Adam Smith, Experimental Innovator, through the Lenses of Conceptual Innovators[1]

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Abstract

Many scholars, especially from other disciplines, have voiced concerns regarding an oversimplified interpretation of Adam Smith's ideas, asserting that it has been exploited to advance a particular free market ideology. An illustrative example can be found in Glory Liu's thought-provoking book, where Liu argues that "given the breadth and richness of Smith's oeuvre, it is hardly surprising that intellectual historians, political theorists, and social scientists often complain that distorted notions of self-interest, free markets, and 'the invisible hand' have eclipsed Smith's moral philosophy, jurisprudence, and more, and that Smith has become little more than an emblem for think tanks or a historical sound bite in textbooks." This paper uses Galenson's economic framework for creativity to analyze Adam Smith's approach to innovation and some of his main contributions. Galenson distinguishes between two types of innovators in art: the conceptual and the experimental. We show that Smith exhibits all the characteristics of the experimental innovator. His experimental approach is evident in the development of The Theory of Moral Sentiments and many of the ideas developed in The Wealth of Nations. Smith has had a significant influence on important conceptual innovators in economics of the 20th century, such as Paul Samuelson, George Stigler, Robert Lucas and Gary Becker. Conceptual innovators often tend to simplify by using abstraction. Their effort to formalize and incorporate Smith ideas using a conceptual language may explain why there is a simplified understanding of Smith and his contributions.

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1. Introduction

Numerous scholars have argued that there has been an oversimplification of Adam Smith's body of work and contributions, with many 20th century economists focusing on a selective group of his ideas while neglecting an essential part of his work. For example, according to Glory Liu (2022), Adam Smith is commonly known as the father of economics and the author of The Wealth of Nations (WN), where he famously introduced the concept of the "invisible hand," and after the Great Depression, the rise of the Chicago School of economics transformed Smith into a theorist of the universal axiom of self-interest and the miracle of free markets. In this paper, we argue that this oversimplification can be explained in part by the dominance of conceptual innovators in economics during the 20th century, who tend to simplify using abstraction to think about economics.

After this introduction, in section 2, we present David Galenson´s approach to innovation and creativity. Then, in section 3, we analyze Adam Smith as an innovator using Galenson's typification of innovators, as either conceptual or experimental. We show that Smith exhibits most of the characteristics of an experimental innovator, who work (in part) inductively, through trial and error, building and improving their skills gradually as they work. For experimental innovators, there is no such thing as a finished project, their skills and work are continually improved over time and as consequence their most important contributions tend to occur late in their careers. In section 4, we show that by many measures WN is considered his most influential work. In section 5, we examine the influence of Adam Smith on important conceptual innovators in economics of the 20th century, such as Paul Samuelson, George Stigler and Gary Becker, and how they have interpreted and incorporated Smith's ideas. At the end of this section, we explore an interesting parallel between the development of ideas in modern art in the early 20th century and the process of innovation. Just as Cézanne, an experimental innovator, influenced conceptual innovators like Picasso and Braque, who gave birth to Cubism, Smith's work has been interpreted and applied by conceptual innovators in economics, who developed and put into practice the systematic use of math in economics.

In conclusion (section 6), in this paper we argue that the oversimplification of Adam Smith's work can be attributed to the dominance of conceptual innovators in economics during the 20th century. By analyzing Smith as an experimental innovator, we can gain a deeper understanding of his contributions and the complexities of his ideas. By exploring the influence of Smith on conceptual innovators and drawing parallels to the development of ideas in art, we can gain insights into the process of innovation and the importance of incorporating a range of perspectives in the pursuit of knowledge.

2. Conceptual Framework: Galenson´s approach to innovation and creativity

In his quest to understand the creative and innovation process, David Galenson realized that art is an excellent laboratory to study creativity from an economic perspective. As in the case of researchers, great artists are also great innovators. Significant works of art contain substantial innovations. Regardless of the nature of the innovation, its relevance ultimately lies in its degree of influence on other artists.

