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Fantasy Role Players:
Imagination, Dissociation and Suggestibility

by

Robert C. Barnett

A Thesis submitted to the Faculty of Graduate Studies and
Research in partial fulfillment of the requirements
for the degree of
Master of Arts

Department of Psychology
Carleton University

June 27, 1995

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IMAGINATION, DISSOCIATION, AND SUGGESTIBILITY
submitted by
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Thesis Supervisor, Psychology Department Chair

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Abstract

Despite the prevalence of Fantasy Role Playing Games (FRPGs) in North American society, and the concern over the possible negative side effects that such games may have on their players, empirical research dealing with Fantasy Role Playing is quite lacking. The characteristics of players of FRPGs were compared to non-players through the administration of measures of psychopathology (TSC-40, RSE), dissociation (DES), IQ (Shipley's Institute of Living Scale), imagery ability (Absorption, Betts Imagery Vividness, PPI(XT)), fantasy proneness (ICMI), and hypnotizability (CURSS:O).

FRPG subjects (n=45) and control subjects (n=45) were found to be indistinguishable by scores on psychopathology measures. FRPG players were found, however, to have elevated IQ, Absorption, Fantasy Proneness, and Temporal Lobe Lability scores. While hypnotic susceptibility was not found to differentiate the groups, Absorption, Frequency of FRPG play, and Number of FRPG systems experienced, were found to significantly predict hypnotic susceptibility within the FRPG group. The presence of the gaming variables as significant predictors shows variance in susceptibility not explained through imagery ability, nor other established predictors in the literature.

Factor analysis suggests that involvement in FRPGs is less a correlate of imagery ability than it is of a tendency towards fantasy.

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The last two decades have seen the introduction of a new type of game, collectively known as Fantasy Role Playing Games (FRPGs). Players of these games have become a focus of study as to how imaginative activity relates to personality variables and to mental health (Simon, 1987; DeRenard & Kline, 1990; Aschermann, 1993), yet no study has examined imaginative involvement as it relates to these games. This study will attempt to address this issue.

Fantasy Role Playing Games

Fantasy Role Playing Games (FRPGs) are simulations of archetypical fantasy genres similar to those found in popular fiction. There are FRPGs dealing with imaginary worlds where dragons and magic exist, others dealing with fictional espionage in the Ian Fleming style, and yet others dealing with comic-book superhero conflict. One can also simulate "reality" as it would be for a Saturday morning cartoon character or a futuristic space explorer.

With few exceptions, commercial FRPGs attempt to simulate only one of the above mentioned genres. Without exception, however, FRPGs require one person at each game session as an interpreter to explain the fictional genre to the game players. Many names exist for this individual, including "referee," "game master," and "dungeon master," but his/her function is constant: to create fantastic, challenging scenarios through which his/her players to manoeuvre their

characters, and to arbitrate the interaction between these characters and the imaginary environment. This environment is conveyed to the players through the referee's verbal description, and through representative maps and diagrams, which he/she reveals as new territory is explored. A good referee is not the players' opponent, and is motivated only to challenge them with his/her scenarios, ensuring that the game is enjoyed by the players (Schick, 1991, p.10-11). A series of connected scenarios created by the referee is known as a campaign. A successful FRPG is based on the co-operation of players and their characters in an attempt to progress through the adventures created by the referee. Unlike other popular games, none of the players are competing with each other (Schick, 1991, p.11; Gygax, 1978, p.8), and there is no set criteria for winning or losing. As characters succeed in these scenarios, they become more and more powerful, and thereby able to face increasingly difficult challenges and explore territories of increasing fictional danger. The scenarios grow in difficulty proportionately with the character's strength. As the characters succeed in these challenges their fame in the fictional society increases; and as a result, the character comes to occupy an increasingly important position in the game's fictional reality.

The game system, or rules of the particular FRPG being played, are used to determine a character's interaction with the referee's fictional setting. All FRPG characters and

objects are represented through attribute scores that define object and character aspects such as intelligence, toughness, and speediness. These attribute scores increase as a character progresses, representing an improvement in skill and ability. Oftentimes the skill of a character is referred to as its "level". In passing, it should be noted that it is a common mistake in the literature to interpret character "level" as a measure of a FRPG player's competence, as opposed to the measure of the potency of the fictional persona within the fantastic setting (e.g. DeRenard & Kline, 1990; Thompson, 1989).

FRPGs are more than strategic simulations, however. Fine(1983) argues that FRPGs differ from all other games because of the players' "engrossment" in the fictional characters they play. Indeed, he states that this is the primary source of enjoyment for players of FRPGs. This results in a strong element of drama in FRPG play. As Gary Gygax, co-author of Advanced Dungeons & Dragons (AD&D), writes: "The fun of the game is action and drama. The challenge of problem solving is secondary" (Gygax, 1979, p.7). It is the drama and engrossment elements of FRPGs which separate them from other games which simulate conflict, such as chess, Risk or Monopoly. In all of these other games the player employs strategy without identifying with his/her game pieces. A lost knight holds relatively little emotional value to the chess player. In FRPGs, however, the players' characters are given

personality traits, physical attribute scores, and, most importantly, a role-played persona which is enacted as the character moves from fictional situation to fictional situation. Only in FRPGs do characters identify with such a persona, and due to the freedom the rules provide, players can have their characters do whatever they wish within the confines of the fictional environment. This allows for the development of a strong sense of identification between a player and his or her character (Fine, p.10). Each player is expected to "become an artful thespian as time goes by" (Gygax, 1978, p.7) through the playing of FRPG characters.

The following example of a game in progress has been taken directly from Schick's (1991) *Heroic Worlds*. pp.11-13.

For those of you who have never seen a role-playing game, an example of a game session should help to give the flavor of the thing. Below, George, Ron, and Terry (the GM [or referee]) are playing a 1930s detective game. George and Ron are playing private detectives named Chandler and Brown who are searching a warehouse formerly used by a smuggling ring [parentheses mine].

George: What's in the office?

GM: A few chairs, a rolltop desk--empty, like the rest of the place.

Ron: I'm searching the desk anyway.

GM: In the back you find a piece of paper snagged in the runner where the top rolls up. It looks like the corner of an envelope; There's a return address, "1415 Mahoning Ave."

Ron: Chandler, look at this.

George: A clue at last! At least, I hope so. Shall we go check it out?

Ron: Yeah, this place has been cleaned out. We go outside to the car and check the city map; is there a Mahoning Avenue in the city?

GM (*checking her map of the city*): Yes, it's on the north side, near the river.

Ron: We'll drive there.

George: I'll watch to see if we're followed.

GM: What's your tailing skill, Chandler?

George: Thirty-five percent. I thought that was for me tailing other people.

GM: It works both ways. (*She rolls a couple of dice and checks the results*) You don't see anybody.

Ron: When we get to Mahoning Avenue, I want to cruise past 1415 and park in the next block.

GM: Okay. Mahoning Avenue is a middle-class residential street with just a few small trees. The houses were probably built about ten years ago and are set back about fifteen feet from the sidewalk. It's dark; there's a light on in 1415, and you notice one old man on the other

side of the street walking a poodle.

Ron: We park down the street, get out, and walk to 1415.

GM: It's a hot night, and the windows are open in most of the houses on the street. You can hear a couple of radios, a family at dinner. Now you're in front of 1415. It looks like all the other houses on the street. The front window on the left is open, and light's coming from that room.

Ron: We walk up to the door and knock.

George: Hold it---before we knock, can we hear anything from inside?

GM: You hear a male voice from the window, sounds like it's speaking in French, talking to somebody, but no one's answering.

George: He's on the phone, I bet. What's he saying?

GM: Do you understand French, Chandler?

Ron (*checking his character sheet*): Brown does. What's he saying?

GM: He's saying: (*affecting a French accent*) "You tell Cherbourg I've got the rest of the stuff. I'm leaving tonight. I want the money when I arrive, in cash, and no funny business." Then he hangs up.

Ron: Right, let's go in.

George: Wait a second. Remember the last time we tried something like this? I'm going around to the back first.

GM: Around back you find a kitchen door that opens onto an alley. There are a few shrubs. A car is parked near the door.

Ron: I wait a minute, then knock on the front door.

GM (French accent): "Who is there?"

Ron: In French, I say, "Cherbourg sent me."

GM: You hear the bolt on the door slide shut, then footsteps heading for the back of the house.

Ron: Ooops! (*shouting*) He's coming your way, Chandler!

George: I hide in the shrubbery. My Concealment skill is seventy-five percent.

GM: Make a roll.

George: Fifty-four.

GM: Good enough. A man in a dark suit bursts out the kitchen door. He doesn't see you. What do you do?

And the game goes on....

Public Views on FRPGs

Public knowledge of FRPGs appears to stem mainly from the attention given to these activities by the media and various religious groups. This coverage has, as a whole, been negative. Player engrossment in, and identification with, his or her character has been suggested to cause homicidal and suicidal behaviour, the normalization of violence, and general dissociation of the player from reality (Brooke, 1985; Dear, 1984). In addition, this identification is thought to encourage interest in "Black Magic" and Satanism (Shuster, 1985). Extreme opponents of FRPGs go so far as to claim that the games are a form of mind control used to draw the innocent into pacts with Satan (for review, see Martin & Fine, 1991).

The disappearance of James Dallas Egbert III, a disturbed child who had entered college at fifteen with severe social problems, is perhaps the most famous instance of FRPG implication in dissociation from reality (Schick, 1991). Media accounts asserted that the game had caused the child to become totally absorbed in his fantasy world, and that perhaps he was now lost in nearby tunnels where some students performed Live Action Role Playing (LARP), a FRPG variant. As it happened, the boy had been visiting a relative (Fine, 1983, p.254).

Nonetheless, the conception of FRPGs' as having potential for causing dissociation from one's identity remains popular. Rona Jaffe's (1981) "Mazes and Monsters" is a popular fictional novel and movie which depicts a university student

escaping from his unpleasant life by permanently taking up the identity of his FRPG character. Many believe that these games actually cause such dissociation in reality. The action group B.A.D.D. (Bothered about Dungeons & Dragons) was formed by a woman who blames her son's suicide on his participation in FRPGs. Critics of the games propose that the identification of the player with his or her character in conjunction with the violent activities common in FRPG play, cause homicide and suicide. Players are suggested to be unable to distinguish between fantasy and reality (Adler & Doherty, 1985; Pulling, 1989).

Scientific Examination of FRPGs

Empirical research into these concerns has found that exposure to FRPGs does not seem related to homicidal/suicidal tendencies or dissociation from reality. Though lacking statistical backing, Fine's (1983) previously mentioned comprehensive sociological treatise on FRPG play strengthens the above-mentioned findings: FRPG players were found not to suffer from delusion, lose touch with reality, nor be particularly violent in outlook. Fine (1983, p.47) states that the typical FRPG player is a single male, well-read in fiction, and well-educated with some unconventional mores.

Simon's (1987) examination of the 16PF Personality Questionnaire scores of FRPG players found that Factor C of the test, which measures Emotional Stability and has been

found to correlate with suicidal and homicidal behaviour (Cattell, Eber, & Tatsuoka, 1970), was not aberrant. There was also no correlation between Factor C and exposure to FRPGs. Factor B, which measures general intelligence, also was found not to be significantly higher than normal, weakening claims (Dear, 1984) that FRPG players are more intelligent than the norm. The only factor that was significantly elevated in the personality profile was factor Q₁, which shows a tendency towards experimentation and away from conservatism. Thus FRPG involvement was found not to indicate suicidal or homicidal tendencies.

Martin and Fine (1991) also noted that role-players are not overtly aggressive outside of the game and, despite Simon's (1987) finding that experimental thought is more prevalent in FRPG players, Martin and Fine (1991) claim that a connection between FRPG play and Satanism, while plausible due to the unorthodox religious notions presented in the fictional settings of the games, does not in fact exist.

Abyeta and Forest (1991) examined the popular claim that FRPGs cause socially maladaptive behaviour as well. The authors gave role players and non-role players the Eysenck Personality Questionnaire, a demographic questionnaire, and a criminality measure. Role Playing behavior was not found to predict criminality. The only differences found between the FRPG group and the comparison group were in Neuroticism, with the FRPG group showing lower scores. Psychoticism was also

lower in the FRPG group, although not significantly so. Only psychoticism was found to correlate with criminal activity.

Barnett and Flynn (1993) replicated Abyeta and Forest's (1991) findings concerning neuroticism in FRPG players and, in addition, found psychoticism to be significantly lower in the FRPG group. Extroversion and social desirability were also examined, but no differences between groups were found. Role playing ability was found to be higher in the FRPG group as well, it being the only variable of those mentioned to correlate significantly with rate of game play.

