

Importance of Emotion in Economics

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Abstract—Economists analyze crime, family behavior, excessive consumption behavior and addiction, bargaining behavior, divorce, political campaigns and (the list could be extended) strategic interaction between two individuals or in small groups. Emotions were central to the development of economics, especially in utility theory in classical economics. While neoclassical utility theory basically abolished emotions, behavioral economics more recently reintroduced emotions in utility theory. Beyond utility theory, economic theorists use emotions to explain behavior which otherwise could not be understood or they study emotions out of interest for the emotion itself. While some analyses display a strong overlap between psychological thinking and economic modeling, in most cases there is still a large gap between economic and psychological approaches to emotion research. Ways how to reduce this gap are discussed.

Keywords: *Utility theory, Ex-ante emotions, Immediate emotions, Ex-post emotions, Belief-based emotions, Economic modeling.*

1. INTRODUCTION

Economists analyze crime, family behaviour, excessive consumption behaviour and addiction, bargaining behaviour, divorce, political campaigns and (the list could be extended) strategic interaction between two individuals or in small groups. And this is where the necessity of introducing emotions into economic analyses originates. If decision making by economists was restricted to highly aggregate macroeconomic situations or to situations where only costs and benefits play a role, the standard model would be sufficient. But the more micro-economic an analysis becomes, the larger the problems, the more pressing the need for emotions to be taken into account. These arguments hopefully clearly show that economic thinking needs psychological knowledge if economics should move towards a more human and humane model of man.

But could there be some other motivation beyond pure curiosity why a psychologist should be interested in emotion research in economics? One motivation could be that emotion research in psychology might learn from emotion research in economics. Anticipating the main findings of this survey, such learning cannot be grounded on the contents. Very many if not all psychological ideas in economic emotion research come from psychology. Many authors write statements like.

We use psychological evidence to support our findings. or. These aspects have been discussed in the psychological literature. What is of course genuine to economic analysis is (i) the belief in some type of optimizing behavior of individuals and (ii) the formal mathematical structure used in economic analysis. If a psychologist therefore continues reading this survey beyond this point, it could be (a) because of some pleasure in seeing how psychological knowledge is used elsewhere or it could be (b) because of some interest in formal methods and an interest in understanding how they can be used to better understand emotions.

2. UTILITY AND EMOTIONS IN CLASSICAL ECONOMICS

Asking what role of emotions play in economics requires asking which period of economics one looks at. Most naturally, one would want to understand the role in contemporary economics.

Some of the current debates, however, cannot fully be understood without some historical background. We therefore briefly talk about the role emotions played since the beginning of economic theory.

The natural place to look for emotions in economic thinking is the field of utility theory. Utility theory is the basis of any description or theory of decision making which requires a comparison of values of different objects. One would therefore expect economists to work with some notion of an emotion in this context.

The term utility was introduced into economics by Adam Smith (1776) in his *The Wealth of Nations* to describe the value in use of a certain good. This differs from an alternative characteristic of a good, its value in exchange. (see Stigler, 1950a, p. 307). It was left to Jeremy Bentham, however, to make utility a popular concept. His *Introduction to the principles of morals and legislations*. (1789, 1970) contains the famous statement that Nature has placed mankind under the governance of two sovereign masters, pain and pleasure. (p. 11, italics in original). His analysis then continues *inter alia* with various sections containing discussion of types of pleasures (e.g. from wealth, skill, power, expectation and

relief) and pains (e.g. of desire, disappointment, regret and expectation).

The importance of understanding feelings was expressed even more forcefully by W. Stanley Jevons (1871, 1957) in his. *Theory of Political Economy*.. After devoting an entire chapter on the .A phrase less well-known than the one by Bentham but much stronger in stressing what economics is all about introduces his chapter on utility: .Pleasure and pain are undoubtedly the ultimate objects of the Calculus of Economics. (p. 37).

3. UTILITY WITHOUT EMOTIONS - THE NEOCLASSICAL VIEW

One of the reasons why utility as used in contemporaneous economics is often argued to be free of any notion of a feeling was already present in the discussion of that time. The introduction of the concept of utility into economics was accompanied by a discussion how utility could be measured and whether utility can be compared across individuals. Jevons strongly denied that utility could be measured stating that .we can hardly form the conception of a unit of pleasure or pain and that the idea of .quantities of feelings is out of question (Stigler, 1950 a, p. 317).

