

# **THE BIOLOGY OF GAMBLING**

## **ABOUT THE AUTHOR**

**Mikal Aasved** is a Research Associate at the Center for Addiction Studies in the School of Medicine and an Adjunct Assistant Professor in the Department of Sociology and Anthropology at the University of Minnesota in Duluth. He has degrees in the behavioral and social sciences with academic specializations including human motivational theory, human social theory, and addiction studies. The findings of his gambling, alcohol, and barroom behavior research have been presented as papers read at professional conferences and as articles published in scholarly journals. This is his fourth book.

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The Gambling Theory and Research Series

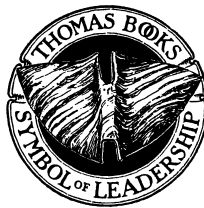
Volume III

# THE BIOLOGY OF GAMBLING

*By*

**MIKAL AASVED, Ph.D.**

*Center for Addiction Studies  
University of Minnesota-Duluth*



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*To William Madsen, mentor and friend.*

*This one's for you, Bill.*



## PREFACE TO THE SERIES

This series of books was written primarily to fill what I perceived as a conspicuous gap in the gambling literature: Some years ago when I first entered the field of gambling studies and tried to locate a single source which would provide the necessary background on the motivations for normative and excessive gambling, no such source existed. For some puzzling reason, no similarly extensive review and synthesis of the voluminous published materials on gambling theory and research had ever been undertaken. With the exception of a few “handbooks” on gambling and some hard-to-find anthologies of papers presented at various symposia, the necessary source materials were scattered throughout a plethora of academic journals and books. Moreover, most existing reviews of the gambling literature are far from exhaustive. Instead, they are all too often cursory overviews appearing either as relatively brief journal articles or as chapters or even smaller sections of books whose authors usually then go on to profess the superiority of their own favored theory.

This series therefore represents a synthesis of the major ideas and findings of leading theoreticians and researchers in their quest to discover and explain the human propensity for gambling. It is evident that just as many writers in the field of alcohol studies often fail to distinguish among drinking, drunkenness, and alcoholism, so do many writers in the field of gambling studies fail to acknowledge that there are also different degrees of gambling involvement. It is therefore extremely important to distinguish among normative or moderate recreational gambling which is harmful to none, heavy or immoderate gambling which may or may not be harmful to a particular gambler, and compulsive or pathological gambling which is generally harmful not only to all those who are afflicted with it but also to their families, friends, and sometimes even to the greater society in which they live. Addressing primarily the etiological issues related to both normative and excessive gambling, this series includes the speculative thoughts of armchair scholars as well as the empirical findings of front-line scientific researchers in all disciplines including the behavioral, social, and medical sciences.

It is intended to benefit both students and professionals. One goal is to provide students with the introductory background they need to embark on a career in gambling studies. A second is to remind those who are already established in the field not only that many possible explanations for normative and pathological gambling have been proposed, but also that the authority of those who have advanced them should always be questioned. Toward this end, another aim of this more extensive review is objectivity. Rather than champion a particular theoretical orientation as so many others have done, it includes critical assessments of many of the theoretical ideas and research findings that are discussed. This has been done to help readers become more critical not only in their appraisal of the ideas of others but also in their own thinking. Many of the “experts” in any field are firmly convinced that they have discovered the absolute truth and then write as though their explanation for any phenomenon constitutes the final, definitive answer to that particular question. Many such explanations have an initial intuitive appeal that may “sound good” but that can blind the unwary reader to all other possibilities. In this way some theories have become very much like religions that are sustained more by the faith of the zealots who follow them than by any unbiased scientific observations. Since so many different and competing final “truths” have been propounded, it is clear that not all of them can claim the prize. This is particularly evident in the field of addiction studies, but it is also true of other disciplines. Occasionally a purportedly scientific treatise or explanation will turn out to be merely a guise that its author has used to promote some hidden agenda. The propagandistic tracts of the “creation scientists” are prime examples of this. Readers of all scientific works—including those by reputable authors—are therefore strongly encouraged always to question their validity and never to accept any idea or argument solely on the basis of its author’s credentials, reputation, position, or salesmanship since it may turn out to be entirely baseless. The ultimate truth or falsity of any proposition must always be determined by empirically derived facts.

MIKAL AASVED



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A work of this nature and scope is clearly not the product of a single author but of many, all of whom deserve credit. I therefore want to thank all the theoreticians and researchers in gambling studies upon whose ideas, analyses, and conclusions the entire contents of this series are based.

