

Cognitive and Behavioral Approaches for Understanding and Treating Gambling Disorders

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Robert Ladouceur, Ph.D.

Professor of Psychology
Université Laval, Québec



Outline

1. What do we agree and don't agree
2. Why do people gamble or the Psychology of Gambling
3. Assumptions and postulates of CT
4. Empirically validated therapies
5. Main Treatment outcomes of CT
6. Is CT really cognitive ?
7. How to explain and reduce drop outs in the Tx of pathological gamblers.

Consensus in the field...

- **We all agree that...**

- Legalized gambling has expanded enormously over the past decade
- It's a major economic issue
- It's a very very profitable activity...
.....if you are on the right side of the table
- Many stakeholders are now involved
- Its expansion has created a hot societal debate
- Gambling is an enjoyable activity for many of our citizens
- Unfortunately, some of our citizens have become addicted

Consensus in the field...

- **But we do **not** all agree on...**
 - The prevalence of pathological gambling
 - The instruments to use to evaluate this disorder
 - The psychological mechanisms involved in explaining its development and maintenance
 - The best modality to use to treat this disorder
 - Who should conduct gambling operations? Our government or the private enterprise ?
 - Whether we should continue to expand, stop or reduce its availability
 - Who is responsible if you become addicted?

Consensus in the field...

- **But again we all agree that...**
 - We wish that none of our citizens become addicted to gambling
 - Prevention, rather than treatment, is the ideal perspective
 - If someone becomes addicted, treatment should be readily available
 - Therapists should be adequately trained
 - In general, gambling has bad press.

Consensus in the field...

- **Again we do **not** all agree on...**
 - How we should conduct preventive measures ?
 - Who should be targeted ?
 - What is the goal of prevention ? What do we want to prevent ?
 - Which model should be used ?

The basic notions of the psychology of gambling or why do people gamble ?



Gambling

1. Individual must realize that he/she is putting money or a valuable object at risk,
2. Once bet, this money or valuable object is irreversible
3. **The outcome of the game is determined by chance**



What is Chance or Randomness ?



Chance

An unpredictable event or accidental happening

Randomness

A method in which all possible events have equal probability of selection

From an operational standpoint

Impossibility of controlling or predicting the outcome of an event

What is the difference between a game of chance and a game of skill?

- Different criteria may be used to distinguish a game of skills from a game of chance. In a game of skill...
 - The more you play, the better is your performance
 - The more feedback you receive, the better is your performance
 - Practice increases your self-confidence

What is a game of chance?

Different criteria may again be used, but in a game of chance...

Regardless of the time you spend practicing and studying the game, your performance will never improve !!!!



What is the difference between a game of chance and a game of skill?

In order to implement cognitive (...and behavioral) treatment, we need to clarify the level of chance and skill in each game with each patient.

The paradox of Gambling

- Percentages of return on money gambled vary from place to place and from game to game
- In all games, the expected return on money invested is negative for the gambler



The paradox of Gambling

So why so many people continue to gamble,
...an some individuals become addicted or
dependent to gambling?



The main (or one of the main) reason is...

While gambling,

most of us (if not all) misperceive or deny that the outcome of the game is based on the notion of
Chance and Randomness



....Why?

Factors are masking the notion of randomness

1. Active role of the individual
2. Perceived competition
3. Frequency of gambling
4. Complexity of the game
5. And many more...



Few illustrations

Individuals who pick their numbers themselves at the Lotto, value their tickets more than if the numbers were randomly chosen !!!!



Few illustrations

At the dice table, if a high number is wanted, the dice will be thrown strongly, if a low number is wanted, the dice will be thrown softly.



