



11-3-2017

Why People Play Table-Top Role-Playing Games: A Grounded Theory of Becoming as Motivation

Darrin F. Coe

Peru State College, dcoe@peru.edu

Follow this and additional works at: <https://nsuworks.nova.edu/tqr>

 Part of the [Leisure Studies Commons](#), [Other Psychology Commons](#), [Social Psychology Commons](#), and the [Theory and Philosophy Commons](#)

This Article has supplementary content. View the full record on NSUWorks here:

<https://nsuworks.nova.edu/tqr/vol22/iss11/1>

Recommended APA Citation

Coe, D. F. (2017). Why People Play Table-Top Role-Playing Games: A Grounded Theory of Becoming as Motivation. *The Qualitative Report*, 22(11), 2844-2863. Retrieved from <https://nsuworks.nova.edu/tqr/vol22/iss11/1>

This Article is brought to you for free and open access by the The Qualitative Report at NSUWorks. It has been accepted for inclusion in The Qualitative Report by an authorized administrator of NSUWorks. For more information, please contact nsuworks@nova.edu.



Why People Play Table-Top Role-Playing Games: A Grounded Theory of Becoming as Motivation

Abstract

There is a paucity of research related to the motivation of people who play table-top role-playing games (TRPGs). Two questions drove this research: (1) What motivates people to play TRPGs and (2) Can a single supra-motivator be developed which envelopes a larger theory of why people participate in TRPGs? Grounded Theory methodology was used to investigate why people initiate and continue to participate in table-top role-playing games. Fourteen people who attended a 4-year college who played TRPGs and two people who did not play were interviewed regarding their participation in role-playing games. Open codes, emergent categories, conceptual categories, and a theoretical category indicated there exist two conceptual categories related to why people initiate participation in TRPGs and five conceptual categories related to why people continue to play TRPGs. These categories were linked together to develop the theoretical category of “becoming” to explain the motivations of people who play TRPGs. The emergent theory of becoming as motivation, limitations, and future directions for research are discussed within the interpretive context and research context.

Keywords

Table-Top Role-Playing, TRPG, Motivation, Motivation Theory, Becoming, Grounded Theory, Emergent Codes, Theoretical Coding, Open Coding, Theory Development, Conceptual Codes, Semantic Network Analysis

Creative Commons License



This work is licensed under a [Creative Commons Attribution-Noncommercial-Share Alike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/).

Acknowledgements

I would like to acknowledge the support and help of Dr. Greg Galardi, as well as the feedback and support of Dr. Sarah Bowman and Steven Dashiell. I would also like to thank the reviewers for their helpful comments. Finally I would like to acknowledge the participation of all of my research participants, without them there would be no theory.

Why People Play Table-Top Role-Playing Games: A Grounded Theory of Becoming as Motivation

Darrin F. Coe

Peru State College, Nebraska, USA

There is a paucity of research related to the motivation of people who play table-top role-playing games (TRPGs). Two questions drove this research: (1) What motivates people to play TRPGs and (2) Can a single supra-motivator be developed which envelopes a larger theory of why people participate in TRPGs? Grounded Theory methodology was used to investigate why people initiate and continue to participate in table-top role-playing games. Fourteen people who attended a 4-year college who played TRPGs and two people who did not play were interviewed regarding their participation in role-playing games. Open codes, emergent categories, conceptual categories, and a theoretical category indicated there exist two conceptual categories related to why people initiate participation in TRPGs and five conceptual categories related to why people continue to play TRPGs. These categories were linked together to develop the theoretical category of “becoming” to explain the motivations of people who play TRPGs. The emergent theory of becoming as motivation, limitations, and future directions for research are discussed within the interpretive context and research context. Keywords: Table-Top Role-Playing, TRPG, Motivation, Motivation Theory, Becoming, Grounded Theory, Emergent Codes, Theoretical Coding, Open Coding, Theory Development, Conceptual Codes, Semantic Network Analysis

According to the website ICv2 (Internal Correspondence version 2; 2016), role-playing games are the fastest growing segment of the hobby game market. ICv2 reported that the top selling role-playing game of 2015 was Dungeons and Dragons published by Wizards of the Coast. Phillips (2013) reports that table-top role-playing games (TRPGs) are on the rise and are continuing to become a mainstay recreational activity despite high tech competition.

Bowman (2010) determined that TRPGs benefit participants by facilitating community building, identity exploration, and cognitive flexibility through strategizing, goals setting, and problem solving. TRPG participation has also been found to improve creative potential (Scott et al., 2016) and help facilitate creativity, collaboration, group imagination, enriched learning, and identity exploration (Daniau, 2016) as well as increasing group skills and positive psychological and social development, while also improving empathy skills (Merilainen, 2013). Sarup (1981) found support for using role-playing to change attitudes and in early work on the benefits of role-playing Elms (1966) found role-playing facilitated significant attitude change among men who smoked.

TRPGs are generally played with pencil and paper and multi-sided dice. Players create characters based on the rules of the specific TRPG and imaginatively take on the role of their created character. A game master (GM) creates a storyline and a fictional world which players help co-create through role-playing; interacting with each other both as players and their characters. Outcomes are accomplished through both the rules and mechanics of the specific game being played as well as the role-playing of the players. TRPGs as a form of role-playing can be considered a game of formal make-believe (Montola, 2008).

Gaming researchers appear to have investigated the motivations of people who play computer role-playing games (CRPGs) as well as investigating role-playing games played in

educational contexts. A search of literature specifically related to the motivation of people who participate in TRPGs reveals a paucity of research.

I have used Grounded Theory methodology (Charmaz, 2014; Creswell, 2007) to investigate the motivations of college students who play TRPGs, in an attempt to build a localized theory of TRPG player motivation. This theory will add to the larger motivation literature. These results may be disseminated to the wider role-playing community so that role-playing game developers, people who administrate games for others, as well as investigators conducting research into role-playing games may benefit from a deeper understanding of player motivation. These people will be able to design more motivating games, administer games with an eye to their players' motivations, and design more refined research, respectively.

Motivation

Reeve (2005) defines motivation as “processes that give behavior its energy and direction” (p. 6). Motivation results from processes within a person and forces in the environment. Thus, motives can be considered internal experiences that energize while the environment provides incentives that reward or punish various behaviors chosen to meet or facilitate individual needs, cognitions, or emotions (Reeve, 2005). Motivation can also be considered a constellation of beliefs, values, interests, and actions that are the underlying reasons for behavior; motivation is the attribute that moves us to perform or not perform an action (Lai, 2011).

Motivation theory. Motivation theory comprises two primary domains: intrinsic motivation and extrinsic motivation. Extrinsic motivation is motivation that is considered coerced by the environment and is derived from an external source such as money, grades, or the approval of others. Intrinsic motivation does not come from an external source but is inherent in the activity being performed; the activity is considered good or pleasurable in and of itself (Deckers, 2010).

Reeve (2005) and Deckers (2010) believe that motivation comprises biological drives, psychological needs, social needs, and cognition. The biological domain comprises instinctual drives that serve to enhance survival and alleviate real deficit within the body (e.g., food, sex, thirst). Fields (2012) contends that humans also have an instinctual drive to experience changes in our consciousness. Psychological needs are proactive mental processes that may be considered deficit levels between actual and desired levels of satisfaction, wellness, and pleasure (Deckers, 2010), which promote a willingness to seek out and engage elements of our environment (Reeve, 2005). Some psychological needs include autonomy, competence, relatedness, cognition (Deckers, 2010; Reeves, 2005) and creativity (Runko, 2005).

