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The Rise of Marginalism:
The Philosophical Foundations of Neoclassical Economic Thought
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Abstract: This inquiry examines the works of the early thinkers in marginalist theory and seeks to establish that certain philosophical assumptions about the nature of man led to the development and ultimate ascendance of neoclassical thought in the field of economics. Jeremy Bentham's key assumption, which he develops in his 1781 work, *A Fragment on Government and an Introduction to the Principles of Morals and Legislation*, that men are driven by the forces of pain and pleasure led directly to William Stanley Jevons and Carl Menger's investigation and advancement of utility maximization theory one hundred years after Bentham, in 1871. Alfred Marshall and Léon Walras are considered in this inquiry as the thinkers responsible for the encoding of Bentham, Jevons, and Menger's work on human nature and utility into economic "law." (130 words)

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This inquiry seeks to establish that certain philosophical assumptions laid out by Jeremy Bentham, William Stanley Jevons, and Carl Menger about the human ability to understand and quantify individual happiness are essential to the development and ultimate dominance of neoclassical economic thought. This paper deals with the original philosophical thinking from which marginalism stems concerning the human condition and man's understanding of his own desires. It then explores and details the evolution of these ideas through prominent thinkers in the prehistory and history of neoclassical thought.

Specifically, this paper explores the theoretical assumption that humans are able to comprehend and quantify their own levels of contentment and the thinkers who solidified this idea into economic "law." The ultimate ascendancy of neoclassical thought in the broad field of economics can be traced back to several of Jeremy Bentham's key assumptions regarding the nature of man. Thus, Bentham's work is the foundation for this inquiry and shall be explored first.

The Philosophical Foundations of Utility:

The idea that man is able to quantify his own levels of happiness was first introduced by Jeremy Bentham in his key work, *A Fragment on Government and an Introduction to the Principles of Morals and Legislation* [1781] (1967). He introduces the idea that happiness is obtained through the processes of action or inaction and terms this happiness as "utility." Bentham (1967, 125) asserts that all of mankind lives under the constant governance of two rulers – pain and pleasure – which alone regulate our behavior and determine our moral beliefs of right and wrong. Bentham further notes that this "principle of utility" operates in consideration of the degree to which there is anticipation of pleasure or pain, acting to promote satisfaction and prevent discomfort. Bentham (1967, 125) suggests that humans live at the mercy of this aversion to pain and desire for pleasure and that each and every action, every thought, every moral estimation that man performs must occur under the careful guidance of our distaste for pain and want for pleasure. Bentham judges the principle of utility to be a natural phenomenon – one that man has no control over and exercises subconsciously, as it is simply in his nature to do so. Bentham further suggests that the function of the principle of utility is to lead men to pursue what he terms "felicity" through the subconscious application of logic.

Bentham describes the principle of utility almost as if it were separate from man himself, governing and supervising his every move to ensure felicity. Bentham (1967, 126) states that the principle of utility seeks to enhance the happiness of the interested party through the approval or disapproval of his actions and thoughts, further noting that utility is the benefit provided by the possession of any object or commodity that produces pleasure or prosperity in its owner.

According to Bentham (1967, 126), not only is the individual at the mercy of the forces of pain and pleasure, but so too are the larger community and branches of government. In his view, a community is simply the sum of its parts, namely the individuals within it; therefore, the varied interests of the people who make up a community combine and sum to the interests of the community itself. Bentham further notes that this principle of utility will move to act (often in the form of government) when there is an expectation that more pleasure than pain will result. He also describes the moral compass of a community as being composed of the morals of its individuals, which are determined by the principle of utility. Bentham (1976, 127-128) suggests that right and wrong in the eyes of man are determined solely by a natural and all-encompassing aversion to pain and quest for pleasure; moreover, he asserts that this principle of utility is embraced to some degree by every man, noting that, since the human moral compass is determined by the principle itself, our acceptance or disapproval of the principle is wholly unimportant.

Bentham (1967, 128) argues that all men have, at some point in their lives, deferred to the principle of utility. He further asserts that the extent of a man's awareness of his application of the principle is based upon his level of education and worldliness; furthermore, Bentham states that humans have the ability to understand what makes them happy and are able to quantify their own levels of happiness, noting that the extent of this ability is based upon the relative sophistication of the individual.

It could be said that Bentham's assertions about the nature and inherent condition of man are primarily philosophical and moral rather than economic. At first glance, Bentham seems to present a positive estimation of humanity, as he emphasizes the capacity of man to recognize his desires and cultivate and nurture his own happiness or felicity; however, upon closer examination, Bentham's postulation could be described as a condemnation. For example, he describes a person's happiness as being determined through the buying and selling of commodities (or simply the possession of objects); thus, he seems to view humanity as inherently materialistic. In his view, a man's happiness is determined by external, worldly forces rather than through spirituality or meditation upon himself and his relationships with those around him. Additionally, if men seek only to satisfy their own desires, they essentially have no moral compass – no sense of right and wrong beyond that which is determined by aversion to pain and desire for pleasure. Bentham, it seems, is suggesting that man only concerns himself with the feelings or wants of others as they relate to the ongoing pursuit of his own satisfaction. This idea that men are guided by the principle of utility, however it is interpreted morally, serves as the foundation for future advances in marginalism and is the basis for ideas progressed by many prominent thinkers since Bentham.