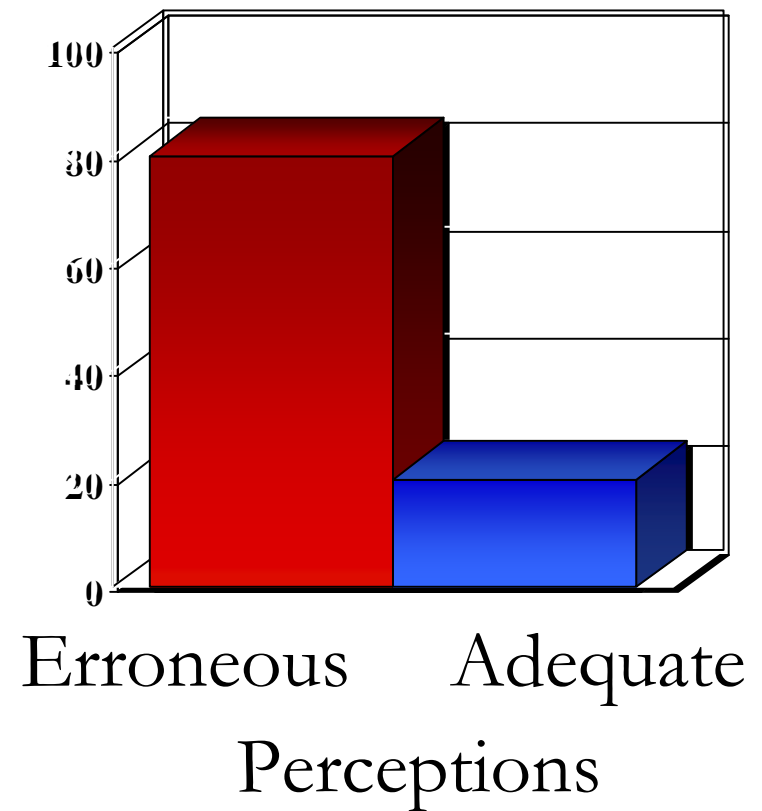
Few illustrations

If we play roulette, we will “analyze” prior numbers or colors before placing our bet.



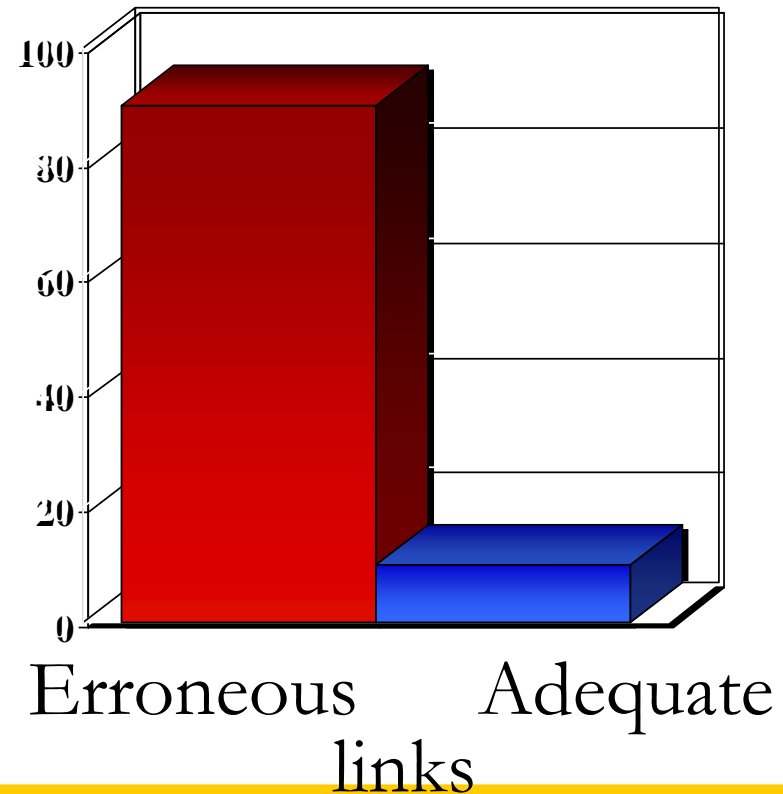
One crucial answer is...

We analyzed what people were saying to themselves while gambling.



How can people predict chance or random events?

And more importantly,



Main erroneous perception

**Making links between
independent events**

Degree of conviction in our erroneous perceptions

What is the difference between a problem
and a non problem gambler in terms of
erroneous perceptions ?

