

# Player Superstition as a Design Resource

**Ben Kirman, Tom Feltwell**

University of Lincoln  
Lincoln, LN6 7TS, UK

[bkirman@lincoln.ac.uk](mailto:bkirman@lincoln.ac.uk), [tfeltwell@lincoln.ac.uk](mailto:tfeltwell@lincoln.ac.uk)

**Conor Linehan**

University College Cork  
Cork, Ireland  
[conor.linehan@ucc.ie](mailto:conor.linehan@ucc.ie)

## EXTENDED ABSTRACT

Superstition is a deeply rooted cultural belief in supernatural causality. Many examples exist in various cultures - the association of black cats with bad luck, aversion to the number 13 and the ability of the *Sambucus* tree to ward off witches. Sports and competitive games are steeped in superstition. For example, coaches wearing lucky hats, and baseball pitchers and rugby kickers developing elaborate ‘lucky’ routines. Players quickly make fallacious causal links between their actions and positive consequences experienced within game play (e.g., Lincolnshire Echo 2014). The lucky blow on the dice in *Craps* (Henslin 1967), or the lucky d20 used in a crucial battle with a dragon. The emergence of superstitions are usually not by design, however we propose this unusual psychological quirk has the potential to create uniquely rich interactive experiences. For example, the PC roguelike *UnReal World RPG* (Enormous Elk, 2015) explicitly builds on superstition as part of the mechanics. Within the Iron Age setting of the game, players can perform “rituals” which are suggested to influence their favour with gods and spirits. These rituals have an unclear effect on the game system- Was that wild reindeer just chance or in fact a reward from the spirits (i.e. game code) for attending to the appropriate ritual? Although a small part of the game, we argue this folkloric dynamic stirs an ancient psychological response that reinforces the Iron Age narrative for the modern player.

Superstitious behaviour is logical consequence of how we make sense of the environment. A simple behavioural psychology explanation of learning states that any behaviour on the part of any organism (i.e., rummaging under a rock), which is followed temporally closely by a favourable environmental response (i.e., finding a food source), is likely to be repeated (Skinner, 1948). The ability to modify behavioural tendencies based on environmental consequences essentially allows organisms to identify and respond appropriately to *causality*. Indeed, there are huge behavioural and evolutionary advantages to organisms capable of identifying which of their actions lead to more food and less physical danger and vice versa. Since there are such great advantages available for deriving these causal relationships, we do so readily. However, in situations where the information about how actions and consequences are related is not clear (e.g., due to

being temporally distant, or where many variables must be favourable), this ability can lead to type one errors and we see causation where it does not exist (Skinner, 1948). For example, links between our prayer pattern and the success of our crops. Superstition, essentially, is a logical consequence of a system designed to recognize causation, operating in an environment where information is imperfect.

Following a *research-through-design* methodology, we sought to explore the design space by first analysing an existing design in terms of its propensity for superstition, then attempting to distil this aspect into a single mechanic from which a game can be made.

The *Football Manager* (FM) series (Sports Interactive, 2005-2015) provides an interesting example of how player superstition arises from complexity. FM games simulate real football (soccer) leagues to incredible detail. The player acts as the manager of a football club, with their success mediated by the virtual footballers in their team. The player has a vast range of potential ways to impact their footballers, which can include training, positioning, and even emotional aspects through reassurances or giving them their favourite shirt number. Each action has some subtle effect on the game simulation, but there is little direct feedback of the actual effect of such activities for the player. The simulation behind the game is so complex that it is impossible to know, for example, how much of a role your stern team talk played in a recent victory. Did it matter at all? The player strives to derive the consequences of their actions in the face of highly complex and imperfect data, and fallacious connections are built (see Macintosh 2012).

Taking this unclear relationship between action and result as a core mechanic, we designed and implemented *Non-League Football Supporter*, an experimental mobile game where the player takes the role of a *fan* in a simulated soccer league. The player follows their team through the season, attending every match. Alongside match variables such as weather and location, the player may perform various activities before kick-off – for example painting their chest, eating a *pie barm* (a regional delicacy) or bringing their dog to the match. Critically, the player actions are never narratively associated with real football performance (e.g. as team talks in FM are). The match then unfolds automatically, and the player sees the result. Importantly, in flagrant violation of contemporary design guidelines (e.g. Linehan, 2014), no feedback is given to the player around the connection of their actions with the events or result of the match. The game only implicitly invites players to consider the effectiveness of their actions on the complex simulation.

Initial play tests of the game were held in order to catalogue the experiences of playerse. We found that players readily identified patterns of actions that they thought were likely to bring success. “ALWAYS bring your dog on away trips,” “never wear a shirt when it is raining.” Interestingly, the complex and convoluted connections between player actions and consequences seems to have driven not only logically superstitious behaviour, but also an emotional component. Players of this simple game seemed invested in the successes and failures of their team – and this seemed to be tied to the specified pattern recognition task and the complex and unreliable data provided to players in their solving of that pattern.

Game designers are already very comfortable with the, arguably irrational, value that players find in aleatory games of chance (e.g. Caillois 1961). This paper follows an attempt to develop the related and similarly irrational emergence of superstition through the combination of complexity and intentionally unclear feedback as a design pattern that

is of value and interest to game designers seeking to enrich their games with, perhaps, misunderstood and under-appreciated psychological dimensions.

## **Keywords**

Ritual, superstition, game design, dynamics

## **BIBLIOGRAPHY**

Caillois, R. (1961) *Man, play, and games*. University of Illinois Press

Enormous Elk. (2015). *UnReal World RPG*. [PC, RPG], Enormous Elk, Finland: played 10<sup>th</sup> January, 2015.

Henslin, J. M. (1967). Craps and magic. *American Journal of Sociology*, 316-330.

Lincolnshire Echo. (2014). Lincoln City striker Jordan Burrow to repeat pre-match routine after double strike against Nuneaton. Available at: <http://www.lincolnshireecho.co.uk/Lincoln-City-striker-Jordan-Burrow-repeat-pre/story-25619079-detail/story.html>

Linehan, C., Bellord, G., Kirman, B., Morford, Z. and Roche, B. (2014) Learning curves: analysing pace and challenge in four successful puzzle games. In *Proceedings of CHI Play*, 181-190.

Macintosh, I., Millar, K. & White, N. (2012) *Football Manager Stole My Life*, Backpage Press 2012

Morse, W. H., & Skinner, B. F. (1957). A second type of superstition in the pigeon. *The American Journal of Psychology*, 308-311.

Skinner, B. F. (1948). 'Superstition' in the pigeon. *Journal of experimental psychology*, 38(2), 168.

Sports Interactive. (2005-2015). *Football Manager* series. [PC, Sports Simulation], Eidos Interactive. 2005 to 2015, United Kingdom: played 10<sup>th</sup> January, 2015.