



New Trends  
in Psychology

## Theoretical Aspects on the Cognitive Dimensions in the Personality of the Pathological Gambler

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**Abstract:** Gambling is a socially accepted form of entertainment, a way to spend part of free time, a way to have a financial surplus, but which can turn over time into a destructive form that occupies the entire psycho-social sphere of individual. In the general sense, cognitive distortions are a set of false or exaggerated basic beliefs that influence the automatic thoughts and behaviors that the player manifests in relation to the game behavior. All gamblers, including non-pathological, are susceptible to the development of cognitive distortions. The cognitive approach explains gambling behavior by relating to a variety of cognitive distortions that are based on different misperceptions. One of the basic characteristics of players' cognitions is the tendency to overestimate the possibility of winning through a variety of cognitive distortions in the processing of chances, abilities and probabilities.

**Keywords:** entertainment; cognitive approach; cognitive distortions; game behavior

Gambling is a socially accepted form of entertainment, a way to spend part of free time, a way to have a financial surplus, but which can turn over time into a destructive form that occupies the entire psycho-social sphere of individual.

The cognitive theory is a prominent approach, even dominant in understanding human behavior. It is based on the idea that mental processes play a decisive role in the processes of thinking, emotions and behavior. Regarding pathological gambling, cognitivist theory supports that pathological gamblers are guided by irrational,

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incorrect, or false beliefs about chance, probability, and random events (Blaszczynski & Silove, 1995, pp. 195-220).

Classical cognitivist research suggests that the pathological player has difficulty applying the principle of event independence and random results when there is a financial incentive involved (Ladouceur, Sylvain, Letarte, Giroux, & Jacques, 1998, pp. 1111-1119).

The presence of cognitive distortions in pathological gamblers is well determined by numerous studies, and their intensity is closely correlated with the severity of the pathology. The empirical evidence resulting from functional MRI examinations of these correlations contributed to the inclusion of pathological gambling in the category of addictions (Clark, 2014, pp. 46–61).

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Toneato identified 13 distortions that can be organized into 5 categories: prediction control, illusory active control, illusory passive control, probability control, and interpretive control (Toneatto, 1999, pp. 1593–1604).

All gamblers, including non-pathological, are susceptible to the development of cognitive distortions. The cognitive approach explains gambling behavior by relating to a variety of cognitive distortions that are based on different misperceptions. One of the basic characteristics of players' cognitions is the tendency to overestimate the possibility of winning through a variety of cognitive distortions in the processing of chances, abilities and probabilities. These include: the illusion of control (the individual's belief that he can influence through personal skills the result of a situation related to chance); "near-miss" results (jackpot results very close to the big win - jackpot) increases the individual's motivation for the game; player error in random processing (player considers that recent consecutive results are less likely to be repeated - if more than one red card has been drawn, most players tend to believe that a black color) (Langer, 1975, p. 311).

It has been shown that pathological players have a higher tendency to verbalize erroneous perceptions, and the response to the "Anonymous Gamblers" training program has a degree of failure directly proportional to the intensity of the distortions (Lawrence, Astley-Jones, & Gray, 2009, pp. 481–490) At the same time, there was

an attenuation of cognitive distortions in individuals who accessed cognitive-behavioral therapy techniques (Fortune & Goodie, 2012, p. 298).

A study investigating the connections between different areas of the brain and gambling pathology by the presence of cognitive distortions compared patients with lesions in the ventromedial prefrontal cortex, insular cortex or amygdala (study group) with healthy patients and patients with other lesions - which do not include the targeted areas (control lot). It was observed that patients in the study group did not show a tendency to develop cognitive distortions in gambling behavior (Oei & Gordon, 2008, pp. 91–105)

Mystical thinking, defined as a strong belief based on the erroneous perception of the cause-effect association between two independent events, is considered to play a considerable instrumental role in maintaining game behavior. Superstitions can be cognitive (the belief that a certain mental state can increase the chances of winning), talismanic (the belief that an object can influence the outcome) or behavioral (the belief that a ritual can influence the success of an activity). These are significantly more common in pathological gamblers compared to non-pathological gamblers. It has also been observed that players with more mystical thinking exhibit more severe game behavior (engage in more frequent, longer-term play sessions, exhibit more pronounced risky behaviors in terms of amounts played and loans) in compared to players with a low level of superstition (Joukhador, Blaszczyński, & Maccallum, 2004, pp. 171-180).

At the level of current research, it is insufficiently demonstrated whether mystical thinking is a risk factor for pathological gambling, or appear as a repercussion of this behavior, but it is well established that it has a role in maintaining and aggravating the pathology (Joukhador, Blaszczyński, & Maccallum, 2004, pp. 171-180).

Another important cognitive dimension that is considered to contribute to the development of pathological gambling symptoms is represented by metacognitions. A three-phase metacognitive approach to addictive behaviors has been formulated that includes: attention bias, extended thinking (example: thinking about desire to play, ruminations and worries) and disruption of metacognitive monitoring ability, components associated with maladaptive consequences that include increased levels of craving and engaging in game behavior (Spada, Giustina, Rolandi, Fernie, & Caselli, 2015, pp. 614-622)

Attention bias is a process influenced by individual coping styles, which in turn are influenced by metacognitive beliefs, leading to the continuation or interruption of the processing of stimuli. In behavioral addictions, attention bias plays a role in developing and maintaining behavior, increases the risk of relapse, and emphasizes the perseverance of the craving experience (Joukhador, Blaszczynski, & Maccallum, 2004, pp. 171-180).

Extended thinking refers to recurring, dysfunctional, and rigid cognitive styles, including thinking about play desire, ruminations, and worries. Thinking towards the desire to play is characterized by a voluntary process that involves developing a desired goal (initiating a game session) at the verbal or imaginary level (Field & Cox, 2008, pp. 1-20)

Ruminations and worry, common in pathological gamblers, are characterized by an increased self-focus of persistent and recurring internal dilemmas on internal experiences (Joukhador, Blaszczynski, & Maccallum, 2004, pp. 171-180).

Research on metacognitions has shown that pathological gamblers have both positive and negative metacognitive beliefs, both before, during and after engaging in the gaming session (Spada, Giustina, Rolandi, Fernie, & Caselli, 2015, pp. 614-622)

The evaluation of the metacognitive capacity of pathological gamblers, in terms of their ability to introspect their own performance, concluded that they show a deterioration in the ability to perceive and self-assess success compared to non-pathological gamblers. This deterioration has implications for recognizing the negative effects of gambling behavior on quality of life, and therefore leads to difficulty in accepting the problem and accessing treatment. On the other hand, metacognitive impairment is clinically expressed through a tendency to overconfidence in the chances of winning, leading to the expression of more pronounced risky behaviors (Cleeremans, Timmermans, & Pasquali, 2007, pp. 1032–1039; Spada, Giustina, Rolandi, Fernie, & Caselli, 2015, pp. 614-622).

The analysis, understanding and interpretation of the role, clinical implications and substrate of cognitive dimensions in gambling pathology are of major importance both in clarifying protective strategies in the field of prevention and in optimizing the diagnostic-interventional component.

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