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Abstract: This inquiry considers Thorstein Veblen's understanding of the machine process and some of its influences. In particular, this paper explores relationships between the machine process and industry, noting the powerful influences of standardization of outputs as well as inputs. In addition, this paper considers some of the implications of the machine process on workers, considering particularly the tendency of the machine process to enforce routines and some of the related effects on "habitual thinking." Finally, the machine process and its relation to society will be discussed with a focus on its effects on value systems, examining also the ways in which the machine process shifts power from the individual to the vested interests of big business and those with financial knowledge. (Words: 121)

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Thorstein Veblen introduced into economic consciousness the importance of what he referred to as the "machine process," which has permeated and influenced aspects of industry, society, and even the human mind. Veblen integrated this concept into his contributions to economic inquiry, suggesting that, as technology advanced and industrial standards gave way to big business, a fundamental shift began to take place. No longer were the skills of the craftsman and the needs of the individual at the heart of the American economy, and as mechanical technology began to emerge, industry, social norms, and even our processes of thinking began to follow habitual, mechanistic, and uncritical patterns.

In particular, this inquiry investigates Veblen's critical contributions to economic science concerning the rise of big business, the shift away from the era of the individual, and the effects of the machine process on industry, delving into its impacts on individuals involved in industrial production and the larger society. As the American economy moved toward standardization of units, parts, and processes, the thoughts and behaviors of men (and thus, the fabric of society) underwent a fundamental shift toward the mechanical, the material, and the expected. This paper seeks to explore the effects of the rise of big business and efficiency on the economy, society, and the human spirit.

The Machine Process in Industry:

Throughout recent history, the American economy has seen a steady shift away from manual craftsmanship toward increased standardization and a reliance on mechanical functions. This transformation has permeated many aspects of industry, transforming an economy based upon the skill of the individual into one characterized by uniformity, automation, and habit. In his masterful work, *The Theory of Business Enterprise* [1904] (2005), Thorstein Veblen explores the intricacies of what he terms the "machine process." This process, Veblen (2005, 9-10) illustrates, is not simply a shift toward mechanical procedures in business. The process, as he describes it, constitutes a much more comprehensive shift in modern economic life – a transformation not only affecting the technology embedded in "mechanical appliances," but a fundamental reworking of the relationships between economic factors.

This large-scale shift can perhaps be best understood as a series of incremental and interrelated shifts that, working together, constitute a fundamental economic transformation in American life. Veblen (2005, 9-10) asserts that the machine process does not simply imply the presence of mechanical appliances in production, but exists wherever systematic knowledge of a reasoned procedural approach replaces established rules and manual dexterity.

The machine process relates to the *character* of the relevant procedures rather than the individual components involved in economic activity. Every process that takes part in the machine of industrial life contributes to a larger, more comprehensive shift and each individual process supports the other in a sophisticated web of standardization. In fact, in Veblen's view (2005, 10), each mechanical process does not exist independently, but is intertwined in a web of other processes; furthermore, each process is reliant upon the presumed successful functioning of other related mechanical procedures.

Since none of these mechanical processes can exist independently and each precedes some and follows others, an endless system of interrelated and interdependent processes takes shape and begins to define the economy. This "concert of industrial operations," Veblen (2005, 10-11) explains, encompasses the machine process. He further notes that two general characteristics are essential to the process: (a) the existence of relationships between branches of industry and accompanying sub-processes and (b) the maintenance of quantitative precision in production as it relates to the timing of the sequence of events and the material characteristics (such as the weight and size of inputs) affecting the outcome.

In order to develop and maintain efficiency in production, industry increasingly depends on agreed-upon standards and expectations. Veblen (2005, 10-11) teaches us that this reliance on mechanical accuracy leads to a "gradual

pervading enforcement of uniformity," which necessitates a standardization not only of the units of measurement and tools used in production, and also of the final goods produced. As expectations narrow and standardization begins to dominate the systems involved in business enterprise, individuality and innovation are swallowed by the economic machine and begin to die.