Social needs comprise the need for achievement, affiliation and intimacy, and power (Reeve, 2005). The need for cognition includes the development and achievement of goals, and is a psychological need to engage in analytical, critical, and strategic problem-solving (Deckers, 2010; Reeve, 2005). Emotions provide energy for survival and learning. Reeve (2005) believes the instinctual emotions comprise fear, anger, disgust, sadness, threat/harm, joy, and interest. The positive emotions of joy and interest are considered as fundamental to the pursuance and satisfying of other motivational needs and drives.

Motivation and Role-Playing Games

Role-playing games generally consist of live-action role-playing games, TRPGs, CRPGs, as well as role-playing used within an educational context, referred to as Edu-LARP.

Motivation and Edu-LARP. Bowman and Standiford (2016a) found that using live action role-playing to teach science to middle school students facilitated an increase in intrinsic

motivation and interest in science. Creativity, goal-setting, and team interaction were found to be significant motivators of students who engaged in an educational role-play (Burenkova, Arkhipova, Semenov, & Samarenkina, 2015). Bowman and Standiford (2016b) identified six types of immersion that may motivate students training in various healthcare fields.

Motivation and CRPGs. Computer role-playing games are computer-simulated environments that allow geographically separated individuals to interact through created characters that are graphical representations of the participant, within various scripted storylines (Fuster, Chamarro, Carbonell, & Vallerand, 2014; Yee, 2006b). Fuster et al. indicate that socialization, exploration, and achievement are important motivations of people who play CRPGs, along with a motivation referred to as dissociation. According to Yee (2006b) CRPG participants interact virtually with one another in a type of virtual socialization based on the specific game's digital or virtual environment, via imaginative and scripted structures such as guilds, military groups, raiding parties, and team or group organizations.

Yee (2006a) identifies 3 components and 10 subcomponents that are believed to describe the motivations of CRPG participants. Yee creates a strong framework for describing the motivations by using principle component analysis. These appear to be categorical descriptions of motivations but fail to answer the questions of "why?" and "how?"

Play

According to Van Vleet and Feeney (2015), play can be regarded as a behavior engaged in with the purpose of amusement, enjoyment, and fun that is approached with enthusiasm and being in the moment, which results in a liberating and enjoyable experience. Play behavior is highly interactive with others, with an activity, or both. Thus, we can identify board games, TRPGs, CRPGs, and Live Action Role-Playing (LARPs) as forms of play. If these games can be considered play behavior with similarities, then perhaps one can identify general motivations to engage in play behavior that will help in understanding motivation to play TRPGs. One may be able to compare them in a general sense in terms of their psychology and interactive nature.

In their review of research on adult play behavior, Van Vleet and Feeney (2015) suggest that play serves as a way to develop intimacy between players, to establish a safe and secure relationship context between players, signifying acceptance and validation of play partners, reduce relational conflict, facilitate effective communication, to think flexibly and unconventionally, induce feelings of excitement and positive affect, and promote relief from stress. Self-expansion can be enhanced through a group process and can result in a shared expansion experience.

According to Berk and Meyers (2013) the capacities children forge in play gradually transfer to real-world endeavors. Make believe strengthens the internal capacity to regulate behavior as well as strengthen responsiveness to external pressures to act in socially desirable ways. These capacities are facilitated through the engagement of symbolic representation and rules to govern the make-believe. Davis and Bergen (2014) suggest that children address moral issues when playing with peers, specifically through the use of make-believe and rule-based play, and found that make-believe play is significantly associated with moral behavior among college students.

None of these findings regarding play behavior provide insight into the motivations to engage in play behavior and specifically what motivates people to engage in playing TRPGs. As a form of play behavior, TRPGs may contribute to positive human development. It is important to develop insight into why people initiate and continue playing TRPGs so that more people might be more effectively encouraged to engage in participation, resulting in enhanced growth and development. To this end, I have two questions: (1) What motivates people to play

TRPGs and (2) Can I develop an encompassing theory of TRPG participant motivation that will address my belief that TRPGs are beneficial to those who play them?

Bracketed Experience

When conducting qualitative research investigations the researcher brings various biases and experiences to the research process. It is important for the investigator to denote his/her various biases and experiences so that interpretation of results can be better contextualized. I am an avid participant in TRPGs. I bring to this research process an insider's knowledge of role-playing and TRPGs. My experience has informed the questions I asked during interviews; the questions were generally focused on positive processes, motivations, and experiences.

My insider experiences guided the topics I chose to explore during the analyses of data; because I believed I understood much of what participants shared with me, I explored data that seemed less familiar in content. My TRPG experience also impacted how I interpreted these data; I have generally taken a positive view of TRPG participation during data interpretation.

During this investigation my many informal interactions with TRPG participants has led to me having a richer understanding of their thought process outside of the interview context, while at the same time possibly imposing my own biases on their discussions. As I have examined my desires to investigate the motivations of people in college who participate in TRPGs, I am driven, in part by a desire to understand my own motivation to participate in TRPGs and perhaps understand a little about how my participation has impacted my personal development.

Interpretive Lens

My attempts to interpret and discuss these data are generally made by looking at the results through the lens of symbolic interactionism as discussed by Charmaz (2014) and Blumer (1969). According to Blumer, our environments consist of objects which are given meaning from interactions between people. These objects are symbolic of meaning and reality as determined by interpersonal and intrapersonal interactions. Blumer states, "out of a process of mutual indications common objects emerge—objects that have the same meaning for a given set of people and are seen in the same manner by them" (p. 11). Constructivist Grounded Theory (Charmaz, 2014) attempts to uncover these common objects that Blumer (1969) refers to, such that results and discussion are the reconstruction of a commonly shared reality among participants as they interact with themselves, others, and the researcher. It is my goal to uncover the participants' shared understanding of what motivates them to begin and continue participation in TRPGs.

Methods

I chose to investigate the motivations of TRPG participants using Grounded Theory because it is considered a methodology of choice when investigating a phenomenon that appears to need exploration (Creswell, 2007). I have generally adhered to the constructivist paradigm of Charmaz (2014). I attempted to focus on the inter-relationships and processes among raw data, categories, theoretical categories, and abstracted concepts, while at the same time orienting the results within the larger framework of motivation theory.

Interpretive Context

All participants were active college students or had played TRPGs when they were active college students. The college that participants attend is a small, rural, liberal arts college. The college advertises itself as having a strong sense of community on campus. There is a focus on inquiry, engagement, community service, and academics. Some of the participants were artists involved in theater, some of them were scientists involved in the physical sciences, and some of them had a variety of interests from medieval arts to sports.

Participants and Sampling

Participants were recruited from the larger student population of a small, rural, Midwestern (USA) liberal arts college. I knew many of the students who were recruited, had taught a number of them in various Psychology classes, and spent time talking with them informally. Recruitment was accomplished by emailing a recruitment letter to all students attending classes on campus. Recruitment letters were also posted in Facebook groups related to TRPG that were operated by students who attended the college.

