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THE ROLE OF EMOTIONS IN ECONOMIC DECISION-MAKING

To understand the behavior of the individual, one seeks to shed light on his psychic processes. New relationships between economics and psychology contribute to overthrowing the ideal-real logic: scholars explicitly attempt to describe poorly defined and therefore difficult to standardize, precisely because of this, characterized by a unique and transient nature. To understand complex macroeconomic phenomena, it is important to study the more or less conscious interaction among a multitude of thinkers. It changes the relationship between theory and reality. Economic decision making requires choosing appropriate courses of action to promote the economic well being of oneself or others in a complex, dynamic and uncertain world. Individuals interpret reality through an activity of sense-making that involves emotions. Being able to make changes smoothly would help to gain new mental consistency, increase vibration perceptions, cognitive-functional capabilities, psycho-physical health, reduce emotional distress and always open a door for change And the experimentation of the new and of themselves. There is a widespread tendency in today's society to represent the economy as modeled by macro-forces we are more or less succubae, despite their impact on our existence. Faced with these complex phenomena, the message of the economy that studies behaviors is very clear: there is no economic cause that does not concern individuals and does not go in the plot of intersubjective relationships.

Keywords: decision making process, emotions, behavioral economics, neuroscience, social bonds, prosocial emotions.

1. INTRODUCTION

Economic theorists increasingly emphasize the role for emotion in directing decisions (see, Campbell, 1994; Loewenstein, 2000; Bono, 2006; Lerner, 2015). The word “emotion” will thus be used interchangeably with that of “feeling” to indicate broadly the involvement of affect, without explicitly distinguishing the intensity of such involvement. However, the reasons emotion expressions affect economic outcomes are only beginning to be understood. One possibility is that disapproval effects are partially anticipatory. This is important, because ex post opportunities for emotion expression can be provided to varying degrees within institutional frameworks. Due to globalization, migration, increasingly diverse workforces, and rapidly changing demands and economic situations, companies face the challenge of changing critical aspects of their business, such as the structure of the organization,

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the composition of their workforce, the products or services they provide, and the procedures and techniques used to produce their goods. Such organizational change is often met with considerable resistance from the work floor (Weick, Quinn, 1999).

In modern society, collective socio-cultural changes cause us to oppose ourselves, we test and then accept them, knowing that the slow worsening of living conditions is carried out with small steps to make us surrender. Individuals interpret reality through an activity of sense-making that involves emotions. Being able to make changes smoothly would help to gain new mental consistency, increase vibration perceptions, cognitive-functional capabilities, psycho-physical health, reduce emotional distress and always open a door for change. And the experimentation of the new and of themselves. What one judges the best of our virtues that is to be always ourselves, to be coherent, to have unchanging principles, could be our worst defect? “I was smart and I wanted to change the world. Now I am wise and I’m changing myself” Dalai Lama.

The sentiments expressed relative to these shifts mark more than mere individual emotional states, for the perceived changes are occurring on multiple levels. It might be argued that for some work exists as more than a rational choice regarding livelihood and the domestic economy. Needless to say, many workers were not at all enchanted with their work, but for some, work might have been felt as an expression of emotion, connected to both cultural meaning and bodily feelings. The expression of these feelings can often be congruent with what a rational critique might make of them, but therein some of the problems with the way emotions have been figured into the equation – as something insubordinate, disparaging and easily dismissed (Campbell, 1994).

Do emotions play any role in institutional change? And if so, how may this role be investigated? This issue pertains to the “decision theory”, which concludes the intersection of a wide range of disciplines from economics, psychology to neuroscience. This is a set of studies, focusing on “goal-oriented behavior with different options”. Consequently, it dates back somewhere in this even broader area of behavioral research, which settled in the early decades of the twentieth century with an Attempt to cover all human behavior with one glance and gradually turned into a complex cognitive science.

2. DISCUSSION

Decision-making is the process of choosing one out of several alternatives. The study of decision-making is inherently multidisciplinary and can be approached from many different angles (see Table 1, Table 2, Table 3).

Behavioral Economic Approach of Decision Making

There is a widespread tendency in today’s society to represent the economy as modeled by macro-forces.