I am especially grateful to my parents, Harry and Lucille Aasved, for their undying encouragement and support throughout this project. Although severely tried, they were never wanting.

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I am also indebted to the entire staff of the University of Minnesota/Twin Cities interlibrary loan office for tracking down countless source materials and to my friend Merlin Spillers, thespian, terpsichorean, and librarian extraordinaire, who generously provided me with source materials I would not otherwise have been able to review. I am especially grateful to my friends Skylar Rupp, who came to my rescue with a computer when my old one died, and computer wizard Kip Barkley, who was able to recover all the data I thought I had lost with it. Assistant Dean John Hamlin of the College of Liberal Arts at the University of Minnesota/Duluth was kind enough to submit the required paperwork and cut through all the other red tape required to procure a newer and much faster “obsolete” computer for me from the campus “boneyard.” J. Laundergan then undertook the arduous

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# **THE BIOLOGY OF GAMBLING**



## INTRODUCTION TO THE SERIES

**W**hy do people gamble? Why do some continue to gamble even when they consistently lose more than they win? Why do some continue to gamble even when they have lost everything they have? Many theories have been proposed by various clinicians, laboratory and field researchers, and participant observers in their attempts to discover and explain the reasons for gambling. This series of books was written to review and evaluate the most popular and influential of these explanations and the extensive amount of research that has been undertaken to test them.

Gambling, according to most definitions, means risking something of value on the unknown outcome of some future event. The ultimate goal—or, more accurately, the ultimate hope—of gambling is to realize a value greater than that risked. When we hear the word “gambling,” most of us think of a friendly (or not so friendly) poker game, or of betting on competitive events like horse racing or football games, or of casino games like roulette, blackjack, and slot machines. However, gambling also has other guises. Any speculative business venture, commodities investment, or insurance purchase is just as much a “crap shoot” as playing the dice tables in Las Vegas. Historical and archaeological records provide ample evidence that gambling has also been popular throughout the world for a very long time. Almost since the dawn of human existence people have gambled for

the possessions of their dead, for the possessions of their living friends and relatives, to settle legal disputes and establish rights to various resources, and on the outcome of athletic contests and other competitive events.

Gambling is increasingly being recognized by national and local governments throughout the United States and the world as an effective means of generating revenues. Whereas most gambling activities were unlawful in many states and countries until quite recently, many forms of gambling are now becoming accepted and, as a result, national trends toward the legalization of gambling in one form or another are on the rise. Not only has “lottery fever” swept many nations, but many are also allowing on- and off-track parimutuel betting, electronic video gaming machines, and other forms of lawful gambling. In the United States, as some of the states along the Mississippi River and other major waterways began to legalize riverboat gambling as it existed in the nineteenth century, others quickly followed suit. Indian reservations across the country and rural communities in such states as Colorado and South Dakota are now offering Las Vegas, Atlantic City, and even Monte Carlo some stiff competition for the tourist’s discretionary income.

Many specialists are convinced that as opportunities for gambling continue to increase, so will the problems associated with it. Salient among these potential problems is

the anticipated increase in the incidence of excessive or problem gambling which is commonly referred to as compulsive or pathological gambling. Whether one considers pathological gambling to be an individual, social, or public health problem, it is one which must be confronted if it is to be prevented and treated. To do so effectively will of course require a thorough understanding of the phenomenon. Unfortunately, with our currently limited knowledge of the mechanisms and motivations underlying gambling, we have a long way to go before achieving this goal.

While our current understanding of the causes of pathological gambling is insufficient, its ramifications are well known. It can have disastrous consequences not only for the individual, but also for his or her immediate family, employer, and society. Among its most well-known consequences are the calamitous losses and severe personal and family debts it can cause. Individual debts for pathological gamblers seeking help have been reported to average from about \$53,000 to \$92,000.<sup>1</sup> Lesieur 1990; 1992; cf. Lorenz and Politzer 1990. Considered together, the sum of individual gambling debts can be extraordinary. One estimate placed the annual debt accrued by pathological gamblers in New Jersey alone at \$514 million.<sup>2</sup> The debt levels of many pathological gamblers can become so high at the individual level that the stress and depression they produce can cause actual physical ailments which require medical treatment. At the domestic level pathological gambling and its consequences can disrupt home life to such an extent that it causes the breakup of families. In its more advanced stages pathological gambling frequently results in absenteeism and loss of productivity on the job. Eventually the need for gambling money can lead to such crimes as theft, embezzlement, insurance fraud, and other kinds of illegal activities. In its final stages

the only apparent course of action remaining is all too often suicide.<sup>3</sup>