From detailed study of more than two hundred artists' careers, Galenson establishes that there are two very different types of innovators in art: conceptual innovators, who plan in detail before making a work, and experimental innovators, who take the most important decisions about their work while they are making it.

Conceptual innovators use their art to accurately express ideas. The precision of their objectives allows them to plan their work and execute it decisively. Pablo Picasso, Andy Warhol and Frida Kahlo were great conceptual innovators. Their conceptual innovations tend to be dramatic. In most cases, they consist of something completely different, which breaks the conventional rules of the discipline. Their most radical new ideas, and consequently their greatest innovations, tend to appear early in their careers.

For conceptual innovators, such as Pablo Picasso, the planning stage is essential in the innovation process. Picasso made hundreds of preliminary sketches and drawings to paint Les demoiselles d'Avignon. This fundamental work of modern art was made by Picasso in 1907, at the age of twenty-six. "In my opinion, searching means nothing in painting. Finding is the thing" and "When

I paint, my goal is to show what I have found, not what I am looking for" are some of Picasso's phrases that reveal him as a conceptual innovator.

In contrast, experimental innovators seek to record their visual perceptions and lack a clear goal. They proceed tentatively, through trial and error, gradually building their skills while doing their work, and tend to make their greatest contributions late in their careers. Paul Cézanne, Georgia O'Keeffe and Jackson Pollock are some examples of great experimental innovators.

Table 1

Galenson´s Innovation Typology Applied to Economics

Innovators	Objectives	Methods	Results	Examples
Experimental	The objective is a theme or problem.	Work inductively, accumulating knowledge from experience.	Empirical Work	Douglas North Robert Fogel Friedrich Hayek
Conceptual	The objective is precise.	Work deductively, applying abstract principles.	Theoretical work. Empirical work testing hypotheses formulated a priori.	Kenneth Arrow Paul Samuelson George Stigler

Source: Own elaboration based on Weinberg and Galenson (2019).

The categories of conceptual innovator and experimental innovator do not apply only to the art world. Later work shows that the same patterns are repeated in other areas, such as literature (Galenson 2005, Elias, 2013), music (Galenson 2009), the quality wine industry (Elias et al, 2020), and gastronomy (Elias et al, 2022). Bruce Weinberg and David Galenson (2019), shows that economists can also be divided in these two types of innovators (see Table 1). Conceptual economists are those who identify specific problems and solve them using deductive reasoning. They tend to make their most important innovations early in their careers, when they are more likely to challenge established ideas. On the other hand, experimental economists ask broader questions and solve them by accumulating evidence. Their most significant innovations often come after long periods of research, as they analyze more and more evidence.

Experimental innovators use inductive reasoning and base their innovations on accumulated experiential knowledge. Empirical research often involves generalizing from evidence, so empirical innovators are often experimental. A conceptual empiricist would be an example of an empirical innovator whose primary contribution was testing hypotheses formulated a priori. Douglas North, Robert Fogel, Friedrich Hayek were great experimental innovators.

On the other hand, conceptual innovators use deductive reasoning and their innovations stem mainly from a priori logic, often in response to existing work. Theorists are typically conceptual, and the most abstract and mathematical theorists tend to be the most conceptual. Kenneth Arrow, Paul Samuelson, Harry Markowitz were great conceptual innovators.

3. Adam Smith: Experimental Innovator

Adam Smith has most of the characteristics of experimental innovators. He developed most of his ideas based on empirical and experiential evidence, and, by any measure of influence, WN, written late in his career, is considered his most important contribution.