The precariousness in the world of work, the fluctuation of stock exchanges, the trend of productivity, the ongoing break in the new technology market are described by media as facts to be included in the dynamics of things.

Faced with these complex phenomena, the message of the economy that studies behaviors is very clear: there is no economic cause that does not concern individuals and does not go in the plot of intersubjective relationships. The market is not a dark force that draws the
future of humanity without involving it. The market is a mechanism of coordination, exchange and sharing of choices and representations of the world that the individual processes and can change. Given this value, it gives value.

Communication and reaction effects on economic behavior, both of which require repeated interaction to effectively encourage norm obedience (see, e.g., Miller et. al., 2002). Traditional economic theory has a normative character, i.e. it creates models that deal with how reality should be, supposed to be valid for certain hypotheses. The traditional approach to decisions represents a rich and coherent example of benchmarking, that is to say, an ideal representation in which the economist can evaluate observable deviations from time to time and design any corrective approaches to approach.

The assertion that emotions are central to the everyday functioning of economic life runs counter to the dominant academic tradition. This tradition, embodied in formal economics, has emphasized rational choice alone. Participation in economic activity requires not merely mental and physical effort and a rational expectation of gain, but also an appropriate emotional orientation towards the work and towards those with whom one is cooperating or competing. This confirms Behavioral Economic Approach of Decision Making (see Table 1).

If the organization of economic activity changes rapidly it disrupts this pattern of emotionally meaningful practical relationships.

People wish to behave generously to each other, and so derive both the practical and emotional benefits of mutual comradeship, but only feel able to do so when they are sure that their behavior will be reciprocated rather than being exploited. A key point here, as a number of theorists have emphasized, is the ability to monitor each other’s behavior. It is generally safe to behave generously to another person if one has good information about that person’s behavior and can stop one’s own generosity if there are any signs that he might not reciprocate (Axelrod, 1984). For this reason the existence of a stable structure within which behavior can be mutually monitored provides the basis for the trust that is needed if people are to put generous motives into practice. This may explain why neighbors, who are in a constant relationship in which they can monitor each other’s behavior, generally do manage to set up relationships of mutually beneficial cooperation. However, once someone lies dropped out from this set of regular interactions – then the network of communications connecting him with the community at large becomes rather attenuated, and the regular evidence needed for mutual trust is no longer there. Thus any two members of the community who are not united by ties of neighborhood, kinship participation may both want to behave generously to each other, but not feel the level of trust that would enable them to behave as they might wish. Each of them feels that his own motives are good, but judges the other by his behavior. From his point of view it is easy to assume that the other-person is a selfish individual who has gone bad as part of the general moral decline.

Ideal representation remains entirely out and is interpretable as if moving away from reality. In this new perspective, investigative tools change: experimental analyzes become important in order not to lose attachment to reality and to the ‘normality’ that theory proposes to explain. Above all, the weight of subjectivity changes: the hypothesis of a single ideal is unleashed, and in theory the heterogeneity of individual behaviors, past experiences, accumulated experiences, acquired knowledge, the ability to learn, humanity In short, with its core of mistakes, adaptations and compromises. It may seem, and certainly it is, a profound change in the way of making theory. We use the expression ‘emotional economy’ to refer to systems of economically significant-emotional relationships. The basic argument
is that, interwoven with the practical relationships of economic life, there is also an emotional economy: a pattern of emotional commitments and rivalries in which people’s practical activities also make sense as expressions of their sense of personal identity and community. Some entries are primarily motivated by self-interested rationality, while others