Each participant needed to meet the criteria of actively participating in a TRPG or have had participated in TRPGs while attending college. I also utilized snowball sampling, obtaining names of potential participants from students who initially agreed to participate. In addition, I also recruited four members of the TRPG group that I participated in during college with whom I had maintained contact via social media. Creswell (2007) states that Grounded Theory research can be made more credible by interviewing non-confirming participants, thus, I also recruited two students who had never participated in TRPGs to better understand the motivation of people who were not interested in playing these types of games. These students were recruited through on-campus, in-class announcements of an opportunity to participate in Psychological research. These non-confirming participants were able to provide valuable data that may differentiate between playing TRPGs and other types of games such as basketball or other sports. Finally, students were recruited to participate in online instant messaging focus groups to engage in deeper group discussions of various motivation topics, such as how does motivation to participate in TRPGs differ from motivation to participate in CRPGs, and whether or not within-game achievements are motivating or instrumental, in an effort to enhance the credibility of the research process and results through triangulation of data (Creswell, 2007)

A total of 16 individuals were interviewed, with 5 of them being interviewed twice. Participants were comprised 5 females, 3 people of multi-ethnic heritage, 1 participant of Spanish speaking heritage, and the majority of participants claimed Western or Eastern European heritage. Two participants were interviewed as non-confirming participants who did not participate in TRPG.

Procedure

Each person who expressed interest in participating in the research project was invited to participate in an interview. The interview questions were initially created based on my experience playing TRPGs and then were modified based on the data supplied during initial interviews. Not all questions were designed to directly access the concept of motivation. I designed many questions to access the concept of motivation indirectly through discussion of the participant's perception of the social aspects of playing TRPGs; probing participant's subjective perception of immersion which Bowman and Standiford (2016b) believe to be motivating, as well as questions that address decision making, TRPG participation benefits,

perceptions of how TRPG represent reality, and participants perceptions of how TRPG may have impacted their lives. I conducted an initial, semi-structured interview with each participant, lasting between 45 minutes and 90 minutes. Five students were asked to participate in second interviews because they appeared to have deeper insight into their personal motivations for playing TRPGs as well as having more insight into themselves. Second interview questions were designed to help develop a deeper understanding of theoretical concepts including: motivation, immersion, voice, or reinforcement. See Appendix A for a list of all interview questions. All initial and secondary questions and procedures were reviewed and approved by the Peru State College Institutional Review Board.

As each interview was completed it was transcribed and initially coded with an emergent or open code (Charmaz, 2014). As coding and analysis continued, focus groups were formed. These groups comprised students who had previously been interviewed, and students who had not been interviewed one-to-one. Focus groups were conducted asynchronously using Facebook.com's instant messenger group function. I chose to use electronic technology for conducting focus groups due to the difficulty in gathering people together in one place and because Facebook.com's instant messenger group function provides a narrative record that can be easily saved and analyzed.

Each participant was asked if they would like to join the group and was provided with the purpose of the group. After each participant consented to join, I added them to the group and then asked more detailed questions that focused on concepts of motivation related to the ongoing data analyses. See Appendix B for focus group questions.

Apparatus

All interviews were recorded using a Dell laptop and a stand-alone microphone, and were conducted in a private office that provided a quiet, non-distracting atmosphere. Interviews were transcribed and given initial or emergent codes using V-note software (V-note.org, 2017). I used ATLAS.ti (Scientific Software Development GmbH, 2017) for deeper analysis of transcripts and emergent codes, as well as linking data in memos to emergent codes which helped develop the semantic network analysis.

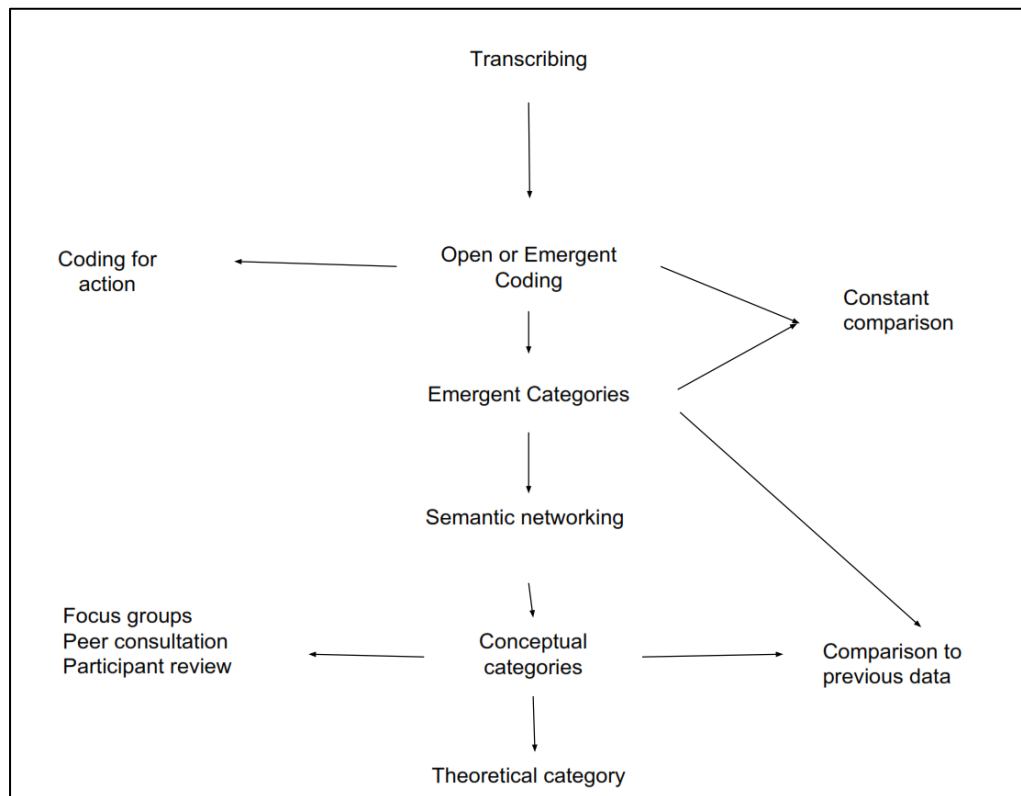
Analysis Procedure

As I completed each interview, I transcribed and coded the interview simultaneously. I did not impose any pre-developed or pre-existing codes on the data and I developed all open or emergent codes to describe the action taking place within a data segment (Charmaz, 2014); data segments consisted of 7 to 10 seconds of audio/video data. Once I fully coded a transcript then I coded the emergent codes for emergent categories, which described processes or relationships and many emergent codes received multiple emergent category codes. As I engaged in the coding process I continually compared emergent category codes to one another and to the emergent codes themselves to ensure they were grounded in the raw data.

Once I developed emergent category codes, I created semantic networks linking category codes to one another as well as to emergent codes allowing me to analyze any possible underlying processes and relationships that might exist, leading to more abstract theoretical categories. I compared and contrasted emergent categories and emergent codes through visual inspection of semantic network maps. I then compared semantic network maps to an analysis of what emergent codes were most frequently associated with various emergent categories, how emergent codes linked together unrelated emergent categories, and relationships between emergent categories that allowed for grouping them into theoretical super-categories or abstract concepts.

Throughout the analytic procedure I used memo writing to link together various emergent categories, codes, and theoretical categories to develop theoretical concepts which could be oriented within the larger framework of motivation theory and TRPG theory. See Figure 1 for a graphic visualization of the analysis process.

