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EMERGING ANTHROPOLOGICAL AND CULTURAL ISSUES ENCOUNTERED WHEN DESIGNING EXPERIMENTS IN ECONOMICS: THE WEIRD CASE

QUESTIONI ANTROPOLOGICHE E CULTURALI EMERGENTI INCONTRATE DURANTE LA PROGETTAZIONE DI ESPERIMENTI IN ECONOMIA: IL CASO DEI WEIRD

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Abstract
In the last few decades, several scholars have raised some interdisciplinary issues addressed in the design of experiments within the social sciences, particularly economics. Amongst these issues, the need emerged to look beyond the walls of the laboratory and to consider the multiculturality and interculturality that intrinsically characterise the experimental subjects worldwide and, consequently, the real effectiveness of the results originated from the experimentation. It is against this background of increased attention to the study of humanity, especially concerned with human behaviour, biology, cultures, and linguistics, that this work considers the specific case of subjects from Western Educated Industrialised Rich Democratic (or WEIRD) societies. This case deals with both the assumption that WEIRD people are representative of the universal human population and the issue of claims about human behaviour in top international journals that are largely based on experiments with these "standard subjects". Indeed, experimental subjects from WEIRD cultures—rather than non-WEIRD—were mainly involved as a subject pool in social science experiments, particularly for tasks with limited expertise requirements. The intensive involvement of subjects from WEIRD cultures and societies would not allow the experimental results to be representative of the whole of humanity, skewing research. Therefore, this work aims to provide a further reflection on the WEIRD case giving an overview of some of the challenges faced while conducting cross-cultural research underpinned by the need for an interdisciplinary approach. More specifically, it considers some specific methods and procedures that can be adopted during experimentation to contribute to achieving a common and interdisciplinary goal concerning the greater understanding of anthropological and cultural issues.

Negli ultimi decenni, diversi studiosi hanno sollevato alcune questioni interdisciplinari affrontate nella progettazione di esperimenti nell'ambito delle scienze sociali, in particolare degli studi economici. Tra queste, è emersa la necessità di guardare oltre le mura del laboratorio e di considerare la multiculturalità e l'interculturalità che caratterizzano intrinsecamente i soggetti sperimentali in tutto il mondo e, di conseguenza, la reale efficacia dei risultati originati dalla sperimentazione. È in questo contesto di crescente attenzione allo studio dell'umanità, soprattutto per quanto riguarda il comportamento umano, la biologia, le culture e la linguistica, che questo lavoro prende in considerazione il caso specifico dei soggetti provenienti dalle società Western Educated Industrialised Rich Democratic (o WEIRD). Questo caso riguarda sia l'ipotesi che le persone WEIRD siano rappresentative della popolazione umana universale, sia la questione delle pretese riguardanti il comportamento umano contenute nelle più importanti riviste internazionali che si basano in gran parte su esperimenti con tali soggetti ritenuti standard. In effetti, i soggetti sperimentali provenienti da culture WEIRD—piuttosto che quelli non WEIRD—sono stati principalmente coinvolti negli esperimenti nell'ambito delle scienze sociali, in particolare assegnando loro compiti sperimentali con requisiti di competenza limitati. Il coinvolgimento intensivo di soggetti provenienti da culture e società WEIRD non consentirebbe di ottenere risultati sperimentali rappresentativi dell'intera umanità, alterando il fine della ricerca. Il presente lavoro propone, quindi, di fornire un'ulteriore riflessione sul caso WEIRD, fornendo una panoramica di alcune delle sfide affrontate durante la conduzione di

ricerche interculturali, sostenute dalla necessità di un approccio interdisciplinare. In particolare, questo lavoro considera alcuni metodi e procedure specifiche che possono essere adottate durante la sperimentazione al fine di contribuire al raggiungimento di un obiettivo comune e interdisciplinare riguardante una maggiore comprensione delle questioni antropologiche e culturali.

Key-words

Experimental methodology, behavioural economics, WEIRD, interdisciplinarity, multiculturality.
Metodologia sperimentale, economia comportamentale, WEIRD, interdisciplinarità, multiculturalità.

Introduction and motivation

The ability to look beyond the walls of the laboratory helps to significantly examine heterogeneity as well as interculturality in terms of populations, something that has always been of interest to interdisciplinary scientists and scholars. Among others, the cross-cultural work spread by Henrich et al. (2001, 2010) and their commentary on the social sciences, above all economics, focusing solely on the behaviour of people within the Western, educated, industrialised, rich and democratic (hereafter WEIRD) cultures and societies, gave birth to intercultural studies focusing on experimental economics (e.g., Vieder et al., 2015; Falk et al., 2018). Following Gereke & Gërxhani (2019), it can be argued that there are some potential deterrents to cooperation for interdisciplinarity that require an open-minded dialogue for successful interdisciplinary research to emerge accordingly. In this regard, the attention is focused on a possible further reflection on an interdisciplinary issue emerging when designing and conducting economics experiments. More specifically, in line with Gunnthorsdottir & Norton (2018), attention is focused on the emerging problem regarding the lack of representativeness for all humans in most of the experimental results obtained in the last decades within the existing literature on the subject. Indeed, most of the experimental studies conducted in economics have been carried out mainly involving, as the experimental subjects, people from a WEIRD culture. The recent attention of experimental economists to this emerging problem has led (see Section 2) to the application of specific experimental methods and procedures when designing and conducting experiments. From the application of such experimental methods, several scholars have observed differences concerning the economic decisions and choices made by experimental subjects with different cultural backgrounds than those made within the WEIRD culture alone. Finally, Section 3 provides a brief reflection on how some disciplines within the social sciences look towards a common goal: A greater understanding of anthropological and cultural issues from an interdisciplinary perspective.

