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Amalgamating Psychology and Economics: The Devise of Behavioral Economics and the Emergence of Behavioral Finance

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Abstract:

Amalgamating Psychology and Economics the Devise of Behavioral Economics and the Emergence of Behavioral Finance is the study of historic perspective of development of behavioral economics and the budding behavioral finance. This study describes how the psychologist and economists came to gather with their ideas, theories and axioms amalgamated and the formulation of behavioral finance. This study has enlisted some psychologist and economists who had extra ordinarily contributed in the field development of behavioral economics so as the behavioral finance Those eminent peoples are David Ricardo, John Stuart Mill, Milton Friedman, John von Neumann, Oskar Morgenstern, Paul Anthony Samuelson, Leonard Jimmie Savage, Maurice Felix Charles Allais, Ellsberg, Paul Slovic, Amos Nathan Tversky, Daniel Kahneman, Eugene Fama, and Richard H. Thaler. Amalgamating Psychology and Economics the devise of Behavioral Economics and the emergence of Behavioral Finance gives the snapshot of chronological development of behavioral finance well supported with the evidences of its theories. This paper also explains violation of axioms of standard finance and economics by behavioral finance researchers therefore put forward their theories and models.

Keywords: Behavioral Economics, Behavioral Finance, VNM.

1. Introduction

Amalgamating Psychology and Economics: The Devise of Behavioral Economics and the Emergence of Behavioral Finance is the study of historic perspective of economics and psychology. This study outlines few eminent contributes in the fields of economics and psychology which led to the construction of behavioral economics and its offspring the behavioral finance. The study describes chronologically of these contributions. The devise of behavioral economics was amalgamation of very two fields namely the psychology and the economics. The work led them to achieve a number of noble prizes and gave the world new discipline and the emerging new disciplines. This section depicts a few contributors in the field of economy and the psychology and their theories, axioms with supports and challenges faces emergence of new possibilities to the knowledge of this universe.

David Ricardo's (1772-1823) professional life was begun as a financial market broker and financial market speculator. He was one of the most influential of the classical economists, along with Thomas Malthus, Adam Smith, and James Mill. *The Principles of Political Economy and Taxation* (1817) written by David Ricardo has a criticism of barriers to trade especially international trade and a description of the manner in which income is distributed in the population.

John Stuart Mill (1806 1873) was an English philosopher, political economist, was one of great public speaker. His textbook, *principles of political economy* published in 1848 gives insight of the economic thought of the mid-nineteenth century. He was heavenly influenced by David Ricardo and interpreter of one of economic principles. Mill's textbook, *Principles of Political Economy* was a summary of the economic mindset of the nineteenth century.

Milton Friedman (1912 -2006) was an economist from America. Friedman's in 1942 rejected the Thurstone's indifference curve; experiment clarifies the ways in which economists Wallis and Friedman clashed with psychologist. His great contributions are Friedman-Savage Utility Function, Friedman Rule, Friedman's K- Percent Rule and Friedman Test

John von Neumann (1903-1957) had worked in following field's quantum theory automata theory, Economics and defense planning. Von Neumann pioneered game theory along eminent with Oskar Morgenstern

Oskar Morgenstern (1902-1977) a German economist was widely accepted among economists. John von Neumann and Oskar Morgenstern (VNM) had given "*Theory of Games and Economic Behavior*". Here started the interpretation and explanation of the VNM axioms and evolving into a situation in which psychologists might understand economists and use of the axioms or assumptions as their empirical claims to be verified or refuted. Psychologist has tried to explain those axioms, assumption of the theory and their practical implication, but latter they stared the violation of various axioms of the theory leading to emergence of another refined theory such as prospect theory. VNM's *Theory of Games and Economic Behavior* was on discussion among psychologists around late twentieth century and, in economists has tried to modify base on their understanding and utilized this theory and its axioms in available or present theories and methods.

Paul Anthony Samuelson (1915 –2009) was one of an American economist, and the first American to win the Nobel Memorial Prize in Economic Sciences, and William Jack Baumol (1922) is an American economist. Both of them brought the von Neumann-Morgenstern axioms to be descriptive titles about the measurement of utility that might be controverted directly by empirical observations.

Between 1950 and 1952, this led to a heated debate between Samuelson and Baumol on one side and Friedman and Savage on the other.

Leonard Jimmie Savage was an American mathematician and statistician. Milton Friedman said Savage was "one of the few people I have met whom I would unhesitatingly call a genius. He understood the axioms in the mathematical tradition of von Neumann whom he was assisting summarizing rational behavior on a higher than purely descriptive level.