Method

Participants

- Adults meeting the DSM-IV diagnostic criteria for pathological gambling participated in this study Age: 40.6 years
- Adults not meeting the DSM-IV diagnostic criteria for pathological gambling
- Age; 38.1 years

Procedure

1. Training in thinking aloud
2. Sequence of the game was preprogrammed and identical for all Ss
3. Rate of return was 92 %

Method

1. All perceptions were tape-recorded
2. An independent judge rated the verbalizations according to 3 categories
 - Adequate: "It is all programmed"
 - Erroneous: "The machine is due"
 - Neutral: "I have a date tonight"
3. 20 % of the verbalizations were independently rated by a second judge.

Results

1. % Erroneous perceptions

- PG: 80.6
- NPG: 68.7 % $p < .07$ (n.s.)

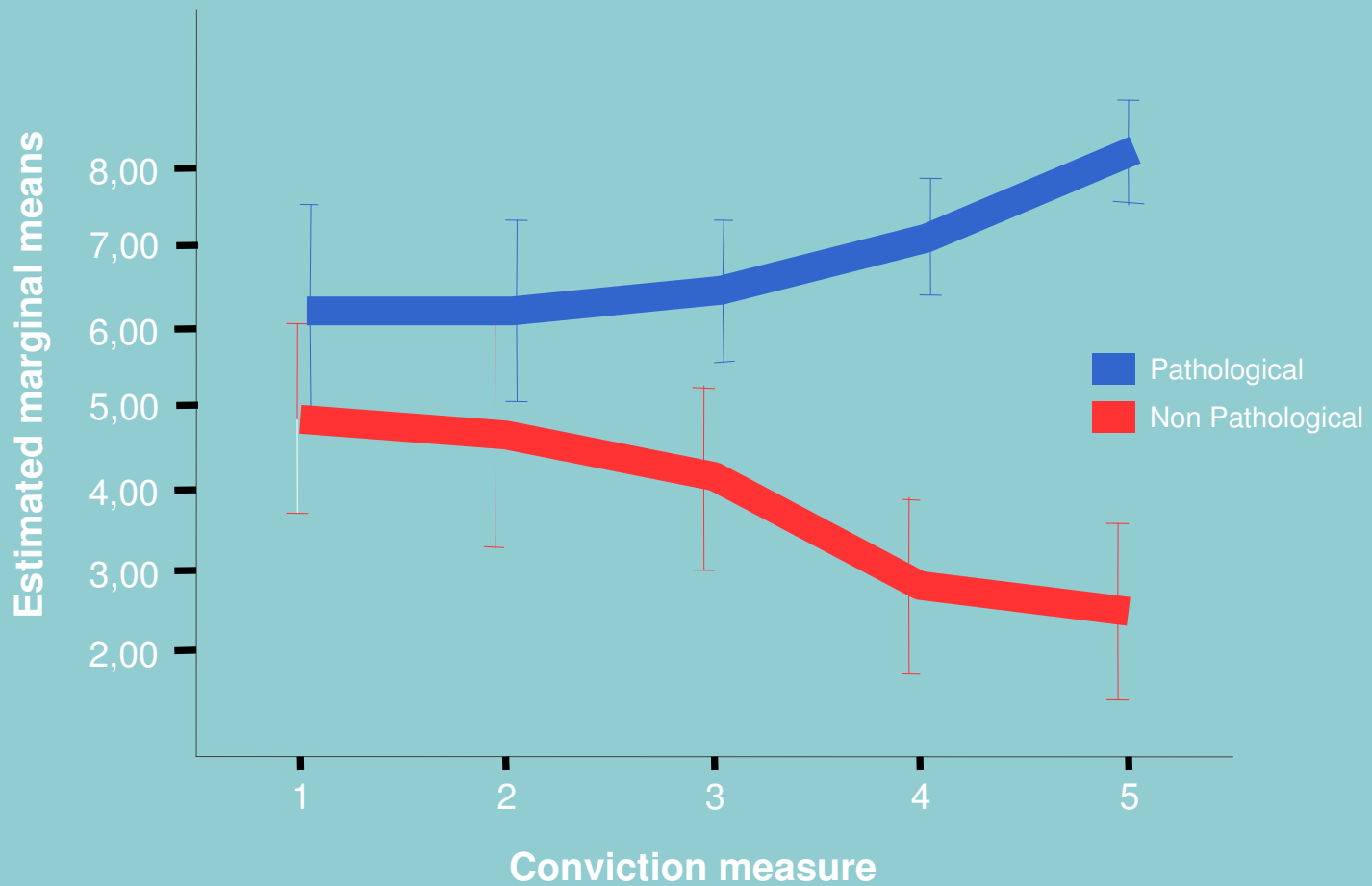
2. Gambling related perceptions

- PG > NPG $p < .04$

3. Conviction

- PG > NPG $p < .0001$

Group vs Conviction



Assumptions and postulates of CT

One assumption that underlies CT is that
Cognitive Variables mediate/modulate the
change in Gambling Behaviours

Its the Money

- The “problem” gambler is ***convinced*** that he or she will win.
- No gambler will play if he or she would be convinced to ***loose.***

Mental Processes.

- Erroneous perceptions,
- Gamblers fallacy,
- Illusion of control,
- Biased evaluation of outcomes,
- Self efficacy perception,
- Superstition,

Independence of events

Theoretical Perspective

- *Mental Variables* are real