1. The pedagogical value of the experiments in economics

Over the last few decades, according to Friedman & Sunder (1994) and Guala (2012), adopting the experimental approach in economics has enabled economic theory to become an experimental science, too. Indeed, through the application of the experimental approach, the numerous results obtained have also made it possible to understand better human action within the bounds of socio-economic decisions and choices made by the experimental subjects. In keeping with Croson (2002), through the design and conduct of experiments in economics, it is possible to answer specific research questions by testing hypothesis, searching for facts and regularities and/or providing policy advice. From this point of view, Friedman & Sunder (1994) maintained that it is possible to adopt the experimental approach to study the decisions and choices of experimental subjects concerning game theory, finance, market dynamics, industrial organisation, and public choices. In particular, the experimental approach to economics allows researchers to understand how various and verifiable factors

influence individual decisions and choices in a controlled environment. On the whole, it is possible to design and conduct socio-economic experiments of different types, based on the experimenters' needs in response to their main research question, by following a specific set of procedures. Roughly speaking, the set of procedures can be understood as the experimental protocol. Among others, the experimental protocol provides the reward of the experimental subjects generally through money (so-called stakes; see Smith, 1976). Among the different types of experiments, we briefly consider the possibility of designing and conducting laboratory, extra-laboratory, and field experiments. Laboratory experiments are conducted within specific experimental economics lab in a controlled setting involving undergraduates. Instead, extra-lab experiments are types of research conducted outside the laboratory walls that involve experimental subjects other than university students (e.g., classroom experiments conducted within the classroom involving children and adolescents; internet experiments conducted via the Internet through dedicated platforms; and virtual reality experiments as a variant of framed field experiments, which allow studying the effect of contextual cues on human behaviour). In addition, field experiments are conducted in the field, outside the lab walls. Outstandingly, Harrison & List (2004) consider framed field and artefactual field experiments, where the experiments' external validity is the highest in the natural field experiment, contrary to the lab experiments.

By and large, regardless of the type of experiment designed, the subject pool is made up of real people. To this end, as stated by Smith (1976), most of the behavioural and personal characteristics that people acquire in daily life inevitably emerge even when they make decisions and choices in economic experiments. Similarly, the decision-making and related choices made by real people can be affected by anthropological and demographic variables such as gender, age, cognitive abilities, cultural aspects, the education system, and socio-economic status. Therefore, Ortmann (2005) recalls that it is necessary not only to consider the above variables in more detail, but also to include in the pool of subjects also those with a cultural background different from the "standard" experimental subjects. Indeed, by doing so, it is possible to obtain a greater understanding of human action and consider heterogeneity and interculturality in terms of populations. Not surprisingly, the main results obtained from experimentation in economics in recent decades refer mainly to the analysis of decisions and choices made by people with a mere WEIRD culture. Obviously, as will be discussed in the next section, these results are not representative of the whole of humanity and, therefore, do not have full external validity.

2. Culture and education as crucial assets for the analysis of experimental results

Over time, with the increase in the number of studies and scientific publications in experimental economics, the interest of scholars has also focused on the investigation of cultural and anthropological variables in the field of experimentation. In particular, the study of these variables is aimed at considering the causes of any differences that emerge from the analysis of data collected experimentally by conducting economics experiments in different areas of the world as well as involving pools of subjects belonging to different cultures and societies. For instance, according to Gunnthorsdottir & Norton (2018), the phenomenon of globalisation that has occurred in recent decades has contributed to increasing the number of experimental subjects participating in economics experiments with different cultural backgrounds. This type of study has gained strength in recent years precisely because most of the experimental results previously obtained were not representative of the whole of humanity and, thus, not properly valid externally. The focus was mainly on analysing economic decision-making and choices made by people born and raised in a WEIRD context: Henrich et