Maurice Felix Charles Allais (191 –2010) was a French economist, and was contributed the theory of markets and efficient utilization of resources one of his work is Allais paradox. The Ellsberg paradox is a paradox in decision theory in which people's choices violate the postulates of subjective expected utility. It is generally taken to be evidence for ambiguity aversion. The paradox was popularized by Daniel Ellsberg. The basic idea is that people overwhelmingly prefer taking on risk in situations where they know specific odds rather than an alternative risk scenario in which the odds are completely ambiguous—they will always choose a known probability of winning over an unknown probability of winning even if the known probability is low and the unknown probability could be a guarantee of winning. That is, given a choice of risks to take (such as bets), people prefer the devil they know rather than assuming a risk where odds are difficult or impossible to calculate.

Paul Slovic (1938) has contributed in the field of psychology. Dr. Slovic studies human judgment, decision making, and risk perception, and has published extensively on these topics. He is considered a leading theorist and researcher in the risk perception field (the psychometric paradigm, the affect heuristic, and risk as feeling). Most importantly they say the behavioral decisions research in directions that contradicted the assumption that human beings generally make their decisions rationally.

Along with him Lichtenstein and Amos Nathan Tversky (1937 –1996) cognitive and mathematical psychologist took behavioral decision research in directions that contradicted the assumption; human beings generally make their decisions rationally. Daniel Kahneman (1934) is a psychologist being worked on the psychology of judgment and decision-making, as well as behavioral economics, and in the behavioral finance for which he was awarded in the 2002 Nobel Memorial Prize in Economic Sciences (shared with Vernon L. Smith). He challenged the assumption of human rationality prevailing in modern economic theory with Amos Tversky whom we have studied above. Together with Daniel Kahneman, Tversky, in particular, came to strongly oppose the fundamental assumption of Savage and Edwards that, by and large, human beings make their decisions in accordance with the normative rules of decision theory.

During the 1970s, Kahneman and Tversky heuristics and biases, and later their prospect theory, arose as a new and appealing theory of decision making in behavioral psychology. Kahneman established a cognitive basis for common human errors that arise from heuristics and biases. One of his books is *Thinking, Fast and Slow* which summarizes much of his research, was published and became a best seller. In 2015 *The Economist* listed him as the seventh most influential economist in the world. The methodological tension Tversky was struggling with in the late 1960s, involved the question how to combine the introspective, or intuitive basis of VNM and Savage, with experimental results that pointed in many directions, but only occasionally in the direction of the intuitive theory. As the axioms were understood as introspective or intuitive truths, they could only be proved wrong based on introspective or intuitive reasoning. Measurement theory and normative decision theory were simply not understood and employed as theories that could be proved wrong experimentally.

Tversky was effectively caught between the intuitive truth of the axioms of measurement theory and decision theory and the behavioral deviations that surfaced in his experiments. He had to decide between taking his experiments seriously or accepting the axioms of measurement theory and decision theory. In the early 1970s, Kahneman offered Tversky a solution that accepted the experimental behavioral deviations as valid while at the same time left intact the fundamentals of measurement theory and decision theory.

Kahneman and Tversky's research introduced the idea that although rational individuals should adhere to the normative theories of logic, Bayesian updating and expected utility calculation in their decision making, individuals, in fact, *systematically and predictably deviate from these norms*. With heuristics and biases, Kahneman and Tversky made their name in behavioral psychology and in cognitive science generally. It maintained the Frame work of reasoning from a set of optimal or normative behavioral rules as commenced by VNM and Savage, but rigorously separated the normative from the descriptive domain. Prospect theory, and its publication in *Econometrica*, broadened Kahneman and Tversky audience to economists. However, despite their clever rhetoric, their success among psychologists and their developing collaboration with some economists, it was not clear how the economic community at large would respond, if it would listen at all.

Eugene Fama in 1965 the economist Eugene Fama (1939) published *The Behavior of Stock Market Prices*, which found that stock market prices follow a random walk, proposing the Efficient Market Hypothesis, that randomness is characteristic of a perfectly functioning financial market. The same year Paul Samuelsson whom we have discussed above published a paper concluding the same thing with a mathematical proof, sharing the credit. In 1970 Fama published *Efficient Capital Markets: A Review of Theory and Empirical Work*, proposing that efficient markets can be strong, semi-strong, or weak, and also proposing the Joint Hypothesis Problem, that the idea of market efficiency can't be rejected without also rejecting the market mechanism.

Grether and Plott (1979, 1982) corroborated the experimental findings of psychology and drew the conclusion that preference theory as a description of individual human behavior should be entirely abandoned. At the same time, experimental economists concluded that preference theory as a description of efficient markets in equilibrium could be maintained and that the experimental results only

emphasized the rationalizing forces of the market. Furthermore, experimental economics did not accept behavioral decision research's alternative accounts and explicitly denounced the most visible theory among them, Kahneman and Tversky's prospect theory. An unexpected result of experimental economists' corroboration of behavioral decision research's experimental results was that it paved the way for behavioral decision researchers to enter economics.