Neoclassical economics, understood as economics as taught in .standard textbooks in .most universities., consequently developed theories of decision making that are free of any relationship to feelings. There are two alternative approaches to decision making: the .preference-based approach. and the .choice-based approach (Mas-Colell et al., 1995, ch. 1). If one wants to understand who homo economicus is and how he, she or it decides, these approaches are the ones that describe it best. These two concepts (that form the basis of the .eld of decision theory) are the most detailed and the most microeconomic approach to human behavior that exists in economics.

4. THE PREFERENCE-BASED APPROACH

In the preference-based approach, the starting point of describing human beings is. Preference relationships that describe tastes of individuals. Such a preference relationship could state for a certain individual e.g. that a consumption bundle x (consisting e.g. of 5 loafs of bread of and 3 bowls of ice-cream) is at least as good as a consumption bundle y (consisting e.g. of 4 loafs of bread of and 4 bowls of ice-cream). Symbolically, this is represented by $x \succsim y$.

Any real world individual would then be described by a very large number of preference relationships. These preference relationships can then be represented by a utility function $u(\cdot)$ if and only if utility from x is at least as large as utility from y ; i.e. if and only if $u(x) \geq u(y)$: Predictions about human decision making are then possible by endowing homo economics with a certain amount of resources (labor income,

capital income, wealth, valuable goods), informing him/her about prices of the goods and letting him maximize utility.

Are there any emotions in this approach to human decision making? The standard interpretation is definitely a clear .no.. As Varian (1992) in his classic microeconomics textbook puts it.

A utility function is often a very convenient way to describe preferences, but it should not be given any psychological interpretation.(p. 95). One the other hand, thinking an instant about what is really behind the symbol \succsim ; inquiring into one's intuition about what .at least as good as means or reading that some authors (from decision theory) talk about preference relationships as .tastes., one would immediately conclude that the symbol \succsim represents feelings. If I prefer ice-cream to bread or a sweet papaya to a chocolate bar, then this means that I have a more positive hedonic experience when eating the papaya as when eating a chocolate bar.

In other words, understanding feelings of individuals with respect to different consumption goods could provide a psychological micro-foundation of economic preference relationships.

5. THE CHOICE-BASED APPROACH

An alternative approach to the theory of human decision making in economics is provided by the choice-based approach that goes back to Samuelson (1947). The starting points according to this view are .revealed preference relationships where the emphasis is on .revealed. The relationships for an individual would then state that a certain consumption bundle x is revealed preferred to a consumption bundle (symbolically, this is often expressed as $x \succsim y$). The big difference to the preference-based approach lies in the fact that the preference relationship \succsim is de.ned with respect to observables and not with respect to tastes of an individual: A consumption bundle x is revealed preferred to y if an individual chooses x if both x and y are affordable by the individual (technically, a choice function identifies x if both x and y are in the budget set). As Mas-Colell et al. (1995) put it,. theory of individual decision making need not be based on a process of introspection but can be given an entirely behavioural foundation..

More broadly speaking, the choice-based approach to individual decision making in economics is the incarnation of positivism in the philosophy of science as is behaviorism in psychology.

In fact, some economists argue (Brands tatter et al., 2010) that economics is now ready (or maybe currently undergoing) a cognitive revolution as psychology has been doing already for quite a while.

Summarizing, the choice-based approach is definitely an approach where feelings do not play a role in the analysis of human decision making. This does lend this approach quite

some attractiveness as measurement issues encountered to test theories in this tradition are much weaker as compared to theories that employ some reference to feelings. On the other hand, the focus on choice-data as the only admissible data to be used for testing theories (and thereby also for guiding the elaboration and extension of existing theories) might be too restrictive.

Looking at the choice-based and preference-based approach jointly, it seems fair to conclude that feelings do not play any practical role in these two approaches. Homo economicus when modeled in this way following the usual interpretation for consumption bundles (for exceptions see below) is an emotion-free, cold and, may be to some, a pretty scary non-human object.

6. THE STANDARD ECONOMIC DECISION MODEL UNDER RISK

The models of decision making discussed so far did not refer to any potential source of uncertainty or risk. In fact, the discussion so far can be best understood when having a deterministic world in mind. As a reference point, allowing us to better understand emotion-related decisions, we now look at expected utility theory and thereby define what is usually understood as the standard economic decision model under risk.

7. CONCLUSION

Consciously or not, the most widely held view of economists about utility is the emotion-free view. As Kahneman, Wakker and Sarin (1997, p. 375) put it, 'Utility is inferred from observed choices and is in turn used to explain these choices. There is no need to think about whether utility is a feeling, leave alone what type of feeling this is. It is a construct, which is not and even does not need to be observed.'