DeRenard and Kline (1990) examined differences in feelings of alienation between FRPG players and non-players through a battery of alienation measures including the Anomia Scale, the Alienation Scale, and Rotter's Internal-External Locus of Control Scale. General feelings of alienation did not differentiate between players and non-players; FRPG players, however, expressed a greater degree of Cultural Estrangement than did the non-players. The FRPG group reported lesser feelings of Meaninglessness than did the control group, but significant and positive correlations were found between the measure and frequency of play, money spent on game materials, and highest character level achieved. Money spent on the game also was found to predict feelings of general alienation, although again there was no difference on the measure between the player and non-player groups. These findings in combination with those of Barnett and Flynn (1993) concerning

social desirability, would seem to indicate that while FRPG players do feel somewhat separated from popular culture, they have no difficulty identifying socially acceptable behaviours.

FRPGs and Psychopathology

The evidence already cited seems to indicate that FRPG players as a whole do not deviate from most norms in any significant way. There has been concern, however, that "high risk" individuals (those with active psychological/emotional ailments) should be kept from becoming involved in FRPGs (Pulling, 1989). A contrary position is that the games allow these individuals a forum in which to learn and grow (Zayas & Lewis, 1986). Evidence for both views is presented below.

Zayas and Lewis (1986) studied the feasibility of using a FRPG to foster interaction in children's groups, specifically groups of young adolescents with interpersonal difficulties and hyperactive characteristics. They instituted the use of Advanced Dungeons & Dragons as a medium of exchange around which to structure their group therapy sessions with young boys. Anecdotal evidence presented in the study suggested that over the course of play, and discussion of the dilemmas and dynamics of play, subjects became more adept at social interaction and mutual aid within the group.

Ascherman (1993), in contrast, claimed that the introduction of FRPGs to an in-patient treatment facility for severely disturbed adolescents contributed to both the

disruption of the treatment setting and individual treatments by normalizing violence and reinforcing patient pathology. Staff found themselves distanced from the patients due to their inability to comprehend game-related discussions and felt that the game group was pre-empting the therapy session as the primary forum for bonding and self-expression.

Differences between the FRPG groups in these two studies include player age and degree of active psychopathology. The individuals in Zayas and Lewis' (1986) study were younger and less disturbed. Another notable difference lies in the individuals in control of the game interaction and the creation of the fictional setting. In Zayas and Lewis (1986), the social workers themselves were in charge of the role play which the game invoked and so presumably their fictional world was one in which relatively normal personal interaction and activity was affected and rewarded. The two individuals who ran the FRPG in Ascherman's (1993) case study were both suffering from severe narcissistic/antisocial personality disorders so that their fictional FRPG world and the interaction within it may have reflected their anti-social views, making success in the fictional scenarios dependant on character affectation of such behaviours.

Misrepresentation Within the Literature

The understanding of FRPGs by the psychological community has been impaired somewhat by the unfamiliarity of researchers with the game rules and the dynamics of their play. This unfamiliarity has caused several pieces of misinformation concerning the gaming experience to surface in the literature.

Thompson's (1989) article is a prime example of misinformation and false assumptions being represented as fact. Based on reports from her novice son, Thompson (1989) asserted that as character level rises, so does the time required to play each game scenario, that a certain commercial game scenario involves the player's characters being forced into a hell where they turn into demons, and that Fine (1983) states that FRPG players share "a delusional system set in paranoid beliefs." In fact, play time is relatively independent of the level of the players in the scenario as campaigns are continuous series of scenarios. The amount of time spent playing per game session, and the frequency of these sessions, is entirely up to the players and referee to decide upon. The scenario Thompson (1989) misrepresents is an incursion of the "forces of good" into an extraplanar realm to defeat a "demonic" invader. The characters do not become "demons" nor are they changed in any way. Finally, Thompson's (1989) quotation of Fine (1983) is a simple fabrication. Fine (1983) states clearly that players are not delusional (Fine, 1983, p.12).

Perhaps the greatest cause of misleading information stems from the media's fundamental role in the development of the literature. The tendency of the media and reactionary organizations to focus on sensational and extreme examples of possibly detrimental effects on players, and to generalize these to the entire population of FRPG players, appears to have been carried over into the more scientific literature as well.

Fine's (1983) book on FRPGs as social worlds contains some such questionable statements, due possibly to such generalizations, or to change within the gaming "subculture" since he wrote his works. Foremost of these inaccuracies is his claim of the prevalence of sexual exploitation of female characters within FRPGs. Although imaginary romance is a common theme in groups composed of skilled players, in this author's experience, romance is not enacted through exploitive behaviour. While the referee is free to endorse any moral standards he or she pleases in the fictional world, moral norms are a derivative of those present in reality, just as is the case in literary fiction, and so tend to parallel current moral structures. The examples of this sort of activity which Fine (1983) and others have generalized to represent all FRPG players may come from a few younger pre-adolescent players, and the two dimensional view of romance common to inexperienced males of that age. Many critics who censure the games on these grounds should be reminded that mores and

actions in a FRPG session are the product of the player's and the referee's conceptions (Gygax, 1979, p.7), and are not an imposition of the game.

FRPG play and Imaginative Variables

Despite the fundamental role which dissociation and imaginative involvement play in critiques of FRPGs, there has yet to be an empirical examination of dissociative ability or imaginative involvement in their relation to exposure to FRPGs. In addition, the importance of player engrossment in fantastic settings also suggests the merit of examining imaginal variables in FRPG players.

According to Fine (1983), FRPGs induce engrossment and promote identification with characters within the game setting (p.3). More importantly, however, engrossment is seen as necessary for maintenance of FRPG play (p.185). Engrossment is defined by Fine (1983) as a voluntary cutting one's self off from other realms of experience (p.184), and implies the setting aside or exclusion of alternate awarenesses (p.187). For the game to work as an aesthetic experience, players must be willing to become engrossed; they must "bracket" their "natural" selves and enact a fantasy self (p.4). In fact, owing to the absence of criteria for winning the game, engrossment is not only necessary for play but the only reason to play FRPGs. Those players engrossed in their characters have no reason to continue playing (p.185).

For this reason games are designed to provide engrossing systems of experience in which participants can become caught up (p.196). This acceptance of the fantasy world as the "temporary" real world gives meaning to the game, and the creation of a fantasy scenario and culture must take into account the plots, themes and activities which players find engrossing (p.4). Engrossment intensity, therefore, varies with the quality of the game (p.197). Staying within the rules of the FRPG itself is actually less important than the maintenance of this engrossment (p.233).

Engrossment is not continuous (p.183); rather it is voluntarily switched on and off throughout the game (p.4). This "breaking of frame" has little negative effect in FRPGs and so it happens often. Pauses in the action give way to discussions on politics, relationships, etc. The non-compulsory nature of this engrossment is evident through its frequent suspension to deal with stimuli external to the game such as a phone ringing, ordering and eating pizza, or the biological needs of participants (p.196).

In addition to engrossment being theoretically essential for the maintenance of FRPG play, there is also evidence to support its role in initial attraction to FRPGs. Fine (1983) focusses on the recruitment aspects of entering the gaming sub-culture in his work, emphasizing the importance of potential interaction opportunities between players of FRPGs and common interests between players and the individual

introduced (pp. 49-52).

The capacity for engrossment in narrative imagery is evidenced through the common interests which most gamers claim before introduction to FRPGs. These frequently include interest in science fantasy literature, mythology, mysticism, and/or history (p.49). In addition, many indoctrinees into the FRPG subculture are previous members of the science fiction subculture with the concurrent interest in literature and cinema (p.60). These interests all show an tendency to become engrossed in narrative which would explain initial curiosity and attraction to FRPG play, suggesting that such is not only induced by such play, but a pre-requisite for it as well.

Fine (1983, p.42) claims that FRPG players as a whole are more "imaginative" than the normal population, yet admits that no empirical testing of imagery variables in a FRPG sample has taken place. Simon (1987), it will be recalled, did examine imagination within a FRPG group as it is defined on the 16PF. It was not found to be significantly higher than normal.

Imaginative Variables and Hypnotic Responding

Imaginative Involvement

The investigation of hypnotic responding as it relates to imaginative involvement is by no means new. Hilgard (1970) found that high hypnotizables were more likely to report a history of imaginative involvement in sensory experiences, reading, and the dramatic arts than were poor hypnotizable

subjects. Escapism or "mental travel", and interest in adventure or "physical travel" were also found to be higher in high hypnotizables.

Tellegen and Atkinson's (1974) construct of absorption is defined as the tendency to engage in "reality altering" experiences that occur in everyday life. Absorption may also be defined as the ability to attend to imagery or other stimuli to the point of excluding information which does not pertain to them. This construct has been established as a modest predictor of hypnotizability in over two decades of research ($r=.25-.40$; for review see Council, Kirsch, & Hafner, 1986). In addition Absorption has been found to be related to beliefs in the paranormal (Roche & McConkey, 1990; Atkinson, 1994).

Wilson and Barber (1981, 1983) developed another measure of imaginative involvement, namely "Fantasy Proneness", or the tendency to fantasize extensively. Fantasy Proneness is defined as the tendency to become highly engaged in imaginative experiences such as daydreaming, fantasy production, creative expression, and daydreaming. Lynn and Rhue (1986) proposed that 4% of the population fit the category of fantasy prone. Fantasy Prone persons were found to share a series of developmental antecedents including, but not limited to: parental encouragement to fantasize, isolation or loneliness during youth, unpleasant family environment, and early induction into artistic endeavours. As children, the

Fantasy Prones were more likely to live in a make-believe world, believe in creatures such as fairies and guardian angels, and completely identify with fictional literary characters such that the character's identity would be taken as one's own for a time. Fantasy Prones are likely to report the possession of extremely vivid memories and to rate themselves as psychic or "sensitive." The Inventory of Childhood Memories and Imaginings (ICMI; Wilson & Barber, 1981) was the first standardized instrument created to measure the construct of Fantasy Proneness.

Rhue and Lynn (1989, Lynn & Rhue, 1986) found that while fantasy proneness correlated strongly with absorption ratings ($r=.71$), its correlation with hypnotizability was weak at best ($.24$). This has caused some to question the independence of Fantasy Proneness from that of Absorption.

Persinger's (1983) temporal lobe-like signs subscale was developed supposedly to measure activity in the temporal lobes related to propensity for fantasy and physical response to imagery. Persinger and his colleagues (Persinger & Valliant, 1985; Persinger & Makarec, 1987) hold that Fantasy Proneness and hypnotizability are inter-correlated due to a continuum of temporal lobe activity (see also, Makarec & Persinger, 1987 and Persinger & Desano, 1986).

Imagery Vividness

Imagery vividness, the subjective strength of mental images, has been found to correlate only weakly and sporadically with hypnotic susceptibility, possibly due to the multi-modality of most imagery scales (Perry, 1973). Studies that deal with the modification of susceptibility, however, have demonstrated the importance of imagery vividness as a variable (Spanos, Cross, Menary, Brett, & de Groh, 1987; Cross & Spanos, 1988). The Carleton Skill Training Package (CSTP; Spanos, Robertson, Menaray & Brett, 1986) is an information package designed to increase hypnotic responding within a normal population. This information is designed to produce positive attitudes about hypnosis, teach goal-directed imagining as a way of generating the experience of involuntariness, and teach subjects to interpret suggestions as calling for their active participation in generating the behaviors and experiences required by suggestions (Spanos, 1990). It was found by both Spanos et al. (1987), and Cross and Spanos (1988), that imagery vividness ratings directly predicted increases in hypnotic susceptibility in low hypnotizables given the training package. Imaginal propensity can be interpreted therefore as being necessary, but insufficient for high hypnotic susceptibility. This non-linear relationship is unexceptional. Fan-shaped relationships have been found consistently in the literature with both imagery vividness (de Groh, Cross & Spanos, 1986; Hilgard, 1979) and

absorption (Spanos, Brett, Menary & Cross, 1987) as they relate to hypnotic susceptibility. This sort of relationship provides obvious difficulties in the determination of hypnotic responding through linear methods.

Some researchers claim that these non-linear distributions are the product of detrimental attitudes toward hypnotic responding, or the result of gender differences. The fan-shaped distribution, however, has been found to hold constant with imagery vividness when these variables are controlled for (de Groh et al, 1986). While correlations between both variables and susceptibility increase when attitudes and gender differences were accounted for (Spanos, Brett, et al, 1987), the fan-shaped relationships also persisted. These variables prove insufficient to explain the heteroscedasticity of the relationships (de Groh, 1989).

