

TO B.E. OR NOT TO B.E.?

Dikshita Jha & Ahalya P. Rajesh

Abstract

Starting with defining behavioral economics, we address the rise of its concept. We talk about premise behind the subject along with why and how people have it came into the spotlight.

We bring into notice that although support for the basic concept of behavioural economics does exist, criticism of it does as well.

By mentioning the major criticisms that have been raised till now - rationality of economic agents, experiment based research and lack of foundational theory - we try and answer some of the questions that arise. The theory of nudge is discussed the role it plays in behavioral economics and how it has failed to instigate what it was supposed to. All this leads us to conclude that we need changes in the concept of behavioral economics for it to be part of the future of economics. The concept of behavioral economics needs to be more generalised rather than looking at it from the partial equilibrium outlook.

Introduction

People living in this world have wants and needs. Their behaviour represents the way they act in different situations and environments to fulfill these.

The theory of behavioural economics deals with the effects of psychology in the world of economics to develop theories of how a

consumer will make its various choices. It is the mechanism that drives public choices. In other words it is the integration of ideas of psychology with those of economics.

The 2017 Nobel laureate for Economics, Richard Thaler along with the 2002 Economics Nobel prize winner Daniel Kahneman and Jack Knetsch, took the world by storm with their research on the concept of behavioral economics. They initiated a new way of looking at economics by drawing insights from psychology and psychological experiments. Thaler, being the protagonist of the behavioral economics revolution, challenged some of the standard assumptions, concepts and theories of economics.

Now, any novice entering the world of economics comes across the assumption of rationality i.e., consumers would want to maximize their utility. If the goods are economically feasible, they would always prefer more of at least one commodity. A consumer on their given IC map would always prefer to be on the highest possible IC.

But when it comes to the theory of Behavioral Economics, the economists do not follow the rule of rationality, rather the term 'bounded rationality' meaning, the rationality of consumers are limited, comes into play. These limitations are set because

of the time constraints or lack of resources or sometimes because a consumer is not able to draw a logical conclusion thus dealing with the cognitive aspect of mind in. Due to the bounds of rationality, a consumer does not seek to maximise their wants and reach an optimal solution. Instead, they try seeking a satisfactory one. As economists, we always try to reach an optimal point, thus, consumers' rationality has become a strong point of criticism of behavioral economics. This is because even though the theory follows the assumption of bounded rationality, with research and looking at the market, the critics of behavioral economics have found that consumers are actually rational. Apart from the rationality of consumers being one of the most discussed criticisms, the critics have also paid attention to the point of experiment based research. The theory of behavioral economics uses the technique of experiment based research extensively. The critics of this theory typically favour the concept of revealed preferences over stated preferences (which are found through experiments and surveys).

Lastly, critics argue that the behavioural economics has a lack of foundational theory. The theory is formed with very loose strands of concepts and experiments which fail to show a consistency. Despite a great deal of grandiloquence, behavioral theory is not consistent. All in all, one can criticise the concept of behavioral economics by saying that this theory is still quite young in comparison to theories of micro and macroeconomics and lot of research and experiments have to be done on it through

different and continuous time periods to actually use it as a dictum of economics.

Explaining behavioral economics

Behavioral economics is a subset of economics that takes into account the psychological, social and emotional factors that influence decision making. Although most believe the field to be a recent addition to economics, however it might predate macroeconomics - Adam Smith in 'The Theory of Moral Sentiments' does explore concepts very similar to current day Behavioral Economics.

Behavioral economists are interested in exactly the same things as other economists - how people make decisions- but they choose a different approach. While most neoclassical economists use the standard assumption that all individuals are rational, behavioral economists choose to embrace reality - individuals are not always rational. They believe that by not presuming the rationality of the individual, they get closer to understanding how people actually make decisions.

