Social Science Research 62 (2017) 219–237

Contents lists available at ScienceDirect

Social Science Research

journal homepage: www.elsevier.com/locate/ssresearch

The role of social and cognitive factors in individual gambling: An empirical study on college students

Simone Sarti [a, 1], Moris Triventi [b, *, 1]

[a] Department of Social and Political Sciences, University of Milan, Italy
[b] Department of Political and Social Sciences, European University Institute, Italy

ARTICLE INFO

Article history:
Received 24 September 2015
Received in revised form 9 May 2016
Accepted 23 August 2016
Available online 25 August 2016

Keywords:
Gambling behaviour
Gambling attitudes
Social factors
Cognitive bias
College students

ABSTRACT

Most of the studies on the determinants of individual gambling behaviour rely on cognitive theories. In our study, we argue that, besides cognitive factors, several social factors might play an important role as well. We analyse data from an ad hoc webmail survey conducted on about 2000 undergraduate students enrolled in a large public university in the Northern Italy in the academic year 2012–13. Using a variety of statistical techniques (standard regression models, boosted regression trees and structural equations models), we show that social variables affect both participation in gambling in the past year and latent gambling propensity. In particular, controlling for several proxies for individual cognitive ability and understanding of probability, gambling propensity is positively affected by the degree of gambling in the social surrounding (parents, peers, neighbourhood) and the acceptability of gambling activities to the individual. Moreover, in our sample of college students the role of social factors appears to be larger than that of cognitive factors, and this is consistent across different types of models and specifications.

1. Introduction

In modern research, the term 'gambling' denotes recreational activities characterised by a bet on the outcome of a probabilistic event that provides, upon payment of a fee, a reward to the winners. Accordingly, gambling has been defined as any risky behaviour based on a combination of skill or chance, or both, in which something of value can be won or lost (Kassinove, 1998). In general, gambling activities are also characterised by the fact that the number of winners is lower than the number of participants.

Most of the empirical work on the determinants of gambling behaviour has been carried out in psychology, a distinction between two streams of research: studies which examine problematic gambling (also known as pathological gambling) (Blaszczynski and Nower, 2002; Petry, 2005) and research analysing non-pathological forms of gambling behaviour, in particular focusing on lottery gambling (Ariyabuddhiphongs, 2010; Beckert and Lutter, 2009; Browne and Brown, 1994; Rogers, 1998). Only recently has attention been paid to a wider set of non-pathological gambling forms (Shin and Montalto, 2015).

There are several compelling reasons why gambling should be considered a topic of great interest. First, from a cultural point of view, gambling is a routine activity (McNeilly and Burke, 2001) widespread across cultures and geographies, which

* Corresponding author.
E-mail address: moris.triventi@eui.eu (M. Triventi).
[1] The authors contributed equally to this work.

http://dx.doi.org/10.1016/j.ssresearch.2016.08.009
0049-089X/

has existed since antiquity, and to which people devote significant resources in terms of time and money (David, 1962). Second, from an economic point of view, gambling generates substantial tax revenues in most Western countries, with total deposits amounting to several percentage points of gross domestic product (Mikesell, 1989; Price and Novak, 1999; Sarti and Triventi, 2012; Stranahan and Borg, 1998). Furthermore, gambling can be seen as an instrument of redistribution among the players and between them and the state (Beckert and Lutter, 2009). Third, from an epistemological perspective, it is difficult to account for individual gambling behaviour through a simple rational choice approach, since the expected utility of this action is very small due to the very low probability of winning (Frey, 1984; Wagenaar, 1988). Finally, gambling can be also related to a broader set of socially deviant self-disrupting and risky behaviors such as smoking, drinking and taking drugs. Indeed, it has been shown that individuals heavily involved in one of such activities are also more likely to be involved in the others (e.g. Gottfredson and Hirschi, 1990; Baumeister et al., 1994; Griffiths and Wood, 2000; Vitaro et al., 2001).