Dissociative Ability

Hypnosis has traditionally been conceived as a dissociative somnambulant state in which the subject is passive and separate from conscious thought (Spanos & Chaves, 1989, p.9). Despite the fact that measures of dissociative ability have been found to correlate significantly with imagery variables that predict hypnotic responding (Segal & Lynn, 1993; Norton, Ross, & Novotny, 1990), dissociative ability itself has been found to be a poor predictor of hypnotic responding in several studies (DiTomasso & Routh,

1993; Eisen, 1993; Segal & Lynn, 1993; Frischholz, Braun, Sachs, Schwartz, et al., 1992).

Reality Monitoring

Johnson and Raye (1981) examined dissociation from a different perspective, focussing on factors influencing the separation of memorized stimuli from the situation in which they were originally produced and the reassigning of these memorized stimuli to other, incorrect sources. It was thought that through this examination, subjective confusion between events which had been imagined and those which had actually been perceived could be better understood. Their findings suggest that this memory trace displacement is dependant on characteristic differences between these two memory sources. These characteristic differences manifest themselves through various cues one uses when one is attempting to distinguish the source of an ambiguous memory. Cue types include those dealing with contextual information, semantic detail, sensory information, and cognitive operations.

Johnson and Raye (1981) found that when contextual cues were weakened the modality of the original sensory input of a perception becomes more uncertain, thereby increasing chances of a misplacement of the associated memory trace onto an incorrect source. Equivalent results were found by Johnson, Raye, Wang, and Taylor (1979) in their consideration of frequency estimations of stimuli presentation when such

presentation was followed closely by multiple imaginary reproductions of the original stimuli. It was found that overestimation of the incidence of initial stimuli presentation was directly predicted by the number of times the imagery was reproduced in imagination after said presentation. These findings were found to be unrelated to the imagery abilities of the subjects as measured by the imagery variables previously referred to in this work.

These findings concerning contextual cues and trace misplacement are particularly relevant to our examination of players of FRPGs in that ambiguity of situation can be seen to predict source misplacement. Contextual ambiguity between a player and his or her character is severely limited due to the profound differences between reality and the fantastic setting in which the character acts, as well as the totally different set of skills and physical attributes that the player and his/her character possesses. It seems unlikely that a player will mistake an imagined encounter, in which his/her character defeats a magical creature on a castle drawbridge with superb swordplay, as an event that actually happened, when the player has no ability to wield a sword and lives in the twentieth century -- a setting where drawbridges and magical creatures are remarkably absent.

The Present Study

The proposed study is designed to examine several points concerning FRPG play, including imagery variables and hypnotic responding. As stated previously, criticisms of FRPGs stem from the absorption into the fantasy milieu which is necessitated by play, as well as the supposed dissociation from reality that such absorption causes. This hypothesized dissociative tendency, in addition to the resemblance between FRPG players and Wilson and Barber's (1981) Fantasy Prone personalities insofar as active fantasy life is concerned, suggests that FRPG play may facilitate hypnotic response. In addition, it is clear that Fine's (1983) concept of engrossment in FRPGs is a gauge of imaginative involvement in fantasy analogous, if not identical to, imaginative involvement as defined in the hypnosis literature.

A defining characteristic of the Fantasy Prone Personality (Wilson & Barber, 1981) is the tendency to become highly engaged in imaginative experiences such as fantasy production. Hypothetically FRPG players will fit the typology of Fantasy Proneness as well.

One purpose of this study will be to examine a variety of imagery variables as they relate to exposure to FRPGs, as well as examining their importance in initial attraction to the games. Dissociation will also be examined as it relates to exposure. It is expected that imagery variables will succeed in differentiating FRPG players from the normal population

where personality and psychopathological characteristics have failed, showing an initial ability for engrossment or absorption to be responsible for interest in FRPGs.

The second purpose of this study will be to examine FRPG players and their susceptibility to hypnosis. The socio-cognitive perspective of hypnotic responding states that actions performed under hypnotic suggestion are "rule-governed, contextually supported constructions", and that participants are actively involved in creating and managing their subjective behavioural displays (Spanos, Menary, Gabora, DuBreuil, and Dewhirst, 1991). In addition, response to imagery and imaginary cues is essential to hypnotic response (Spanos, et al., 1987). Play of FRPGs can be seen to provide practice both in the production of contextually supported behavioural displays, where the context is defined through imaginal stimuli, and in the previously mentioned absorption or engrossment in such imagery, also so predictive of hypnotic responding (for review see Council, et al., 1986).

The resemblance of FRPG players to Hilgard's (1970) high hypnotizable's, especially considering their involvement in science fiction and escapist activities (Mental travel), in conjunction with the role which role playing ability plays in both hypnotic susceptibility and FRPG play (Lee-Teng, 1965; and Barnett & Flynn, 1993, respectively), suggests that FRPG players may be highly hypnotizable. This hypothesis takes on relevance to the literature in that extreme critics of FRPGs

actually claim that the games can be used as a form of mind control: the fantasy of the game being a mask under which players are lured into demonic consortion. This notion is discredited by others (Martin & Fine, 1991).

The most common methodological fault within the literature is the assumed congruity between FRPG groups and control groups. It seems to be the norm to recruit FRPG players from campus gaming clubs and recruit control subjects from introductory psychology classes. Because there is no reason to assume that club members are equivalent to introductory psychology students, this study will use introductory psychology students, matched on age and gender, for both groups.

Hypotheses:

- 1) FRPG exposure will correlate positively with measures of Absorption (Tellegen & Atkinson, 1974), Fantasy Proneness (Wilson & Barber, 1981), Dissociation (Bermstein & Putnum, 1986), and Temporal Lobe Lability (XT) (Persinger, 1983). These measures also will be able to differentiate between players of FRPGs and non-players.
- 2) FRPG exposure will correlate with hypnotic suggestibility (CURSS:O).
- 3) Previous findings concerning psychopathology, self-esteem, and I.Q. as they relate to FRPGs will be supported. These variables will not correlate with exposure to FRPGs, nor will they differentiate the FRPG group from the control group.

Method

Subjects

Both the experimental (FRPG) and the comparison group were composed of 41 male and 4 female subjects, all of whom were Carleton University undergraduate volunteers. Subject ages ranged from 18 to 26 with a mean of 19.9 years. The FRPG group was selected from those screened during mass testing with the Mass Testing Questionnaire (See appendix A). All members of the FRPG group reported having played an FRPG at least once in the last six months. The comparison group also was selected from those who participated in mass testing, and was matched with respect to gender and age with the FRPG group. Each subject participated in only a single testing session and received experimental credit for their participation.

Materials

Phase I: All subjects were screened for involvement in FRPGs, gender and age using the Mass Testing Questionnaire (See appendix A) during the Psychology Department's Mass Testing program. The questionnaire was developed for the present study and queries the subject as to their age and gender, and as to whether or not they are involved in FRPGs.

Phase II: All subjects who completed Phase II of the study were administered a package that contained the following items:

1) An Informed Consent form (See appendices B, C and D) which explains to the subjects that their participation is voluntary and that they are not required to answer any items which they do not wish to. In addition the subjects are informed that they are free to withdraw from the study at any time without penalty. Subjects were also informed that all information collected in the study was strictly confidential. Consent forms for the control group made no mention of FRPGs.

2) The Inventory of Childhood Memories and Imaginings (See appendix E): a measure of Fantasy Proneness (ICMI; Wilson & Barber, 1981). This scale correlates significantly with absorption and imagery vividness and is said to have adequate reliability (Rhue & Lynn, 1989).

3) Tellegen and Atkinson's (1974) Absorption Scale (ABS, See appendix F): a 34-item questionnaire which measures the predisposition of subjects to become highly involved in sensory and imaginative experiences (Tellegen & Atkinson, 1974). This scale has been found to correlate moderately with scales measuring fantasy proneness and daydreaming (Spanos & Chaves, 1989). Divergent validity is demonstrated by the scale through its failure to correlate significantly with other psychopathology and personality measures (Spanos & Moretti, 1988).

4) Shor, Orne and O'Connell's (1966) revision of the Betts' Imagery Vividness scale (IV; See appendix G): a 15-item measure used to assess subjective reports of the vividness of imaginings from various sense modalities, though the scale emphasizes the visual modality. High internal consistency is reported by the authors, as is a moderate correlation between this measure and hypnotizability. (Shor, Orne & O'Connell, 1966).

5) The Dissociative Experiences Scale (DES; Bernstein & Putnam, 1986, See appendix H): a 28-item measure that appraises the frequency of the occurrence of a range of dissociative experiences. Discriminative validity of the DES was established by the authors demonstration that patients diagnosed with dissociative disorders scored higher on the scale than did patients with non-dissociative disorders, or normal adults.

6) The Personal Philosophy Inventory (Persinger & Makearec, 1987; See appendix N:), a proposed measure of aberrant temporal lobe activity in normal adults. Subscales include the PPI(XT) the PPI(EB) and the PPI(PE): measures of frontal lobe-lability, Exotic beliefs, and Paranormal experiences, respectively. Test-retest coefficients are high, and internal and external reliability is said to be adequate (Persinger, 1984).

7) The Carleton University Responsiveness to Suggestion Scale: Objective (CURSS:O; Spanos, Radtke, Hodgins, Stam & Bertrand, 1983) (See appendix I): a measure of overt response to traditional hypnotic suggestions. Adequate test-retest correlations were found (Spanos, Radtke, Hodgins, Bertrand, Stam, and DuBreuil, 1983). CURRS:O scores have been found to correlate significantly with the Harvard Group Scale of Hypnotic Susceptibility:A and the Stanford Hypnotic Susceptibility Scale Form C (Spanos, Ratke, Hodgins, Bertrand, Stam, and Moretti, 1983). The administration also includes one measure of hypnotic expectancy (EXP) and three measures of attitudes towards hypnosis: fear towards hypnosis (ATT-F), positive attitudes (ATT-P), and beliefs concerning mental health (ATT-MH). Adequate validity and reliability are presented (Spanos, Brett, Menary, & Cross, 1987).

8) Rosenberg's Self-Esteem Scale (1979; See appendix M): a mental health variable which is predictive of susceptibility to depression and other psychiatric disorders (Beck, Steer, Epstein & Brown, 1990). Test-retest reliability is in the order of .92, and coefficient alpha is .72 (Rosenberg, 1979).

9) The Trauma Symptom Checklist (TSC-40, Briere & Runtz, 89; See appendix K): a psychopathology measure of 5 subscales assessing sleep disturbance, anxiety, post-sexual abuse trauma (hypothesized), depression, and dissociation. The measure was found to have a reliability coefficient of .89 (Briere & Runtz, 1987).

10) The Shipley's Institute of Living Scale (Zachary, 1986), (See appendix L). This scale was originally designed as a measure of cognitive impairment, but, more recently it has been used extensively as a brief measure of I.Q.. Construct validity is shown through high correlations with established I.Q. tests ranging from .68 to .90, and test-retest coefficients have been found to range from .62 to .82 for between-test periods ranging from 2 to 16 weeks (research summarized in Zachary, 1986).

11) Debriefing Forms (See appendices O & P). These forms explained the purpose of the study and also provided a list of services for victims of abuse.

Subjects in the experimental group also completed the FRPG Questionnaire (See appendix J): a measure developed for this study which queries various gauges of involvement in FRPGs.

Procedure

Phase I: All introductory psychology students at Carleton University were asked to complete the Fantasy Questionnaire as part of the mass testing program.

Phase II: Subjects were tested in groups of up to 8 people, with FRPG and control subjects tested together. Order was confounded across measures, with the exception of the imagery vividness and hypnotic expectancy measures which always preceded the CURSS:O, and the consent and debriefing

forms which preceded and followed all questionnaires respectively. The primary author was available to answer any questions.

Results

Group Characteristics

The subjects were matched on age and gender before testing began. Group means, standard deviations, and Ns are listed for all variables in Table 1a and Table 1b, for the FRPG and comparison groups respectively.

Factors Present in the Data Set

As a general exploratory measure, a factor analysis was performed between all of the variables, save the gaming exposure variables. An unweighted least squares Factor Analysis with varimax rotation was performed using SPSS for Windows on the TSC-40 subscales (Anxiety, Depression, Sleep Disturbance, Dissociation, PSAT), the PPI(XT) scale, the CURSS Attitudes Towards Hypnosis pre-scales (Fear, Positive, Mental Health), Hypnosis expectancy measure, RSE score, ICMI score, ABS, DES, CURSS:O, IV, IQ score, and group membership (FRPG/Control) for all subjects.