Figure 1: Flow Chart for Data Analysis



Triangulation and credibility. To enhance the credibility of data analysis and interpretation of results Creswell (2007) suggests providing samples of data and analysis to research peers and colleagues. I provided de-identified raw data, emergent coding, and initial theory to research peers and other TRPGs scholars who are a part of the Role-Play Theory Study Group (RPTSG), (<https://www.facebook.com/groups/roleplaytheorystudygroup/>), a closed facebook.com group dedicated to role-play theory studies. Finally, initial drafts of the results and interpretation of this research were shared with research participants, in a process of developing negotiated meaning of the data. All triangulation procedures were approved by the Peru State College Institutional Review Board.

Analysis

Emergent Codes

I used simultaneous transcribing and emergent coding to create a dynamic initial coding process, which resulted in over 900 emergent codes. These emergent codes reflected the action that I perceived in the data provided by participants during interviews. Some examples of emergent codes are “experiencing in-game safety,” “using the game as a proxy for reality,” or “acting as a gaming advocate or recruiter to non-gaming friends.” These emergent codes were then coded as categories.

Categorical Codes

Categorical coding of emergent codes resulted in I used the emergent codes to develop 50 categorical codes. I placed many of the emergent codes in several categories. I developed the categorical codes to be more descriptive in nature. For example, the emergent code, “projecting an idealized set of issues for an idealized representation of self” received the following categorical codes: “gaming as learning,” “identity exploration,” “real versus ideal self,” “role-playing bleed,” and “understanding self through gaming.” Once emergent codes received categorical codes the categorical codes I then compared and combined them into theoretical codes.

Semantic Networks

Semantic networks that could be visually analyzed were used to further understand categorical codes. Creating semantic networks allowed for comparing and combining codes into more general codes designed to be theoretical or conceptual in nature. Once the semantic networks were created they could be compared visually and through various metrics such as density of categorical codes and connectedness of categorical codes as they linked to emergent codes (see Figure 2 for example of a semantic network).

Figure 2: Social Motivation, Social Freedom

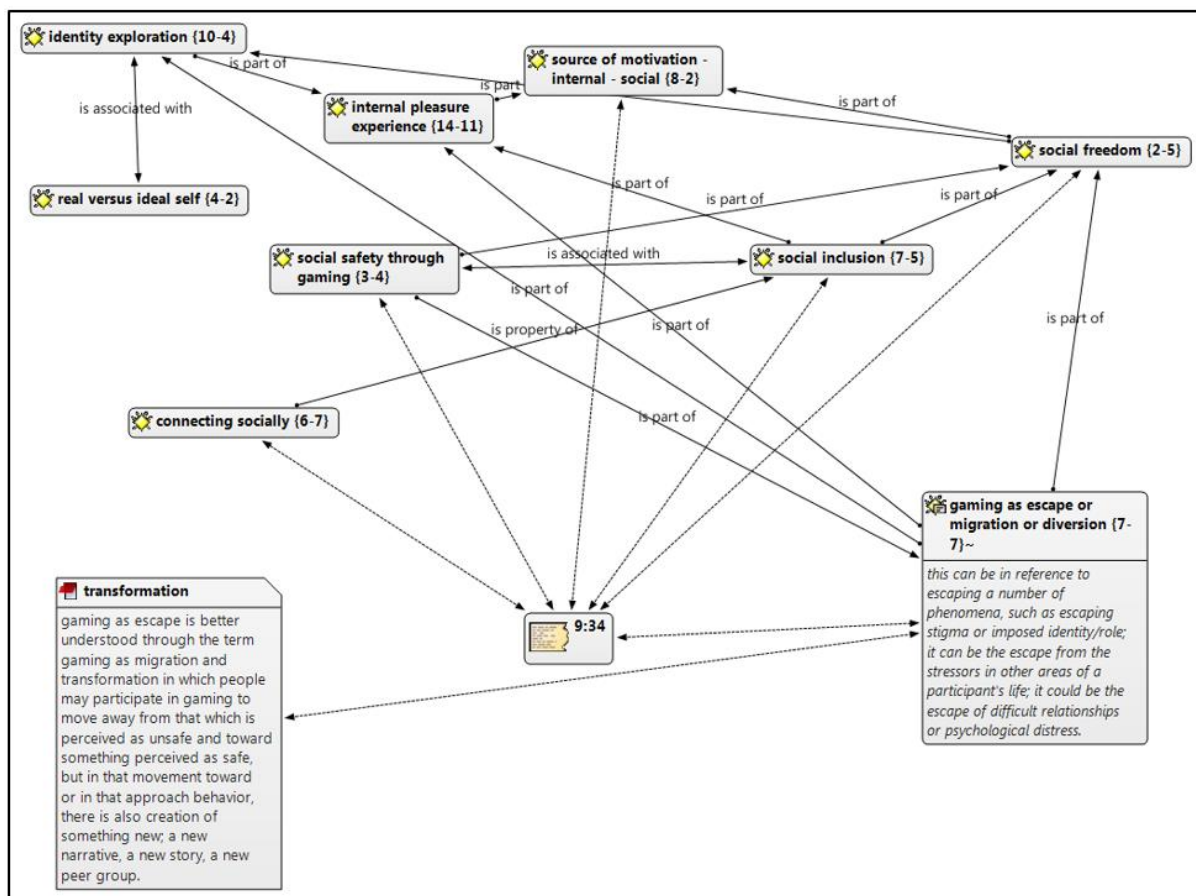


Figure 2 depicts a semantic network with memos.

Conceptual Codes

I analyzed semantic networks to develop conceptual codes, designed to have explanatory power and help provide linkage between and understanding of categorical and emergent codes. I developed these conceptual codes in part by comparing semantic network data to data from other sources such as reviews of motivation theory (e.g., Reeve, 2005) and research related to role-playing and motivation (Bowman & Standiford, 2016b; Yee, 2006a).

I discuss these conceptual codes along with the categorical and emergent codes that support them in the results section as well as provide examples of the raw data from which they were built. I begin the results section with a discussion of the motivations that may facilitate people to initiate participation in TRPGs. After a discussion of motivations to initiate participation I discuss the motivations that may facilitate people to continue participating in TRPGs. I end the results section by introducing the theory of “becoming” as the primary motivation for people to participate in TRPGs.

Results

Motivation to Begin Participating

These analyses provided evidence for the existence of two conceptual codes of motivation related to people initiating participation in TRPG. These codes are *Being Recruited*, and *Creative Curiosity*. The recruitment category includes such emergent categorical codes as “social inclusion” and “finding safety in gaming” as well as “being asked to play by gaming peers.” The creative curiosity category includes categorical codes such as “finding creative freedom,” “imaginative curiosity,” and “TRPG as creating.”

Examples of raw data supporting the various categorical codes that make up *Being Recruited* include the following from a participant who was first asked by a friend to play at a rather young age:

The first time I ever played was in high school my best friend from six grade actually introduced me into it. We kinda dabbled a little in it a little bit before which is like with the books, making characters, just goofed around. But when I was a freshman in high school I was able, I was old enough to ask his parents if I could join their session.

As well as this statement from a participant who started playing due to a communal curiosity within a peer group,

I think the initial motivation was just somewhere between boredom and it seemed like a good creative outlet. I love the process of building characters; definitely characters more than worlds but it's all fun to do once you know how to do it.

These categorical codes include emergent codes such as “discovering and being interested in gaming artifacts,” and “understanding that role-playing allows him to imagine life from a different point of view and seeing this as benefiting his future vocation” *Creative curiosity* appears to be associated with an internal drive state combined with a psychological need and *being recruited* appears to be related to the psychological need of relatedness which is the human need to be connected with others (Reeve, 2005).

