Concluding Comments

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Abstract This chapter provides an overview of the content contained within the volume and provides suggestions for future research.

Keywords Video games · Well-being · Growth

Saving princesses. Slaying dragons. Going on wild adventures with a band of misfits. Digital games have been providing us with entertainment for decades and have become a centerpiece of modern society. No longer confined to dedicated gaming consoles, video games are now available to be played on our computers, phones, and smart watches. Despite their popularity, they have garnered a negative reputation as frivolous activities that are waste of time at best and vehicles for violence, aggression, and social dysfunction at their worst (Kowert, Festl, & Quandt, 2014; Kowert, Griffiths, & Oldmeadow, 2012). As video games have come to be ubiquitous with modern life there remains something notably missing from their public discourse: their potential to positively impact our psychological well-being.

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No longer a childhood pastime, video games are an integral part of our lives and mirrors of society and ourselves. Unbeknownst to many, while gamers have been exploring the vast lands of *Hyrule*, defeating dragons in *Azeroth*, and searching for Princess Peach, they have also been learning, practicing, and refining a wide variety of skills to foster happier and more satisfied lives. The essays within this collection drew from research in psychology, education, ludology, media studies, and communication science to demonstrate how video game mechanics and narratives teach players a range of skills associated with increased psychological well-being, including flexible thinking, openness to experience, self-care, a growth mindset, solution-focused thinking, persistence, self-discovery, and resilience.

Chapter 1 set the groundwork for exploring how video games are similar to other forms of media we have long enjoyed for leisure and skill building, such as reading a book or learning to play a new instrument. While video games are often thought of as a separate (potentially destructive) category of entertainment, in the end all forms of media are more similar than dissimilar. This chapter elaborated on the mechanisms that underlie video games' capability to foster learning and growth, including their ability to induce a state of flow (Csikszentmihalyi, 1975, 1991). Flow states are key to video games' functionality as a learning tool, as research has found them to be a strong predictor for learning and knowledge transfer (Webster, Trevino, & Ryan, 1993), particularly in relation to video games and virtual worlds (Choi & Baek, 2011; Hamari et al., 2016; Rossin, Ro, Klein, & Guo, 2009; for more see Kiili, 2005).

Once the tools underlying video games' capacity to impact psychological growth were outlined, the essays in this volume dove deeper into how and why the unique characteristics of video games influence our thoughts and behaviors in ways that can positively influence our well-being. This began with an exploration of one of the most valuable tools in a gamers' toolbox—the reset button. Lucky for us, the opportunity to reset and start again is not only available for our 100th run of the Cave of Wonders in the NES classic *Disney's Aladdin* (Virgin Interactive, 1993). In our out-of-game lives, "resets" occur with mindfulness, patience, and the evolution of our personalities. While our personality is often thought of as an immutable feature of who we are, rigidly dictating our thoughts and actions, Chapter 2 revealed quite the opposite. Our personality is malleable over time and knowing this is key to long-lasting and meaningful change. Another important tool among gamers are guides and maps. Chapter 3 explored the role that mental maps play in our daily lives through the lens of affect theory and the

practice of face-work. By understanding the tools needed to create such a map to explore and analyze the world around us, we are better able to ascribe meaning and draw insight into our everyday experiences and challenges (both positive and negative).

Chapters 4 through 8 examined how some of the more technical attributes of video games are also mechanisms for change. Chapter 4 examined how the avatars that we choose to navigate the tools of gaming worlds can influence the way we see ourselves both in- and out-of-game, whereas Chapter 5 examined how feedback loops often used video game design provide the foundation for a growth mindset. Building on this, Chapter 6 addressed how skill profiles of in-game characters can provide insight into solution-finding approaches to better understand our in- and out-of-game strengths, including resilience.

The final chapters in the volume returned to exploring specific facets of well-being that are modeled and explored through video game mechanics and content. This began in Chapter 7 with a discussion of mindfulness, which has been linked to various facets of well-being (Brown & Ryan, 2003). While the fast-paced nature of video games may seem to be the antithesis of the fast-paced nature of video games, Chapter 8 discussed how flow within video games provide the opportunity to increase awareness toward our inner and outer experiences even in fast-paced environments (Sliwinski, Katsikitis, & Jones, 2015) and how overcoming difficult in-game challenges that are created through the structure of the game, such as defeating a Lynel in Breath of the Wild (Nintendo, 2018), can lead to positive psychological growth and motivation to pursue and overcome even more difficult challenges.

Persistence was the focus of Chapters 9 and 10, the former in relation to the game mechanics and the latter in relation to game narratives. Persistence can be generally thought of as continuing on a course of action despite opposition, difficulty, or previous failures. People who are persistent often have an internal locus of control, which is the belief that individuals are responsible for their own success (Mischel, Zeiss, & Zeiss, 1974). Research has found this to be a key correlate with life-satisfaction and happiness across the lifespan (Hickson, Housley, & Boyle, 1988; Huebner, 1991; Huebner, Ash, & Laughlin, 2001; Palmore & Luikart, 1972), which are core components of our well-being. Chapter 9 delved deeper into how the narratives of the stories themselves can foster persistence through the Hero's Journey. Through role-playing this journey, players are provided the

opportunity to try, fail, and try again free from the traditional repercussions associated with failure in the "real-world."

The book concluded with a discussion of how video games can provide insight into some of the more serious experiences related to well-being, post-traumatic growth following a post-traumatic experience. As discussed in Chapter 10, video games provide the unique opportunity to experience fictional versions of the darker sides of life. That is, they are able to provide a safe framework to explore our own vulnerabilities by "living through" and overcoming potentially world-shattering events from a safe and comfortable (physical and psychological) distance.

Video games are incredible tools for the unintentional learning and transfer of knowledge. While research has found video game play to promote a variety of skills and abilities, including creative thinking, problem solving, time management, and leadership skills (Bowman, Kowert, & Ferguson, 2015; Olson, 2015), researchers in the field have been calling for a greater recognition of video games as powerful tools for our well-being. That was the motivation behind the construction of this volume. Taken together, the essays collected in this volume aimed to illustrate the ways in which video games tap into our strengths and transform in-game struggles and battles into out-of-game resilience, psychological growth, and improved well-being.

It is worth noting that during the writing of this collection, new research emerged indicating that engaging in the virtual worlds of video games have the potential to dampen the expression of a stress-induced gene profile, suggesting that video game play (among what the researchers defined as "engaged" gamers) can increase one's biological defenses toward stress reactions when facing adversity (Snodgrass et al., 2019). While the chapters in this collection focused on positive psychological impact of games, this new research suggests that engaging in virtual worlds as a meaningful and recreational activity may also positively impact our well-being on the biological and chemical level.

Taken together, we hope that the essays contained within this book are just one of many steps toward shifting the perception of video games away from "How are they hurting us?" and toward "How are they helping us?" To change the focus from whether or not video games are making a generation of players violent, aggressive, and anti-social to determining how and why video games can be used for psychological growth, as tools to help cope with depression, anxiety, and stress by fostering persistence, self-care, and resilience. Building on the work discussed here, we hope to

continue to explore how video games can foster psychological well-being and help us live happier, more satisfied lives.

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