Chapter 18
Self-Presence, Explicated:
Body, Emotion, and Identity Extension into the Virtual Self

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ABSTRACT

There is currently a need for a standardized concept that describes how relationships between the self and virtual self-representations operate across virtual contexts. The framework of self-presence fulfills this need by describing how people connect to their virtual self-representations on three distinct levels of self (body, emotion, identity). The present chapter draws from the fields of presence and neuroscience to explicate this conceptual framework and describe its operationalization, the Self-Presence Questionnaire. This explication and questionnaire were developed throughout a line of research that examined self-presence within numerous virtual contexts. The results from these studies suggest that the concept of self-presence is reliable and valid, and that future research could utilize the concept to develop a greater understanding of avatar use. This chapter concludes by suggesting such research applications of self-presence and then discussing the larger implications of this line of research.

INTRODUCTION

Self-representations are an important facet of human existence. We pick names for our children that we hope will represent them well, craft our CVs to highlight significant accomplishments, and choose images for profile pictures so that others may recognize us. Most people are connected to numerous self-representations, but the significance of these connections differs between individuals. For example, some people may feel a close affinity to their given birth names while others change their names as adults. The specific types of self-representations may also affect the ways people connect to them. For example, some people may feel that their CVs only highlight career-related aspects of identity while their Facebook profiles present a truer depiction of the self.

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Our media landscape offers a huge variety of potential virtual self-representations, from 3-D anthropomorphic avatars that mimic users' body movements in virtual worlds to simple user icons in text-based chat rooms. The framework of *self-presence* describes the ways people connect to their virtual self-representations, and thus serves as a potential tool for the growing body of research on the effects of using avatars. Research in this area includes studies that examine the effects of various avatar-related attributes, such as avatar development guidelines (Jin, 2009) and avatar characteristic-based behavioral expectations (Yee, Bailenson, & Ducheneaut, 2009), on numerous outcomes, such as healthy eating (Fox, Bailenson, & Binney, 2009), exercise (Fox & Bailenson, 2009), racial bias (Groom, Bailenson, & Nass, 2009), aggression and group cohesion (Pena, Hancock, & Merola, 2009), and body size judgments (Chandler, Konrath, & Schwarz, 2009). All of this research assumes that people feel some sort of connection to their avatars, but there is no standardized concept for understanding such connections.

The framework of self-presence, broadly defined as the extent to which the self is present (relevant) during media use, may help fulfill this need for standardization by allowing researchers to control for differences in the ways and extent to which people feel connected to their avatars. This chapter explicates the framework and measurement tool of self-presence, suggests ways in which future research can utilize the concept of self-presence, and discusses the larger implications of using self-presence to develop a greater understanding of avatar use.

PRESENCE AS PRECURSOR

The concept of self-presence is closely related in origin and meaning to the concept of presence. Thus, the present explication of self-presence begins in the field of presence. Because this field extends into many disciplines and discussions, only those works that provide direct foundations for the current formulation of self-presence are examined here.

Presence, as a concept within the field of Communication, grew out of the need to understand the effects of technologies and media that increasingly embody the user, namely robotics and virtual reality. *Telepresence*, a term adopted by Steuer (1992) from various previous uses to mean the experience of *being there* in a mediated environment, is introduced as an integral facet of virtual reality technology. He goes on to describe the technological dimensions that contribute to telepresence, including the vividness and interactivity of a medium. Biocca (1997) adopts the shorter term *presence* to mean the perception of *being there* in a physical, mediated, or imagined space. He describes how virtual reality technologies aim to induce the feeling of *physical* presence through sensory and motor engagement. Lombard & Ditton (1997) define the term presence as the "perceptual illusion of nonmediation", thus restricting the use of the term only to media environments. They describe the causes of presence, most of which are characteristics of the medium or other social actors in the medium. Lee (2004) defines presence as a psychological state in which virtual objects, social actors, or virtual selves are experienced in sensory and non-sensory ways. He clarifies that virtual objects, social actors, or virtual selves can be either para-authentic, having real-world correlates, or artificial, without real-world correlates. While these four definitions differ significantly, they all imply that "presence occurs when mediated experiences are treated as nonmediated experiences in some way."

Another important perspective on presence that is relevant to the current formulation of self-presence comes from the field of neuroscience. This work (Riva, Waterworth, & Waterworth, 2004; Waterworth & Waterworth, 2003) adopts Damasio's framework of consciousness and self (1994, 1999), which opposes Descartes' 350 year-