The following quote from another participant exemplifies both being interested in artifacts and being recruited into playing:

I guess the interest started, my dad had played it a long time ago and he had a first edition D & D book that I would just look at when I was younger with pretty pictures of demons and devils and heroic figures, you know. The book ended up lost so, about senior year of high school I picked up a 3.5 players handbook and started reading through it and then I was invited to join a D&D campaign on campus, and that's where it started.

Motivation to Continue Participating in TRPG

In order to develop a deeper understanding of why players continue to participate in TRPGs semantic networks were again examined to develop conceptual categories that related to general motivation theory. Categorical codes were combined into the conceptual codes: *Imaginative Creativity*, *Exploring and Knowing Self*, *Belonging and Interacting*, *Relief and Safety*, and *Learning*.

Imaginative creativity. The conceptual category *Imaginative Creativity* encompasses the player's enjoyment of using their imagination to build virtual worlds, characters, monsters, and narratives within both an individual and group psychological space. *Imaginative creativity* motivates participants by fulfilling the psychological need to be creative (Runko, 2005). Participants are able to engage their thinking and emotions in processes that allow for the non-linear networking of memory data. This non-linear process expands imagination and cognitive flexibility and is generally considered pleasurable in nature (McBride & Cutting, 2016).

Imaginative Creativity includes such categorical codes as: "TRPG as creating," "imaginative curiosity," and "imaginative psychological balance." These categorical codes contain emergent codes such as "admitting that he references his character's thinking and behavior during real time day to day participation -- acknowledging the phenomenon of bleed," "building and creating characters with more depth; applying role playing to writing," and "identifying character building as part of the motivation of playing analog fantasy role playing."

One particular piece of data stood out as an exemplar of the category, *imaginative creativity*, this statement was provided by a participant who struggled as a young person and then discovered TRPGs during college:

but I came up with this really cool back story, and I basically realized that I could put my creative energies toward building people and then actually let them develop because I'd been coming up with story ideas and writing stuff long before I came to college and it was just fun to be able to put that energy into something and actually seeing where the if the characters would go.

Exploring and Knowing Self. *Exploring and knowing self* is related to players being motivated by the opportunity to engage in personal and group identity work. Participants appear to be motivated by the opportunity to build characters that may fully represent them, may only represent a part of them that they'd like to understand better, or they may build characters and interact with other characters in a way that they perceive is not representative of who they are in reality. An example of this might be the categorical codes, "attempting to create and role-play characters that are not similar to out of game personality," "finding enjoyment in playing diametrical characters and exploring the bounds of their virtues of quiet,

nice, empathetic,” and “describing enjoying playing a female character with a difficult backstory who is very quiet and yet the physically strongest person in the adventure party.”

Exploring and knowing self includes such emergent categorical codes as: “controlling reality,” “identity exploration,” “real versus ideal self,” and “understanding self through gaming.” These categorical codes included emergent codes such as: “personifying fragments of self,” “agreeing that created characters are a manifestation of player character trait/ flaw in self and as seen in other players,” and “identifying primary character as representing how JG [participant] would like to be – character idealization,”

One comment made by a member of a facebook.com focus group exemplifies the concept of *exploring and knowing self*. This participant is a former college student who is an active TRPG participant who struggles with Autism Spectrum disorder:

I think RPGs regardless of the style or specific medium present a unique way to explore the human condition. It's also a great platform to learn more about ourselves and other people in a non-intrusive way, which is awesome for people who struggle with social interaction, as they can experiment with different approaches to interacting in a safe place.

Belonging and interacting. *Belonging and interacting* refer to characters being motivated through the psychological need for relatedness and the social need for interaction and intimacy (Reeve, 2005). Within this conceptual category we find categorical codes such as “social inclusion,” “social safety through gaming,” “social identification,” “social development,” and “gaming as mentoring.”

Belonging and interacting contained emergent codes such as: “identifying another player’s level of having a voice of their own,” “keeping group behavior transparent,” “perceiving role playing as a unifying social mechanism because people can be not themselves with the attached social stigma or expectations,” and “experiencing a different identity and social interaction as motivation to continue playing analog rpgs (TRPGs).”

An interview participant provided the following data that was also used to build the *belonging and interacting* category:

honestly, I think my favorite thing about gaming now is just that I get to sit down at a group of ah, yeah I'd say my favorite thing is that I get to sit down at a table with people that I know and I enjoy their company and we just get to mess around, there's always a story, as there always is in a role-playing but ahhh I really just enjoy everybody's company and that we all get to sit down and have fun together doing something we love.

Another exemplar piece of data used to build the *belonging and interacting* concepts is this statement from a player who considers herself an introvert but loves the social aspects of TRPG:

For me I feel like I'm seeing these parts that normally don't come to light that makes it a little bit easier to get to know them [other players], I see more of them they see more of me and we can just kinda get closer that way. It's kinda almost like a trust thing too.

Relief and safety. The conceptual code, *relief and safety* is related to motivation based in finding social and psychological safety in the gaming process, including the playing of the game as well as engaging in social interactions. *Relief and safety* has to do with the migration

away from psychological stressors in primary reality. During game play and the attendant socializing processes the participants are able to find safety, and predictability among like-minded peers; that is safety from social stigma and safety through social inclusion in a non-judgmental environment.

The concept of *relief and safety* as a motivation includes categorical codes like: “connecting socially,” “controlling reality,” “experiencing in-game safety,” “gaming as escape or migration or diversion,” “social freedom,” “social inclusion,” and “social safety through gaming.”

These various categorical codes include such emergent codes as: “maintaining boundaries between in-game reality and lived reality,” “experiencing escape from daily real life through in game play as motivation to participate,” “being distracted by the game away from out of game responsibilities,” and “perceiving role playing as a unifying social mechanism because people can be not themselves with the attached social stigma or expectations.” A number of these categorical and emergent codes are also elements of other conceptual codes indicating there may be a unifying conceptual code that acts as a supra-motivator.

These emergent codes are built on data such as the following provided by a current college student participant:

[it] helps bring stress level down, instead of worrying about a test I've got coming up in a couple of weeks, I can just, for a couple of hours just sit down and play a game with some friends.

I guess it allowed me a sort of escape from the troubles of the day to day world for a couple hours every Saturday I'd be able to be Brazin wolf's bane this fighter who threw things instead of [participant name] the biochemist who has a paper due next Wednesday.

Learning. The concept of *Learning* as a motivation encompasses the idea that thoughts, emotions, and interactions experienced as a character bleed into the player's life outside of game play providing them with an imaginative space in which they can practice and develop decision making, planning, social skills, conflict resolution, probabilistic thinking, goal development, and teamwork. When a player experiences developing these skills and attributes in an enjoyable and non-invasive manner learning becomes motivating. The conceptual code *Learning* may also meet what Reeve (2005) calls the psychological need to engage in challenging cognitive processes.

Learning comprises such categorical codes as: “gaming as learning,” which would include emergent codes like: “using the game as a proxy for reality,” or “Always learning, giving and/or receiving feedback as a group learning process.” The categorical code “gaming as practice” would include emergent codes like “rendering in-game conflict harmless in lived reality.” The categorical code “intact reality testing,” would include emergent codes like “admitting that he references his character's thinking and behavior during real time day to day participation -- acknowledging the phenomenon of bleed.” Finally, the categorical code “social developing/learning” would include such emergent codes as, “perceiving role playing as part of mechanism to expand social interaction/verbal behavior,” and “allows for movement - between real world interaction as well as in-game interaction.”

