

# The role of frames in meaningful moral game play

## Kevin Schut

Trinity Western University  
21500 University Drive  
Langley, BC, Canada  
1-604-513-2121 x3603  
[Kevin.Schut@twu.ca](mailto:Kevin.Schut@twu.ca)

## Kelly Arbeau

Trinity Western University  
21500 University Drive  
Langley, BC, Canada  
1-604-513-2121 x3087  
[Kelly.Arbeau@twu.ca](mailto:Kelly.Arbeau@twu.ca)

## Myron A. Penner

Trinity Western University  
21500 University Drive  
Langley, BC, Canada  
1-604-513-2121 x3261  
[Myron.Penner@twu.ca](mailto:Myron.Penner@twu.ca)

## ABSTRACT

This paper addresses the findings of research on a set of frames that game players adopt while playing video games and the way those frames impact moral and ethical reasoning and decision making. Moral and ethical actions in games presuppose understanding: how players understand what is going on while playing a game very much shapes the way they may respond. Using a version of Erving Goffman's frame analysis, this research reports on two empirical studies: one that established the validity of a set of eight frames; another that asked gamers to report on how their use of frames impacted their moral and ethical game actions. The research finds that game players do indeed deploy multiple frames and that this has a very complex impact on the meaning of their in-game actions. This raises a number of philosophical issues about right and wrong action in video gameplay.

## Keywords

video games, morality, ethics, frame analysis, moral reasoning, ambiguity of meaning, interpretation, measurement, psychological factors, diary study, Game Player Frames Inventory (GPFI)

## INTRODUCTION

An increasing body of academic literature addresses the moral and ethical dimensions of playing video games. While there is an emerging consensus in the literature that game worlds, game narrative, and gameplay provide novel settings for moral reasoning and decision-making, there is a relatively small amount of research investigating the mediated nature of the video game. Jesper Juul has rightly described video games as "half real" (Juul 2005); such a condition, however, has implications for understanding and analysing the moral dimensions of gameplay. One consequence is that typical applications of moral reasoning will not neatly apply to evaluating ethical dimensions in playing a game. Game players think and behave at least somewhat differently in the "half real" world of games than in ordinary, non-gaming contexts depending on how the gamer interprets the nature of the game world and their role in it. Mapping the contours of various interpretive frames is a central focus of our research.

Moral reasoning and decision-making requires agents to have an interpretive grasp on clusters of interrelated concepts and meanings. For example, the action of *theft* requires the concept of *property*,

and the action of *murder* at least minimally requires the concept of *living thing* (one may destroy inanimate objects like tables and statues, but that doesn't constitute *murder*). This is not to say that agents engage in reflective reasoning on these concepts while engaging in morally salient behaviour. Indeed, it could be the case that the relevant moral psychology is largely pre-reflective and emotion-based (Haidt 2001). In everyday life, we have a wide range of well-established tools to determine the meaning of a wide variety of objects and circumstances—and even then, we are often confronted with moral ambiguities with unclear parameters. Video games, as half-real cybertexts are likely to introduce even more uncertainty.

This paper reports on the initial results and analysis of a two-stage investigation into how video game players understand or interpret what they are doing when they play a game and how that impacts their moral and ethical reasoning and decision-making. Following the lead of Fine (1983) and Consalvo (2009), this project builds off of Erving Goffman's (1974) frame analysis. Although Goffman's work is nuanced and complicated (Deterding 2014), the basic concept of a frame is fairly straightforward: it is the mental schema or construct we use to help answer the key question "what is it that's going on here?" The meaning of an utterance or action can shift considerably depending on the frame we adopt.

This research project used a psychometric survey to establish the key interpretive frames that people use when playing video games. It then deployed the frames in a diary study to capture interactions between trait (e.g. personality) and daily (e.g. moral or ethical actions taken while game-playing) experiences to predict endorsement of each of those frames. We found verification of our Game Player Frames Inventory and complex interactions between those frames and moral/ethical gameplay.

## **THE MORAL AND ETHICAL DIMENSIONS OF VIDEO GAMES**

Literature on video games, morality, and ethics comes from a variety of fields, such as social scientific study of player behaviour and cognition, moral philosophy, game design, and education. There is too much scholarship to cover comprehensively here, but it is worth noting a few major groupings of work.