Because gambling usually involves money, many people believe that therein lies the answer to its attraction and popularity—that this motivation alone explains why people gamble. People are thought to gamble in the hope of winning money they don't already have, of winning more money than they already have, or, in the case of insurance, of protecting what money they already have. But is acquisitiveness really the only reason for gambling? While many card games are played for money, many people play these same games among friends purely for enjoyment or as an opportunity to socialize with friends and relatives, often with no money involved. While many adults become mesmerized by the electronic gambling games they play in casinos in hopes of winning money, countless children and adolescents become equally mesmerized by electronic video games in public arcades and on home computers that are played for amusement only. Technically, friendly card parties and children's video games do not constitute gambling since they do not involve money, but they certainly have many other elements in common with gambling. On the other hand, many risky behaviors like skydiving, auto racing, Russian roulette, motorcycle jumping, and driving while intoxicated do not involve money but they certainly constitute gambling. There may very well be more to gambling than just the prospect of monetary gain.

A number of competing theories have been proposed by various psychiatrists, psychologists, sociologists, economists, anthropologists, lay people, and others in their attempts to explain the "real" motivations for gambling. A number of the more popular and influential of these approaches will be reviewed in this series. Theories, it will be seen, are often little more than opinions, and nearly everyone who studies gambling

behavior has a favored opinion. It will be clear that many of those which have been advanced are frequently little more than the standard, stock-in-trade ideologically inspired answers that specialists in various disciplines typically call upon to explain all behavioral phenomena. Thus, in the past and sometimes even today it has generally been assumed that all instances of gambling—normal and pathological—have the same underlying cause irrespective of individual preferences. Many authorities have even proposed single, monolithic explanations to account for excessive or uncontrolled behaviors of all kinds, and a number of the approaches that will be discussed reflect this tendency toward “grand theorizing.” It should be obvious that some of these theories may, indeed, offer some insights into certain instances of gambling behavior while the utility of others may be extremely limited. Most importantly, however, since the individual motivations for gambling appear to be so many and varied, it should also be obvious that no single theoretical approach, despite the most fervent aspirations, proselytizations, and diatribes of its adherents, will ever be able to account for all cases.

### A QUESTION OF MORALS?

The earliest theoretical approach viewed drinking, drug use, and gambling from a moral perspective.<sup>4</sup> Throughout most of human history the social mores, religious doctrines, and ethical standards of a society have provided the only criteria by which to gauge the behavior its members. Islamic tradition forbade beverage alcohol and gambling at the same time since both were regarded as tools of Satan. In India the great spiritual leader Mahatma Ghandi also compared the habit of gambling to that of drink-

ing: it is a vice that destroys men’s souls and makes them a burden on the earth.<sup>5</sup> Similar views have a long standing in the Western cultural and Judeo-Christian religious traditions. Aristotle himself equated gamblers with thieves and plunderers in his treatise on ethics. In describing those who take what they are not entitled to he wrote:

meanness is not the term we apply to those who operate in this way on a grand scale—high and mighty persons, for example who sack cities and plunder temples. Such we prefer to call wicked or impious and unrighteous. But the dicer, the thief, the footpad may be reckoned among the mean, because their own hope is to turn a dishonest penny. That is why they labour in their vocation regardless of the world’s reproach; the thieves running the greatest risk for the sake of the haul, the gamblers by skinning their friends, who ought rather to benefit by their connexion. Both sorts are unscrupulous profit-hunters, looking to the main chance in discreditable circumstances.<sup>6</sup>

In fourteenth century England Geoffrey Chaucer’s Pardoner condemned gambling as

... the very mother of all lies,  
And of deceit, and cursed false swearing,  
Blasphemy of Christ, manslaughter, and  
waste also  
Of property and of time; and furthermore,  
It is shameful and dishonorable  
To be known as a common gambler.<sup>7</sup>

In the American colonies Cotton Mather censured gambling as “unquestionably immoral and, as such, displeasing to God.”<sup>8</sup> Despite a remarkable lack of any concrete evidence, both legal and illegal forms of gambling in the modern United States are commonly believed to be under the firm control of vast organized criminal networks. According to a sociologist who has thoroughly examined the issue, this