Data supporting the emergent codes that were used to build the conceptual code *Learning* are exemplified by a statement made by a member of a facebook.com focus group, “I would contend you learned more about how you communicated and then either choose to change it or kept it the same.” As well as this comment from another participant in the same

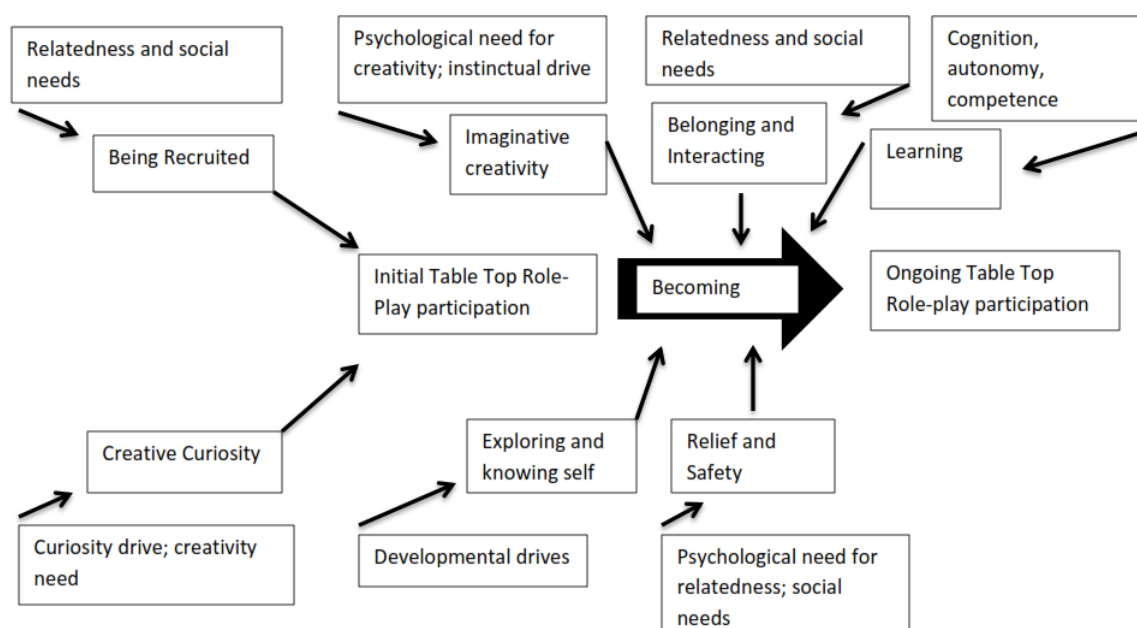
focus group, “I think role playing helped us all learn how to deal with different types of people in real life.” Finally, this statement from an interview participant exemplifies learning social skills, assertiveness, and anxiety reduction:

In any gaming session there average four people, and that's four people telling one person what they're planning to do what their steps and everything and the only way you're going to be able to anything really is to speak up and speak out and, and make sure your voice is heard. And for myself, I could say how I used to be quieter but when you're in the game you gotta speak up, if you don't you're not going anywhere.

“Becoming” as Motivation

The results of this Grounded Theory investigation indicate that there are many reasons that people begin and continue to participate in TRPGs. Through the coding process, I determined that there were two primary motivations related to people initiating participation in TRPGs: *Being Recruited* and *Creative Curiosity*. I also determined that there were five motivations related to people continuing to participate in TRPGs: *Imaginative Creativity*, *Exploring and Knowing Self*, *Belonging and Interacting*, *Relief and Safety*, and *Learning*. See Figure 3 for graphical depiction of the Theory of Becoming as Motivation.

Figure 3: Graphical Depiction of the Theory of Becoming as Motivation



When considering the seven conceptual categories in light of how the group of participants viewed reality and symbolized what aspects of playing TRPG motivated them, I believe the seven categories can be condensed into one theoretical concept. This concept I refer to as *the process of becoming* or simply *Becoming*. Participants of TRPGs are motivated to begin playing because they recognize either consciously or subconsciously the opportunity to engage in a process that will help facilitate them developing their identity or their state of existence to a more idealized state, or the process of becoming. Bessiere, Seay, and Kiesler (2007) found that players of a large online computer game attempted to move toward experiencing an idealized self through character creation. Once participants experience the

many motivating processes of TRPGs they continue playing because there are multiple layers of processes that allow them to meet psychological, social, emotional, and developmental needs and drives in a manner that propels them to continue playing TRPGs.

Discussion

The purpose of this research was to explore, through the use of Grounded Theory methods, the possible motivations and reasons people have for participating in table-top role-playing games, and to develop an emerging theoretical understanding thereof.

The conceptual codes identified as the results of data analysis appear to motivate people who participate in TRPGs through a combination of instinctual drives, psychological needs, and social needs. I believe these drives and needs also combine with the developmental processes of identity development and intimacy development, as well as elements of other psychosocial stages of development (Erikson, 1968). Each of the conceptual codes is discussed below.

Exploring and knowing self has to do with Erikson's (1968) fifth developmental stage, identity development versus identity confusion. TRPG players have an opportunity to engage in deeper identity development and to resolve identity confusion, by engaging different personality characteristics and traits; rather like playtesting components of various identities that are considered interesting or desirable, via the processes of migration and transformation. This motivates them by teaching them about themselves through self-interaction and interaction with others through communal story-telling and imaginative exploration of otherwise bounded spaces.

Belonging and interacting is related to meeting the psychological need of relatedness which has to do with connecting with other people and becoming a part of a community while at the same time navigating issues of intimacy and emotion in relationships. *Belonging and interacting* is one of the primary motivators of TRPG participants because it is the primary way participants make meaning of the objects related to themselves and their participation (Blumer, 1969). Participants give meaning to the world around them by becoming part of a community and then interacting with that group on varying levels of intimacy. These interactions come to symbolize group consensus and intra-personal consensus on the nature of group reality and individual reality.

Relief and Safety motivates TRPG participants by driving them to find safe physical and psychological spaces. When a player can connect with a like-minded group of people and with whom they can navigate various levels of intimacy, this can lead to feelings of autonomy and increased competence. When these processes of stress management result in problem resolution and increased feelings of well-being the player is moved to a more optimized self and is motivated to continue participating.

For example, the semantic network depicted in Figure 1 was used to develop the idea of gaming as a process of transformation in which some participants are motivated to continue playing TRPGs because they allow the participant to migrate away from the difficulties of their current reality toward a more ideal set of imaginative circumstances, traits, and characteristics. Migration provides psychological relief and meets the need of individuals to feel autonomous and competent (Reeves, 2005). In comparing these transformation data to the review work of Reeve (2005) as well as to Bowman and Standiford (2016b) and Yee (2006b), it appears transformation is an important motivational factor.

Learning motivates players to continue playing TRPGs through being driven by curiosity and meeting the psychological needs of competence and autonomy. Players are able to explore novel adaptations to changing and fantastical environments through engaging their imagination, role-playing, and social interaction with other players. Some players are able to

practice problem solving in imaginative spaces and then apply either the decision-making process or the actual resolution to real life situations.