- It is crucial to change the erroneous perceptions in order to facilitate ***Informed choice*** and **Responsibility**

What is a problem gambler?

What is a problem gambler ?

- 1. SOGS**
- 2. CPGI**
- 3. DSM-IV**
- 4. 20 GA Questions**

What is a problem gambler ?

The way we define problem gambling is mainly in terms of its negative consequences:

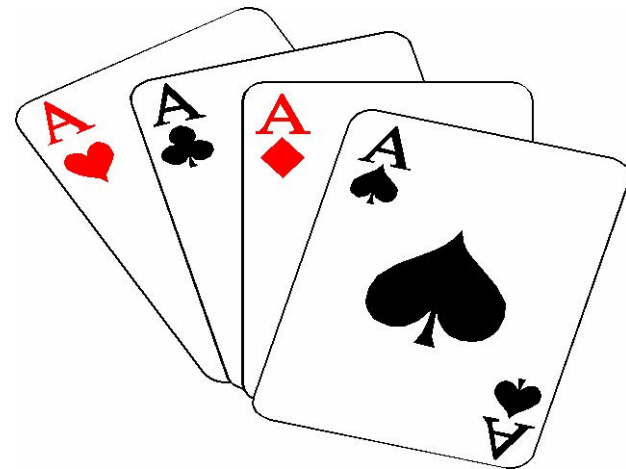
SOGS	-----➤	16/20	(80 %)
CPGI	-----➤	5/9	(55 %)
DSM-IV	-----➤	5/10	(50 %)
20 GA	-----➤	13/20	(65 %)

What is an excessive gambler ?

An excessive gambler is an individual who has lost control over his or her gambling activity. Specifically, he/she...

- Plays more **money** than he or she can afford to
- Plays for **longer periods** than he or she can afford to;
- Plays more **often** than he or she can afford to

Main findings: Treatment outcomes



Treatment components

- 1) Cognitive correction**
- 2) Problem-solving training
- 3) Social-skills training
- 4) Relapse prevention

Cognitive treatment delivered in an individual or group format

Cognitive correction:

- (a) Understanding the concept of randomness
- (b) Understanding the main erroneous belief making links between independent events
- (c) Awareness of inaccurate perceptions
- (d) Cognitive correction of erroneous perceptions

Relapse prevention

CREATE DISSONANCE

Results

The conclusion is:

Treatment group was statistically better than the control group on the main outcome measures.

**Average time per patient:
15-20 sessions**



How can we help our patients
Modifying their erroneous
perceptions?

