

RELATIONSHIP BETWEEN GAMBLING AND VIDEO-GAME PLAYING: A RESPONSE TO JOHANSSON AND GOTESTAM¹

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Summary.—This paper reviews the many similarities and commonalities between video-game playing and slot machine gambling in response to Johansson and Gotesam in 2004.

The recent paper by Johansson and Gotestam (2004) argued that gambling and video-game playing were similar. This has been well observed in the psychological literature, particularly in relation to slot machines and video games. Both video games and slot machines come under the generic label of “amusement machines” (Griffiths, 1991). It could be argued that psychologically and behaviourally, slot-machine gambling is more like video-game playing than other forms of gambling. Slot-machine gambling shares far more similarities with video-game playing than all other gambling activities.

The main difference between video-game machines and slot machines are that video games are played to accumulate as many points as possible whereas slot machines are played, i.e. gambled upon, to accumulate as much money as possible. However, Griffiths (1991) suggested many years ago playing an arcade video game could be considered as a nonfinancial form of gambling. Both types of machine require insertion of a coin to play, although the playing time on a slot machine is usually much less than on a video-game machine. This is because on video games the outcome is almost solely due to skill, whereas on slot machines the outcome is usually a product of chance.

However, the general playing philosophy of both slot-machine players and video-game players is to stay on the machine for as long as possible using the least amount of money (Griffiths, 1995, 2002). Griffiths has argued that regular slot-machine players play *with* money rather than for it and that winning money is a means to an end, i.e., to stay on the machine as long as possible.

Determinants of the decision to play a slot machine or video-game machine not only include the player’s biological and psychological constitution and situational variables, but also the structural characteristics of the activity. Structural characteristics of gaming machines are those characteristics which

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either induce the player to play gaming machines or are inducements to continue playing, i.e., characteristics that are responsible for reinforcement, may satisfy a player's needs and may actually facilitate excessive playing. Griffiths (1993b, 2002) and Wood, Griffiths, Chappell, and Davies (2004) have highlighted many similarities in the structural characteristics between both slot machines and video games, including high event frequencies, near misses, variable ratio reinforcement schedules, and use of light, colour, and sound effects. Other similarities include high player involvement, high perception of skill, demographic similarities (in the UK at least), and negative behaviours associated with excessive playing in both forms (stealing, truancy, using lunch money, etc.) (Griffiths, 2002).

Both slot machines and video-game machines are potentially addictive (Griffiths, 1991, 1993a; Griffiths & Hunt, 1995, 1998) and have been defined as forms of "technological addictions" (Griffiths, 2002) which are a subset of nonchemical (behavioural) addictions. Evidence for slot-machine addiction is now abundant (e.g., Griffiths, 1995, 2002) while evidence for video-game addiction appears more anecdotal and based on case studies (e.g., Soper & Miller, 1983; Keepers, 1989) although more empirical findings are beginning to emerge (e.g., Griffiths & Hunt, 1998). Research carried out to date on slot-machine addiction suggests that gaming addictions are a function of the game's effects on arousal, i.e., people who play games to excess do so for its arousing effects (Leary & Dickerson, 1985; Griffiths, 1993c). There is also a small body of work on video-game arousal which also indicates that players' arousal increases while playing a video game (Segal & Dietz, 1991; Griffiths & Dancaster, 1995).

It is clear from this brief overview that there are clear similarities between slot machines and video games although evidence for video-game playing being more like gambling in general is somewhat lacking. More research on the psychological commonalities between these two behaviours like that of Johansson and Gotestam (2004) would certainly seem warranted.

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