Much of the philosophical research focuses on justifications (or lack thereof) for immoral action in video games. Morgan Luck's "Gamer's Dilemma" (briefly: the idea that if someone opposes virtual pedophilia in a video game, that person should also oppose virtual murder—and if one is acceptable, so is the other) was the basis of an extensive set of arguments (e.g. Luck 2009; Bartel 2012; Young 2016). Philosophical work includes many other approaches and topics (e.g. Sicart, 2009; Patridge 2011), but it often comes back to an examination of what constitutes right or permissible behaviour in a video game.

Social science research on this topic focuses on players: how they act in games with moral dimensions and why they make the decisions they do. For example, some scholarship (e.g. Hartmann 2017; Hartmann & Vorderer 2009) applies Bandura's moral disengagement theory to decision making in video games: the same socio-psychological processes that allow ordinary people to participate in genocide has, according to some researchers, resonance with the way some gamers are willing to take actions in games that are fundamentally at odds with their normal values. Other social science focuses on the role of intuition in moral and ethical decision making (e.g. Tamborini et al, 2018).

In addition, a range of designers and educators are interested in the capacity of games to teach positive moral and ethical reasoning. This scholarship is much more optimistic about the capacity for games to encourage empathy and other positive attributes (e.g. Staines et al, 2019; Schrier, 2021).

## **FRAMES AND THE AMBIGUITY OF MEANING IN VIDEO GAMES**

Most of this literature spends relatively little time considering the mediated nature of gameplay, although the topic isn't completely absent (e.g. Seddon, 2013). Gameplay is obviously not the same thing as real life and some scholarship digs into the implications of this in some depth (e.g. Bartel 2015; Krcmar & Cingel 2016). However, not very much of this research focuses primarily on how communication, media, and meaning actually impacts the gameplay experience.

On some level, this makes sense. As Mia Consalvo (2009) points out, the common sense division between video games and reality is problematic: the gaming experience is not hermetically sealed from everyday life and cognition. But she also points out that the nature of a gaming experience is certainly *different* from many other things we might ordinarily call “real life.” To describe the ways gamers might interpret their games and gaming, Consalvo draws on the research of sociologist Gary Alan Fine (1983) which focuses on role-playing gamers. Fine in turn draws on Erving Goffman (1974) and his notion of frames.

Goffman uses the term “frames” to describe the socio-psychological screens or schemas we mentally deploy to help make everyday interactions intelligible. A frame answers the question “what is it that’s going on here?” Depending on how we answer that question, our interpretation of activities and utterances in a situation can vary pretty widely. There is a big difference between thinking a conversation is one of friends and thinking it is that of a supervisor and supervisee: “you’re fired,” can be either comedic or devastating.

When researching table-top role-playing gamers, Fine found that gamers engaged at least three distinct frames while gaming, and that each of these games would significantly impact the meaning of their conversation. Fine also noted that the gamers could rapidly shift between their frames.

Given these observations, it seems logical to assume that frames would shape moral and ethical thinking. Video games are cybertexts with substantial interpretive flexibility, which suggests that although game players may sometimes indeed treat narrative situations with moral dimensions as they would outside of a game, there are likely other options. The following research attempts to map this interplay of interpretation and moral or ethical decision-making.

## **METHODOLOGY**

In Study 1, factor analysis was used to empirically test a set of eight interpretive frames previously identified in a pilot study (Schut 2017) and in theoretical work. A convenience sample of  $n=373$  game-players aged 18-77 ( $M$  age 24.78; 70.24% masculine gender, 26% feminine gender, 3.75% other gender), recruited online via social media, volunteered to participate. Participants were asked questions about their background demographics and game-playing, typical gaming motivation (Gaming Motivation Scale; Lafrenière et al. 2012), Big 5 personality (Mini-IPIP; Donnellan et al. 2006), and sensation seeking (Brief Sensation Seeking Scale; Hoyle et al. 2002).

To develop the Game Player Frames Inventory (GPFI) we initially generated a pool of 33 items aligned with seven interpretive frames, later adding four additional items aligned with an eighth frame. Sample scale items are “I am playing this video game as a character in a scene” and “I am in a state of fight-or-flight in this game and do not have time to ponder my rapid-fire decisions” (see the appendix for a full list). Principal components factor analysis with direct oblimin supported the following eight factor solution aligning with the previously identified interpretive frames:

- Avatar (I see my game avatar as some kind of manifestation of myself)
- Character (I am an imaginary character in the game)
- Story reader (I am playing according to what I think the game’s makers want the gamer to do)
- Storyteller (I am creating the game’s story)
- Competitor (I am playing to win)
- Stimulus-response (I am in a state of fight-or-flight)
- Tinkerer (I see the game as a toy to play with)
- Meta (I see the game as an object for some purpose other than “playing the game for its own sake”).