| The authors | Research Interests | Author’s results |
|-------------|--------------------|------------------|
| Gary Bolton, 2000 | Bolton’s examination of the social side of human decision making: developed the Theory of Equity, Reciprocity and Competition | the role of fairness in directing decisions |
| Charles N. Noussair, 2014 | experimental methods to explore the behavior of asset markets and to study issues in macroeconomics (how individuals deal with risky decisions and how they solve collective action problems) | the impact of emotions of economic decision making |
| John H Miller, 2002 | theoretical and practical challenges confronting the social sciences | communication and reaction effects on economic behavior |
| Armin Falk, Thomas Dohmen, David B. Huffman, Uwe Sunde, 2018 | behavioral Economics, experimental Economics, life-cycle Formation of cognitive & Non-cognitive Skills | the Relationship between Cognitive Ability and Risk Preference |
| Chrysostomos Mantzavinos, 2004 | a unique contribution to the philosophy of the social sciences | cognitive institutionalism |
| Michel Tuan Pham, 2007 | Consumer Behavior, Decision Making / Decision Sciences, Intellectual Property | individuals interpret reality through an activity of sense-making that involves emotions |
| Joyce E. Bono, Remus Ilies, 2006 | the role of positive emotions in the charismatic leadership process | the emotional expressions of leaders influence followers’ impressions of the leader |
| Van Kleef, 2008 | main research programs revolve around emotion, power, social norms, morality, cooperation, and conflict | he combines social-psychological approaches with insights from various other disciplines, including behavioral economics, law, biology, and evolutionary science |
| Richard H. Thaler, 1986, 2000, 2015 | a theorist in behavioral economics | in 2017, he was awarded the Nobel Memorial Prize in Economic Sciences for his contributions to behavioral economics |
may be mostly motivated 'by the emotional structure of economic relationships – but the activities which will be pursued most vigorously are those which make sense in both rational and emotional terms. There will always be situations, in any society, in which emotion and rational self-interest pull in different directions. However, in ideal circumstances the practical and emotional sides of economic and would evolve together, and there would be time for them to adapt to each other – so that, by and large, what was economically rational would also be experienced as emotionally appropriate.

But in times of economic or political upheaval situations are often likely to arise in which rational self-interest conflicts with established emotional commitments! Among the emotions intrinsic to economic life are both individualistic ones of ambition and self-interest, and also the more social emotions of shared experience and fellow feeling. The particular way these motives are balanced and contrasted will differ according to the kind of economic organization. We will argue that a key to understanding the emotional effect of the transition from a collective to a more individualistic pattern of economic organization is the role played by emotions of mutual sympathy, and the contexts in which people feel able to act on them.

The psychological perspective of decision making

The discipline of psychology to have undergone a “cognitive revolution” signaled by Miller et al. (1960). In decision research this was developed by Simon (1957) in his seminal works on bounded rationality.

If there was a cognitive revolution in the psychology of decision making in the 1960s, then it can be said without exaggeration that there was an 'emotional revolution' in the field in the 1990s, signaled by Damasio’s (1994) important text.

New relationships between economics and psychology contribute to overthrowing the ideal-real logic that has just been described: scholars explicitly attempt to describe poorly defined and therefore difficult to standardize, precisely because of this, characterized by a unique and transient nature.

The new relationships between economy and psychology are causing significant changes. The variables of economic theory change: in particular, the mind becomes a kind of intermediate variable that links the environment to the subject. To understand the behavior of the individual, one seeks to shed light on his psychic processes. To understand complex macroeconomic phenomena, it is important to study the more or less conscious interaction among a multitude of thinkers. It changes the relationship between theory and reality.

The emotional states influence the hierarchy of goals to be pursued, helping to establish the gradations of importance: the identification of what matters most, and therefore becomes indispensable in the mental representations of the subject, depends largely on considerations that involve emotion and affection. The influence of emotions on the order of priority among the goals is particularly evident in the conditions of danger, when, for example, the objective of survival takes over all others, but more generally involves everyday life. Second, emotions induce the subject to focus on certain aspects of reality, excluding others. In this sense, they select information and salient elements to focus on, helping to define a specific, subjective way of seeing. For example, in a decision-making context in which there are more alternatives to choose from, feelings help determine what parameters to consider in order to evaluate available alternatives and to which weight gains, thus defining the
| The authors               | Research Interests                                                                 | Author’s results                                                                                                                                 |
|--------------------------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Jennifer S. Lerner, 2003, 2015 | emotional and motivational functions (making decisions individuals formulate their cognitive judgments based on their own emotional experience) | drawing insights from psychology, economics, and neuroscience, her research examines human judgment and decision making                           |
| James Konow, 2000        | cognitive dissonance theory                                                         | accountability and Cognitive Dissonance in Allocation Decisions; understanding others’ motives and beliefs                                          |
| Daniel Kahneman, 1979, 1986  | notable for his work on the psychology of judgment and decision-making, as well as behavioral economics, for which he was awarded the 2002 Nobel Memorial Prize in Economic Sciences (shared with Vernon L. Smith) | his empirical findings challenge the assumption of human rationality prevailing in modern economic theory                                        |
| Amos Tversky, 1979       | His early work with Kahneman focused on the psychology of prediction and probability judgment | prospect theory, which aims to explain irrational human economic choices and is considered one of the seminal works of behavioral economics         |
| Colin F. Camerer, 2006   | Camerer’s research is on the interface between cognitive psychology and economics   | the psychological and neurobiological basis of decision-making in order to determine the validity of models of human economic behavior               |
| Stephanie D. Preston     | interdisciplinary approach to study the interface between emotion and decision making | Individuals form and maintain social bonds using empathy and provide benefits to others through helping and generosity                        |
| Cameron Anderson, Dacher Keltner, 2002 | a Social Liability, Versus Nonverbal Expressions of Confidence, Social-Personality, Mental health Prejudice & stigma Social and personality psychology Social relationships | empathy provides the feeling or the imagination of how another person feels in response to a particular event and it helps in the understanding and predictions of others’ thoughts and intentions; |
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Table 2 (cont.). The psychological approach of Decision Making