Three factors were extracted (See Table 2). Communality values were quite high showing that variables were well defined by this factor solution. With a cut off of .3 for inclusion of a variable in interpretation of a factor, 6 of

Table 1a

Means and Standard Deviations for the FRPG Group

	<i>Mean</i>	<i>S.D.</i>	<i>N</i>
Imagery Variables			
Absorption	86.311	17.784	45
Imagery Vividness	71.889	15.281	45
Dissociative Experiences	63.103	41.133	45
Fantasy Proneness	28.067	12.039	45
Temporal Lobe-like Signs	20.733	6.864	45
Hypnosis Variables			
CURSS:O	2.978	2.083	45
Expectancy	3.047	1.447	43
Attitudes			
- Fear	21.756	5.859	45
- Mental Health	22.889	3.743	45
- Positive	21.467	5.488	45
Psychopathological Variables			
Trauma Symptom Checklist			
- Anxiety	7.489	3.975	45
- Depression	7.289	3.527	45
- Dissociation	3.733	3.129	45
- PSAT	3.267	2.339	45
- Sleep Disorder	3.956	2.567	45
Self Esteem	30.600	5.132	45

Table 1a (cont)

	<i>Mean</i>	<i>S.D.</i>	<i>N</i>
Fantasy Role Playing Variables			
Current Campaign No.	.756	1.044	41
Hours Played Per Month	9.056	7.739	45
Highest Level in AD&D	10.711	8.705	38
Money Spent on Games	361.071	695.073	42
FRPG Systems Tried	4.356	4.052	45
Times of Play per Month	2.413	1.764	44
Years of FRPG Play	4.356	4.168	45
Other Variables			
Shipley's (IQ)	65.852	6.194	44
Personal Philosophy Inv.			
- Exotic Beliefs	5.222	2.255	45
- Paranormal Exp.	1.667	1.044	45

Table 1b

Means and Standard Deviations for the Comparison Group

	<i>Mean</i>	<i>S.D.</i>	<i>N</i>
Imagery Variables			
Absorption	79.273	20.226	44
Imagery Vividness	70.250	17.590	44
Dissociative Experiences	52.412	28.036	45
Fantasy Proneness	22.867	6.639	45
Temporal Lobe-like Signs	18.295	6.910	45
Hypnosis Variables			
CURSS:O	2.711	1.779	45
Expectancy	3.089	.949	45
Attitudes			
- Fear	22.023	5.538	44
- Mental Health	22.773	4.544	44
- Positive	23.068	4.682	44
Psychopathological Variables			
Trauma Symptom Checklist			
- Anxiety	8.800	16.077	45
- Depression	7.489	3.900	45
- Dissociation	3.600	2.783	45
- PSAT	3.178	2.774	45
- Sleep Disorder	3.956	1.988	45
Self Esteem	30.182	4.853	44

Table 1b (cont)

	<i>Mean</i>	<i>S.D.</i>	<i>N</i>
Other Variables			
Shipley's (IQ)	60.653	8.399	45
Personal Philosophy Inv.			
- Exotic Beliefs	5.133	1.804	45
- Paranormal Exp.	1.733	1.543	45

the 18 variables did not load onto the factors. Two variables, DES and PPI(XT), were complex. The TSC-40 subscales Depression, Sleep, Dissociation, and PSAT, as well as the DES and RSE scores, all loaded onto factor 1. This factor seems to be a measure of psychopathology. Factor 2 was comprised of Betts IV, Absorption, PPI(XT) and CURSS:O, and appears to be a measure of imagery ability. Factor 3 has Group (FRPG/control), DES, PPI(XT), and ICMI scores loading on it, and suggests the link between tendency to fantasize and play of FRPGs. As the analysis was performed solely to clarify the data, factors and their loadings were not used in other analyses throughout the study.

Discriminant Measures

Analysis consisted of a MANOVA for the gaming/Non-gaming groups on the TSC-40 subscales, the Self Esteem Measure, and the I.Q. measure, and a canonical correlation between the gaming-involvement items (FRPG Questionnaire: See appendix J) and these same measures. Subjects were matched on age and gender.

The MANOVA revealed a significant multivariate effect for group, Wilks Lambda Approx. $F(7,37)=1434.06$, $p<.0001$. At the univariate level, only IQ varied significantly between groups, $T(1,43) = -3.44$, $p<.001$. The group means for this variable are shown in Table 3. The canonical correlation within the FRPG group between these same variables and the gaming involvement

Table 2

Factor Analysis of Combined Sample. Factor Communality Values,
Percentage Variance, and Factor Loadings Included.

FACTOR	PSYCHOPATHOLOGY	IMAGERY	FANTASY
<hr/>			
Factor			
Communality	.420	.284	.265
% Variance	.243	.091	.066
Var. Loadings			
- TSC-40 - Dep	.788		
- Slp	.768		
- Dis	.737		
- PSAT	.715		
- BETTS		.619	
- ABS		.594	
- CURSS:O		.405	
- DES	.402		.615
- PPI (XT)		.485	.569
- ICMI			.513
- RSE	-.300		
- GROUP (FRPG/CONT)			.306
<hr/>			

items did not show a relationship between the variable sets, Wilk's Lambda Approx. $F(56,166)=1.21$.

Imagery/Dissociative Variables and FRPG play

Analysis consisted of a MANOVA for the FRPG/control groups on all the imagery measures (ICMI, ABS, IV, PPI and the DES) and a canonical correlation between the gaming-involvement items (FRPG Questionnaire: See appendix J) and these same measures. Subjects were matched on age and gender.

The MANOVA revealed a significant multivariate effect for group, Wilk's Lambda Approx. $F(5,40)=472.94$, $p<.0001$. At the univariate level, One-tailed t-tests showed that ABS, $T(1,44)=-1.95$, $p=.029$, ICMI, $T(1,44)=-2.62$, $p=.006$, and PPI(XT), $T(1,44)=-1.70$, $p=.048$, varied significantly between groups. The group means for these variables are shown in Table 3.

The canonical correlation within the FRPG group between these same variables and the gaming involvement items fails to find any relationship between the variable sets, Wilk's Lambda Approx. $F(35,141.25) = 1.20$.

Table 3

Significant Differences in Variable Means Between the Fantasy Role Playing Group and the Comparison Group.

	FRPG		Control	
	<i>Mean</i>	<i>S.D.</i>	<i>Mean</i>	<i>S.D.</i>
<hr/> DISCRIMINANT VARIABLES <hr/>				
- Shipley's Institute of Living Scale (IQ)	65.85 (111)*	6.2	60.99 (105)*	8.4
<hr/> IMAGERY VARIABLES <hr/>				
- Absorption (ABS)	86.31	17.8	79.27	20.2
- Fantasy Proneness (ICMI)	28.08	12.0	22.87	6.6
- Temporal Lobe Lability (PPI-XT)	20.73	6.9	18.29	6.9

* WAIS-R Equivalents for Shipley's Institute of Living Scale scores.

Prediction of Hypnotic Susceptibility

Analysis consisted of a paired t-test between the FRPG/control groups on the CURSS:O measure. A forward hierarchical multiple regression using the FRPG exposure measures (FRPG Questionnaire: See appendix J) and the imagery measures to predict the CURSS:O score also was undertaken. The subjects were matched with respect to age and gender. The paired t-test found no significant difference on CURSS:O score between groups (FRPG/control), $T(1,44) = 0.77$.

The forward hierarchical multiple regression within the FRPG group predicting the CURSS:O score from the gaming involvement items and the imagery measures found a significant relationship, $F(3,30) = 9.16$, $p < .0001$. Analysis showed that Absorption, $T(1,44) = 3.64$, $p = .001$, the number of times FRPGs are played per month $T(1,44) = 3.08$, $p = .0045$, and the total number of FRPG systems which have been played by the subject $T(1,44) = 2.143$, $p = .04$, were all significant predictors of hypnotic responding. Table 4 displays the correlations between the variables, the unstandardized regression coefficients, the standardized regression coefficients, the R^2 changes, and the R , R^2 , and adjusted R^2 .

	ABS	TIMES	SYSTEMS	CURSS:O	B	Beta	R ² Change
ABS	1.000	-.116	.115	.456	.0575	.4909	.20790
TIMES		1.000	.079	.354	.4880	.4132	.19018
SYSTEMS			1.000	.375	.1471	.2861	.07993

Adj. R Square .42582

For further clarification, a second hierarchical regression was performed using the above variables and all other available variables (gender, age, hypnotic expectancy and attitude scales, the psychopathology measures, exotic beliefs and paranormal experiences measures, and the IQ scale) to predict CURSS:O. Findings were identical.

Another forward hierarchical regression showed that the exposure variable measuring the number of FRPG systems tried was found to be unrepresentable through a linear combination of other variables in the study. A forward regression predicting the frequency measure however, found that temporal lobe lability (PPI(XT)) was a significant if weak predictor, Adjusted $R^2 = .0885$. Table 5 displays the correlation between the variables, the unstandardized regression coefficients, the standardized regression coefficients, and R , R^2 , and adjusted R^2 .

Table 5

Regression on Frequency of FRPG Play using All Non-Exposure
Variables as Predictors

	TIMES (DV)	B	Beta
PPI (XT)	-.333	-.085529	-.332734
Multiple R			.33273
R Square			.11071
Adj. R Square			.08848

Discussion

In review of our findings, we see that our variables can be separated into three factors, a Psychopathology factor, an Imagery factor, and Fantasy/Dissociative factor. Hypnotic susceptibility loads onto the Imagery factor, while group (FRPG/comparison) loads, albeit weakly, onto the Fantasy/Dissociative factor. It is unsurprising, therefore, that we found susceptibility not to vary with group. We did find, however, that Absorption, Fantasy Proneness, and Temporal Lobe Lability varied significantly between the groups, as did I.Q..

Within the FRPG group, it was found that exposure variables in conjunction with imagery variables provide a powerful predictor of hypnotic susceptibility. Absorption, Frequency of FRPG play (Times/month), and the total number of FRPG systems ever played were found to predict near 50% of the variance in susceptibility.

Insofar as public concerns pertaining to FRPG play are concerned, these findings seem to corroborate the assertion that FRPG are not harmful to those who play them. Neither group membership (FRPG/control) nor exposure variables were predictable with the psychopathology measures. Play seems in no way indicative of psychopathological dissociation, nor is it correlated with the depression so often linked with suicidal ideation. We may reject any causal link between playing FRPGs and either loss of touch with reality, or

suicidal tendency (Fine, 1983; Simon, 1987; Abyeta & Forest 1991). While our findings do not speak directly to homicidal behaviours, the failure of gaming behaviours to load onto our general psychopathology factor (Factor 1) lends strength to previous findings which reject links between FRPG play and such actions. Moreover, as dissociation from current mores is cited in many works as the cause for homicidal behavior (Pulling, 1989), the failure to find a link between FRPG play and dissociation strengthens claims of an absence of relation between the games and homicidal action (Abyeta & Forest, 1991). This disjunction supports Simon's (1987) view that in cases where suicide and homicide supposedly are linked to the play of FRPGs, such games are "an incidental, irrelevant aspect, rather than an etiological factor."

Our findings concerning I.Q. differences between FRPG players and non-players are somewhat unexpected. Players of FRPGs scored some 6 points (WAIS-R equivalents) higher than did the comparison group in this study. Although Simon (1987) failed to find significant elevation in Factor B (intelligence) of the 16PF in a sample of FRPG players in his work, his results, upon consideration of our findings, seem due to a lack of statistical power more than a lack of a real difference between groups.

These results do not support Fine's (1983, pp 41-42) belief that estimates of higher intelligence among FRPG players are solely a result of the above average level of

traditional education attained by players. Years of education was controlled for, albeit roughly, by selecting subjects from a single first year psychology class and matching them on their age. This selective process, while useful in the creation of a congruous comparison group, unfortunately does not allow us to generalize our findings beyond a university population.

Specialized knowledge of topics relevant to FRPGs, also contrary to Fine's (1983) opinion, may contribute to their elevated IQ scores. Player knowledge of obscure language may give them an advantage on the verbal portion of the I.Q. measure, while the similarity between items on the abstraction portion of the I.Q. measure and riddles common to FRPG play may provide a like advantage on that portion of the scale as well. One subject commented on this specifically. This may suggest that play of FRPGs provides practice in logical problem solving.

The significant elevation of imagery variables (ABS, ICMI, and PPI(XT)) in the FRPG group support the hypothesized importance of imaginative involvement in FRPG play. The elevated absorption score in particular lends credence to Fine's (1983, p.185) concept of "Engrossment" and its integral role in FRPGs. The elevated Fantasy Proneness score (ICMI) also suggests that FRPG players have an increased tendency to become highly engaged in imaginative experiences. The same score can be seen to support Fine's (1983, p.42) notion that

FRPG players are more "imaginative" than normal in that elevated scores represent expansive fantasy lives. The failure of the dissociative measure (DES) to differentiate between the control and the FRPG groups would suggest that the active involvement in the imaginary setting of FRPGs does not lead to general dissociative experiences in players' lives. This incongruity further confirms the lack of relation between FRPG play and the dangerous dissociation from reality which critics claim lead FRPG players to commit suicide and homicide.