Utility Maximization:

Bentham's philosophical assumptions about the desires and motivations of humanity and his concept of the principle of utility have been adopted and cultivated by many economists since. Perhaps most notably, in 1871, one hundred years after Bentham's key work on utility, William Stanley Jevons and Carl Menger (often referred to as "first-generation marginalists") each separately advanced ideas concerning utility maximization in their respective works. While Bentham's original concept of utility focuses primarily on the psychological and behavioral components of the human reactions to pleasure and pain, Jevons and Menger understand utility as the driving force behind all economic activity on the part of the consumer, professing that economics as a science must fully investigate the properties of utility and human desire, along with their effects on market forces.

In his work, *Principles of Economics* [1871] (1981), Carl Menger fully subscribes to Bentham's philosophy regarding utility and the nature of mankind, elaborating upon it while maintaining the original meaning and key assumptions and focusing his discussion on the definition of values in relation to commodities. In Menger's view (1981, 114-115), if the availability of a particular commodity does not meet the required or desired quantity, some need or desire will remain unsatisfied in the market; therefore, the availability and quantity of all goods determine the basic satisfaction of human need for those goods. He further notes that, when men understand their need or desire for goods as demand, which may be satisfied by consumption, those goods become valuable. Menger (1981, 120) asserts that the value of a given commodity arises from the human desire or need for that commodity; thus, the commodities possess no inherent value themselves.

In *The Theory of Political Economy* [1871] (1957), William Stanley Jevons accepts Bentham's theory of utility and cultivates it at the heart of his discussion. Jevons (1957, 29-31) notes that pleasure and pain, as described by Bentham, can be understood and measured by the individual experiencing them; moreover, he explains that pleasure and pain may be measured by the duration of the feeling and its intensity. Jevons also accepts Bentham's assertion that the objective of mankind is to maximize pleasure (or utility) and divert or minimize pain, agreeing that one will necessarily, in every endeavor, take action to seek out the dominance of pleasure over pain. Jevons (1957, 32) asserts that pleasure is the opposite of pain and that if pain decreases then pleasure must necessarily increase by the same margin, noting that, per the principle of utility, man's ambition will always be to maximize the sovereignty of pleasure over pain (*i.e.*, to achieve "utility maximization").

Jevons's understanding of human nature implies some level of expectation of pleasure and pain – a topic touched upon but not thoroughly investigated by Bentham in his original work. Jevons (1957, 33-35) refers to this as the "power of anticipation," proclaiming that some large portion of the human experience is dependent not upon the circumstances of our external reality, but upon the anticipation of future happenings. Thus, it is man's *expectation* of pleasure or pain that drives the principle of utility to influence action or inaction in him with intent to maximize utility. Jevons further suggests that the motive to act upon this anticipation arises due to the increasing intensity in expectation of utility as the moment of realization approaches. Jevons asserts that this power of anticipation is vital to economic activity and market forces on the part of the consumer, as it is the basis for all accumulation of commodities that are intended for future consumption. He further suggests that the finest classes of men with the highest levels of education and refinement will pay the closest attention to the goal of increasing future happiness and decreasing future pain, while uneducated or irrational men will concentrate only on the affairs of the day, never thinking of tomorrow's concerns.

Jevons (1957, 39-40) professes that, in order for economics to be advanced as a science, it must be based upon a careful and thorough investigation of the conditions of human desires and motives and their contribution to utility maximization on the part of the consumer in driving economic activity. Jevons describes economics as resting upon the "laws of human enjoyment," noting that those who labor to produce commodities are keenly aware of how accurately they must anticipate the reactions of their customers. Therefore, manufacturers produce with the sole purpose of fulfilling consumer satisfaction. This implies that Jevons has accepted Bentham's assumptions regarding utility as economic law, in which all further inquiry must be grounded. This assertion also defines economics as the study of consumer behavior and stresses the assumption that production is driven solely by consumer wants and needs; therefore, commodity value must be determined by the willingness to pay of the existing consumers within the market.

While Bentham's discussion was focused almost solely on the desires and motivations of man, Jevons (1957, 43-44) elaborates upon this idea, suggesting, as Menger does, that utility is not an intrinsic quality within a commodity or object itself; rather, utility arises as consumers identify an object as being valuable or desirable; furthermore, all portions of a single commodity do not hold equal utility. Jevons (1957, 45-53) then goes on to describe the decreasing utility obtained as a result of consuming each additional portion of a single commodity (*i.e.*, diminishing marginal utility). Jevons encodes into economic law the notion that the degree of utility obtained is dependent upon the quantity of the commodity being consumed, asserting that no commodity in existence will continue to inspire the same utility at each subsequent unit consumed.