Learning is one of the bridges between the fantastical and imaginative spaces of TRPGs and real-world living. It is possible that the more a player is able to learn through player interaction, and through character building and interaction the more they are able to move towards an optimized self who functions more effectively and efficiently in the real world. Participants reported modifying their decision making based on their successes during game play and one interview participant stated, “I actually do think about how my character would handle a situation when I’m problem solving.” A focus group participant stated, “I learned a lot about how to handle real life from gaming.”

All of these concepts motivate players by providing them pathways and opportunities to optimize themselves in psychological and social domains. Players may not actually manifest their idealized self but through participating in TRPGs they can move closer to an idealized or optimized self. This is the process of *becoming*. They are motivated by this process of becoming because it involves multiple motivators that are located in multiple domains.

Limitations

The results and interpretation of this research is limited to the context within which it was conducted. Qualitative research is generally not conducted to develop over-arching generalizable results with interpretations that may be applied to many contexts or populations. These research results should be considered localized, just as the categorical concepts and final theoretical concept of *becoming* should be considered localized to the context.

The participants were primarily college students at a rural liberal arts college. Their ages were consistent with those who Erikson (1968) believed were already in the process of solidifying their identity and navigating intimacy and thus participation in TRPG may have simply been a way to manifest motivational processes that were already activated. Students who participate in sports or other forms of leisure activity may manifest similar motivations because they are part and parcel of the context of being in college and “finding one’s self” or developing a preferred self.

The process of deriving results and developing interpretations of those results is a subjective process that could lead to different results among different researchers but the transparent and rigorous process I used to analyze and interpret these data allows other investigators to replicate the process on similar and different samples. Because of these limitations this theory of why people participate in TRPGs should be considered both emergent and localized. The more the nascent theory is subject to research the less localized it may become.

The results of this research are incongruent with aspects of previous research and theory. Both Bowman and Standiford (2016b) and Yee (2006a) found external achievements to motivate ongoing participation in LARP and CRPG respectively. I did not find external achievements to be a motivator of ongoing participation.

This difference could also be a construct of different research methodologies. Bowman and Standiford (2016b) utilized a review of literature to develop their results and Yee (2006a) used a survey questionnaire. One facet of Grounded Theory is to let the data and theory emerge organically with no imposition of theory or *a priori* hypotheses, thus diminishing investigator bias. Created questionnaires and literature reviews have investigator bias embedded in them.

These results were also incongruent with Bowman and Standiford (2016b) and Yee’s (2006a) findings of immersion being a motivation for game participation. My participants did not talk about role-playing in terms of being immersed in the game as a reason to continue playing TRPGs. Several participants discussed being able to experience different worlds or

being able to have different experiences through TRPGs. These could be interpreted as being part of an immersion experience, but these types of data did not reach a high enough saturation point to be included in a categorical concept of immersion independent of the other concepts. Again this may be a construct of the different research methods. These differences could also be the results of different researcher biases embedded within each investigation. The experience of immersion could also be motivating when it is experienced but may not happen enough to be readily retrievable from long term memory, and thus is not considered a motivator by participants. These incongruities with previous research suggest there is more to learn and necessary ongoing research needed to better understand why people play TRPGs as well as other role-playing games.

Directions for Future Research

This localized theory of *becoming* as an explanation of why people participate in TRPGs can be extended and expanded by expanding the sample of participants to include those who play TRPGs and are not currently attending college. Differing age samples should also be added to the sample and re-saturation of data should be pursued. Another path of investigation could entail exploring how frequency and amount of participation in TRPG is related to levels of motivation.

These research results may have implications for game designers, who may want to conceptualize and apply various types of motivation to their game designs. These types of conceptualizations and applications might also be conducted as experimental research allowing game designers and TRPG researchers to collaborate. There also may be implications for the person who administrates TRPG playing groups. These “game masters” may be able to take the various types of motivation found in this research and implement them into how they lead their gaming group, hopefully this would result in increased motivation and investment in participation.

This research can also be expanded through the incorporation of quantitative methods that use this research as a foundation to develop a motivation research instrument specifically for TRPG participants. The administration of a quantitative research instrument could also be combined with in-depth interviewing of participants to better understand numerical results. This will add credibility to the current results and interpretation or perhaps may not support the current research and point investigators in new directions.

The differences between these current results and the results of previous research and theory should be specifically investigated to resolve the differences and/or expand the theory of *Becoming as Motivation* to include achievement and immersion or show that these concepts are separate from what actually motivates people to play TRPGs.

References

- Berk, L., & Meyers, A. (2013). The role of make-believe play in the development of executive function status of research and future directions. *American Journal of Play*, 6(1), 98-110.
- Bessiere, K., Seay, A. F., & Kiesler, S. (2007). The ideal elf: Identity exploration in World of Warcraft. *CyberPsychology and Behavior*, 10(4), 531-535. Retrieved from https://www.researchgate.net/publication/6129328_The_Ideal_Elf_Identity_Exploration_in_World_of_Warcraft
- Blumer, H. (1969). *Symbolic interactionism perspective and method*. Berkeley, CA: University of California Press.
- Bowman, S. L. (2010). *The functions of role-playing games: How participants create*

- community, solve problems, and explore identity.* Jefferson, NC: McFarland.
- Bowman, S. L., & Standiford, A. (2016a). Educational LARP in the middle-school classroom: A mixed methods case study. *International Journal of Role-Playing*, 5, 1-20.
- Bowman, S. L., & Standiford, A. (2016b). Enhancing healthcare simulations and beyond: Immersion theory and practice. *International Journal of Role-Playing*, 6, 12-19.
- Burenkova, O. M., Arkhipova, I. V., Semenov, S. A., & Samarenkina, S. Z. (2015). Motivation within role-playing as a means to intensify college students' educational activity. *International Education Studies*, 8(6), 211-217. Retrieved from <http://files.eric.ed.gov/fulltext/EJ1067803.pdf>
- Charmaz, K. (2014). *Constructing grounded theory* (2nd ed.). Los Angeles, CA: Sage.
- Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage.
- Daniau, S. (2016). The transformative potential of role-playing games: From play skills to human skills. *Simulation and Gaming*, 47(4), 423-444. Retrieved from <http://journals.sagepub.com/doi/pdf/10.1177/1046878116650765>
- Davis, D., & Bergen, D. (2014). Relationships among play behaviors reported by college students and their response to moral issues: A pilot study. *Journal of Research in Childhood Education*, 28, 484-498. doi:10.1080/02568543.2014.944721
- Deckers, L. (2010). *Motivation biological, psychological, and environmental*. Boston, MA: Allyn and Bacon.
- Elms, A. (1966). Influence of fantasy ability on attitude change through role-playing. *Journal of Personality and Social Psychology*, 4(1), 36-43.
- Erikson, E. (1968). *Identity youth in crisis*. New York, NY: W. W. Norton.
- Fields, R. (2012). *Drugs in perspective: Causes, assessment, family, prevention, intervention, and treatment* (9th ed.). Columbus, OH: McGraw-Hill.
- Fuster, H., Chamarro, A., Carbonell, X., & Vallerand, R. (2014). Relationship between passion and motivation for gaming in players of massively multiplayer online role-playing games. *Cyberpsychology, Behavior, and Social Networking*, 17(5), 292-297. doi:10.1089/cyber.2013.0349.
- ICv2. (2016). *Hobby games market climbs to 880 million*. Retrieved from <http://icv2.com/articles/markets/view/32102/hobby-games-market-climbs-880-million>
- Lai, E. (2011). *Motivation: A literature review*. http://images.pearsonassessments.com/images/tmrs/Motivation_Review_final.pdf
- Montola, M. (2008). The invisible rules of role-playing the social framework of role-playing process. *International Journal of Role-Playing*, 1, 22-37. Retrieved from http://www.ijrp.subcultures.nl/wp-content/uploads/2009/01/montola_the_invisible_rules_of_role_playing.pdf
- Merilainen, M. (2013). The self-perceived effects of the role-playing hobby on personal development: A survey report. *International Journal of Role-Playing*, 3, 49-66. Retrieved from <http://www.ijrp.subcultures.nl/wp-content/issue3/IJRPissue3.pdf>
- McBride, D. M., & Cutting, J. C. (2016). *Cognitive psychology theory, process, and methodology*. Los Angeles, CA: Sage.
- Phillips, C. (2013, July 29). After 40 years, popularity of tabletop gaming rises despite high-tech competition. *Times Free Press*. Retrieved from <http://www.timesfreepress.com/news/life/entertainment/story/2013/jul/29/after4years-popularity-tabletop-gaming-ri/114446/>
- Reeve, J. (2005). *Understanding motivation and emotion* (4th ed.). Danvers, MA: John Wiley and Sons.
- Runko, M. A. (2005). Motivation, competence, and creativity. In A. J. Elliot & C. S. Dweck (Eds.), *Handbook of competence and motivation* (pp. 609-623). New York, NY: The