None of the FRPG exposure measures were found to be predictive of imagery measures in the study. This result possibly suggests that exposure to the games does not produce the difference in imagery variables existing between FRPG players and non-players; that is, imagery variables do not increase in proportion to one's involvement in FRPGs. This either depicts a fixed difference in imagery ability between FRPG players and other individuals rather than an increase brought about through game exposure, or speaks to a necessity for larger samples of FRPG players to make whatever relationships may exist between these two sets of variables apparent.

Contrary to our hypothesis, subjects in the FRPG group did not score significantly higher than controls on a measure of hypnotic susceptibility, contrary to our hypothesis. The hypnotic modification literature suggests that imagery variables are important in attempts to increase

hypnotizability (Spanos, et al., 1987). The present findings would suggest however, that exposure to FRPGs is not sufficient to provoke an elevation in response.

The Carleton Skills Training Package (CSTP; Spanos, Robertson, Menaray & Brett, 1986), a previously cited modification package, was designed to produce positive attitudes towards hypnosis, teach goal-directed imagining as a way of generating the experience of involuntariness, and teach subjects to interpret suggestions as calling for their active participation in generating the behaviors and experiences required by suggestions (Spanos, 1990). Our non-significant findings are most likely due to differences between such training packages and the imaginative experience present in FRPG play. Of particular note is the lack of any goal-direction in the imagery of FRPG play. In addition, practice with imagery may have no effect on susceptibility without the concurrent modification of attitudes towards hypnosis, and the training which teaches subjects to actively generate hypnotic behaviors. It is also possible that there is a difference in demand characteristics between modification studies and the current study. Subjects in hypnotic modification studies seem well aware what responses the experimenter wishes of them (W. Jones, personal communication, Jan. 18, 1995).

Within the FRPG group, however, hypnotic susceptibility was found to be predicted definitively by Absorption and two measure of FRPG exposure; Frequency of FRPG play (TIMES) and Total number of FRPG systems ever played (SYS). The variance in susceptibility explained beyond that attributed to Absorption (ABS) was unexpected, and it was thought that the exposure variables may be masking other established predictors of hypnotic susceptibility (expectancy, positive attitudes towards hypnosis, etc.; for review see de Groh, 1989) Another multiple regression using all variables available to predict susceptibility confirmed the findings of our first, however, and these established hypnotic predictors did not displace the gaming involvement items in the regression equation. The independence of these items from established predictors was further strengthened by additional regressions. No variables in the study were found to significantly predict SYS when this variable was used as a DV, and while 11% of the variance in TIMES was explained by the temporal lobe lability measure (PPI(XT)), the relationship between PPI(XT) and TIMES ($r = -.333$) is of the direction opposite to the relationship between PPI(XT) and susceptibility ($r = .394$), and TIMES and susceptibility ($r = .354$). This system of interrelationships is inexplicable at this time.

Our findings indicate that there is variance in hypnotic susceptibility accounted for by the exposure variables which

has not been measured previously in the hypnotic literature, and that these variables appear to be better predictors of hypnotic susceptibility within an FRPG population than are established predictors such as expectancy and attitudes. Up until now, inability to discover robust predictors of hypnotic responding has vexed psychological researchers. Examination of these exposure variables may provide further valuable insight into hypnotic responding and could lead to the discovery of equivalent constructs, predictive of susceptibility, that can be generalized beyond the FRPG group.

The presence of the two exposure variables as predictors of susceptibility is notable in that one appears to measure extended, or long-term involvement in FRPGs, while the other is a measure of current FRPG interest. This duality may illuminate why the variables explain different portions of the variance in hypnotic response. An unstated purpose of this study was to examine which variables used in the FRPG literature to date, had actual predictive value in an experimental setting. From the above findings, this author would suggest that the use of a variable measuring current frequency of FRPG play, in conjunction with a measure of depth of long term involvement, may, in future research, provide improved insight into FRPG players. Previous articles (Simon, 1987; Abyeta & Forest, 1991) have focused solely on long-term measures of gaming involvement. In addition, the number of missing values present in the variable measuring the highest

level AD&D character which subjects had played suggests that this measure may not have meaning to all players of FRPGs. This is doubtlessly due to the fact that certain players of FRPGs have never played AD&D and are focused on other game systems. The value of this variable as a predictor of FRPG involvement is thereby compromised. Another variable measuring long-term involvement should most likely be used in future research.

In conclusion, the necessity for further research into imaginative involvement as it relates to hypnotic susceptibility must be emphasized. In particular, research should focus on measures of long term and current imaginative involvement as separate predictors as opposed to scales that coalesce these variables into a less clear whole. Further investigation into FRPGs and their players, particularly insofar as imagery and intelligence are concerned, also should be undertaken with this bi-focal perspective. Further research should focus both on the replication of this study, and addressing the gaps left by it, examining, in particular, exposure variables as they relate to imagery variables. Longitudinal studies would be ideal to determine with finality what effects, if any, different levels of FRPG involvement have on individuals who play. The current state of the literature forces us to conclude, however, that FRPGs are not causal of any disagreeable effects in those who play.

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APPENDIX A

Mass Testing Questionnaire

- 1) What is your Age? _____
- 2) What is your Sex? M / F
- 3) Do you play Fantasy Role Playing Games (eg. Advanced Dungeons & Dragons, Champions, Shadowrun)?

Y / N

APPENDIX B

Informed Consent

(Contrast group)

We are interested in imaginative activity and life experiences as they relate to adult personality and hypnotic responding. Before you agree to participate in this study, we would like you to be aware of the procedures involved.

In this session, you will be administered a series of questionnaires that are designed to assess your personality characteristics. Items in the questionnaires will deal with childhood and adult experiences, imaginative activity, dissociative experiences and self-perceptions. In addition, you will be given a brief scale measuring logical ability and vocabulary. While none of the questions are meant to cause any embarrassment, some touch on personal issues such as sexual, physical, and emotional abuse and may be a cause for anxiety. For your protection, responses to all questions will be kept strictly confidential. In this session you will also be administered a hypnotic induction procedure and a short series of suggestions. These will be completely non-threatening and non-personal in nature.

This study will take approximately 3 hours to complete. Afterwards, you will be fully debriefed and will receive 3 experimental credits for your participation.

I, the undersigned, am aware that my participation in this study is voluntary and if, for any reason and at any time, I wish to leave the experiment, I may do so without explanation and without penalty.

Furthermore, I am aware that the data gathered in this study are confidential and anonymous with respect to my personal identity.

I have read the above form and I consent to participate in this study.

participant's signature

date

investigator's signature

Should you have any ethical questions or comments about this research, please contact one of:

Dr. Lise Paquet, Ethics Committee Chair (788-2600, ext. 2692)
Dr. W. Jones, Psychology Department Chair (788-2644)

APPENDIX C

Informed Consent

(Fantasy Role Playing Group)

We are interested in imaginative activity and life experiences as they relate to adult personality and hypnotic responding. Before you agree to participate in this study, we would like you to be aware of the procedures involved.

In this session, you will be administered a series of questionnaires that are designed to assess your personality characteristics. Items on the questionnaires will deal with childhood and adult experiences, imaginative activity, dissociative experiences and self-perceptions. In addition, you will be given a brief scale measuring logical ability and vocabulary. While none of the questions are meant to cause any embarrassment, some touch on personal issues such as sexual, physical, and emotional abuse and may be a cause for anxiety. For your protection, responses to all questions will be kept strictly confidential. In this session you will also be administered a hypnotic induction procedure and a short series of suggestions. These will be completely non-threatening and non-personal in nature.

At the end of the study, a brief questionnaire concerning your involvement in imaginative activities, specifically Fantasy Role Playing Games, will be administered.

This study will take approximately 3 hours to complete. Afterwards, you will be fully debriefed and will receive 3 experimental credits for your participation.

I, the undersigned, am aware that my participation in this study is voluntary and if, for any reason and at any time, I wish to leave the experiment, I may do so without explanation and without penalty.

Furthermore, I am aware that the data gathered in this study are confidential and anonymous with respect to my personal identity.

I have read the above form and I consent to participate in this study.

participant's signature

date

investigator's signature

Should you have any ethical questions or comments about this research, please contact one of:

Dr. Lise Paquet, Ethics Committee Chair (788-2600, ext. 2692)
Dr. W. Jones, Psychology Department Chair (788-2644)

Appendix D

Informed Consent**Carleton University Responsiveness to Suggestion Scale
(Both FRPG group and comparison group)**

In a few minute you will be administered the Carleton University Responsiveness to Suggestion Scale. This procedure is designed to assess your responsiveness to hypnotic suggestions. The first part of the procedure consists of a tape-recorded hypnotic induction procedure. You will be asked by the tape to close your eyes, relax, and pay close attention to all that follows. you will then be given repeated suggestions for relaxation, drowsiness, and hypnosis. Following this procedure you will be administered a series of standard test questions that ask you to imagine various events. Finally, the hypnotic procedure will be terminated and you will be asked to answer some questions about your experiences and about your responses to the suggestions. The whole process takes about 45 minutes.

There are many myths about hypnosis and it is important for you to understand that it involves nothing fearful or mysterious. Your ability to be hypnotized has nothing to do with your intelligence and you will not be asked to do anything that is the least bit embarrassing. People typically find the experience to be interesting and pleasant.

At the end of the procedure the experimenter will show you how hypnotic susceptibility is scored, will tell you your score, and will explain how you scored relative to the population at large. There are no good or bad scores and neither high scores nor low scores imply anything about your personal qualities. Any questions that you have about your experience or about hypnosis in general will be answered by the experimenter at the end of the session.

I am aware that my participation in this study is voluntary. If for any reason, at any time, I wish to leave the experiment, I may do so without having to give an explanation and with no penalty whatsoever.

Furthermore, I am aware that the data gathered in this study are confidential and anonymous with respect to my personal identity.

I have read the above form, and, with the understanding that I can withdraw at any time, and for whatever reason, I consent to participate in today's hypnosis experiment.

participant's signature

date

investigator's signature

Appendix E

Inventory of Childhood Memories and Imaginings

The major purpose of this inventory is to determine how many adults remember themselves as very imaginative during childhood. A Second purpose is to quantify the kinds of childhood imaginative activities, fantasies, and related experiences that can be remembered by adults. A third purpose is to determine to what extent childhood imaginings affect adult experiences or carry over into adult functioning.

Please place a check in front of each item below that applies to you. Please answer as honestly as possible and do not be concerned if you find that you are either checking almost all of the items or almost none.

- ____1. When I was a child, I enjoyed active movement such as running and jumping.
- ____2. When I was a child, I enjoyed swinging (on a swing).
- ____3. When I was a child, I liked some kinds of music.
- ____4. When I was a child, I enjoyed cartoons (on TV or in movies).
- ____5. I can remember clearly one or more things that happened to me when I was two years of age or younger.
- ____6. When I remember back to when I was 6, 7, or 8 years of age, I can re-experience myself as a child; that is, I can "see" and "hear" what I saw and heard then and I can feel again the emotions and sensations I felt then.
- ____7. Although I have grown and I've had more experiences, I still feel basically the same as I did when I was a child.
- ____8. When I was a child, I believed in such beings as fairies, elves, or leprechauns, etc.

- _____9. Now that I am an adult, I still in some sense believe in such beings as fairies, elves or leprechauns, etc.
- _____10. When I was a child, I would dream or imagine I was flying with such vividness that I actually felt as if I did fly.
- _____11. When I was a child, I enjoyed fairytales.
- _____12. As an adult, I would still enjoy fairytales.
- _____13. When I was a child, I was very imaginative.
- _____14. At the present time I am very imaginative.
- _____15. When I was a child, I was a "childhood philosopher". That is, I spent time thinking about such things as the meaning of life, and of death, about hypocrisy, levels of existence, etc.
- _____16. When I was a child (below age 12), I preferred playing make-believe games which required imagining or pretending, such as cowboys, school, house, etc. I preferred such make-believe games over realistic games which require skill such as hop-scotch, checkers, building things, ball games, etc.
- _____17. When I was playing make-believe games as a child, I usually would imagine so vividly that what I pretended seemed real to me.
- _____18. When I was a child, I lived in a make-believe world much or most of the time.
- _____19. As an adult, I still occasionally live in a make-believe world much or most of the time.
- _____20. When I was a young child, I believed that my doll(s) or stuffed animal(s) were alive.
- _____22. When I was a child I had an imaginary companion (or companions) such as an imagined person, animal, r object which I talked to, shared feelings with, or took along with me.
- _____23. When I was a child, I would at times pretend and in some sense believe I was someone else such as a fairytale character (e.g., Snow White, Peter Pan, Rapunzel, etc.), a prince or a princess, an orphan, etc.