Reliability analysis resulted in a measure consisting of eight frames with three items per frame (Appendix A). The tinkerer, character, and storyteller frames were the most strongly endorsed by participants as frames that they use when gaming. Few associations were found between the interpretive frames and typical gaming motives (e.g., intrinsic motivation; extrinsic regulation; Lafrenière et al. 2012) and personality characteristics (e.g., openness, conscientiousness; Donnellan et

al. 2006), which provides evidence of divergent validity for our measure and supports that frames are not stable but, rather, likely to be highly variable and responsive to the particular characteristics of any given gaming scenario.

In Study 2, the GPFI was deployed in a daily diary study to assess whether taking actions while playing that some (not necessarily the game player) would consider moral/immoral or ethical/unethical would differentially predict endorsement of the game-player frames, whether as a main effect or in interaction with background characteristics such as personality. For this study, 67 volunteer participants aged 18-47 ( $M$  age 27.42; 79% masculine gender, 14.9% feminine gender, 6.1% other gender) completed a background questionnaire assessing the same factors as in Study 1, as well as questions about the importance of spirituality in their life, need for cognition (enjoyment of activities involving thinking; Caccioppo & Petty 1984) and sensitivity to reward (Carver & White 2013). Participants then completed a daily diary each evening for up to 10 days, recording time spent gaming, endorsement of each of the interpretive frames, whether they took an action commonly considered moral or ethical (e.g., killing someone/something, rescuing someone in trouble), and mood (positive and negative affect; Watson, Clark, & Tellegen 1988).

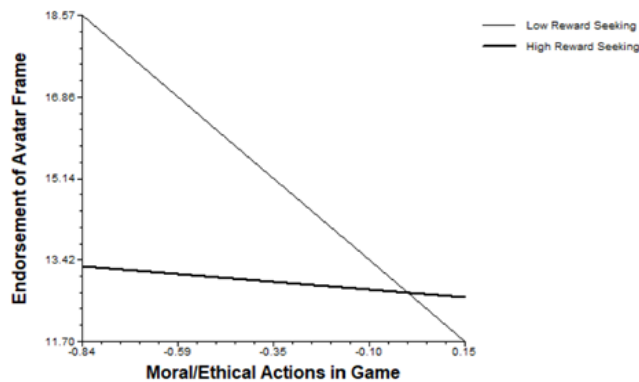
## RESULTS

On average, participants in the diary sample reported typically spending  $M=18.89$  hours playing video games per week ( $SD=18.89$ , range: 0-60 hours), across an average of 5.71 days per week ( $SD=1.58$ , range: 0-7 days). Participants reported 533 diary days total, for a mean of 7.96 entries per person. Of those entries, 475 (89.1%) were gaming days, for a mean of 7.09 gaming days per participant, during which they played for an average of 2.14 hours (range 0-20 hours).

We used hierarchical linear modelling (HLM) to model the cross-level effects that were at the heart of our research question of the role played by taking actions considered moral or ethical in endorsement of each of the interpretive frames (Raudenbush & Bryk 2002). Each participant's diary entries (the daily variables, including endorsement of each interpretive frame and whether they took an action commonly considered moral/immoral or ethical/unethical) were considered nested within the individual (the baseline variables, including age, personality, and personal importance of spirituality). To estimate each multilevel model, all main effect predictors and interaction terms were initially entered into the model, with nonsignificant variables removed from the model using a backward elimination approach, until only statistically significant predictors and those variables having one or more cross-level interactions remained (Ma 2004).

We found that taking an action in the game that some would consider moral/immoral or ethical/unethical was involved in some way in endorsement of the avatar, character, meta, story reader, and storyteller frames. In contrast, taking these actions was *not* associated with endorsement of the competitor, stimulus-response, or tinkerer frames. In other words, five of the eight frames identified through our research are responsive to encountering moral/ethical scenarios while gaming, and three are not. We would like to show you two examples.