T. E. Cliffe Leslie (1870) discusses Adam Smith's political economy and how in WN it shows a combination of historical research and speculative thinking based on theological and metaphysical principles. Cliffe Leslie finds it fascinating how Smith incorporates these two elements and highlights the mistake of disregarding the empirical, historical aspect. He explains:

> ”The Wealth of Nations,” says Mr. Buckle, `is entirely deductive. Smith generalizes the laws of wealth, not from the phenomena of wealth, but from the phenomena of selfishness. He makes men naturally selfish; he represents them as pursuing wealth for sordid objects, and for the narrowest personal pleasures. This description is not misapplied to a political economy of later days, which has guided Mr. Buckle's interpretation of the system of Adam Smith; but with respect to that system itself, it involves two fundamental misconceptions. Selfishness was not the fundamental principle of Adam Smith's theory; and his method, though combining throughout a vein of unsound a priori speculation, was in a large measure inductive. The investigation which establishes this will be found also to exhibit the connection between his economic system and the chief problems pressing for solution in

his time; the methods which the philosophy of the age provided for their solution; and the history and phenomena of the economic world in which he lived, and from which his ideas, his inductions, and his verifications were drawn.

Smith developed numerous significant ideas through careful observation and practical experience. For example, Smith´s idea of competition is experimental and has to do with observation. According to George Stigler (1957), Smith's concept of competition was competition "in the sense of rivalry in a race- a race to get limited supplies or a race to be rid of excess supplies." "Smith did not state how he was led to these elements of a concept of competition. We may reasonably infer that the conditions of numerous rivals and of independence of action of these rivals were matters of direct observation." The current concept of competition in economics appeals to abstraction and is defined by idealizing conditions, "perfect competition occurs when all companies sell identical products, market share does not influence price, companies are able to enter or exit without barriers, buyers have perfect or full information, and companies cannot determine prices."

When discussing the Influence of Custom and Fashion upon Moral Sentiments, Smith appeals to his observation: "That degree of politeness which would be highly esteemed, perhaps would be thought effeminate adulation, in Russia, would be regarded as rudeness and barbarism at the court of France. That degree of order and frugality which, in a Polish nobleman, would be considered as excessive parsimony, would be regarded as extravagance in a citizen of Amsterdam."

In elaborating on the Division of Labor, he recounts "I have seen a small manufactory of this kind where ten men only were employed, and where some of them consequently performed two or three distinct operations. But though they were very poor, and therefore but indifferently accommodated with the necessary machinery, they could, when they exerted themselves, make among them about twelve pounds of pins in a day." "I have seen several boys under twenty years of age who had never exercised any other trade but that of making nails, and who, when they exerted themselves, could make, each of them, upwards of two thousand three hundred nails in a day. The making of a nail, however, is by no means one of the simplest operations."

Adam Smith's approach to his field and his working method encompass all the distinctive traits of an experimental innovator. Like Paul Cézanne, he was a perfectionist. In a letter to Thomas Cadell, he wrote: “My subject is the *Theory of Moral Sentiments*, to all parts of which I am making many additions and corrections. The chief and the most important additions will be to the third part, that concerning *the sense of Duty* and to the last part concerning *the History of Moral Philosophy*. As I consider my tenure of this life as extremely precarious, and am very uncertain whether I shall live to finish several other works which I have projected and in which I have made progress, the best thing, I think, I can do is to leave those I have already published in the best and most perfect state behind me” (Letter from Adam Smith to Thomas Cadell, 15 Mar. 1788. Corr., p. 311.).

Also like Paul Cézanne, Adam Smith made progress slowly, constantly revising his work, rarely feeling as if his work was ever fully completed. In the same letter to Cadell, he explains his method of work: “I am a slow a very slow workman, who do and undo everything I write at least half a dozen of times before I can be tolerably pleased with it; and tho’ I have now, I think, brought my work within compass, yet it will be the month of June before I shall be able to send it to you. I have told you already, and I need not tell you again, that I mean to make you a present of all my Additions. I must beg, therefore, that no new edition of that book may be published before that time.” Letter from Adam Smith to Thomas Cadell, 15 Mar. 1788. Corr., p. 311. Adam Smith continued working in The Theory of Moral Sentiments (TMS) until the very end of his life, diligently incorporating numerous revisions and introducing significant changes in the 6th and final edition, which was published in 1790, shortly before his passing.

