Propping Up Play: Game Objects, Affordances, and Perceptual Multiplicity

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INTRODUCTION

This abstract draws on modifications to Gibsonian affordance theory (Vozaru, 2022), existing debate within game studies on player-character boundaries, and conceptual grounding from theater and performance studies (Begley, 2012; Fernandez-Vara, 2009). It argues that a semiotically relational view of in-game objects and gaming interfaces as props can generate insights into how affordances are translated and mechanized across the gaming apparatus during moments of "perceptual discrepancy" (Van de Mosselaer, 2023), and subsequently aid in player experience analysis.

AFFORDANCES IN GAMEPLAY

Game objects have increasingly been considered through a Gibsonian lens of what they can *afford* for both players and character-avatars (Linderoth & Bennerstedt, 2007; Deterding, 2011; Bentley & Osborn, 2019). Affordance theory has been substantially critiqued for its contradictory formulation; according to Gibson's original text, an object's affordances are simultaneously intrinsic to the object and reliant on or relative to the perceiver's circumstances (a shelf does not afford *reachable* to a short person, for example). This contradiction is deliberate, as affordances are, for Gibson, rooted in the individual's ability to perceive them. This has been reformulated by Gaver (1991) as the technological affordances model, which distinguishes between whether an affordance *exists* and whether it is *perceived* by the individual; extant perceptual information about an object that does *not* afford something is a "false affordance", a lack of perceptual information about an object that *does* afford something is a "hidden affordance", and so on. Cardona-Rivera & Young's (2013) cognitivist theory of affordances in video games maps a player's existing gaming knowledge onto their perceptual ability, and a game's code relative to the context of how objects in games are generally coded onto affordances; here, the player's success relies on her ability to perceive an object's affordance *correctly*, on the basis of previous game experience. Linderoth (2013) points out that player perception, often linked to a camera that far outpaces an in-game character's field of vision, allows the player to discover new affordances, bounded by and contained within that instantiation of play.

Vozaru (2022) builds on these applications to stretch and poke through affordance theory in video games; player action in a video game, she argues, is not as simple as someone picking up a pencil in front of them, but rather requires the player to engage with a game's physical interface, which then is translated to one or more loci of manipulation. She points out that this suggests an extant relationship between "the affordances of the individual, the affordances of the controller, and the affordances of the locus of manipulation," which are patently separate considerations that subsequently require discrete perspectives from which to perceive them (p. 65). Put differently, the player's perceptual apparatus is different to the character's (imagined, in some cases) apparatus. While a jar of mayonnaise in *Stardew Valley* affords a farmer *drinking* (horrifically), its pixelated representation affords the player *selecting* or *clicking*. The notion of *clicking* is not an affordance of the graphic itself, but that of a controller or keyboard; player action is enacted on the gaming interface, and simultaneously perceived on the locus of manipulation. Drawing on actor-network theory, Vozaru suggests that while gameplay relies on perception, its analysis requires "[prioritizing] the traces left by agents instead of their perceptual representations" (p. 63). In doing so she positions agency, not perception, as a key entry point into what affordances can add to player experience analysis.

PROP-OBJECTS

In theater, a prop, or property, is a term used to encompass any nonhuman object or item onstage over the course of a theatrical production. Sanders (2018) defines a prop as "anything an actor handles, carries, or manipulates that is not attached to the walls or floors" (p. 43).

Within a theater context, props generally afford some but not all of what they would in the "real world", in the sense that a sword-prop affords manipulation, striking, and leverage, but does not afford piercing, cutting, or perhaps harming, the way that a "real", non-prop sword would. However, within the *performance world*, so to speak, the prop-sword *does* afford piercing, cutting, and harming; it is perceived by the characters within the story as affording these things. This performance world is temporary (lasting the length of a performance) and traversable through the use of (i.e. interaction with) prop objects; Fernandez-Vara makes clear that "objects acquire a meaning and value during [...] performance that does not correspond with its value in the world outside of it" (p. 3). It should be noted that there is some overlap here; a prop-sword can, if used incorrectly, afford harming, piercing, or cutting; a prop-cup or chalice often *does* afford drinking from in both the performance world and for the actor doing the drinking. However, there is always *some* degree of transformative value attributed to a prop within a performance world; a prop-cup will almost never contain alcohol, for example, and even if a character is drinking water from a cup in the story world, the actor is not drinking from the cup as themselves, but as the character. This simple factor of belonging (i.e. the cup, and the water therein, belong to the character, and not the actor) changes the meaning and value of the prop-object.

DISCUSSION

Extending this to a video game context holds similar results: the affordances of the individual, here the player-actor, the affordances of the controller, here the prop, and the affordances of the locus of manipulation, here the object or representation that

the prop controls in the story world, are all variably perceivable during the performance of play. From Rambusch and Susi we know that "as we (temporarily) attach a tool to our body, we extend our capacity of perceiving and acting" (2008, p. 88). In the same way, players 'attach' these game props to themselves, enabling the perception of various "new" affordances in accordance with their new bodily *capacities for action*; put differently, new agentive possibilities (see also Apperley 2011 on the gaming body). Returning to *Stardew*, the player's interaction with the mayonnaise via the right-click is what "completes the process of making meaning"; the player's perception of a game object is in of itself a function of interaction, as the affordances revealed through this perception (here, *drinkable*) give the object its meaning within and outside of the game-performance (Fernandez-Vara, 2009, p. 5). This is also important because this meaning is *variable*. A prop that represents a pillar in one performance can represent a ladder in another; in the same way, controls vary across not only games, but instantiations of play (think for example of inverted or modified controls). A game relies on a player's ability to comprehend and enact the relationship between the affordances of the controller and the affordances of the locus of manipulation; this directly mirror's a performer's ability to comprehend and enact the relationship between prop and representation.

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