

**For millions, the thrill of the bet is as addictive as any drug. Scientists are beginning to figure out why—and what can be done to help**

By JEFFREY KLUGER

**F**OR A MAN WHO HASN'T BET A NICKEL SINCE 1989, BRUCE ROBERTS spends a lot of time in casinos. He's rarely there alone, however. He usually has an escort walk him through—the better to ensure that he doesn't succumb to the sweet *swish* of the cards or the signature rattle of the dice. A onetime compulsive gambler, Roberts, 62, weathered his years of wagering better than many. He never lost his wife or his home—although he has refinanced the house nine times. “Cards and Vegas were the two biggest things in my life,” he says. “I’m a helluva poker player, but I have one serious flaw: I can’t get my ass off the chair.”

When Roberts visits a casino these days, it's as executive director of the California Council on Problem Gambling, an organization that helps gaming halls run responsible gambling programs. The rest of the time, he's back in the office, overseeing a crisis hotline. Last year his service took 3,400 calls from gamblers who had lost an average of \$32,000 each. That's \$109 million of evaporated wealth reported to just one hotline in just one year.

And California is not alone. More than 50 million people describe themselves as at least occasional poker players. Millions turn on the TV each week to watch one of eight scheduled poker shows—to say nothing of the 1 million who will tune in to ESPN's broadcast of this year's World Series of Poker.

Two hundred forty-seven Native American casinos dot tribal lands in 22 states; 84 riverboat or dockside casinos ply the waters or sit at berth in six states. And with local governments struggling to close budget gaps, slots and lotteries are booming. All told, 48 states have some form of legalized gambling—and none of that includes the wild frontier of the Internet. By 1996 the annual take for the U.S. gambling industry was over \$47 billion, more than that from movies, music, cruise ships, spectator sports and live entertainment combined. In 2003 the figure jumped to over \$72 billion.

All that money is coming from someone's pockets, and it's not the winners'. According to Keith Whyte, executive director of the National Council on Problem Gambling, as many as 10 million U.S. adults meet the “problem gambling” criteria. Kids are hit even harder. Exact figures aren't easy to come by, but various studies place the rate of problem gambling among underage players somewhere between two and three times the rate for adults.

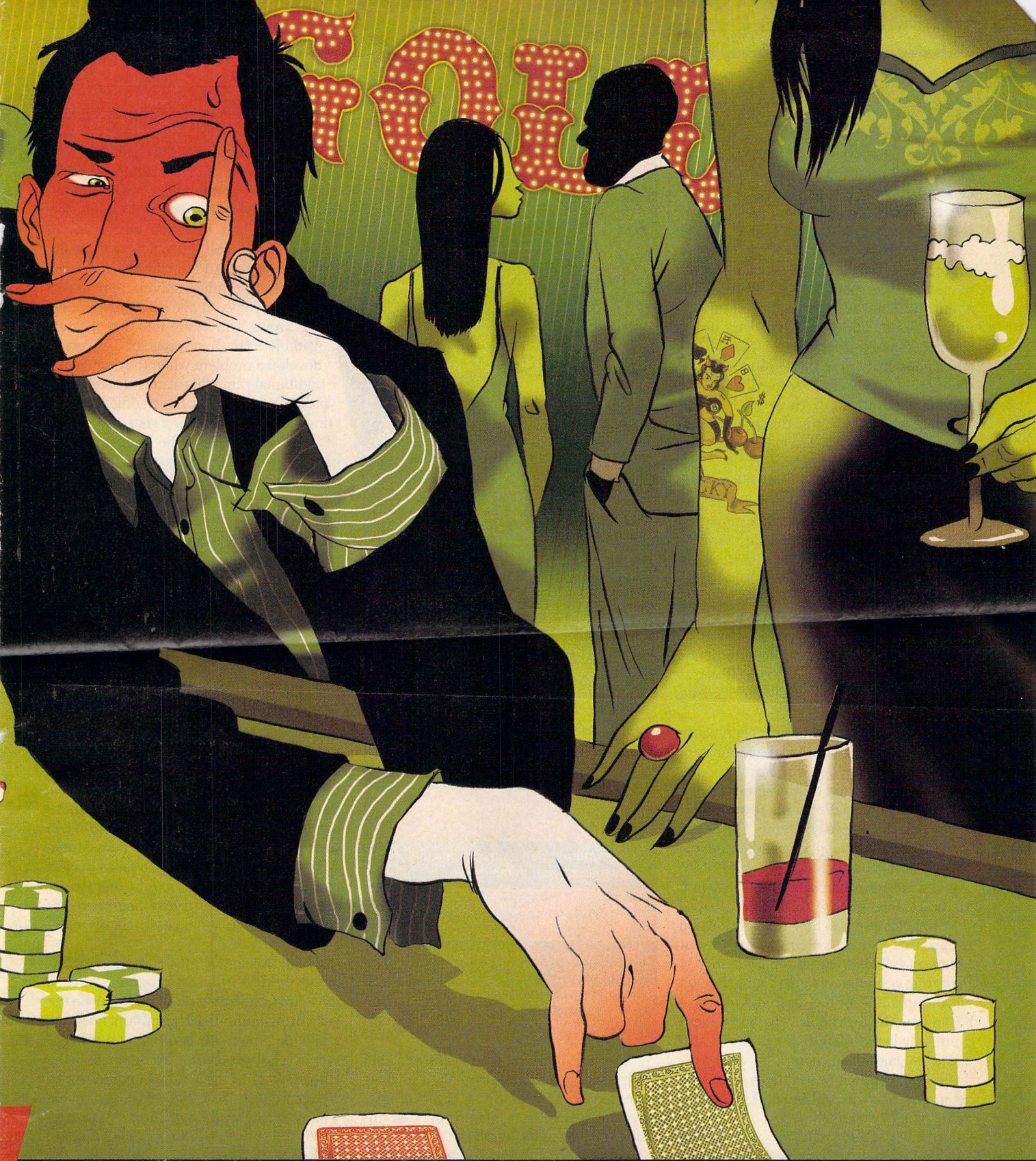
Nobody thinks the gambling genie can be put back in the bottle. What health officials want to know is whether the damage can be curbed. What separates addictive gamblers from occasional ones? Is it personality, brain chemistry, environment? Can a behavior be a true addiction without a chemical driving it? “People have seen gambling in moral terms for a thousand years,”



When

**GAMBLING**





# Becomes Obsessive



says Whyte. "It's only recently that we've begun seeing it as a disease."