| The authors                                      | Research Interests                                                                 | Author’s results                                                                 |
|--------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Margery Lucas, Laura Wagner, Catherine C. Eckel, 2005 | research focuses on economic decision-making from an evolutionary perspective   | generosity is part of a variety of prosocial emotions, such as altruism, reciprocity, kindness, fairness, or doing something good |
| Rainer Landgraf, Inga D. Neumann, 2004            | social behavior aggression anxiety acute / chronic stress                         | a central role in regulating positive social interactions, such as attachment and bonding and affects both social behavior and the mechanisms underlying social behavior; Social discrimination test |
| Andrzej Falkowski, T. Maruszewski, E. Nęcka, 2008 | deals with the psychology Business, the psychologist the psychology of marketing and advertising, examines consumer behavior including marketing strategies in the aspect of cognitive and motivational elements of mental functions are subordinated to a specific goal, i.e. the choice are decision making activities |                                                                                   |
| Van Kleef, 2008                                   | modern organizations function in largely social settings, and emotions provide informative cues within these settings | emotional displays prompt interpersonal affective responses and influence the attributions people make about another person |

In psychological terms, research has produced a great deal of experimental work on the mechanisms through which emotions become a source of information and help the subject in value-attributing processes (Pham, 2007). The applications to the economy are potentially very large and in some have already begun to develop. The most immediate and hitherto most blamed for economists is precisely what involves the theory of decision. Emotional states can affect the accuracy of perceptions and thoughts, affect the flexibility of reasoning and the ability to recover memories, increase or decrease the use of stereotypes, modify self-control capacity, and emphasize both Propensity is both aversion to risk. The study of emotions and their neurological backbone thus approaches the economy to a more structured understanding of the mind, providing it with effective tools to understand those behaviors that systematically violate the axioms of orthodox theory and that the latter can only relegate to Field of irrationality or error.

Economists increasingly recognize the importance of emotion in human economic behavior (to see: Loewenstein, 2000, 2003; Thaler, 2000, 2015). These findings tend to confirm that when the courses of action suggested by rational self-interest and by existing emotional commitments are in conflict, neither emotional commitments nor rational opportunities will be properly acted on. They also suggest that further theoretical and research work on the interplay of rationality and emotion in economic life might bring major benefits - improving hur ability both to predict the practical success of alternative economic policies,
and to assess their potential impact on psychological well-being and social order. Our understanding regarding how emotion, especially emotion expression, affects decisions is still in its early stages. In this paper, we reported evidence that ex post opportunities for emotion expression affects economic decisions of both expressers and the targets of the expression.

Our findings reveal that, because individuals often make efforts to avoid disapproval, there are contexts where allowing ex post emotional reactions is an efficient alternative means to enforce fair economic exchange.

Current results are intriguing, and reveal its importance in many aspects of economic decision-making. Future research might profitably highlight connections between emotion expression and cooperation, trust, reciprocity and forgiveness.

By implication our argument lends support to the school of thought that sees economic activity not merely as a matter of rational self-interest, but also as the expression of emotional attitudes and commitments.

