# Chapter 73
# Exploring Video Games from an Evolutionary Psychological Perspective

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## INTRODUCTION AND BACKGROUND

Video games are a relatively recent form of entertainment whose sales growth has been enormous (almost 700% from 1996 to 2007), with sales for 2007 reaching 9.5 billion dollars in the US (Entertainment Software Association, 2007). This figure does not include the sales of hardware components such as consoles and accessories, or subscriptions to high-speed Internet providers. To contextualize this sales figure, the US cinema industry garnered 9.6 billion dollars domestically in the same year (MPAA, 2007). The video game industry is so robust that it appears to be impervious to the current economic crisis (Economist, December 20, 2008).

Video game research typically follows one of two avenues. Authors either champion games for their positive effects on users (hand-eye coordination, problem solving, and teamwork, for instance) or lament them for promoting violence (see Mäyrä, 2008 for a broad overview of gaming studies). More recent work (Ducheneaut et al., 2006) has focused on descriptive statistics of online gamers, but all these streams of research tend to rely on "Blank Slate" reasoning (Pinker 2002), leading them to overlook robust explanations of video gaming phenomena. Of relevance to the current article, video games are seldom studied from an evolutionary psychological perspective (but see Cherney & Poss, 2008; Kock, 2008; Mazur, Susman, & Edelbrock, 1997). On a related note, Stenstrom et al. (2008) find evidence for sex-differentiated strategies in navigating websites, with these results being potentially applicable to the video gaming context. In the current paper we demonstrate how an evolutionary psychological (EP)

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approach could elucidate why this entertainment choice has increased in popularity, and how it is related to our evolved human nature. We begin by describing relevant video game genres, to illustrate the latest developments and trends in the industry. Subsequently we highlight links between some of these genres and EP principles.

Different game genres tend to attract players with highly heterogeneous demographics, personalities, and motivations to play. Whereas the industry has developed numerous genres, we restrict our discussion to two major genres that are highly distinguishable from one another: *Massively Multiplayer Online Role Playing Games (MMORPG)* and *First Person Shooters (FPS)*. *MMORPG*s are based on the classic pen-and-paper role-playing games. These games were originally played in a setting similar to that in which one might play a board game (i.e., around a kitchen table, with friends and family). The RPG was created during the 1970s and since then has quickly evolved. Traditionally the RPG is an interpretive game in which the participants create characters and role-play as their character in an imaginary world. Players aim to become powerful entities in that world, and typically cooperate in that pursuit. The objective of traditional RPGs is vague. There is no end-point (as in most games); one simply 'adventures' until one dies or gets bored. Killing monsters and saving princesses are common threads, however.

RPGs established a style of game play that MMORPGs inherited. Central to this style is the notion that an avatar grows in power over time. This concept was formalized by implementing 'experience points' and 'levels.' As characters slay monsters or complete quests, they are awarded 'experience points.' When they have accumulated a sufficient amount of experience points, they 'level up.' Characters begin at level 1, and each subsequent level up requires more experience points than the previous. By digitizing the rules of traditional RPGs, MMORPGs have obviated many of the problems native to the pen-and-paper format. Players of MMORPGS do not have to keep tabs of their own experience points, levels, or calculate damage, for instance. Aspects of the game which required rote computation are now handled by the computer.

*First Person Shooter* games are the most frequently studied genre by scholars wishing to correlate video games to real-world violence. In these games, the avatar is controlled using the first person perspective. To succeed in the game, the player must use a variety of weapons (rifles, laser guns, chainsaws, etc.) to shoot, dismember, or subdue enemies. This genre of game often comes in two modes. In the story-driven mode, which can be played either alone or as part of a team, enemies are controlled by fairly advanced artificial intelligences. The second (and more popular) mode is "player versus player," which encourages direct competition between human players (and not against an artificial intelligence). In time, players become skilled tacticians and will form teams (often called clans) of compatible players and compete online and/or in official tournaments. A major selling point of FPSs is the competitiveness that is triggered amongst the relevant consumer base.

## KEY EVOLUTIONARY PSYCHOLOGY CONCEPTS

The basic tenet of EP is that evolution does not only shape physical traits but also mental ones. Furthermore, EP posits that the human mind consists of domain-specific mechanisms that have evolved to solve specific evolutionarily relevant challenges. EP has developed into a field with immense explanatory power. Interested readers can refer to Barkow, Cosmides, and Tooby (1992) and Buss (2005a) for exhaustive overviews of areas in which EP has been applied. It is important to note that EP is most often employed to understand *ultimate* causes of phenomena, in contrast to *proximate* ones. For example, a proximate