- ____24. As an adult, I occasionally pretend I am someone else.
- ____25. When I was a child or teenager, at times I was afraid my imagining would become so real to me that I would be unable to stop it.
- ____26. When I was a child or teenager, sometimes I was accused of lying when I was just reporting what I imagined.
- ____27. When I was a young (pre-teenage) child, I had sexual fantasies.
- ____28. I have had an orgasm (or orgasms) just by imagining only.
- ____29. When I was a child, I would spend at least half of my total waking day imagining.
- ____30. Now as an adult, I spend a substantial part of my total waking say imagining.
- ____31. If I could not imagine anymore, besides other effects it would have on my life, I wouldn't be me anymore -- I would be a basically different person.
- ____32. At times, when I was a child or adolescent, it was difficult for me to determine whether something actually happened or whether I had imagined it happened.
- ____33. If given the opportunity, I would be very eager to experience an entirely new sensation -- a sensation such as vision, hearing, smell, or touch, but as different from all these as they are all different from each other.
- ____34. I have had a deeply moving personal religious, spiritual, or mystical experience
- ____35. I have felt, heard, or seen an apparition (a spirit or ghost).
- ____36. I have had an out-of-the-body experience; that is, I have felt as if "I" (my mind or my spirit) left my body and existed for awhile independently of my body.

- ____37. I have experienced precognition (prophecy or foretelling the future) in dream or while awake, That is, I have known something would happen even though there was no rational way I could have known.
- ____38. I have at times written poems, inspirational messages, short stories, or songs, etc., and I did not feel it was I who was creating them.
- ____39. I have at times felt unexplainably compelled to go somewhere, or do something I wouldn't ordinarily do (such as call someone I wouldn't ordinarily call) and then later discovered there was a reason for my compulsion. (For instance, the person I called desperately needed me at that moment.)
- ____40. I believe reincarnation is possible, and I have become aware of a life (or lives) that I may have lived prior to this one.
- ____41. I have at some time in my life experimented with marijuana, psychedelic drugs (LSD, etc.) amphetamines ("uppers"), tranquilizers ("downers"), or other such drugs in order to experience an altered state of consciousness: that is, in order to experience the world in a new way, not just to relax or feel good.
- ____42. I would like to experience hypnosis.
- ____43. I think I am hypnotizable; that is, I think I could be hypnotized.
- ____44. I have at times thought something happened to me, developed physical symptoms but later found out that what I thought happened never actually occurred. (Some possible examples to illustrate this are as follows: (a) you thought something was in your eye, your eye became irritated, but you couldn't find anything in your eye; (b) or you thought you ate spoiled food, became ill, but later found out that the other eating the same food were not bothered; (c) or you thought you touched poison ivy, developed an itch but the doctor said it wasn't poison ivy.)

- _____45. I have at some time in my life thought I was pregnant and in addition to not menstruating, developed other symptoms of pregnancy (eg. morning sickness, abdominal enlargement, breast changes, etc.), only to find out later that I was not pregnant.
- _____46. While listening to my favourite music, in addition to experiencing mood changes (eg. feeling calm, relaxed, energetic, mellow, etc.) I also often experience a transformation (eg. a feeling of oneness with the music or being transported to the past or to another place or time, etc.)
- _____47. When I remember significant events in my life, in addition to thinking about them, I can also re-experience them. That is, I can see again what I saw then, hear again the sounds, voices etc., as I heard them before, feel the emotions and sensations I felt then. I can re-live them -- not just think about them or see them in my mind's eye.
- _____48. I can vividly re-experience in my imagination such things as: the feeling of a gentle breeze, warm sand under bare feet, the softness of fur, cool grass, the warmth of the sun, and the smell of freshly cut grass.
- _____49. When asked to close my eyes and imagine holding a baby or an animal (dog, cat, etc.) on my lap, I can experience it as if it were actually there. That is, I can feel its weight and warmth, touch it, see it, hear it, etc.
- _____50. At times just before I fall asleep, I experience vivid images.
- _____51. Many or most of my dreams tend to be at least as vivid as actual life experiences.
- _____52. If I wish, I am usually able to finish or change a dream after I awaken.

Appendix F

Tellegen and Atkinson's Absorption Scale

PLEASE CIRCLE THE APPROPRIATE NUMBER
(1 = NEVER; 4= VERY FREQUENTLY)

1. Sometimes I feel and experience things as I did when I was a child.
Never 1 2 3 4 Very Frequently
2. I can be greatly moved by eloquent or poetic language.
Never 1 2 3 4 Very Frequently
3. While watching a movie, a television show, or a play, I may become so involved that I forget about myself and my surroundings and experience the story as if it were real and as if I were taking part in it.
Never 1 2 3 4 Very Frequently
4. If i stare at a picture and then look away from it, I can sometimes "see" an image of the picture, almost as if i were still looking at it.
Never 1 2 3 4 Very Frequently
5. Sometimes I feel as if my mind could envelop the whole world.
Never 1 2 3 4 Very Frequently
6. I like to watch cloud shapes change in the sky.
Never 1 2 3 4 Very Frequently
7. If I wish I can imagine (or daydream) something so vividly that they hold my attention as a good movie or story does.
Never 1 2 3 4 Very Frequently
8. I think I really know what some people mean when they talk about mystical experiences.
Never 1 2 3 4 Very Frequently

9. I sometimes "step outside" my usual self and experience an entirely different state of being.
- Never 1 2 3 4 Very Frequently
10. Textures -- such as wool, sand, wood -- sometimes remind me of colours or music.
- Never 1 2 3 4 Very Frequently
11. Sometimes I experience things as if they were doubly real.
- Never 1 2 3 4 Very Frequently
12. When I listen to music, I can get so caught up in it that I don't notice anything else.
- Never 1 2 3 4 Very Frequently
13. If I wish, I could imagine that my body is so heavy that I could not move it if I wanted to.
- Never 1 2 3 4 Very Frequently
14. I can often somehow sense the presence of another person before I actually see or hear him/her.
- Never 1 2 3 4 Very Frequently
15. The crackle and flames of a wood fire stimulate my imagination.
- Never 1 2 3 4 Very Frequently
16. It is sometimes possible for me to be completely immersed in nature or in art and to feel as if my whole state of consciousness has somehow been temporarily altered.
- Never 1 2 3 4 Very Frequently
17. Different colours have distinctive and special meanings for me.
- Never 1 2 3 4 Very Frequently
18. I am able to wander off into my own thoughts while doing a routine task and actually forget that I am doing the task, and then find a few minutes later that I have completed it.
- Never 1 2 3 4 Very Frequently

19. I can sometimes recollect certain past experiences in my life with such clarity and vividness that it is like living them again or almost so.
- Never 1 2 3 4 Very Frequently
20. Things that might seem meaningless to others often make sense to me.
- Never 1 2 3 4 Very Frequently
21. While acting in a play, I think I could really feel the emotions of the character and "become" him/her for the time being, forgetting both myself and the audience.
- Never 1 2 3 4 Very Frequently
22. My thoughts often don't occur as words but as visual images.
- Never 1 2 3 4 Very Frequently
23. I often take delight in small things (like the five pointed star shape that appears when you cut an apple across the core or the colours in soap bubbles).
- Never 1 2 3 4 Very Frequently
24. When listening to organ music or other powerful music, I sometimes feel as if I am being lifted into the air.
- Never 1 2 3 4 Very Frequently
25. Sometimes I can change noise into music by the way I listen to it.
- Never 1 2 3 4 Very Frequently
26. Some of my most vivid memories are called up by scents and smells.
- Never 1 2 3 4 Very Frequently
27. Certain pieces of music remind me of pictures or moving patterns of colour.
- Never 1 2 3 4 Very Frequently
28. I often know what someone is going to say before he or she says it.
- Never 1 2 3 4 Very Frequently

29. I often have "physical memories"; for example, after I've been swimming I may still feel as if I'm in the water.

Never 1 2 3 4 Very Frequently

30. The sound of a voice can be so fascinating to me that I can just go on listening to it.

Never 1 2 3 4 Very Frequently

31. At times I somehow feel the presence of someone who is not physically there.

Never 1 2 3 4 Very Frequently

32. Sometimes thoughts and images come to me without the slightest effort on my part.

Never 1 2 3 4 Very Frequently

33. I can be deeply moved by a sunset.

Never 1 2 3 4 Very Frequently

Appendix G

Bett's Imagery Vividness Scale

Directions: This questionnaire involves imagining certain situations. For each of the following questions, please indicate which of the responses in the key below best applies.

- a) perfectly clear, and as vivid as the actual experience
- b) very clear, and comparable in vividness to the actual experience
- c) moderately clear and vivid
- d) not clear or vivid but recognizable
- e) vague and dim
- f) so vague and dim as to be hardly discernible
- g) no image present at all; you only know that you are thinking of it.

Please circle one response for each question.

1. When you close your eyes and try to imagine a specific automobile which you have seen many times, how vividly can you imagine it?

a b c d e f g

2. When you keep your eyes open and try to image the automobile, how vividly can you imagine it?

a b c d e f g

3. When you close your eyes and try to imagine a patch of the wall becoming a different colour, how vividly can you imagine the changed colour?

a b c d e f g

4. When you keep your eyes open and try to imagine a patch of the wall becoming a different colour, how vividly can you imagine the changed colour?

a b c d e f g

5. When you close your eyes and try to imagine your name and address written on a paper before you, how vividly can you imagine seeing the words?

a b c d e f g

6. When you try to imagine hearing a tune, how vividly can you imagine it?

a b c d e f g

7. When you try to imagine yourself running, how vividly can you imagine yourself actually moving? (This refers to felling of your muscles in motion, not to visually seeing yourself running.)

a b c d e f g

8. When you try to imagine your arms as being especially heavy, how vividly can you imagine it?

a b c d e f g

9. When you try to imagine a common odour, such as a fragrant cup of hot coffee, how vividly can you imagine it?

a b c d e f g

10. When you try to imagine a common taste, such as the sweetness of sugar, how vividly can you imagine it?

a b c d e f g

11. When you try to imagine the room as becoming especially warm, how vividly can you imagine it?

a b c d e f g

12. When you try to imagine the room as becoming especially cold, how vividly can you imagine it?

a b c d e f g

13. When you imagine yourself stroking fur, how vividly can you imagine the fur (This refers to the feeling of touching, not visually trying to see it.)

a b c d e f g

14. When you try to imagine how it feels when you have a stomach ache, how vividly can you imagine it?

a b c d e f g

15. When you try to imagine the room spinning, how vividly can you imagine it?

a b c d e f g

Appendix H

Dissociative Experiences Scale

This questionnaire consists of twenty-eight questions about experiences that you may have had in your daily life. We are interested in how often you have these experiences happen when you are not under the influence of alcohol or drugs. To answer the questions, please determine to what degree the experience described in the question applies to you and mark the line with a vertical slash at the appropriate place, as in the example below:

Example:

0% _____ | _____ 100%

1. Some people have the experience of driving a car and suddenly realizing that they don't remember what has happened during all or part of the trip. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

2. Some people find that sometimes they are listening to someone talk and they suddenly realize that they did not hear part or all of what was just said. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

3. Some people have the experience of finding themselves in a place and having no idea how they got there. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

4. Some people have the experience of finding themselves dressed in clothes that they don't remember putting on. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

5. Some people have the experience of finding new things among their belongings that they do not remember buying. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

6. Some people sometimes find that they are approached by people that they do not know who call them by another name or insist that they have met them before. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

7. Some people sometimes have the experience of feeling as though they are standing next to themselves or watching themselves do something and they actually see themselves as if they were looking at another person. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

8. Some people are told that they sometimes do not recognize friends or family members. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

9. Some people find that they have no memory for some important events in their lives (for example, a wedding or graduation). Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

10. Some people have the experience of being accused of lying when they do not think that they have lied. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

11. Some people have the experience of looking in a mirror and not recognizing themselves. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

12. Some people sometimes have the experience of feeling that other people, objects, and the world around them are not real. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

13. Some people sometimes have the experience of feeling that their body does not seem to belong to them. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

14. Some people have the experience of sometimes remembering a past event so vividly that they feel as if they were reliving that event. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

15. Some people have the experience of not being sure whether things they remember happening really did happen or whether they just dreamed them. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

16. Some people have the experience of being in a familiar place but finding it strange and unfamiliar. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

17. Some people find that when they are watching television or a movie they become so absorbed in the story that they are unaware of other events happening around them. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

18. Some people sometimes find that they become so involved in a fantasy of daydream that it feels as though it were really happening to them. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

19. Some people find that they sometimes are able to ignore pain. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

20. Some people find that they sometimes sit staring off into space, thinking of nothing, and are not aware of the passage of time. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

21. Some people sometimes find that when they are alone they talk out loud to themselves. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

22. Some people find that in one situation they may act so differently compared with another situation that they feel almost as if they were two different people. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

23. Some people sometimes find that in certain situations they are able to do things with amazing ease and spontaneity that would usually be difficult for them (for example, sports, work, social situations, etc.). Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

24. Some people sometimes find that they cannot remember whether they have done something or have just thought about doing that thing (for example, not knowing whether they have just mailed a letter or have just thought about mailing it). Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

25. Some people find evidence that they did something that they do not remember doing. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

26. Sometimes people find writings, drawings, or notes among their belongings that they must have done but cannot remember doing. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

27. Some people sometimes find that they hear voices inside their head that tell them to do things or comment on things that they are doing. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

28. Some people sometimes feel as if they are looking at the world through a fog so that people and objects appear far away or unclear. Mark the line to show what percentage of the time this happens to you.