4. Adam Smith´s Most Important Influence

Adam Smith was 53 years old when he published WN in 1776. He spent over a decade researching and writing the book, which is considered one of the most important works in the field of economics and a landmark in the history of economic thought. Smith's previous work, TMS, was published in 1759, when he was 36 years old, and, as we mentioned, he kept working on it until the end of his life.

It is safe to say that the WN is one of the most widely cited and influential works in the field of economics, and its ideas and concepts have been studied and debated by scholars and policymakers around the world. According to Google Scholar WN has 47,161 citations and rank 2nd among the most cited book published before 1950 in the Social Sciences, after Das Kapital by Marx (Green, 2016). TMS has close to 20,000 citations.

In her book, Glory Liu (2022) draws attention to the widespread inclusion of WN on more than 5,500 college syllabi throughout the United States. While predominantly featured in economics courses, WN has also found its place in diverse disciplines such as history, political science, business, philosophy, literature, sociology, anthropology, religion, and law. In 2023, WN ranked forty-fourth among 4,783,525 titles assigned in college courses, putting it ahead of John Stuart Mill's On Liberty, Alexis De Tocqueville's Democracy in America, and even Shakespeare's Hamlet. In contrast, Smith's initial publication, TMS, achieved a significantly lower ranking, appearing on over 1,300 syllabi.

Stigler (1976) asserts that "Smith had one overwhelmingly important triumph: he put into the centre of economics the systematic analysis of the behaviour of individuals pursuing their self-interest under conditions of competition. This theory was the crown jewel of The Wealth of Nations and it became, and remains to this day, the foundation of the theory of the allocation of resources."

While the last two editions of Adam Smith's renowned work, "The Wealth of Nations," published in 1786 and 1789, did not undergo substantial revisions, it is noteworthy that Smith dedicated his final years to crafting his book on ethics. Among the significant contributions of TMS is the introduction of the concept of the impartial spectator, an idea that gradually developed and evolved over time. As Rodriguez Braun (1997) explains in the introduction of his Spanish translation of TMS, "the theory of the impartial spectator is evolving in Smith. It is not clear at first, as can be seen in the extensive chapter III of part III, which was not in the first edition and only appeared in the second, from 1761, which is where Smith introduced more changes, excluding of course the sixth and last. The spectator goes from being real to being supposed, from external to internal, from concrete to abstract."

About one-third of the sixth edition of "The Theory of Moral Sentiments" contains additions that Smith made during this period. While some interpreters may not consider these changes to be important, Leonidas Montes (2006) explains that they reflect Smith's more developed and mature thinking, “particularly interesting is his desire to enhance his concepts of sympathy and the impartial spectator by incorporating an ethic of virtue.”

According to Leonidas Montes (2006), “it is undeniable that WN had a significant impact on the political landscape of the late eighteenth century, particularly in relation to its immense influence on American Independence. However, when confronted with the moral frameworks of utilitarianism and Kantianism, Smithian morality, which was rooted in emotions, entered a prolonged period of dormancy. The frequency of reissues of WN and TMS serves as evidence for this phenomenon throughout the 19th and 20th centuries. To illustrate, during the first three quarters of the 20th century, only four English reprints of TMS were produced, while more than forty were made for WN.”

5. Adam Smith´s Legacy through the Lenses of Conceptual Innovators

After World War II, economics as a discipline, like the world of art in the 20th century, became dominated by conceptual innovators. During that period, the discipline heavily incorporated mathematics to formalize well known economic ideas and to think about social and economic issues. The understanding of Smith in modern economics is rooted in the work of these conceptual innovators who formalized his theories.

