immediate weight of pleasures and pains against what should be sacrificed. When calculating the moral worth of an action, it is essential to consider not only whether the action will lead to pleasure or pain but also the intensity, the duration to which these feelings are felt, most importantly, the sureness of the action combined with nearness

or intimacy that will be experienced at the time of action, whether the action will lead to greater pleasure or not and how transparent and the extent of coverage are all essential elements of the model because a small pain could be endured to achieve a greater pleasure, and a small pleasure could be sacrificed if it leads to greater pain (Connolly, Patrick J., 2021)

Critical Considerations

In modern reasoning, accessibility to adequate Information before actions are taken by individuals reduces the veil of inconsistency between what is morally sound judgements when making choices; therefore, the veil of ignorance as established by utilitarianism of Jeremy Bentham is broken., this makes one to measure human utility behaviour in advance whether it will end in pleasure or pain and promote its societal benefits. (Faulhaber A.K.,etal 2019). In his work Jeremy Bentham point out two sensations of pleasure and pain arguing that rather than relying on beliefs or intuition to determine the moral appropriateness of an action, one should instead employ reason, stating that action is one that produces the greatest happiness of the greatest number; in that, reducing pain and increasing the pleasure of those affected. Therefore, intended pleasure to be maximised and pain to be minimised where possible, and accordingly suggested that pleasure can be measured in terms of utility, and pain measured in terms of disutility. Bentham coined this moral doctrine (The Greatest Happiness Principle Utilitarianism) while in other consequentialist theories, utilitarianism encompasses the logic of utility maximisation: the ends justify the means. In other words, as long as the end goal maximises utility, then any potentially egregious act required in order to deliver the goal can be justified. (Martin R., Kusev P., van Schaik P. 2021). It is also possible to maximise one's utility for self-interest in spite of the consequences and in the absence of the interest of others, for instance altruistic consequentialism aims to maximise utility for others, in the absence of self-interest since goal of utilitarian consequentialism is to maximise utility for the greatest number of people, or according to Bentham's slogan: "it is the greatest happiness of the greatest number that is the measure of right and wrong" (Chappell, R.Y. and Meissner, D. 2023).

According to Jeremy Bentham, those vested with the authority to make decisions on behalf of others should conduct the affairs as impartial spectators, urging those in authority particularly the legislators to behave as impartial and this approach differs from egoistic and altruistic consequentialism, since egoistic decisions are intended to directly benefit the decision-maker which is very common with legislators these days and altruistic decisions can in some cases cause the decision-maker to use the legislative powers to harm others. (Huebner B., Hauser M.D. 2011), (Kusev P., etal 2018). Mill J.S. (2014), first published in (1863), stated that Bentham's theory of utilitarianism was focused on pleasures and pains in terms of their quantity. However, pleasures and pains are not easily quantifiable. Mill argued that pleasures can differ from one another based on qualitative distinctions and not only quantitative and some pleasures are considered higher than others based on these qualitative distinctions rather than quantitative and this concern whether pleasures require human or limited animal faculties to experienced it. Mill therefore argued that higher pleasures were more worthwhile pursuing, particularly if a person is faced with a choice between experiencing the sensation of a lower or higher pleasure, and the pain. Finally, Fish, J. and Sanders, K. (2011), MacGillivray, E. (2015) and Bown, A. (2016) argued that the calculus is for the greatest good for the greatest number of individuals if the development were permitted to go ahead in every area of life. However, this assumes that non-human animals) are not relevant to the calculation of pleasures and pains. Yet, if pleasure is all that

matters for how well a life goes, then it is not clear why animals, that may be able to experience some form of pleasure and can almost certainly experience pain, should be excluded from the calculation process.

Conclusion

The calculus encourages a life of moderation and self-sufficiency and behavioral ethics to avoid actions that may lead to greater future pain; therefore, it will be wrong for one to pursue every pleasure, but instead, leave some if they will lead to greater pain in the future. It encourages that some pains should be endured if they result in a greater, long-term pleasure. Epicurus's system recognizes the fact that the highest pleasure does not always lead to fulfilment, but the absence of pain and disturbance (painlessness) is more essential. The calculus involves assessing the advantages and disadvantages of any decision, factoring in both the immediate and future effects of each action. Conclusively, there is a need to balance personal interests with the obligations owed to others or compromises that are acceptable in pursuit of envisaged goals. Considering people's values and priorities, which they are attached to and care about, they feel frustrated if they must choose between them and regret thereafter.

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