Richard H. Thaler (1945) is an economist. He is perhaps best known as a theorist in behavioral finance and for his collaboration with Daniel Kahneman whom we have studied in the articles in detail. Some books written by him are, Thaler, Richard H. 1992. *The Winner's Curse: Paradoxes and Anomalies of Economic Life*. Princeton: Princeton University Press. Thaler, Richard H. 1993. *Advances in Behavioral finance*. New York: Russell Sage Foundation, Thaler, Richard H. 1994. *Quasi Rational Economics*. New York: Russell Sage Foundation. Thaler, Richard H. 2015. *Misbehaving: The Making of Behavioral Economics*. New York: W. W. Norton & Company

Thaler and others understood the psychological findings to shed light on the irrationality of individual choices and drew a direct link from the irrationality of individual choices to irrational features of the behavior of (financial) markets. They immediately recognized Kahneman and Tversky's research, and especially Kahneman and Tversky (1979), as an important new and improved theory of individual decision behavior. The different responses of Smith's experimental economics and of Thaler's financial economics to the experimental results and to prospect theory's alternative can be explained in terms of the different notion of the market in experimental economics and financial economics. To Smith, the market was a rationalizing mechanism that requires time to drive the economy toward equilibrium. For financial economists such as Thaler, time was not an element of the market. They were closely related because they used the same set of psychological experiments to make an argument for changing the dominant neoclassical theory in economics. Furthermore, although asking different questions, they basically conducted the same experiments.

During the 1990s and 2000s, Thaler, Kahneman, and other (former) participants of the Sloan-Sage program expanded behavioral economics from a small research program focused on violations of the neoclassical theory in financial economics into a dominant new research program that looked for inspiration beyond behavioral decision research to a range of scientific disciplines and methods and that began to define behavioral economics more explicitly in opposition to neighboring fields such as experimental economics and psychology. At the same time, this rapid growth was bounded by the conceptual redefinition of economics Thaler had taken over from Kahneman and Tversky when he first began to collaborate with Kahneman in the early 1980s. However, the labels of normative and descriptive proved confusing in an economic context that already had created its own understanding of positive and normative. But that matter could be solved relatively easily.

The concept of bounded rationality was taken from Simon and together with the concept of full rationality employed to rephrase Kahneman and Tversky's normative-descriptive distinction. Behavioral economists came to see the normative not as something external to the individual, but as a rational system side by side an affective system, with which it strives for dominance. The brief collaboration between behavioral economists and anthropologists shows how behavioral economists, after an initial enthusiasm, retreated when it turned out that this collaboration resulted in research that was at odds with the fundamental behavioral economic assumption of a fixed universal benchmark of full rationality. The reinterpretation of Kahneman and Tversky's distinction between normative/full-rationality and descriptive/bounded rationality in terms of a conflict within the economic decision maker had important consequences for welfare economics. By exploring how policies could be designed to solve the bounded rationality of individuals, behavioral economists took the full-rationality versus bounded rationality framework to their ultimate consequences.

Finally, behavioral economists came to define themselves across (sub)- disciplinary lines in the 1990s and 2000s. First, behavioral economics became defined as economics on the basis of its use of mathematical modeling. This use of mathematics was something that defined behavioral economics as economics, and therefore as different from psychology. Behavioral economists distinguished themselves from psychology based on their use of the experimental method, in which they, for instance, argued against the use of deception by the psychologists. The collaboration between finance and other social sciences that has become known as behavioral finance gave insights of financial markets. We should not expect market efficiency to be so egregiously wrong that immediate profits should be continually available.

Efficient markets theory may lead to drastically incorrect interpretations of events such as major stock market bubbles. Eugene Fama (1998) found fault for two basic reasons. The first was that the anomalies that were discovered tended to appear to be as often under reaction by investors as overreaction. The second was that the anomalies tended to disappear, either as time passed or as methodology of the studies improved. These discoveries and descriptions is well explained in behavioral finance in other words here energizing the new discipline that is behavioral finance. The most basic anomaly, of excess volatility in the market is well explained by the behavioral finance. Evidence from behavioral finance helps us to understand that the recent worldwide stock market boom, and then crash after, had its origins in human idiosyncrasies and arbitrary feedback relations. Behavioural finance promises to make economic model better at explaining systematic investor decisions. It consideration their emotions and cognitive errors (mental mistakes) and how these influence decision making.

2. Conclusion

Amalgamating Psychology and Economics the Devise of Behavioral Economics and the Emergence of Behavioral Finance is the study of historic perspective of economics and psychology by which the behavioral finance emerged. This study outlines few eminent contributes in the fields of economics, psychology who had worked to developed behavioral finance. Paper is described in chronological order with contributions. Those eminent peoples are David Ricardo, John Stuart Mill, Milton Friedman, John von Neumann, Oskar Morgenstern, Paul Anthony Samuelson, Leonard Jimmie Savage, Maurice Felix Charles Allais, Ellsberg, Paul Slovic, Amos Nathan Tversky, Daniel Kahneman, Eugene Fama, and Richard H. Thaler. Behavioural finance promises to make economic

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