Paul Samuelson was a great conceptual innovator, who made discoveries through highly abstract reasoning, and made his greatest contributions early in his career. In the introduction of his Foundations, he claims:

> The existence of analogies between central features of various theories implies the existence of a general theory which underlies the particular theories and unifies them with respect to these central features. This fundamental principle of generalization by abstraction was enunciated by the eminent American mathematician E. H. Moore more

> than 30 years ago. It is the purpose of the pages that follow to work out its implications for theoretical and applied economics (Samuelson 1947, p. 3).

"I loved the Foundations," Robert Lucas wrote in a 2001 memoir. "Like so many others in my cohort, I internalized its view that if I couldn't formulate a problem in economic theory mathematically, I didn't know what I was doing. I came to the position that mathematical analysis is not one of many ways of doing economic theory: It is the only way. Economic theory is mathematical analysis. Everything else is just pictures and talk."[4]

In his commemoration of Samuelson, Avinash Dixit (2009) asserts that, much like Newton, Samuelson had the remarkable ability to extract the hidden principles of economics, which had been shrouded in convoluted language by earlier generations, and reframe them with remarkable clarity using the language of mathematics.

Even though Milton Friedman is categorized as experimental by the index of Galenson and Weinberg (2019), he played an important role in transforming economics in a conceptual discipline by using abstraction and can be considered in part conceptual since he did great empirical work testing hypotheses formulated a priori. In his Methodology of Positive Economics, he explains:

> The ultimate goal of a positive science is the development of a "theory" or, "hypothesis" that yields valid and meaningful (i.e., not truistic) predictions about phenomena not yet observed. Such a theory is, in general, a complex intermixture of two elements. In part, it is a "language" designed to promote "systematic and organized methods of reasoning." In part, it is a body of substantive hypotheses designed to abstract essential features of complex reality.

[4] In a fun video did by 3 graduate students in economics at the University of Chicago in 2004 for a skit show, they asked faculty members of the department of economics about how they would explain the invisible hand to a child. Before elaborating on his answer, Robert Lucas, with a great sense of humor, asked "how much this small child knows about the separation theorem for convex sets." The full video is available here https://www.youtube.com/watch?v=3oJ23b5H9rA

> Truly important and significant hypotheses will be found to have "assumptions" that are wildly inaccurate descriptive representations of reality, and, in general, the more significant the theory, the more unrealistic the assumptions (in this sense). The reason is simple. A hypothesis is important if it "explains" much by little, that is, if it abstracts the common and crucial elements from the mass of complex and detailed circumstances surrounding the phenomena to be explained and permits valid predictions on the basis of them alone.

Hayek, an experimental innovator, expressed his concern regarding the integration of mathematics in economics and warned about its limitations and the potential misleading implications for public policy that could arise from it:

> This character of the fundamental problem [the use of knowledge in society] has, I am afraid, been rather obscured than illuminated by many of the recent refinements of economic theory, particularly by many of the uses made of mathematics. Though the problem with which I want primarily to deal in this paper is the problem of a rational economic organization, I shall in its course be led again and again to point to its close connections with certain methodological questions (Hayek, 1947).

Hayek's concern regarding the incorporation of mathematics in economics is particularly relevant when considering Adam Smith's contrasting perspectives on government planning. Smith's discussion illuminates the dichotomy between an experimental approach, which embraces the complexity of economic systems, and the conceptual approach of the “Man of System”:

> He [the prudent stateman] will accommodate, as well as he can, his public arrangements to the confirmed habits and prejudices of the people, and will remedy, as well as he can, the inconveniencies which may flow from the want of those regulations which the people are averse to submit to. When he cannot establish the right, he will not disdain to ameliorate the wrong; but, like Solon, when he cannot establish the best system of laws, he will endeavour to establish the best that the people can bear.
>
> The man of system, on the contrary, is apt to be very wise in his own conceit, and is often so enamoured with the supposed beauty of his own ideal plan of government, that he

> cannot suffer the smallest deviation from any part of it. He goes on to establish it completely and in all its parts, without any regard either to the great interests or to the strong prejudices which may oppose it: he seems to imagine that he can arrange the different members of a great society with as much ease as the hand arranges the different pieces upon a chess-board; he does not consider that the pieces upon the chess-board have no other principle of motion besides that which the hand impresses upon them; but that, in the great chess-board of human society, every single piece has a principle of motion of its own, altogether different from that which the legislature might choose to impress upon it.