0% _____ 100%

Appendix I

**Carleton University Responsiveness
to Suggestion Scale**

EXPECTANCY

Name: _____

Date: _____

Please estimate how well you think you will respond to the hypnotic suggestions by circling one number on the scale below.

0	1	2	3	4	5	6
not at all		to a slight degree		to a moderate degree		to a great degree

ATTITUDES

Instructions: Please indicate your degree of agreement or disagreement with each of the following statements by circling the appropriate number for each statement.

1. I find the whole idea of becoming hypnotized an attractive prospect.

1 2 3 4 5 6 7

Not at all true

Very True

2. I have some apprehensions about hypnosis and being hypnotized.

1 2 3 4 5 6 7

Not at all true

Very True

3. If someone attempted to hypnotize me, I would tend to hold myself back rather than let myself get carried away by the process.

1 2 3 4 5 6 7

Not at all true

Very True

4. I would like to be deeply hypnotized.

1 2 3 4 5 6 7

Not at all true

Very True

5. I wonder about the mental stability of those who become deeply hypnotized.

1 2 3 4 5 6 7

Not at all true

Very True

6. Those who are easily hypnotizable are weak people.

1 2 3 4 5 6 7

Not at all true

Very True

7. Those who can become deeply hypnotized are as normal and well-adjusted as anyone.

1 2 3 4 5 6 7

Not at all true

Very True

8. I would not mind being known as someone who can be deeply hypnotized.

1	2	3	4	5	6	7
Not at all true					Very True	

9. Intelligent people are the least likely to be hypnotized.

1	2	3	4	5	6	7
Not at all true					Very True	

10. I'm not afraid of becoming hypnotized.

1	2	3	4	5	6	7
Not at all true					Very True	

11. I am wary about becoming hypnotized because it means giving up my free will to the hypnotist.

1	2	3	4	5	6	7
Not at all true					Very True	

12. I am totally open to becoming hypnotized.

1	2	3	4	5	6	7
Not at all true					Very True	

13. One's ability to be hypnotized is a sign of the creativity and inner strength.

1	2	3	4	5	6	7
Not at all true					Very True	

14. A deeply hypnotized person is robot-like and goes along automatically with whatever the hypnotist suggests.

1	2	3	4	5	6	7
Not at all true					Very True	

THE CARLETON UNIVERSITY
RESPONSIVENESS TO SUGGESTION SCALE

Name _____ Date _____
Age _____ Sex _____ Occupation _____
Telephone _____

PLEASE DO NOT OPEN this booklet until specifically instructed
to do so.

Now, in your own words please list all of the suggestions you can remember. you have two minutes to do this.

PLEASE DO NOT TURN THIS PAGE until you are specifically instructed to do so.

PLEASE DO NOT RETURN TO PAGE 2.

PLEASE DO NOT TURN THIS PAGE until you are specifically instructed to do so.

PLEASE DO NOT RETURN TO EARLIER PAGES

Now, in your own words please list all of the suggestions you can remember. you have two minutes to do this.

PLEASE DO NOT TURN THIS PAGE until you are specifically instructed to do so.

PLEASE DO NOT RETURN TO EARLIER PAGES

Now, in your own words please list all of the suggestions you can remember. you have two minutes to do this.

PLEASE DO NOT TURN THIS PAGE until you are specifically instructed to do so.

SECTION ON OBJECTIVE, OUTWARD RESPONSES

Listed below in chronological order are the specific suggestions you were administered following the standard hypnotic induction procedure. We wish you to estimate whether or not you objectively responded to these suggestions, that is, whether or not an onlooker would have observed that you did or did not make certain definite responses by certain specific, predefined criteria. Thus, in this section we are interested in you estimates of you outward behaviour on not in what your inner, subjective experience of it was like. Later on you will be given an opportunity to describe your inner, subjective experience, but in this section refer only to the outward behavioural responses irrespective of what the experience may have been like subjectively.

It is understood that in some cases your estimates may not be as accurate as you might wish them to be and that you might even have to guess. but we want you to make whatever you feel to be your best estimates.

Beneath is a description of each of the six suggestions and are sets of two responses, labelled A and B. Please circle wither A or B for each question, whichever you judge to be the more accurate. Please answer every question. make sure that you do not skip any question. Please answer every one.

I. Arm Rising (Right Arm)

You were asked to extend your right arm straight out in front of you, and were told that your arm was rising into the air. Would you estimate that an onlooker would have observed that your arms had risen at least six inches (before the time you were asked to replace the arm in your lap)?

Circle one: A. My arm rose at least six inches.

B. My arm rose less than six inches.

II. Arms Moving Apart

You were asked to extend your arms straight out in front of you with the fingers of one hand touching the fingers of the other. You were then told that your arms were moving apart. Would you estimate that an onlooker would have observed that your hands had moved apart by at least six inches (before the time you were asked to replace them in your lap)?

Circle one: A. My hands had moved apart at least six inches.

B. My hands had moved apart less than six inches.

III. Arm Rigidity (Left Arm)

You were asked to hold your left arm straight out in front of you, and were told that the arm was becoming stiff and rigid and that it would not bend. Would you estimate that an onlooker would have observed that there was less than two inches of arm bending (before you were told that your arm was no longer stiff and to replace it in your lap)?

Circle one: A. My arm was bent less than two inches by then.

B. My arm was bent two or more inches by then.

IV. Arm Heaviness (Right Arm)

You were asked to place your right forearm on the table with your hand facing down. you were than told how heavy your arm and hand felt and asked to try to lift them from the table. Would you estimate that an onlooker would have observed that you did not lift your hand and arm at least one inch up from the table (before being told that your arm was no longer heavy)?

Circle one: A. I did not lift my arm and hand at least one inch by then.

B. I did lift my arm and hand an inch or more by then.

V. Experiencing Music.

You were told that a record player had been brought into the room, that you would hear it playing Jingle Bells, and that you would move your head to keep time to the tune. Would you estimate that an onlooker would have observed you to make recognizable movements of the head (before you were told that the record player had been turned off)?

Circle one: A. I did recognizably move my head to the tune.

B. I did not recognizably move my head to the tune.

VI. Experiencing a Kitten

You were told that a kitten was sitting in your lap. Then you were asked to look at the kitten and to pet it with your hand. Would you estimate that an onlooker would have observed you to make a petting movement with your hand?

Circle one: A. I did make a petting movement with my hand.

B. I did not make a petting movement with my hand.

PLEASE DO NOT RETURN TO EARLIER PAGES

SECTION ON SUBJECTIVE, INNER EXPERIENCE I

In this section we are interested in your inner subjective experiences instead of your outward behaviour. We want to find out about what you experienced during each of the suggestions you were given. Please read each question carefully and answer it honestly. The outward response people make to a suggestion may or may not correspond to their inner experience. For example, take a person whose outward behaviour is arm rising when given the suggestion that their arm is light and moving upward. In some cases a person may have experienced his or her arm as feeling light. In other cases, however, the person's arm may have moved upward even though it did not feel the least bit light. The important thing to keep in mind is that one type of experience is not better or no worse than the other. This is a scientific study, and all we are interested in is getting at the truth of what people experience. So please be honest in answering each of the following questions. please answer every question. Make sure that you do not skip any questions.

For each question, choose the one alternative that best describes your experience.

I. Arm Rising (Right Arm)

You were told that your arm was feeling lighter and lighter and was rising in the air. you were asked to imagine that it was like a balloon and was being filled with air.

During this suggestion my arm felt light:

- (a) Not at all
- (b) To a slight degree
- (c) To a moderate degree
- (d) To a great degree

II. Arms Moving Apart

You were told that your outstretched arms were moving apart, and that they felt like a force was repelling them and pushing them apart.

During this suggestion, my arms felt like a force was pushing them apart:

- (a) Not at all
- (b) To a slight degree
- (c) To a moderate degree
- (d) To a great degree

III. Arm Rigidity (Left Arm)

You were told that your outstretched left arm was becoming still, rigid, and unable to bend. you were asked to imagine the arm in a splint.

During this suggestion, my arm felt stiff and rigid:

- (a) Not at all
- (b) To a slight degree
- (c) To a moderate degree
- (d) To a great degree

IV. Arm Heaviness (Right Arm)

You were told that your arm and hand were very heavy, so heavy that you couldn't lift them from the table. You were asked to imagine heavy weights placed on you hand and arm.

During this suggestion my arm and hand felt heavy:

- (a) Not at all
- (b) To a slight degree
- (c) To a moderate degree
- (d) To a great degree

V. Experiencing Music

You were told that you would hear the song Jingle Bells and that you would move your head in time with the music.

During this suggestion, I felt like I was hearing the tune Jingle Bells:

- (a) Not at all
- (b) To a slight degree
- (c) To a moderate degree
- (d) To a great degree

VI. Experiencing a Kitten.

You were told that you would see a kitten in your lap and that you would pet the kitten.

During this suggestion, I felt like I was seeing a kitten:

- (a) Not at all
- (b) To a slight degree
- (c) To a moderate degree
- (d) To a great degree

VII. Forgetting the Suggestions

You were told that you would be unable to remember any of the suggestions you had been given until you heard a tap and the words "now you can remember everything". You were told that you would be unable to remember the suggestions even when you were asked to try to remember.

During this suggestion, I forgot the suggestions:

- (a) Not at all
- (b) To a slight degree
- (c) To a moderate degree
- (d) To a great degree

PLEASE DO NOT RETURN TO EARLIER PAGES

SECTION ON SUBJECTIVE, INNER EXPERIENCES II

in this section we are interested in a particular class of subjective, inner experiences. We want to find out about the extent to which you experienced your outward behaviour to each suggestions as happening automatically and without a feeling of effort. For example, take a person whose outward behaviour is to not bend their arm when they are told that the arm is stiff and unable to bend. For this person it may have felt like the arm became stiff and unable to bend all by itself. In other cases, however, a person may not bend their arm even though they know that they could have bent it if they chose to. this person would have had the feeling of voluntarily choosing not to bend the arm. Remember, one type of experience is no better and no worse than the other. We are equally interested in finding out about experiences that feel automatic and also about those that feel voluntary. All we are interested in is getting at the truth about what people experience. So, please be honest in answering each of the following questions. Please answer every question, Make sure you do not skip any questions.

For each question choose the one answer that best describes your experience.

I. Arm Rising (Right Arm)

You were told that your arm was light and rising in the air.

During this suggestion, my arm felt like it rose in the air by itself. I experienced that:

- (a) Not at all
- (b) To a slight degree
- (c) To a moderate degree
- (d) To a great degree

Remember: if you chose to lift your arm voluntarily, or if your arm did not feel like it rose by itself, you should choose alternative (a).

II. Arms Moving Apart

You were told that your outstretched arms were moving apart.

During this suggestion, my arms felt like they were moving apart by themselves. I experienced this:

- (a) Not at all
- (b) To a slight degree
- (c) To a moderate degree
- (d) To a great degree

Remember: if you chose to move your arm voluntarily, or if your arms did not feel like they moved by themselves, you should choose alternative (a).

III. Arm Rigidity (Left Arm)

You were told that your outstretched arm was becoming still and unable to bend.

During this suggestion my arm felt like it was unable to bend. I experienced this:

- (a) Not at all
- (b) To a slight degree
- (c) To a moderate degree
- (d) To a great degree

Remember: if you chose voluntarily to not bend your arm, or if your arm did not feel unable to bend, you should choose alternative (a).

IV. Arm Heaviness (Right Arm)

You were told that your arm and hand were too heavy to lift from the table.

During this suggestion, my arm felt unable to be lifted. I experienced this:

- (a) Not at all
- (b) To a slight degree
- (c) To a moderate degree
- (d) To a great degree

Remember: if you chose voluntarily to not lift your arm, or if your arm did not feel unable to lift you should choose alternative (a).

V. Experiencing Music

You were told that you would hear the song Jingle bells.