Defining compulsive gambling is like defining compulsive drinking: it's not clear when you cross the line. But if there are enough signs that your behavior is starting to slip out of your control (*see the self-test*), chances are that you have a problem. It's a problem of special interest to researchers because it reveals a lot about addiction as a whole. One of the difficulties in understanding drug or alcohol abuse is that the minute you add a chemical to the body, you muddy the mental processes. "It's hard to tease the connection out because you don't know how much is the drug and how much is the behavior," says Whyte. "But gambling is a pure addiction."

To see if that's true, scientists turn to such advanced diagnostic tools as functional magnetic resonance imaging (fMRI) machines to peer into the brains of gamblers while they play. In a 2001 study conducted at Harvard Medical School and elsewhere, researchers monitored subjects as they engaged in a wheel-of-fortune game. The investigators looked mainly at several areas of the brain known to be involved in processing dopamine, a pleasure-inducing chemical released during drug and alcohol use.

Sure enough, the same areas lighted up when test subjects gambled, becoming active not only when they won but also when they merely expected to win—precisely the pattern of anticipation and reward that drug and alcohol users show. "This put gambling on the map with other neurobiologic addictions," says Dr. Barry Kosofsky, a pediatric neurologist at Weill Cornell Medical Center in New York City.

Surprising support for that work came earlier this month when researchers at Minnesota's Mayo Clinic reported that 11 Parkinson's disease patients being treated with dopamine-enhancing medications began gambling compulsively; one patient eventually lost \$100,000. Six of the 11 also began engaging in compulsive eating, drinking, spending or sex. Only when the dopamine was discontinued did the patients return to normal.

The dopamine cycle may not be the only thing that drives gamblers. Personality also plays a part. This month researchers in the U.S., Britain and New Zealand released the latest results from an ongoing, 30-year study of roughly 1,000 children born in the early 1970s. One purpose of the research was to determine which temperament types were most likely to lead to addictions.



## DO YOU HAVE A PROBLEM?

If you can answer yes to any of these questions, it may be time to seek help

Has gambling made your home life unhappy?

Has gambling got in the way of your work or school?

Have you lost sleep thinking about gambling?

Have you gambled with income or savings while bills went unpaid?

Have you made unsuccessful attempts to quit gambling?

Have you borrowed to finance your gambling?

Have you considered breaking the law to pay for your gambling?

Have you felt depressed or suicidal because of your gambling?

Have you gambled to get money to meet your financial obligations?

Have you ever lied about your gambling?

When you're angry or disappointed, do you turn to gambling to feel better?

The just released results showed that compulsive gamblers, drinkers and drug users have high underlying levels of negative emotionality, a syndrome that includes nervousness, anger and a tendency to worry and feel victimized. Significantly, they also score lower in the so-called constraint category, meaning they are given to impulsiveness and thrill seeking. That's a bad combination, particularly when you throw drugs, drink or gambling into the mix. "It's like picking your poison," says psychologist Avshalom Caspi of King's

College in London, one of the researchers in the study.

What makes people start gambling may also be a function of availability. A 1999 study ordered by the U.S. Congress found that people who live within 50 miles of a casino have two times as much risk of developing a gambling problem as those living farther away. And the growing popularity of electronic gambling only makes things worse. In one study, researchers at Brown University found that while gamblers take an average of 3½ years to develop a problem when they're playing traditional games like cards, slot-machine players fast-forward their addiction, getting hooked in just over a year.

So what can be done to get problem gamblers to quit? Medication, in theory, may help. Psychologists like G. Alan Marlatt of the University of Washington are interested in the potential of so-called opioid antagonists, drugs that might partially disrupt the neurochemistry that produces feelings of well-being, thus denying gamblers the kick they seek.

More effective may be the 12 Step protocol used by Alcoholics Anonymous. Gamblers Anonymous groups meet all across the country, stressing abstinence and providing a community of ex-gamblers to offer support. Marlatt is worried that abstinence may be less effective with young gamblers and is exploring cognitive techniques that instead teach kids to recognize the triggers that get them to gamble too much. The states may also have a role to play. Illinois has instituted a self-exclusion program in which gamblers can put their names on a voluntary blacklist, allowing casinos to eject them from the premises, require them to donate their winnings to a gambling-treatment program and, in some cases, charge them with trespassing.

Like Marlatt's moderation strategy, however, the Illinois program takes a measure of self-discipline that may be the very thing compulsive gamblers lack. "In addition, they call it chasing the high," says psychologist Carlos DiClemente of the University of Maryland, Baltimore County. "In gambling, it's called chasing the big win. And that's where self-regulation goes down the tubes." Better, say DiClemente and others, to simply to put down the cards or dice or cup of coins for good. As battle-scarred gamblers are fond of saying, the only way to be sure you come out ahead is to buy the casino. —**With reporting by Melissa August/Washington, Helen Gibson/London, Noah Isackson/Chicago, Coco Masters/New York and Jeffrey Ressler/Los Angeles**