What gave birth to the machine process and where did it come from? In his book, entitled *Veblen in Plain English*, Ken McCormick (2006) addresses these questions in his discussion of Veblen's "social evolution," imploring us to consider how changes and advancements in technology can influence and drive the evolution of a society. McCormick (2006, 52-53) describes a process by which new technologies agitate existing habits and institutional structures, driving change despite potential "institutional rigidity." It is this tendency for technological advancement and change, accompanied by the financial ambitions of the business class, which gave way to the emergence of the machine process.

Prior to the rise of big business and mechanistic approaches to production, an era of independent businessmen and craftsmen defined the American economy. McCormick (2006, 59-62) asserts that, according to Veblen's social evolution theory, prior to the rise of the machine process there existed an "age of handicrafts" characterized by independent, hardworking craftsmen and businessmen. This environment of independence and individuality reduced the

desire for men to acquire ownership through war, leading to a sense of secure property, which further incentivized hard and honest work. With secure property and a growing business class, there existed an intellectual climate that viewed technological advancement favorably.

It was this drive for progress (and profit) that gave way to the emergence of the machine process. McCormick (2006, 62) teaches us that the application of workmanship and the widespread desire for progress that characterized the age of the handicrafts ultimately led to the emergence of capitalism as more efficient means of production were developed and new technologies arose. These advancements, paired with the growing desire for businessmen to make a profit, gave way to what Veblen describes as the "era of the machine," which brought increased industrial efficiency but also predatory and parasitic behavior and a competitiveness that gave rise to big business and large-scale industry.

As business grows, the concerns of the individual fade into obscurity and the machine process begins to take on a life of its own. Veblen (2005, 10-11) asserts that this movement toward standardization would begin to take form even without the pressures of machine industry, occurring naturally in the economy to some degree simply due to requirements in modern commerce. However, the shift toward uniformity has permeated through every aspect of mechanical industry, substantially exceeding what would be required naturally as the result of increasing

commercial needs. Veblen further contends that this increased uniformity, which exists in modern industry to the extent that dimensions and weights are standardized to within fractions of inches and pounds, has replaced the traditional skill of the independent businessman with mechanical repetitiveness and standardization.

Craftsmanlike skill, individual reflection, and personal judgment, according to Veblen (2005, 11-12), are all made insignificant by the machine process and are replaced by standardization and mechanical efficiency in industrial life. The producer who prefers to rely on his own individual skill and knowledge is penalized, since irregularity and variation are not tolerated by the mechanisms of the machine process. In this way, he is compelled to conform. Therefore, the machine process constrains not only the tools and materials used in industry, but also humanity itself, to comply with the standard and integrate into the system.

The Machine Process and the Workman:

As the machine process begins to dominate the world of business enterprise, and as big business grows and replaces craftsmen and artisans in the American economy, what becomes of the individual? In his book, *The Vested Interests and the Common Man* [1919] (1998), Veblen investigates the ways in which the movement toward machine technology has affected the individual, and particularly the

workman, in the modern world of big business and standardization. Veblen (1998, 87) argues that the modern age has brought about such a "wide reaching organization of mechanical processes" that no individual, group, or economic factor may be allowed to freely navigate its own unique path without active cooperation from the rest of the industrial system.

The machine process extends into nearly every aspect of business enterprise, comprising a somewhat precarious web of processes that work interdependently to feed the scheme of big business. In Veblen's view (1998, 87-88), this system of machine technology must be taken as a whole, since the functioning of each of the larger system's interlocking processes relies on the functioning of the others; furthermore, the system can only reach its full productive capacity when each mechanistic process works in coordination with all others in perfect equilibrium.

This reliance on perfection and efficiency that characterizes the machine process in industry leaves little room for deviation from the standard or for individual endeavors. As Veblen (2005, 146-147) asserts, the machine process assures that the pace of industry is not set by the detailed work of the craftsman, but by the comprehensive industrial framework that his task serves. In other words, the workman does not utilize the machine process to fulfill his purpose; rather, the machine process utilizes the workman to fulfill the interests of the larger system.