It's crucial to understand that behavioral economists assume that other laws of economics hold because they choose to negate the rationality of individuals and although in people do act rational allowing the laws of demand to hold true, there are situations when they don't. In certain situations where rationality is bounded, a **limit on time, information or abilities** might keep individuals from choosing the best possible outcome, that is, the outcome

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that works in their self-interest. So, behavioral economics doesn't seek to disprove classical economic theory. It seeks to understand why individuals behave differently than classic economic models might suggest.

1. Rationality of economic agents

In relation to the traditional- neoclassical and Keynesian economics, behavioral economics is quite new. The economists, who follow the theories of traditional economics, follow the assumption of rationality. But the concept of behavioral economics does not follow the same. The supporters of behavioral economics say that even though the consumers are rational, their rationality is bounded by their thinking capacity, time and knowledge. It was Herbert A. Simon who introduced the concept of bounded rationality in 1950s. This concept is similar to the social-psychological concept that describes people as "cognitive misers" (Fiske & Taylor, 1991) and represents a fundamental idea about human psychology that underlies behavioral economics.

Economics is about how an individual or an economy functions. The concept of behavioral economics fails to take into account the generalized economic behaviour. The cognitive theories, like prospect theory, don't follow the generalized economic behaviour but are models of decision making and face the problem of time inconsistency.

According to prospect theory, preferences are liable to change. *"The individual in economics is captured by a preference relation over states of the world. By*

contrast, the individual in psychology is a complex of processes that might be subject to any number of influences that are sometimes summarized by a concept of framing. Consistency such as transitivity does not follow from psychological theory. Individuals can order things if asked to do so, but the ordering is labile and may bear no relationship to choices" This shows that even though we assume people to have consistent behaviour and thus transitive; the concept of behavioral economics states otherwise.

According to the economics' critics, even though economics is about how people behave in an economic environment, a huge gap lies between psychological theories and economic theories. In case of prospect theory, every time a person has to take a decision, we form a series of steps to arrive at that particular result. Also, the result that we arrive at may not be consistent since individual's behaviour and preference can change with time. Whereas generally in Economics, we say that preferences of a person or any free economic agent is consistent i.e., within a time period, if he prefers a bundle over the other, then he'll continue to do so within that time frame.

Also, the methods used for the prospect theories can't be used to make a model that would capture the data in pure economic context. Thus the economists have come up with the 'extended prospect theory-theory of preferences'.

Now coming to people's utility, let's talk about the indifference curves of an individual. According to the pursuers of the behavioral economics, the ICs are concave in the loss domain whereas convex in the

profit domain. In terms of risk, in the exchange economy, the IC of a risk averse person is convex and that of a risk seeking person is concave.

In general, a rational consumer will have a convex IC, but according to the behavioral economics, people in the exchange economy are risk seeking people since they are mostly in the loss domain. But empirical studies state that ICs of the people are convex to the origin as stated above.

According to the critics of behavioral economics, it's because with time and experience, the risk seeking behaviour turns into risk averseness behaviour. When people don't have experience, they act on impulse and take risks. With the time passing and experience they start taking decisions that moves them away from being risk seeker to risk averse. This leads to the fact that people are generally risk averse and thus have a convex IC. Even though the prospect theory states that people will mostly have concave IC, which is generally against the assumption of rationality- since convex ICs are considered to be well-behaved preferences having the property of monotonicity. Any rational consumer would prefer more above less. In case of a convex IC, the averages would give us higher utility thus agreeing with the rule of monotonicity. Also a rational consumer would have an IC with diminishing marginal rate of substitution in case of economic good. He would want to give less and less of a good that he has less in number and thus have a convex IC. All these facts lead us to believe that in general, people in the market are rational most of the time.

2. Experiment based research

In general, neoclassical economists use sophisticated methods and tools to gather data for research purposes. They use both quantitative and qualitative methods, microeconomic & macroeconomic modeling and programming, statistical analysis, general trade models in certain cases and econometric analysis. Whereas in behavioral economics, experts resort to using experiments and surveys.