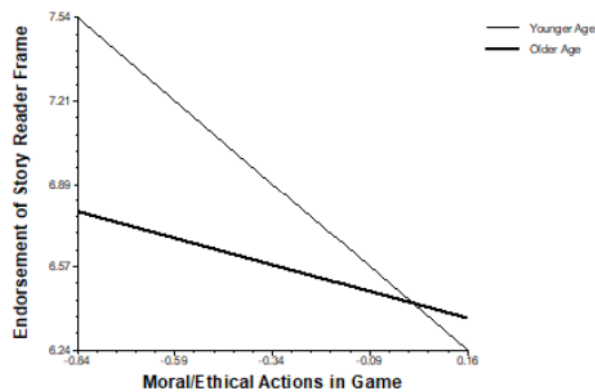
Endorsement of the avatar frame was predicted by three daily-level predictors (moral/ethical action, time spent gaming, and negative mood) and one baseline-level predictor (age, in which younger age predicted greater endorsement). These main effects were qualified by the presence of two cross-level interactions, one of which involved moral/ethical action (Figure 1).



**Figure 1:** Interaction of trait reward-seeking with moral/ethical game actions predicts endorsement of the avatar frame.

High reward seekers (those who are inclined to move toward a desired goal or reward; Carver & White 2013) are equally likely to endorse the Avatar frame regardless of whether they have taken an action in the game considered moral/immoral or ethical/unethical. In contrast, persons who score lower in trait reward-seeking are much more likely to endorse the avatar frame on days when they have not taken moral/ethical action in the game, but this likelihood is reduced (and matches that of high reward seekers) on days when they have taken moral/ethical action in the game.

In comparison, endorsement of the story reader frame was predicted by one daily-level predictor (time spent gaming) and one baseline-level predictor (reward seeking); each predictor was negatively associated with the story reader frame. These main effects were qualified by the presence of two cross-level interactions, one of which involved moral/ethical action (Figure 2).



**Figure 2:** Interaction of age with moral/ethical actions predicts endorsement of the story reader frame.

Younger participants were more likely than are older participants to endorse the story reader frame on days in which they had not taken moral/ethical actions in the game. However, all participants, regardless of age, were less likely to endorse the story reader frame on days when they took moral/immoral or ethical/unethical actions, which suggests that moral/ethical actions are unlikely to be viewed through a story reader frame.

## **ANALYSIS & CONCLUSION**

We are in the process of unpacking the value and significance of our findings, so our conclusions are in process. There are a few things we can say with some confidence:

- Our research supports the idea that players ask “What’s going on here?” when they interact with games.
- In line with the work of Fine (1983), players endorsed multiple frames, both within the same day and across the 10-day study period.
- Moreover, use of these different frames connects with different approaches to moral/ethical actions--and this is moderated by a complex range of psychological factors, including personality and reward seeking, as well as factors that vary day-to-day such as the amount of time that players spent gaming.

Our research intersects with a number of philosophical issues that arise when considering morality and video games. First, it seems clear that the meaning gamers ascribe to their actions in games will vary according to the interpretive frame they adopt during game play. As a result, conceptually, understanding the ethical significance of different actions within gameplay should take frame analysis into account. For example, consider two gamers who undertake acts of extreme violence within a game. It seems that the person who does so while assuming the avatar frame (where the game character is seen as a manifestation of themselves) is morally at risk in ways that the gamer who performs the same action while assuming the storyteller frame (where the game is a context for creating a fictional narrative) is not.

Another related area of philosophical interest for our research concerns the connection between the variability of moral actions across game frames and the intersection with metaethical theories. It could be that some game frames align more naturally with some moral theories than with others. For example, the Story Reader frame seems to more naturally resonate with ethical analysis deontological, duty oriented theories than, say, virtue theoretic accounts. This is because the Story Reader is duty bound to play within the perceived confines of what they think the game designers have prescribed.

We do not believe this frame analysis invalidates other work on morality and ethics and video games. Nothing here would prevent designers and educators from using games to teach important values; the GPFI does not contradict research that shows people responding to games with many of the same approaches and ideas as they would in real life; the issues raised by philosophers about right and wrong action in games are still interesting and worth considering.

Rather, the GPFI complicates those findings. The gaming situation is not straightforward, and the best research recognized the complexity of what game players experience. Given that, we see our research as a useful complement to other research on moral and ethical gameplay. Our research points out another dimension to consider when approaching gameplay that we might code as having moral and ethical import. Moral and ethical reasoning and decision-making depends upon interpretation, and that interpretation can vary significantly on the basis of how players currently understand their game and gaming situation.