When writing his best-selling textbook Economics, Samuelson took a close interest in the “ancients” and for whom he had “not only respect, but healthy scientific curiosity about how their arguments would and how far they would survive in modern mathematical language “(Dixit 2009). In the later editions, he worked toward what he calls a “neoclassical synthesis” of ancient and modern economic findings. Within his textbook, Samuelson formalizes the concept of the "invisible hand" as perfect competition and elucidates its welfare implications.

> Even Adam Smith, the canny Scot whose monumental book, "The Wealth of Nations" (1776), represents the beginning of modern economics or political economy-even he was so thrilled by the recognition of an order in the economic system that he proclaimed the mystical principle of the "invisible hand": that each individual in pursuing his own selfish good was led, as if by an invisible hand, to achieve the best good of all, so that any interference with free competition by government was almost certain to be injurious. This unguarded conclusion has done almost as much harm as good in the past century and a half, especially since too often it is all that some of our leading citizens remember, 30 years later, of their college course in economics (Samuelson, 1948, 36).

Along the same line, in his Foundations of Economics Analysis (1947) in Chapter VIII on Welfare Economics, he wrote:

> Beginning as it did in the writings of philosophers, theologians, pamphleteers, special pleaders, and reformers, economics has always been concerned with problems of public policy and welfare. And at least from the time of the physiocrats and Adam Smith there has never been absent from the main body of economic literature the feeling that in some sense perfect competition represented an optimal situation.

George Stigler (1982) described the WN as a "a stupendous palace erected upon the granite of self-interest." Even though, it can be argued that for "Adam Smith human nature was predominantly social, which explains the relevance of the impartial spectator, and human conduct is fundamentally ethical, which is determined by the social interaction that leads to moral rules" (Montes, 2004), the idea of Stigler is powerful and simple. As a conceptual like Samuelson, he took what allows him to simplify and develop a complete theory. As Leonidas Montes explains, "in neoclassical economic terminology, it would be the maximization of a person's utility, but subject to the all-encompassing impartial spectator constraint." And in fact, as we discuss later in this paper, Gary Becker, in his pioneer work, incorporated many of these elements, such as altruism and social interactions. While self-interest remains a fundamental cornerstone of economics, it is important to recognize that it extends beyond the narrow confines of the "homo economicus" concept.

Robert Lucas (2003), in discussing "[his] Keynesian education," express his view about the economic paradigm, that Smith, Hume and Ricardo, introduced, and how it has evolved in a productive way, but keeping it essence in this foundational view of economics:

> I think the basic view of economics that Hume and Smith and Ricardo introduced, taking people as basically alike, pursuing simple goals in a pretty direct way, given their preferences, where you are trying to explain differences in behavior by differences in the situation people are finding themselves in rather than differences in their culture, their inner wiring, inner workings, their race, whatever, their class, just thinking about people as people and then trying to account for their behavior in terms of how they are responding to their environment, that this is it for economics. We got that view from Smith and Ricardo, and there have never been any new paradigms or paradigm changes or shifts.

> Maybe there will be, but in two hundred years it hasn't happened yet. So you've got this kind of basic line of economic theory.
>
> And then I see the progressive—I don't want to say that everything is in Smith and Ricardo—the progressive element in economics as entirely technical: better mathematics, better mathematical formulation, better data, better data-processing methods, better statistical methods, better computational methods. I think of all progress in economic thinking, in the kind of basic core of economic theory, as developing entirely as learning how to do what Hume and Smith and Ricardo wanted to do, only better: more empirically founded, more powerful solution methods, and so on.