By creating cognitive dissonance

Identifying Cognitive Distorsions

1. Exagerated self-efficacy

- Belief in a system
- If you work hard enough there is a way to win
- Over-confidence in skills

2. Magical Thinking

- Illusion of control over luck
- Special powers to manipulate luck



Identifying Cognitive Distorsions

3. Attributionnal Biases

- Losses are not really losses
- Losses re-interpreted as near wins
- Wins are re-interpreted as signs of skill and success

4. Superstitious Behaviour

- Linking events as if they are casual

5. Emotional Reasoning

- Feelings (beliefs) equals knowledge

Behavioral Components

- The cognitive interventions are not excluding the behavioural interventions.
- We believe that if we don't modify the erroneous perceptions, the efficacy of the behavioral interventions will be strongly reduced or effective only a short term basis (relapse)



Behavioural Components Examples

1. Self-exclusion
2. Avoid Bars, Casinos or places where you can gamble.
3. Refuse all invitations to join your friends who gamble (Assertion training).
4. Tell your relatives and friends that you have decided to stop gambling

Efficacy of CT (CBT) ?

Empirically Validated Therapies

- The American Psychological Association has recommended that Empirically Validated Treatment (EVT) should be used.
- The criteria of EVT are stringent and rigorous.

Empirically validated therapies

- About 15 randomized controlled trials of problem/ pathological gambling were identified (psychotherapy)
- All of the identified studies were in the Cognitive and Behavioural Therapy perspective

Dropouts

Do gamblers drop out of Treatment ?

About 30 % à 50 % of the gamblers
will drop out of treatment.

Is drop out a normal phenomenon ???

Yes, and lets try to explain and
prevent dropouts.

Phases of excessive gambling



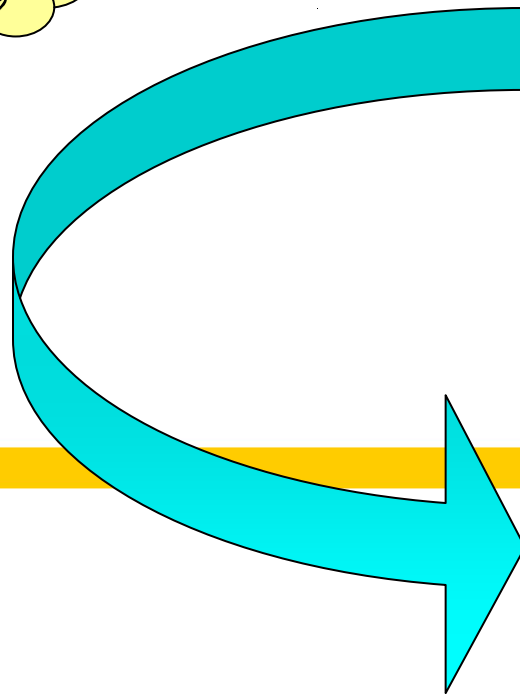
Losses



Wins



Despair



How do we explain drop out ?

Few studies have examined this issue.
Only one has directly investigated why people drop out of Tx (Grant et al, 2005)

How do we explain drop outs ?

Variables that distinguish treatment completers vs dropouts

1. Impulsivity (Leblond et al., 2003)
2. Co morbidity with alcohol and drug problems but not with motivation and participation in GA (Milton et al., 2002)
3. High level of anxiety (Escheburua et al., 2001)
4. Enjoyment in gambling et belief in personal luck (Hart et al., 2006)

How do we explain drop outs?

Grant, Kim & Kuskowski (2004)

50 gamblers seeking treatment (drug and psycho Tx)
All met DSM-IV criteria for pathological gambling
Contacted drop outs for an interview

Age M: 47.7 ans

How do we explain drop outs?

Grant, Kim & Kuskowski (2004)

Non significant predictors of drop outs:

1. Sex
2. Age at the beginning of Tx
3. Age when the gambling problem started
4. Marital status
5. Severity of the problem
6. Amount of time gambling
7. Co morbidity

How do we explain drop outs?

Grant, Kim & Kuskowski (2004)

Predictor of Tx adherence : Support from a collateral

They contacted 21 of 24 drop outs

- A) Lack of the thrill gambling
- B) Winning expectations and recoup the money lost (Chasing)

How do we explain drop outs?

How to use these information to reduce drop outs ?

Thrill of gambling

Motivational interview

Winning expectations and chasing losses

Cognitive correction. Warn the patient about this info

Is drop out a normal phenomenon ???

Yes and we need to inform our patients

Thank You

Robert.Ladouceur@psy.ulaval.ca