Although the workman is compelled to conform to the standard by way of this process, his intelligence and skill are not simply tossed aside. Instead, as Veblen (2005, 147) teaches us, the workman plays an intelligent role in the machine process but is confined to the narrow thinking that the task he's engaged in requires; furthermore, his thinking is urged into repetitive and often simplistic patterns, stripping him of his individuality and creativity. In this way, the workman's thinking is standardized as a result of his intelligent guidance and supervision of the machine he's engaged with. In fact, although his intelligence serves him in the sense that it allows him to be a more efficient participant in the machine process, the process simultaneously disciplines his mind to focus solely on the task to which he is assigned.

This standardization of the workman's supervision of the machine leads to a conforming of his thoughts and behaviors. Veblen (2005, 147-148) contends that the repetitiveness and conformity that is required of the workman in his participation in the machine process leads to "habitual thinking" centered on the singular goal of mechanical efficiency. Thinking that falls outside of that which is required of him by the machine process is rendered useless; furthermore, the machine process encourages an impersonal, logical method of thought, focused solely on measurable cause and effect. Individuality and subtlety on the part of the

workman become unnecessary or even obstructive to the singular objective of industrial efficiency.

Under this framework, the concerns of the workman, and more generally the concerns of the common man, naturally come second to the quest for efficiency and the vested interests of the business class. Veblen (1998, 89-90) argues that the state of the new industrial system, under the influence of machine technology, would reasonably imply that men who are skilled and knowledgeable in the relevant matters of technology and machinery should thrive in this environment. However, it is not these men who prosper. Instead, men with knowledge of finance and prices thrive while engineers and technological pioneers are left to work for them.

The effect of the machine process on human thought and behavior is not confined solely to the workman. In fact, the process affects human patterns of thought in a variety of ways, beginning with the workman and permeating outward through the economy and society. Veblen (2005, 12-13) teaches us that this standardization, along with a lack of tolerance for variation, affects the consumer as well as the producer. Since final goods, in addition to inputs, are assumed to be uniform, modern consumers develop stringent expectations about the goods and services with which they interact. As a result, the idiosyncrasies of individual consumers are expected to reconcile with the uniformity of the modern market.

The consumer, like the producer, must adjust his individual preferences to accommodate the homogeneity that now exists in the modern economy as a result of the pervasive machine process. In the same way that the vested interests of big business dominate and rule over the interests of the workman, so too do they impinge upon the interests of the modern consumer. Veblen (1998, 90) teaches us that, under the influence of the machine process, business affairs have, in their most narrow sense, evolved to the degree that those who possess the most financial control over economic processes stand to benefit most from efficiency and standardization. The workman, the consumer, and the common man are left largely at the mercy of the interests of big business, and there is no longer a place for the specialized skills of the craftsman or the multifaceted desires of the consumer.

In this way, the Veblenian approach challenges the neoclassical assumption that the economy is consumer-driven. If we are to believe, as Veblen suggests, that the machine process begins in industrial production, percolating outward and affecting the expectations and desires of consumers, then the neoclassical presumption that the economy is driven primarily by the unlimited wants and needs of individuals is proven incomplete, if not entirely incorrect. In fact, Veblen's understanding of the machine process suggests that the individual has become merely a moving part in a framework over which he exercises little control or autonomy.

The Machine Process in Society and Culture:

As has been discussed in some detail above, the machine process extends far beyond the functions and processes of machines and fundamentally shifts economic authority from the individual to big business, serving the vested interests of those who possess financial knowledge and control. Veblen (2005, 148) teaches us that the emergence of the machine process also affects the values and practices of the society in which it takes hold, asserting that the machine process has no concern for matters of good or evil. The system does not leave room for philosophical debates or discussions of right and wrong. Instead, it is based solely on the laws of material causation.

The machine process exists independently from history or context; therefore, it is not tied to any particular set of values. As Veblen (2005, 148-149) tells us, it extends throughout the economy and into society indiscriminately and is no more tied to eighteenth-century ideals of natural liberty, laws, and rights than it is to more ancient values of goodness, beauty, or truth. The machine process is objective in nature, concerning itself solely with efficiency and profit; however, the process by which this mechanistic approach to industry intervenes in human thought also allows it to permeate throughout society, shifting habits of thought and behavior on a larger scale, little by little.