Behavioral economic theory

While this might be the dominating view,²¹ behavioral economic analyses have long given alternative interpretations to utility functions.²² When we think e.g. of regret and disappointment theory of Loomes and Sugden (1982, 1986), to be covered in more detail below, modern authors have very often talked about utility functions as experienced utility.

Happiness research

There is another group of economists that freely accept utility as a hedonic concept that measures subjectively experienced emotions: the happiness researchers. Economists working in this field ask whether average happiness in society rises over time and found (Easterlin, 1974) that it does not, even when countries become richer. This was dubbed the Easterlin paradox (see also Easterlin, 2001 and Stevenson and Wolfers, 2008). Economists also ask whether unemployed workers are more or less happy than employed workers.²⁹ Building on multivariate regression analysis, they find a lot of evidence

(Clark and Oswald, 1994, Di Tella, MacCulloch and Oswald, 2001, Ohtake, 2012) that unemployed workers report lower happiness values than employed workers, even when the differences in income and other socio-economic factors are taken into account. This suggests that unemployed workers would rather like to work and that at least a part of their current status is due to factors outside of their choice.

Frey and Stutzer (2002) ask what economists can learn from happiness research. They make a strong point that subjective well-being is a good empirical proxy for utility and they argue that empirical happiness measures often provide information about desirability of e.g. economic policies that otherwise cannot be obtained.

Emotion analyses in economics

This section represents the main part of this survey. We now look at how emotions are taken into account in economic analyses. Looking at theoretical constructs of emotions in economics, it turned out to be useful to classify economic analyses into four groups: Models with ex-ante emotions, models with immediate emotions and models with ex-post emotions. The fourth group includes models where emotions are modeled by so-called beliefs (where the latter term will be defined further below). In some (very rough) chronological order of when these analyses were published, we start with ex-post emotions, then turn to immediate emotions and to ex-ante emotions to conclude with belief-based emotions.

References

- [1] Akerlof, G., and W. Dickens (1982): 'The Economic Consequences of Cognitive Dissonance', *American Economic Review*, 72(3), 307-319.
- [2] Battigalli, P., and M. Dufwenberg (2009): 'Dynamic psychological games', *Journal of Economic Theory*, 144(1), 1-35.
- [3] Bechara, A., and A. Damasio (2005): 'The somatic marker hypothesis: A neural theory of economic decision', *Games and Economic Behavior*, 52, 336-372.
- [4] Becker, G. (1976): 'Altruism, Egoism, and Genetic Fitness: Economics and Sociobiology', *Journal of Economic Literature*, 14(3), 817-826.
- [5] Becker, G. S., and K. Murphy (1993): 'A Simple Theory of Advertising as a Good or Bad', *Quarterly Journal of Economics*, 108(4), 961-981.
- [6] Becker, G. S., and K. M. Murphy (1988): 'A Theory of Rational Addiction', *Journal of Political Economy*, 96(4), 675-700.
- [7] Bell, D. E. (1982): 'Regret in Decision Making under Uncertainty', *Operations Research*, 30(5), 941-964.
- [8] Bell, D. E. (1985): 'Disappointment in Decision Making under Uncertainty', *Operations Research*, 33(1), 1-27.
- [9] Benjamin, D., O. Heide, M. Kimball, and A. Rees-Jones (2012): 'What Do You Think Would Make You Happier? What Do You Think You Would Choose?', *American Economic Review*, 102(5), 2083-2110.
- [10] Bentham, J. (1789, 1970): *An Introduction to the Principles of Morals and Legislation*. Burns, J.H. and Hart, H.L.A. (eds), University of London, The Athlone Press.

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- [11] Bernheim, D., and A. Rangel (2004): .Addiction and Cue-Tiggered Decision Processes,. *Amer- ican Economic Review*, 94(5), 1558.90.
 - [12] Bernoulli, D. (1738, 1954): .Exposition of a New Theory on the Measurement of Risk,. *Papers of the Imperial Academy of Sciences in Petersburg*, Vol. VI, 1738, pp. 175-192. Reprinted in *Econometrica*, 1954, 22(1), 23.36.
 - [13] Berridge, K., and J. O.Doherty (2014): *From experienced utility to decision utility* pp. 335.354.
 - [14] P. Glimcher and E. Fehr (Eds.), (2014), *Neuroeconomics: Decisions and the brain* (2nd ed.),Academic Press.
 - [15] Bleichrodt, H., and P. Wakker (2015): .Regret Theory: A Bold Alternative To *The Alternatives*,*Economic Journal*, 125(583), 493.532.