- Guilford Press.
- Sarup, G. (1981). Role playing, issue importance, and attitude change. *Social Behavior and Personality*, 9(2), 191-202.
- Scientific Software Development GmbH. (2017). *Atlas.ti qualitative data analysis*. Retrieved from <http://atlasti.com/>
- Scott, B. D., Chang, Y., Chen, H., Hsiung, H., Tseng, C., & Chang, J. (2016). The effect of tabletop role-playing games on the creative potential and emotional creativity of Taiwanese college students. *Thinking Skills and Creativity*, 19, 88-96. Retrieved from http://www.epc.ntnu.edu.tw/files/writing/2922_1ed05bbb.pdf
- Van Vleet, M., & Feeney, B. C. (2015). Play behavior and playfulness in adulthood. *Social and Personality Psychology Compass*, 9(11), 630-643. doi:10.1111/spc3.12205.
- V-note.org. (2017). *V-note software*. Retrieved from <https://v-note.org/>
- Yee, N. (2006a). Motivations for play in online games. *Cyberpsychology and Behavior*, 9(6), 772-777.
- Yee, N. (2006b). The demographics, motivations, and derived experiences of users of massively multi-user online graphical environments. *Presence*, 15(3), 309-329.

Appendix A: Initial Interview Questions

1. Describe for me how you started playing table-top fantasy role-playing games (process)?
2. *Was your first experience with ARPing (Analog Role-Playing) enjoyable/pleasurable?
 - a. *What about it was enjoyable?
 - b. *Why do you think that element/elements were enjoyable to you?
3. What motivated or motivates you to start playing (internal)?
4. What motivated or motivates you to keep playing (internal)?
5. Would you describe for me the type of person you were before you started playing analog role-playing games?
6. Would you describe for me the type of person you are now that you've been playing analog role playing games for a while?
7. *How would you describe yourself within the category of analog fantasy role-player?
8. Would you share with me any benefits you believe you get from table-top gaming (descriptive/perception)?
9. Would you share with me any negatives you believe or perceive from participating in table-top gaming?
10. Without naming any names could you describe your gaming friends?
11. Could you describe any differences or similarities between your gaming friends and your non-gaming friends?
12. *Could you tell me how you would be affected if you had to start ARPing (Analog Role-Playing) with a new group of people that you did not previously know?
13. Would you describe for me the primary character that you role-played during game participation?
14. Would you describe for me other characters that you've role-played during game play?
15. *Could you describe for me the character or characters that best reflect who you are?

- a. *How long has each character existed regardless of the form they've existed in?
16. If you ever "run" a fantasy role-playing game would you describe for me the process of running the game?
17. Can you describe your own process of decision making during game-play time versus real time decision making?
18. *Can you describe any similarities between how you make decisions in game and how you make decisions out of game? Is there bleed back and forth
19. *Can you are able to integrate into a group of people from diverse backgrounds who have come together in a arping group and become one unit, and what emotions do you feel when you go through this process?
20. *Could you describe for me any ways that you believe participating in analog fantasy role-playing has helped you develop a unique identity?
21. *As part of your identity, could you describe any ways that participating in analog fantasy role-playing has helped you develop a unique way of understanding your lived experiences and communicating that understanding of yourself and the world around you as part of a larger social discussion/conversation?
22. *What's your view of gaming in turns of representing things like free choice, free will, self-determination, or pre-determination of events; and what's your view of the game master or dungeon master?
23. *Describe for me your ability to immerse yourself into your character and do role-playing on a deeper level while engaging in combat during analog fantasy role-playing.

*denotes questions asked during second interviews

Appendix B: Facebook Focus Group Questions

1. Could you describe you motivations for participating in playing virtual or computer role-playing games of any flavor?
2. Secondly are these motivations different from your motivation to participate in table-top role-playing games?
3. What do you like about playing virtual/computer/console games particularly the role-playing types?
4. What got you started?
5. What keeps you playing virtual/computer/console games?
6. Do you feel like when you're in that state (tired, drained, experiencing a need to be away from people) that playing something online or virtual helps you restore some of your energy whereas at times playing trpg drains energy?
7. Any other thoughts, or insights related to what you enjoy about playing computer/console/online games?
8. What makes CRPGs fun and what do you get from playing them?
9. Some people talk about getting lost in crpg and fewer people mention that when talking about trpg. Maybe it has something to do with crpg having fewer social elements and one can better focus when in a quasi-isolated setting? So part of the attraction of CRPGs is being isolated from environmental stimuli and part

of the attraction is being able to focus solely on the game and something of a quasi-social component?

10. Mainly I'm wondering about what you really enjoyed about playing.
11. What kept you coming back to TRPGs and what was fun about it?
12. I'm also wondering about characters; what was really fun about playing your main character?
13. How important or motivating was having your character level up to your overall gaming motivation?

Author Note

Darrin Coe is Assistant Professor of Psychology at Peru State College in Peru, Nebraska. He teaches a wide variety of classes from Counseling the Cultural Diverse, to Cognitive Psychology, to a Senior Seminar in Psychology. His research interests include all things related to role-playing games, ethics, and immersion. Dr. Coe is married and has five children ranging in age from 6 months to 18 years old. He runs a regular TRPG for students who attend Peru State College. Correspondence regarding this article can be addressed directly to: dcoe@peru.edu.

I would like to acknowledge the support and help of Dr. Greg Galardi, as well as the feedback and support of Dr. Sarah Bowman and Steven Dashiell. I would also like to thank the reviewers for their helpful comments. Finally, I would like to acknowledge the participation of all of my research participants, without them there would be no theory.

Copyright 2017: Darrin F. Coe and Nova Southeastern University.

Article Citation

Coe, D. F. (2017). Why people play table-top role-playing games: A grounded theory of becoming as motivation. *The Qualitative Report*, 22(11), 2844-2863. Retrieved from <http://nsuworks.nova.edu/tqr/vol22/iss11/1>