## BIBLIOGRAPHY

- Bartel, Christopher. 2012. "Resolving the Gamer's Dilemma." *Ethics and Information Technology* 14 (1): 11-16. <https://doi.org/10.1007/s10676-011-9280-8>.
- Bartel, Christopher. 2015. "Free Will and Moral Responsibility in Video Games." *Ethics and Information Technology* 17 (40): 285-293. <https://doi.org/10.1007/s10676-015-9383-8>.
- Cacioppo, J.T. and Petty, R.E. 1982. "The Need for Cognition." *Journal of Personality and Social Psychology*. 42: 116-31. <https://doi.org/10.1037/0022-3514.42.1.116>.
- Carver, C. S. and White, T. L. 1994. "Behavioral Inhibition, Behavioral Activation, and Affective Responses to Impending Reward and Punishment: The BIS/BAS Scales." *Journal of Personality and Social Psychology* 67: 319–33. <https://doi.org/10.1037/0022-3514.67.2.319>.
- Consalvo, M. 2009. "There Is No Magic Circle." *Games and Culture* 4 (4): 408–17. <https://doi.org/10.1177/1555412009343575>.
- Deterding, Sebastian. "Modes of Play : A Frame Analytic Account of Video Game Play." PhD diss. University of Hamburg, 2014. <https://ediss.sub.uni-hamburg.de/handle/ediss/5508>.
- Donnellan, M., Oswald, F. Baird, B. and Lucas, R. 2006. "The Mini-IPIP Scales: Tiny-yet-Effective Measures of the Big Five Factors of Personality." *Psychological Assessment* 18 (July): 192–203. <https://doi.org/10.1037/1040-3590.18.2.192>.
- Fine, G. A. 1983. *Shared Fantasy*. Chicago, IL: University of Chicago Press.
- Goffman, Erving. 1974. *Frame Analysis: An Essay on the Organization of Experience*. Frame Analysis: An Essay on the Organization of Experience. Cambridge, MA, US: Harvard University Press.
- Haidt, Jonathan. 2001. "The emotional dog and its rational tail: A social intuitionist approach to moral judgment." *Psychological Review*, 108 (4), 2001: 814-834. <https://doi.org/10.1037/0033-295X.108.4.814>.
- Hartmann, T. 2017. "The 'Moral Disengagement in Violent Videogames' Model." *Game Studies* 17 (2). <https://gamestudies.org/1702/articles/hartmann>.
- Hartmann, T. and Vorderer, P. 2009. "It's Okay to Shoot a Character: Moral Disengagement in Violent Video Games." *Journal of Communication* 59: 865–90.
- Hoyle, R.H., Stephenson, M.T., Palmgreen, P., Pugzles Lorch, E. and Donohew, R.L. 2002. "Reliability and Validity of a Brief Measure of Sensation Seeking." *Personality and Individual Differences* 32 (3): 401–14. [https://doi.org/10.1016/S0191-8869\(01\)00032-0](https://doi.org/10.1016/S0191-8869(01)00032-0).
- Juul, J. 2005. *Half-real: Video games between real rules and fictional worlds*. Cambridge, MA: The MIT Press.
- Krcmar, M., and Cingel, D.P. 2016. "Moral Foundations Theory and Moral Reasoning in Video Game Play: Using Real-Life Morality in a Game Context." *Journal of Broadcasting & Electronic Media* 60: 87–103. <https://doi.org/10.1080/08838151.2015.1127246>.
- Lafrenière, M-A., Verner-Filion, J. and Vallerand, R. 2012. "Development and Validation of the Gaming Motivation Scale (GAMS)." *Personality and Individual Differences* 53: 827–31. <https://doi.org/10.1016/j.paid.2012.06.013>.