In light of these considerations, the aim of this study is to analyse the main determinants of gambling behaviour and attitudes towards gambling: We will adopt a perspective broader than that of most of the existing research – which has been mainly driven by cognitive psychological theories (Beckert and Lutter, 2013) – explicitly embracing social factors in the etiology of gambling propensity and behaviour.

A similar endeavour has been successfully pursued in a cognate area of studies on deviant and criminal behaviour, to which gambling is to some extent linked. Gottfredson and Hirschi's (1990) self-control theory was proposed as a general theory of crime, by arguing that low self-control – a key personality trait – is at the basis of the individual propensity to adopt deviant and criminal behaviour. Successive studies trying to test this theory found that it was insufficient alone to explain the propensity to commit crime acts, and that social/cultural factors should be taken into account as well for a full understanding of such phenomena (Arneklev et al., 1993; Grasmick et al., 1993).

In the first part of the article we review the existing empirical literature and we identify a number of potential factors associated with individual gambling, classifying them in four main areas: 1) cognitive factors; 2) social relations; 3) attitudes to gambling; 4) media exposure. We then derive hypotheses on the role of these factors in affecting participation in gambling activities and propensity to gamble. In the second part, we present the data, the variables and methods used in the empirical analyses. We rely on a unique ad-hoc survey on gambling conducted in 2013 on undergraduate students at a large university in the North of Italy. Italy is an interesting case study, since recent data reported by the *Economist* show that it ranks among the highest countries for gambling expenditure per capita, just below the United States.[2] The focus on college students is justified by several reasons. First of all, many existing studies conducted in the English-speaking countries use similar target populations. Therefore, our conclusions can be indirectly and qualitatively compared with the findings of previous studies that focused mainly on cognitive factors. The comparability with studies conducted in the US is also strengthened by the fact that in our sample we found around 16% of college students who had gambled in the past month, which is virtually identical to what several studies on US college students have reported (Shin and Montalto, 2015; Strong et al., 2004).

The last part of the article presents descriptive statistics and results from different regression models (boosted regression and structural equations model). The last section concludes.

2. Theoretical framework: the individual determinants of gambling

2.1. Cognitive theories

As suggested in the introduction, arguably the most widespread explanation of individual gambling is provided by the cognitive perspective (Ariyabuddhiphongs, 2010; Ladouceur and Walker, 1996; Rogers, 1998; Griffiths, 1990). Cognitive theories of gambling assume that the core beliefs of the regular gambler are in some way flawed. According to this perspective, a misunderstanding of the probabilistic rules of the games induces the higher propensity to gamble of certain individuals. These flawed beliefs can be summarized with the following statements: 1) it is possible to make money through gambling; 2) the regular gambler is in some way better equipped than most people to win in the long run; 3) persistence will ultimately bring reward (Walker, 1992).

On one hand, according to experimental studies using hypothetical lottery scenarios, the properties of fairness, cheapness, and prize size are usually considered by most lottery players, while probability estimates are generally ignored (Wagenaar, 1988), and this can be seen as the main reason why many people regularly play lotteries or engage in other types of legal gambling activities. This argument is sustained by the fact that advertising often emphasises the fun of gambling and the size of the rewards rather than the odds of winning (McMullan and Miller, 2009). On the other hand, some gamblers are clearly aware of the objective odds of winning, at least numerically speaking, but they misunderstand the true magnitude of the odds of winning (Rogers and Webley, 1998). According to the proponents of self-control theory, the absence of self-control is also related to the tendency to disregard the range of potential costs of potentially risky acts, including gambling in its more severe forms (Gottfredson and Hirschi, 1990).

Cognitive theories on gambling stem from the work of Kahneman and Tversky on the cognitive fallacies and heuristics at the basis of human decisions in risky situations (Kahneman et al., 1982; Kahneman and Tversky, 1979). The authors showed

[2] The Economist, The House Wins. Who Gambles the most?, 3rd February, retrieved at: http://www.economist.com/blogs/graphicdetail/2014/02/daily-chart-0.