The formalization of Adam Smith using mathematics ends up being a simplification of his ideas, for many economists a useful simplification. However, Milton Friedman, among others, did not neglect Adam Smith´s work on morality:

> Smith is often interpreted - and criticised- as the high priest of egotism and selfishness. That is very far from being the case. He was, first of all, a scientist who, driven by a sense of "wonder," excited by "incoherences" in the processes of the economy, sought "some chain of intermediate events, which, by connecting them with something that has gone before, may render the whole course of the universe consistent and of a piece." The subtle analysis of the price system was the result.
>
> But second, on the moral level, Smith regarded sympathy as a human characteristic, but one that was itself rare and required to be economised.

Gary Becker made substantial contributions to integrating the complexities of human behavior into economic models by drawing inspiration from Adam Smith's concepts in TMS. In his book Accounting for Tastes (1996), Becker utilizes Smith's insights to enhance economic analysis. For example, in the book Becker explores the role of habits in shaping personal and social capital. He highlights Smith's explanation of the affection for family members through habit, quoting Smith's statement that individuals are naturally inclined to have warmer affections toward their own family members due to the habit of sympathizing with them.

Becker also discusses the concept of “Fashion” and its influence beyond short-term preferences. He cites Smith's observation that fashion extends its influence not only over dress and furniture but also over architecture, poetry, and music, indicating the broad impact of societal trends on various aspects of culture.

Regarding envy and hatred, Becker acknowledges Smith's recognition of these passions. However, he also notices that Smith suggests that most individuals are not frequently driven by these passions, and even the worst individuals are influenced by them only occasionally. Smith asserts that society can still function with some degree of security, even in the absence of a civil magistrate, as prudential considerations typically restrain the indulgence of these passions.

Finally, it is interesting to note that a similar process of innovation happened within the realm of modern art. As previously discussed in Section 2, Paul Cézanne epitomizes the experimental innovator. His profound impact on the evolution of modern art stems from numerous significant artistic breakthroughs. Notably, Cézanne pioneered the concept of portraying objects from multiple perspectives simultaneously on a single canvas, which he developed gradually in an experimental way.

As accounted in Galenson (2006), in 1904, Emile Bernard visited Aix and vividly remembered how Paul Cézanne devoted an entire month to a single still life painting. Bernard marveled at the constant evolution of colors and shapes within the artwork, as they seemed to transform with each passing day. Every time Bernard stepped into Cézanne's studio, he was astonished to find a painting that could have easily been considered a completed masterpiece, ready to be taken off the easel. Cézanne's approach to his craft was meticulous and deliberate. According to Bernard, every stroke of paint was executed with profound consideration, as if each mark was a result of deep contemplation.

His innovative experimental approach to form and space had a profound influence in Pablo Picasso and Georges Braque, among others conceptual innovators. They developed cubism by simplifying and generalizing Cézanne’s idea and introducing a significant degree of abstraction in

its approach to depicting the physical world. According to Galenson (2006), “cubism was a conceptual innovation in which the artists expressed their full knowledge of objects, without being bound by the constraint of painting what they could see of an object from a single location. Thus, Braque ridiculed the single viewpoint of Renaissance perspective, saying, ‘It is as if someone spent his life drawing profiles and believed that man was one-eyed.’”

6. Conclusion

This paper highlights the experimental innovations of Adam Smith, shedding light on the factors that led to the simplification of his work amidst the prevalence of conceptual innovators in 20th-century economics. By examining Smith's role as an experimental innovator, we can delve into a more comprehensive comprehension of his profound contributions and the intricate nature of his ideas. Furthermore, by investigating the impact of Smith on conceptual innovators and drawing parallels to the evolution of artistic ideas, we can glean valuable insights into the innovation process and the significance of embracing diverse perspectives in the quest for knowledge.

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