Economics is a social science but it would be nothing without mathematical support and this mathematical support comes in the form of data. We place so much emphasis on the research methods and tools because using or misusing the wrong tool could easily skew the data and lead to inaccurate conclusions. Behavioral economists, more often than not, tend to use experiments in controlled environments. By performing any experiment in a controlled environment, the researcher will have to prove the external validity of the outcome in uncontrolled and more general conditions.

There are two types of data - nomothetic and idiographic. Nomothetic data has a tendency to generalise; it is used in the natural sciences to describe laws that explain types of objective phenomenon. Idiographic data on the other hand is used by fields like psychology and primarily focuses on the individual. It follows the belief that as everyone is unique they should be studied in a unique manner and due to this, general laws aren't possible.

Behavioral economists primarily use idiographic data in the form of surveys- for example, questions about their happiness

and well-being in household surveys. But how does a researcher distinguish between a biased answer and an unbiased one? How does a researcher find the representative survey? This is where behavioral economics finds itself facing a roadblock. The problem lies in the data itself. With traditional economics, economists can rely heavily on quantitative data in the form of statistics, data collected by governments and international agencies, various indices and historical data all of which are far less likely to have any untruthful or ill-informed answers.

3. Lack of foundational theory

Why is a foundational theory important? To understand the answer to this, you must also understand what a foundational or unified theory is - it is a theory that is based on certain models, takes relevant assumptions and most importantly, *predicts what will happen in a given situation*. In economics, we have no dearth of undisputed theories - demand-and-supply theory, theory of rational choice, partial equilibrium theory and general equilibrium theory to name a few. These theories have withstood the test of time; their models have been able to give the world a clear indication of what could possibly come.

So, where is the unifying theory in behavioral economics? What is the bedrock of this sub-field? Which theory do most behavioral economists believe to be faultless in every sense? How does behavioral economics predict the future?

The famed and popular 'Nudge' theory developed by Cass Sunstein and recent Nobel Prize winner, Richard Thaler is indelibly one of the most marvelous contributions of behavioral economics to the world but what does it predict? Nothing.

An important insight into why we don't see many models from behavioral economics is the fact that economic models are mathematical in nature and representing human behaviour through mathematics could prove to be a near impossible task. Along with this, economists are afraid of over fitting. Over fitting is a concept wherein economic models are so malleable that they take into account every assumption and are able to explain most outcomes but predict nothing. So, for example, an economist wants to create an economic model predicting whether the value of domestic currency goes up and takes one input - the volume of production in the country (for reference, when the production levels are very high, exports increase and demand for domestic currency increases in the market). The economist might find that his/her model is flawed, so he/she adds another data point - the rise and fall in stock exchange. Now, the model is able to match past values of domestic currency with more precision. To improve accuracy, the economist adds another data point: the government's policies. Perhaps, after the last addition, the model can accurately predict the values of the currency in the last decade. And soon enough, the economist is trying to add more data points so that the model's outcomes exactly match the past values of the currency and in doing so, he/she has

created a model that *explains previous outcomes but remains unable to accurately predict future outcomes.*

Behavioral economics faces a conundrum: it needs a unified theory to give it more credence and reliability but in order to do so, it will have to create a mathematical model of human behaviour, the two of which rarely associated together, that clearly explains past outcomes and has the ability to predict future ones without indulging in over fitting.

But fact of the matter remains that until and unless behavioral economics produces a unified theory, it remains a loosely bound collection of observed anomalies.

Conclusion

To sum this up, the authors of this paper believe that behavioral economics is a subfield of economics that does show considerable potential in terms of influencing individual decision. But the lack of any foundational or unifying theory and the inaccurate methods of data collection show us that regardless of the few decades that behavioral economics has been around, it hasn't been able to plant its feet firmly in the world of economics. The data that is present till now has not been able to give us any particular conclusion which would lead the economists to string the results together and make it a definite theory. In order for the behavioral economics to make its presence, *it will have to give us not just a mere explanation for what has already happened but a concrete prediction for what*

awaits us. Behavioral economics does have a lot of potential in explaining the drawbacks or exceptions of the existing theories, but the tools and the foundation will have to be developed and modified in order to reach that level.

Citations

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