Although the machine process affects society on a grand scale, it affects each individual in a different manner depending on his or her economic and social position. Veblen (2005, 149) explains that, for those employed in mechanical occupations, the machine process acts primarily as a discipline of habitual thought. These individuals must apply logical reasoning that complies with and accommodates the mechanical functions that comprise the tasks they perform; therefore, they are the people most deeply affected by the influence of the machine process. Those who act merely as "mechanical auxiliaries" to the machine process, however, stumble blindly upon these mechanistic, habitual patterns of thought, falling victim to an uncritical and ill-informed acceptance of these routines. In this way, the machine process pervades the lives of individuals within a society, moving from the innermost sections of industry outward to the masses.

Not only does the machine process affect individual patterns of thought and behavior – it also influences economic and social relationships. As Veblen (2005, 11-14) expertly illustrates, the machine process infiltrates producer and consumer expectations and, consequently, the way that individuals interact with one another in economic and social life on a daily basis. The machine process has moved beyond economic activity, permeating nearly every corner of society and affecting the thought patterns of its members; therefore, the character of *society*, not simply the character of products and services or the individual, is forever altered by the

machine process. Our habits change and evolve to accommodate this new, uniform world that surrounds us and institutions emerge to integrate new technologies, expectations, and requirements.

The machine process does not treat all men as equals and does not concern itself with issues of ethics, moral standards, or cultural values. Veblen (2005, 149-150) asserts that the machine process abandons outdated affairs of politics, war, and religion. Instead, it separates men into only two categories: those employed in pecuniary or business affairs and those employed in industry or mechanical processes. Veblen (2005, 150-151) continues, arguing that everyday life for these two classes of men is materially different, resulting in entirely separate viewpoints. Men involved in industry rely upon an objective, cause-and-effect view of the world, while the business class is concerned with profit and efficiency as it relates to monetary gain.

Although the effects of the machine process are far-reaching, leaving only a sliver of society untouched, they influence individuals at various levels and in differing ways. Veblen (2005, 153) concludes that, while the machine process impacts virtually all classes of men in aspects of their daily lives, it is those individuals who belong to the most skilled and knowledgeable mechanical classes who are most deeply affected by it; furthermore, those who work most closely with

machines are most likely to develop mechanistic and habitual patterns of thought and behavior.

In fact, the machine process has extended beyond the external world and into the internal dialogues of men, impacting culture and society as a result. Veblen (2005, 174-176) does not look fondly on the influence of the machine process, declaring that its dominance in modern times has led to a materialistic, immoral, and unpatriotic spirit in American society and culture; furthermore, that habitual processes of mind have continued to permeate, touching wider and wider circles of society until there is little individual independence remaining. He notes, however, that the ever-changing nature of the economy and society leaves space for a new, unforeseen cultural factor to impede its progress and lead us away from the machine process and toward a new, unexplored age.

Conclusion:

This inquiry has sought to establish that Thorstein Veblen's contributions to economic thought introduce and develop the idea that the machine process has permeated and influenced aspects of industry, society, and the human mind. The movement from a society and economy built upon the foundations of craftsmanship, the natural rights of man, and individual liberty toward an economy based upon the singular goal of achieving efficiency and profit has led to a

fundamental shift in the thoughts and behaviors of its members. The machine process has no concern for individual values and leaves no room for diversion from the standard.

At the expense of the independent endeavor to make one's own way in the world, critical thought, and the beauty of individual creativity and ambition, we have conformed to patterns of thought that follow a blueprint. We expect uniformity, we expect perfection, and we give in to these expectations from the outside world. Those who dare to deviate from the norm – to walk their own path – are met with criticism and obstacles. It seems the machine process has extended beyond the concrete world around us and into our hearts and minds, transforming our lives into something resembling a machine.

(3,237 words)

Bibliography:

McCormick, Ken. *Veblen in Plain English*, Youngstown, New York: Cambria Press, 2006.

Veblen, Thorstein. *The Theory of Business Enterprise*, Old Chelsea Station, New York: Cosimo [1904] 2005.

Veblen, Thorstein. *The Vested Interests of the Common Man*, New York: B.W. Huebsch [1919] 1998.