al. (2010), among others, while considering scientific articles published in some top journals from 2003 to 2007, observed that similar to other social sciences adopting the experimental approach, the groups of experimental subjects involved in economics experiments were mainly composed of people from WEIRD backgrounds. However, as a result of the emerging problem of experimental results failing to capture the full range of heterogeneity of human behaviour, some methods have been introduced to study and experimentally investigate this issue. In particular, always following Gunnthorsdottir & Norton (2018), it is possible to consider the opportunity of administering background questionnaires, even when carrying out replication studies (e.g., Herrmann & Thöni, 2009). Additionally, it is possible to carry out natural field experiments in different geographical contexts from which it is possible to obtain the highest external validity of the results. Needless to say, it is possible to carry out experimental studies of a cross-cultural nature considering both large-scale and small-scale societies. Therefore, by adopting some of the methods mentioned above, various scholars have investigated the possible heterogeneity in the economic and social preferences of experimental subjects from different cultural backgrounds involved in economics experiments. For this reason, Vieder et al. (2015) studied experimental subjects' attitudes towards risk and uncertainty by involving two thousand, nine hundred and thirty-nine experimental subjects from 30 different countries within their subject pool. Specifically, these authors observed that there would be attitudes towards uncertainty common to most of the experimental subjects considered and, consequently, in their preferences expressed under conditions of uncertainty. In contrast, the authors observed different attitudes towards risk among the experimental subjects and, in this regard, they considered the possible relationship between the GDP of the country of origin and the related risk aversion in the type of sport practised by people. In relatively richer countries, certainly, people have more economic opportunities to engage in extreme sports that are relatively more expensive than the non-extreme and cheaper sports practised in relatively poorer countries. Furthermore, Falk et al. (2018) investigated the variation in economic and social preferences by considering data obtained from eighty thousand people from 76 countries around the world. In most cases, the authors observed the presence of heterogeneity in preferences between different countries. Instead, by considering anthropological and demographic variables such as gender and age, education level and cultural provenance, they observed that preferences were found to be homogeneous within each country. Finally, Lin et al. (2020) conducted an experimental study investigating the dynamics related to market functioning and bargaining through a market experiment and the Ultimatum Game, obtaining about 20000 observations from classroom experiments involving children from different areas of the world. In particular, from the results obtained from the analysis of the data collected, the authors observed that, in general, and with particular reference to the Ultimatum Game, there would be no significant differences in the decisions and choices of accepting and rejecting offers made by children from different areas of the world. Based on the above, it is necessary to consider that anthropological and demographic perspectives on experimental economics, in particular education and cultural variables, would play a considerable role in the formation and development of people's economic and social preferences and, thus, this is a possible topic of interest to social and educational research.

3. Economics and pedagogy: Looking towards a common goal

Keeping in line with Gunnthorsdottir & Norton (2018), and based on what has been considered so far, each person's cultural background would also influence their decision-making among other anthropological and demographic variables. To this end, we consider the interest of various scholars in the WEIRD case from an interdisciplinary perspective. First, in

the wake of Gereke & Gërxhani's (2019) distinguished entry, the social sciences share common goals of understanding several dynamics concerning society, including the interrelationship between individuals, individual and collective decisions, and how people make decisions and choices. In particular, the WEIRD case that emerged from the design and conduct of economic experiments has captured the attention of numerous scientists interdisciplinary. Therefore, following Clancy & Davis (2019), even anthropology experts consider the generalised use of the results obtained by studying a specific population to be limiting and consider it necessary to look—within their studies—at different people with different cultural backgrounds. Besides, other social science experts, including psychological and behavioural sciences and evolutionary biology, have also focused their attention on the WEIRD case that emerged from the conduct of the experiment, especially in the economic field. Some scholars, including Muthukrishna et al. (2020), have proposed a method aimed at measuring the distance, from a psychological and cultural perspective, between the different societies considered within their research. In addition, this method would also make it possible to obtain a distance measurement by considering any population in the world as an object of comparison. All in all, it is possible to observe the growing interest of interdisciplinary scientists in this topic. Today, nevertheless, the number of scholars who tend to emphasise that the experimental results refer to people from WEIRD cultures and societies is still limited (Clancy & Davis, 2019).

Discussion and conclusion

The interdisciplinary debate on the WEIRD case is still open in the scientific literature. Considering this case, in this work we observed that in the social sciences, including economics, some methods and procedures have been proposed in the design of experiments aimed at studying anthropological and cultural variables. Against this background, we considered some experimental works where pools of subjects from different countries and belonging to different age groups were involved. After investigating these works, we discussed some results that support the thesis that the simple recourse to WEIRD subjects would lead to a distortion in the interpretation and representativeness of the experimental results with the meaning of external validity for the whole of humanity. Moreover, we consider a further possible interdisciplinary implication that would act as a bridge between economics and pedagogy. In this regard, Lin et al. (2020) designed and conducted their experimental study as a classroom experiment involving students. In particular, according to Davies (1999), the active involvement of students during experimental activities would allow research questions concerning evidence-based education to be answered. Following Eber (2003), additionally, the experimental approach would also provide students with the opportunity to learn economics through active participation in experimental activities. On top of that, Arechar et al. (2018) point to dedicated web platforms that have been developed in recent years in order to carry out Internet experiments. Through the use of these platforms, geographical barriers and distance between experimental subjects can be overcome. Based on these recent developments, an increasing number of interdisciplinary scientists can be noticed who have begun to study common issues, such as the WEIRD case, looking in the same multifaceted direction. It is Gereke & Gërxhani (2019), interdisciplinary scientists, who share a first common goal: understanding the dynamics that affect society and the possibility of trying to further understand human behavior and its development straddling the various sciences. Therefore, conducting further interdisciplinary research in this specific area is necessary at least to obtain more truthful experimental evidence in terms of external validity, especially in terms of anthropological and cultural differences.

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