Analytical Gameplay and the Politics of Cognitive Mapping

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(Abstract submitted in lieu of full paper until it is completed)

This paper proposes that the bottom-up process by which computer game players obtain knowledge about the game's processes, and which they use to create a mental map of the game's rules, is a crucial feature of our engagement with games, and bears a political significance that enables us to re-examine and critique Fredric Jameson's concept of 'cognitive mapping'.

With a computer game, given that 'it is now the computer that upholds the rules' (Juul, 2011, p.53), it is possible 'to learn the rules as it is being played' (Salen & Zimmerman, 2004, p.88). Arsenault and Perron's (2009) concept of the 'magic cycle' lends itself as a useful starting point from which to consider the gamer's activity with regard to what the authors call the 'analytical', as opposed to the 'implementation', dimension of gameplay, and as a process of 'cognitive mapping' (Jameson, 1991, p.51). Jameson's concept has received attention from Friedman (1999), who has argued that simulations may be our best opportunity to create an aesthetics of cognitive mapping, by which he refers to a form of systems cognition in which the player becomes engrossed in a systemic logic connecting myriad causes and effects; this idea has also been expressed by Dyer-Witheford and de Peuter (2009). This paper will agree that there is indeed political significance to the mental process of 'mapping' the game, but that it does not quite comport with the hopes that the commentators above have placed on 'cognitive mapping'.

For Arsenault and Perron (2009), the player analyses the game's output with a view to building a mental model of the workings of the game. As the player's mental model gains sophistication, 'there is a shift in the 'experience of the game', from a 'pre-dominantly bottom-up processes, where individual elements are analysed before reacting, to top-down processes, where a mental image of the game system guides the gamer's reactions and expectations' (p.126). In an expansive sense, there are parallels here with literature that has explored the computer game as a designed object and as an experience: the 'game as a map and as a system' in contrast to the 'game as an experiential route' (Grodal, 2003); or the game as a 'maze' that can be viewed as though from above and in its entirety, or as an 'experience' in the sense that one is in the process of traversing it (Gazzard, 2013).

The systems cognition involved has been argued to impart to us a more astute sense of the relational complexity between various processes. The notion of cognitive mapping 'hinges on a dialectic of immediate perception and imaginative or imaginary conception', which is our ability to extrapolate from the mental map we have of our immediate perceptible situation to a larger imaginary spatial context (Homer, 1998, p.139). This is said to be essential for a socialist politics in a postmodern age that aims to render the world more intelligible and to combat alienation. Computer games play bears relevance insofar as they involve a dialectic of extrapolating from our immediate experiences in order to understand the systemic whole, which positions them as artefacts that foster an aesthetics of the interplay between fragmentation and unity. However, Jameson's deployment of this notion of cognitive mapping is itself problematic: it requires the individual to represent what is, on his own terms, the unrepresentable global system or totality itself – a project that arguably cannot be accomplished. On this point, if the analytical side of playing computer games is an instance of successfully cognitively mapping the localised domain of the game, and doing so within the context of being unable to do so with respect to the world, the disparity may partly account for the pleasure we have in gaming – it is a structural homology or substitute for an activity that we are otherwise unable to do.

Further, what would it mean for us to take what we have learned from cognitive mapping in games, to use the adeptness with which we do so, and to apply it to comprehend our own situation in the world? If there was a fundamentally ludic orientation with respect to the game, does this require that we see life and the world as a game, which arguably involves no small amount of cynicism, in order to deconstruct it in the same manner? Starr (1994) has expressed concerns about the 'black-box nature' of the models in games that removes them from the criticism and debate that policy simulations receive, whilst Friedman (1999) has opined that the air of mystery around computers conceals the constructedness of computer games, and that they simulate the designer's theories only. But players arguably adopt a much more cynical attitude towards the procedurality of the game than those writers suppose; once the game has been comprehended, its limitations and design flaws are better understood (Crawford, 1986). Instead of an aesthetics of cognitive mapping that leaves us with a renewed sense of how to gauge the world, there is perhaps, in gaming culture, an aesthetics or connoisseurship of their dynamic process as reductively kitsch, particularly when they aspire to be simulations. This militates against the existence of an attitude geared towards making the world more intelligible.

Finally, if the analytical dimension is in fact in synch with the logos of informatics and control (Galloway, 2006), where playing a computer game involves 'identifying with the simulation itself' (Friedman, 1999) or thinking 'like a computer' (Newman, 2002), then the real political project may be to defy it. Is it possible to create a game that intentionally frustrates the bottom-up analytical process without being nonsensical or merely evidencing bad design? At least two options present themselves. First, where the game rules themselves changed at different parts of the game so that what the player thought they had consolidated as gamic knowledge becomes obsolete (although the regularities could still be mapped by the player and known to them on a second play through). Second, where the information that

could be reliably inferred by the player is intentionally deceptive. For example, the number of attacks it takes to defeat a particular enemy is programmed to be due not to a set number of hitpoints allocated for that enemy, but perhaps to the colour of the floor section on which it was at the time, the day of the week, or the last digit on display in the in-game timer. This kind of deceptiveness calls for a flouting of the gamic conventions that function as building blocks in the analytical process without it being initially evident that they are being discarded. The paper will explore the putative political potential of some select hypothetical examples, which seemingly exist in tension with their feasibility as games.

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