A neurobiological based account of human behavior of decision making

Recently, as a result of the development of psychology, behavioral Economics has led to the emergence and development of such interdisciplinary science as neuroeconomics. It combines the achievements of many Sciences and the desire to define biologically based, mechanistic and behavioral theory of choice and decision theory. The ability of neurobiological systems to coordinate human Economic behavior has been a long-standing research topic in the behavioral Sciences. This capacity is predicated on the production of stable, adaptive behaviors. It implicates the coordination of action, when neurobiological system degrees of freedom become temporarily organized into ordered movement patterns or when coordinated states emerge from interpersonal dynamics of agents in social systems such as economic behavior.

Some scientists apply neuroeconomics to the theory of the firm that Opened the black box of manufacturing solutions (see Camerer et al., 2004, 2005, 2006). Neuroscience studies have shown that emotions play a significant role in perception, learning, attention, memory and other mechanisms related to basic rational and intellectual behavior in decision-making (Bechara et al., 1997; Damasio, 1994). The latest neurophysiological advances have further deepened our understanding of the mechanistic implementation of the solution in the brain.

Table 3. Research in neuroscience in social cognition and decision making

| The authors      | Research Interests                                                                 | Author’s results                                      |
|------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------|
| Ben R Newell, 2014 | research focusses on the cognitive processes underlying judgment, choice and decision making | Conscious and unconscious influences on decision making |
| David Shanks, 2014 | research interests include human learning and memory; judgment and decision-making; amnesia, the hippocampus, and the implicit-explicit distinction; economic psychology and rationality conscious | conscious and unconscious influence on decision making |
### Table 3 (cont.). Research in neuroscience in social cognition and decision making

| The authors                        | Research Interests                                                                 | Author's results                                                                 |
|------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Nancy Eisenberg, Richard Fabes, 1990 | research interests include emotion-related regulation and relations with adjustment and socio-emotional competence; moral and emotional development; altruism, empathy; socialization and cultural factors in emotion regulation/dysregulation, adjustment, social competence, and prosocial responding | A biologically based human capacity, empathy has been found to motivate prosocial behaviors |
| Antoine Bechara, 1997              | emotions that are evoked by objects/situations/options                              | alternatives of behavior through the anticipation of emotional states, somatic markers act before and more quickly than rational thought, thus functioning as an automatic device which speeds the process of decision |
| Antonio Damasio                    | neuroscience                                                                       | research in neuroscience has shown that emotions play a central role in social cognition and decision-making |
| Stephanie L. Brown, R. Michael Brown, 2005 | biological bases of helping behavior stress neural circuitry underlying altruistic behavior caregiving system suicide progesterone bridging mental and physical health | human social bonds are characterized by acts of altruism |
| Paul J. Zak                        | neuroeconomics                                                                     | Zak has coined the term “neuromanagement” to describe how findings in neuroscience can be used to create organizational cultures; Zak’s lab has discovered neurologic signals that reflect engagement in stories and predict post-narrative behaviors. |

### 3. CONCLUSION

Economic decision making requires choosing appropriate courses of action to promote the economic well being of oneself or others in a complex, dynamic and uncertain world. The economic perspective is important, not least because it can provide an understanding of the complex environment at the level of the global and national economies as well as the level of the small group or organization.
In contrast, the psychological perspective has mainly focused on understanding the cognitive and emotion-based mechanisms that underlie economic decisions. Complementing these two, the neuroscience perspective aims to understand the neural structures and processes that underpin cognitive and emotional processes related to economic behavior.

The entry of neuroscience into decision research is relatively recent, and some psychologists and economists have been slow to acknowledge its potential. This may be partly because it can be seen as a reductionist enterprise, attempting to explain human experience and behavior solely in terms of physiological and chemical processes within the brain and body. However, relating mental experience and decision behavior to neural correlates can be seen in terms of more comprehensive theoretical goals. It can be argued from a critical realist perspective, for example, that a full understanding of economic, social and psychological phenomena requires stratified explanations (Archer et al. 1998). That is, explanations that integrate mechanisms operating at different levels, ranging from macro social and economic structures to the psychological, and ultimately to the neural level.

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