- Morgan Luck. 2009. "The Gamer's Dilemma: An Analysis of the Arguments for the Moral Distinction between Virtual Murder and Virtual Paedophilia," *Ethics and Information Technology* 11 (1): 31-36. <https://doi.org/10.1007/s10676-008-9168-4>.
- Ma, X. "Advanced Seminar in Hierarchical Linear Modeling." In G. Brannigan, & H. Krahn (Chairs), *Western Statistics Seminars*. Workshop conducted at the University of Alberta and University of Calgary Data Training Schools and Statistics Seminars, Calgary, AB, Canada, May, 2004.
- Patridge, Stephanie. 2011. "The Incurable Social Meaning of Video Game Imagery." *Ethics and Information Technology* 13 (4): 303-12. <https://doi.org/10.1007/s10676-010-9250-6>
- Raudenbush, S.W. 2004. *HLM 6: Hierarchical Linear and Nonlinear Modeling*. Scientific Software International.
- Schrier, Karen. 2021. *We the Gamers: How Games Teach Ethics & Civics*. Oxford: Oxford University Press.
- Schut, Kevin. 2017. "Playing with Meaning: Video Games, Interpretation, and Ethics." Paper presented at the *Video Games and Virtual Ethics Conference*, London, England, 21-22 July. Institute of Philosophy, University of London.
- Seddon, Robert Francis John. 2013. "Getting 'Virtual' Wrongs Right," *Ethics and Information Technology* 15 (1): 1-11. <https://doi.org/10.1007/s10676-012-9304-z>.
- Sicart, Miguel. 2009. *The Ethics of Computer Games*. Cambridge, MA, USA: MIT Press.
- Staines, Dan, Paul Formosa, & Malcolm Ryan. 2019. "Morality Play: A Model for Developing Games of Moral Expertise," *Games & Culture* 14 (4): 410-429. <https://doi.org/10.1177/1555412017729596>.
- Tamborini, R., Bowman, N.D., Prabhu, S., Hahn, L., Klebig, B., Grall, C. and Novotny, E. 2018. "The Effect of Moral Intuitions on Decisions in Video Game Play: The Impact of Chronic and Temporary Intuition Accessibility." *New Media & Society* 20 (2): 564-80. <https://doi.org/10.1177/1461444816664356>.
- Watson, D., Clark, L.A. and Tellegen, A. 1988. "Development and Validation of Brief Measures of Positive and Negative Affect: The PANAS Scales." *Journal of Personality and Social Psychology* 54: 1063-70. <https://doi.org/10.1037/0022-3514.54.6.1063>.
- Young, Garry. 2016. *Resolving the Gamer's Dilemma: Examining the Moral and Psychological Differences between Virtual Murder and Virtual Paedophilia*. Cham, Switzerland: Palgrave Macmillan.



## APPENDIX: DATA ON GAME PLAYER FRAMES INVENTORY

### *Avatar Frame ( $\alpha=.75$ )*

- I see my game avatar as some kind of manifestation of myself, and I make decisions in the game as I would if I were in real life.
- I am controlling a person in the game that I view as a stand-in for me, and I take actions that I would actually take.
- I am playing this video game as if I were really in it.

### *Character Frame ( $\alpha=.63$ )*

- I am playing this video game as a character in a scene.
- I am a character in the game, making choices as that character would.
- I see myself as an active character in the game.

### *Competitor Frame ( $\alpha=.86$ )*

- I am playing to win, because that is what the game is about first and foremost.
- I see myself as a competitor trying to win a contest.
- I am making choices that will help me to win because winning is the most important reason for playing the game.

### *Stimulus Response Frame ( $\alpha=.82$ )*

- I am in a state of fight-or-flight in this game and do not have time to ponder my rapid-fire decisions.
- I see the game as a series of intense actions that don't allow time for reflection or careful thought about my decisions.
- I am a survivor trying to get through a stressful situation with no time to think carefully about my decisions.

### *Story Reader Frame ( $\alpha=.80$ )*

- I am playing according to what I think the game's makers want the gamer to do for the best experience.
- I am attempting to make choices I think the game's creators want me to.
- The game's makers are storytellers, and I choose what I think they intend for me to do in order to have the best possible experience of that story.

### *Storyteller Frame ( $\alpha=.82$ )*

- I am the game's storyteller and will choose options that lead to the best story.
- I see myself as the game's storyteller and will choose options in the game that create a good story.
- I am creating the game's story, so I choose what will make the best story.

### *Tinkerer Frame ( $\alpha=.83$ )*

- I am playing with the game as if it's a toy and I will make choices just to see what happens in the game.
- I am an experimenter, playing with the game to see what happens when I try different things.
- I see this game as a toy to play with and I want to test out what it can do.

### *Meta-Gaming Frame ( $\alpha=.51$ )*

- I am using the game as a means to achieve some goal, rather than playing it for the experience of playing a game.
- I am not currently playing as a gamer—rather, I'm using the game to achieve a non-game goal.
- I see the game as an object to use for some purpose other than "playing the game for its own sake" or "playing the game because I want to play a game."