Allocation through Markets:

If Jevons and Menger advanced Bentham's initial concept of utility with their inquiries into utility maximization and consumer theory, steering economics toward marginalist thinking, then it was the work of Alfred Marshall and Léon Walras that truly encoded ideas stemming from Bentham's original work into economic law. These thinkers shifted the major discussions in economic science toward the study of the allocation of markets and the tendency of the market to shift toward "equilibrium." It is with Marshall and Walras (often called "second-generation marginalists") that the study of economics moves away from production theory and toward the study of consumption and allocation through markets.

In his key work, *Principles of Economics* [1890] (2011), Marshall introduces the idea that the economy possesses natural attributes. Specifically, he argues that economics is a science based wholly upon the study of man and his desire for his own economic wealth and satisfaction. Marshall (2011, 27) describes economics as the study of man's natural inclination to act in pursuit of the attainment of material possessions that will advance his wellbeing or satisfaction. Marshall characterizes mankind as being driven by self-interest, noting that, although man possesses the ability to care for the wellbeing of others, his instinct does not allow him to sacrifice his own interest for anyone but himself.

Marshall (2011, 32) goes on to proclaim that, were men wholly unselfish and virtuous, competition would not exist and producers would bear the hardship of providing for all of society with no care for profit; however, he states that it is ignorant to dismiss the imperfections and selfish concerns that clutch human nature and drive man's pursuit of wealth and happiness. Marshall (2011, 35) identifies the primary concerns of economics as the desires, aspirations, and motives of human nature – the external application of incentives. He notes that economics aims to investigate the motives of human beings through their actions, as it is impossible to directly study mental states.

In his discussion on the workings of markets, Marshall (2011, 207-208) describes the relationship between supply and demand (and the factors that influence each respectively) as tending toward a state of "equilibrium," in which they are maintained and balanced. He asserts that, in a given market in which buyers and sellers freely interact with one another, prices of a given commodity will tend to equalize naturally, allowing consumer satisfaction to be met. He notes that the tendency for the same price to be paid for the same product will be greater in more nearly perfect markets. Marshall attributes this tendency to man's natural instinct to fulfill his own desire for utility, noting that demand generally drives supply. Marshall suggests that it is utility that drives supply and demand and presents this tendency toward harmony or equilibrium.

In *Elements of Pure Economics* [1874; 1877] (1954), Léon Walras defines economics as being understood through two separate methods. He states that economics must be a science that aims to (a) determine the best, most equitable distribution of wealth possible and (b) decide how wealth is produced and allocated. Walras sees economics as a science of morality and reality. Thus, although reality may not always reflect the most moral economic outcomes, it does no good to ignore it and it is the duty of economics to cultivate an understanding of a moral ideal for the allocation of wealth in addition to an understanding of the truth.

Walras (1954, 255) asserts that production in a freely competitive market allows all consumer satisfaction to be met, as perfect competition allows producers of commodities to refine and convert their strategies to provide products of an ideal nature and in appropriate quantities in order to provide the maximum possible satisfaction to their customers. Walras (1954, 260) goes on to explain that, in a market existing in a general state of equilibrium that contains several products or services, if the utility of a particular commodity increases or decreases within the market (*i.e.*, its effective demand rises or falls), then the price of the commodity will rise or fall accordingly. Walras (1957, 305) also asserts that capital formation in a freely competitive market allows for any excess income beyond the natural level of consumption to be transformed by producers into various new types and quantities of commodities best suited to achieve the maximum possible satisfaction of consumer wants and needs. Marshall and Walras each, through the study of the natural allocation of markets and market equilibriums, advanced the idea that, as a result of man's natural instinct to promote his own levels of happiness, demand drives markets toward a state of harmony or equilibrium.

Conclusion:

This inquiry has sought to establish that certain philosophical assumptions laid out by Jeremy Bentham, William Stanley Jevons, and Carl Menger about man's ability to understand and quantify his own happiness are essential to the development and ultimate dominance of neoclassical economic thought. Jevons's discussion in particular is based upon Bentham's original understanding of natural desires and his concepts of utility and the human condition. Jevons's economic arguments and focus on consumer theory are therefore reliant upon Bentham's key assumptions and philosophical approach. Bentham (1967, 128-129) makes the bold claim that men are incapable of combatting the principle of utility, as it is bestowed upon humans by the forces of nature, and that humanity is, to some degree, unaware of the principle; moreover, if made fully aware, man would be unable to overcome his nature and make decisions separate from his instinctual aversion to pain and want for pleasure. Jevons and Menger, and subsequently Marshall and Walras, are credited with the Neoclassical Revolution, and their arguments frame the modern understanding of marginal utility theory. Since Jevons and Menger place Bentham's original assumptions at the heart of their respective inquiries, their economic conclusions must rest on the validity of Bentham's claims.

Is mankind inherently self-interested? Does human nature drive us to seek out our own satisfaction and avoid discomfort above all else? Whether or not these questions can be answered in the context of humanity's quest to understand our own desires and motives, neoclassical economic thought, which undoubtedly dominates the current world view, relies heavily on Bentham's original concept of utility. (2,935 words)

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