During this suggestion the tune Jungle Bells seemed to occur automatically, without any effort on my part. I experienced that:

- (a) Not at all
- (b) To a slight degree
- (c) To a moderate degree
- (d) To a great degree

Remember: if experiencing the tune seemed to take a good deal of effort on your part or if you did not experience the tune choose alternative (a).

VI. Experiencing a Kitten

You were told that you would see a kitten in your lap.

During this suggestion the image of a kitten seemed to occur automatically, without any effort on my part. I experienced this:

- (a) Not at all
- (b) To a slight degree
- (c) To a moderate degree
- (d) To a great degree

Remember: if getting an image of a kitten seemed to take a good deal of effort, or if you did not get an image at all choose alternative (a).

VII. Forgetting the Suggestions

You were told that you would be unable to remember the suggestions you had been given.

During this time the suggestions seemed to disappear automatically from my memory, they seemed to just go away by themselves. I experienced this:

- (a) Not at all
- (b) To a slight degree
- (c) To a moderate degree
- (d) To a great degree

Remember: if forgetting the suggestions seemed to require effort on your part, if you had to "try and forget", or if you felt that you did not forget anything, you should choose alternative (a).

Appendix J

Fantasy Role Playing Game (FRPG) Questionnaire

For the purposes of this questionnaire, FRPGs are considered to be games such as Advanced Dungeons & Dragons (AD&D), Champions, Traveller, and CyberPunk. When answering the following questions, please do not consider computer adventure games, MUSHES, MUSES or MUDS, or pure War Games without an element of individual Role Playing. Thank you!

- 1) How many years have you been playing FRPGs? _____
- 2) How many times a month do you play FRPGs? _____
- 3) How many hours do you play FRPGs per month? _____
- 4) How many FRPG systems have you played in your life? _____
- 5) How many campaigns are you currently involved in? _____
- 6) What is the highest level character you have ever played in AD&D? _____
- 7) How much would you estimate you have spent on gaming supplies and books through your life? \$_____
- 8) On the back of this sheet, please describe your favorite FRPG character in detail. Feel free to include as much statistical and personality information as you wish, as well as how long you played said character.

Appendix K

Trauma Symptom Checklist (40)

Please indicate how often you have experienced the following in the last two months:

	Never	Occasionally	Fairly Often	Very Often
1) Insomnia (trouble getting to sleep)	0	1	2	3
2) Restless sleep	0	1	2	3
3) Nightmares	0	1	2	3
4) Having sex that you didn't enjoy	0	1	2	3
5) Waking up early in the morning and being unable to get back to sleep	0	1	2	3
6) Weight loss (without dieting)	0	1	2	3
7) Feeling isolated from others	0	1	2	3
8) Loneliness	0	1	2	3
9) Low sex drive	0	1	2	3
10) Sadness	0	1	2	3
11) "Flashbacks" (sudden, vivid, distracting memories)	0	1	2	3
12) Not feeling rested in the morning	0	1	2	3
13) "Spacing out" (going away in your mind)	0	1	2	3
14) Headaches	0	1	2	3
15) Not feeling satisfied with your sex life	0	1	2	3
16) Stomach problems	0	1	2	3
17) Uncontrollable crying	0	1	2	3
18) Anxiety attacks	0	1	2	3
19) Trouble controlling temper	0	1	2	3
20) Waking up in the middle of the night	0	1	2	3

21) Trouble getting along with others	0	1	2	3
22) Dizziness	0	1	2	3
23) Passing out	0	1	2	3
24) Desire to physically hurt yourself	0	1	2	3
25) Bad thoughts or feelings during sex	0	1	2	3
26) Desire to physically hurt others	0	1	2	3
27) Sexual problems	0	1	2	3
28) Sexual overactivity	0	1	2	3
29) Fear of men	0	1	2	3
30) Fear of women	0	1	2	3
31) Unnecessary or over-frequent washing	0	1	2	3
32) Feelings of inferiority	0	1	2	3
33) Being confused about your sexual feelings	0	1	2	3
34) Feelings of guilt	0	1	2	3
35) Feelings that things are "unreal"	0	1	2	3
36) Memory problems	0	1	2	3
37) Feelings that you are not always in your body	0	1	2	3
38) Feeling tense all the time	0	1	2	3
39) Sexual feelings when you shouldn't have them	0	1	2	3
40) Having trouble breathing	0	1	2	3

Appendix L

I.Q. Scale

Shipley Institute of Living Scale

Instructions: In the test below, the first word in each line is printed in capital letters. Opposite it are four other words. Circle the one word which means the same thing, or most nearly the same thing, as the first word. If you don't know, guess. Be sure to circle the one word in each line that means the same thing as the first word.

EXAMPLE:

LARGE

red

big

silent

wet

1)	TALK	draw	eat	speak	sleep
2)	PERMIT	allow	sew	cut	drive
3)	PARDON	forgive	pound	divide	tell
4)	COUCH	pin	eraser	sofa	glass
5)	REMEMBER	swim	recall	number	defy
6)	TUMBLE	drink	dress	fall	think
7)	HIDEOUS	silvery	tilted	young	dreadful
8)	CORDIAL	swift	muddy	leafy	hearty
9)	EVIDENT	green	obvious	skeptical	afraid
10)	IMPOSTOR	conductor	officer	book	pretender
11)	MERIT	deserve	distrust	fight	separate
12)	FASCINATE	welcome	fix	stir	enchant
13)	INDICATE	defy	excite	signify	bicker
14)	IGNORANT	red	sharp	uninformed	precise
15)	FORTIFY	submerge	strengthen	vent	deaden
16)	RENOWN	length	head	fame	loyalty
17)	NARRATE	yield	buy	associate	tell
18)	MASSIVE	bright	large	speedy	low
19)	HILARITY	laughter	speed	grace	malice
20)	SMIRCHED	stolen	pointed	remade	soiled
21)	SQUANDER	tease	belittle	cut	waste
22)	CAPTION	drum	ballast	heading	ape
23)	FACILITATE	help	turn	strip	bewilder
24)	JOCOSE	humorous	paltry	fervid	plain
25)	APPRISE	reduce	strew	inform	delight
26)	RUE	eat	lament	dominate	cure
27)	DENIZEN	senator	inhabitant	fish	atom
28)	DIVEST	dispossess	intrude	rally	pledge
29)	AMULET	charm	orphan	dingo	pond
30)	INEXORABLE	untidy	involatile	rigid	sparse
31)	SERRATED	dried	notched	armed	blunt
32)	LISSOM	moldy	loose	supple	convex
33)	MOLLIFY	mitigate	direct	pertain	abuse
34)	PLAGIARIZE	appropriate	intend	revoke	maintain
35)	ORIFICE	brush	hole	building	lute
36)	QUERULOUS	maniacal	curious	devout	complaining
37)	PARIAH	outcast	priest	lentil	locker
38)	ARET	waken	ensue	incite	placate
39)	TEMERITY	rashness	timidity	desire	kindness
40)	PRISTINE	vain	sound	first	level

Turn over this sheet and continue with Part II when instructed to do so.

Instructions: Complete the following by filling in either a number or a letter for each dash(____). Do the items in order but don't spend too much time on any one item.

EXAMPLE: A B C D _E_

- 1) 1 2 3 4 5 ____
- 2) white black short long down ____
- 3) AB BC CD D ____
- 4) Z Y X W V U ____
- 5) 12321 23432 34543 456 ____
- 6) NE/SW SE/NW E/W N/ ____
- 7) escape scape cape ____
- 8) oh ho rat tar mood ____
- 9) A Z B Y C X D ____
- 10) tot tot bard drab 537 ____
- 11) mist is wasp as pint in tone ____
- 12) 57326 73265 32657 26573 ____
- 13) knit in spud up both to stay ____
- 14) Scotland landscape scapegoat ____ee
- 15) surgeon 1234567 snore 17635 rogue ____
- 16) tam tan rib rid rat raw hip ____
- 17) tar pitch throw saloon bar rod fee tip end plank ____ meals
- 18) 3124 82 73 154 46 13 ____
- 19) lag leg pen pin big bog rob ____
- 20) two w four r one o three ____

Appendix M

Rosenberg's Self Esteem Scale

Instructions: Please indicate your degree of agreement or disagreement with the following statements by circling the appropriate option for each statement.

SA = strongly agree

A = agree

D = disagree

SD = strongly disagree

-
1.	On the whole I am satisfied with myself.	SA	A	D	SD
2.	At times I think I am no good at all.	SA	A	D	SD
3.	I feel that I have a number of good qualities.	SA	A	D	SD
4.	I am able to do things as well as most other people.	SA	A	D	SD
5.	I feel I do not have much to be proud of.	SA	A	D	SD
6.	I certainly feel useless at times.	SA	A	D	SD
7.	I feel that I'm a person of worth, at least on an equal plane with others.	SA	A	D	SD
8.	I wish I could have more respect for myself.	SA	A	D	SD
9.	All in all, I am inclined to feel that I am a failure.	SA	A	D	SD
10.	I take a positive attitude towards myself.	SA	A	D	SD

Appendix N

Personal Philosophy Inventory

This questionnaire was designed to help us understand the relationship between philosophical beliefs and personality. These questions are not intended to embarrass or to question and religious belief. They have been asked in accordance with a single assumption: if a belief is true, then no amount of challenge will change it. All answers are confidential. Computer analyses will be performed only after the person has been protected by a coded number.

Please answer the following questions as correctly as you can. Think carefully about each question before you answer. The answer is either true or false. For each question please circle either T (true) or F (false). If the answer could be either true or false, then select the answer that is appropriate most of the time.

-
1. During important conversations, I stick to the topic more T F
than most people.
 2. When I get angry, my legs feel weak. T F
 3. After writing prose or poetry, I feel better. T F
 4. There is good evidence that life exists on other planets. T F
 5. If I breathe quickly, I feel dizzy or odd. T F
 6. Sometimes an event will occur that has special T F
significance for me only.
 7. I have had a vision. T F
 8. An inner voice has told me where to find something and it T F
was actually there.
 9. A least once in the last ten years, I have fallen asleep T F
and then awaken the next morning in another room.
 10. Sometimes I am sure that people can tell what I am T F
thinking.
 11. There have been times when I stared at an object and it T F
appeared to become larger and larger.

12. Once I start talking in an enjoyable setting, I have a T F
hard time leaving.
13. About once a year, I will awaken during sleep and not be T F
able to move.
14. While sitting quietly, I have had uplifting sensations as T F
if I were driving over a rolling road.
15. Sometimes I can read another person's thoughts. T F
16. People have told me that I "blank out" sometimes when we T F
are talking.
17. I have had a religious experience that I know was real. T F
18. Once I thought about a person whom I had not seen for T F
awhile and then saw the person a few minutes later.
19. At least once in my life, very late at night, I have felt T F
the presence of another Being.
20. If I am not careful, a high pressure salesperson can sell T F
me a "bill of goods".
21. When I have a tough decision to make, a sign will be T F
given and I will know what to do.
22. Intense smells bother me more than other people. T F
23. I would like to time travel. T F
24. There are no such things as ghosts or haunts. T F
25. I keep a diary about my feelings or thoughts. T F
26. I have been known to walk in my sleep. T F
27. People tell me that I become excited over insignificant T F
events.
28. Sometimes I am so full of pep and energy that I feel T F
superhuman.
29. When relaxing or just before falling asleep, I sometimes T F
feel pleasant vibrations moving through my whole body.
30. Sometimes, in the early morning hours between midnight T F
and 4:00 am, my experiences are very meaningful.
31. Christ has appeared to me in a vision. T F

32. My soul sometimes leaves my body. T F
33. I have never had "memory blanks" where I could not recall previous events T F
34. I have heard an inner voice call my name. T F
35. At least once a month, I experience intense smells that do not have an obvious source. T F
36. I use "hunches" more than simple learning to solve new problems. T F
37. When I lose an argument, I spend a lot of time thinking about what I should have said. T F
38. I often feel as if things are not real. T F
39. People tell me that I imitate the characters in a movie I have just seen. T F
40. When I walk up stairs, I sometimes note a strange smell from nowhere. T F
41. I like poetry. T F
42. I can "speak in tongues". T F
43. Telepathy (ESP) is a real phenomenon. T F
44. As a child, I played with an imaginary friend. T F
45. Animals should not be killed just for the benefit of humans. T F
46. I have kept a diary. T F
47. There is an Eternal and Infinite Force. T F
48. Once, in a crowded area, I suddenly could not recognize where I was. T F
49. I have learned to meditate. T F
50. Although I am not sure, there is a good possibility that I have lived in a previous time. T F

51. After my religious conversion, I suddenly felt full of energy. T F
52. When I start something, I have a hard time stopping until it is finished. T F
53. I have had experiences where I felt as if I were someone else. T F
54. I have had dreams of floating or flying through the air at least once a year. T F
55. I am very religious (more than most people). T F
56. At times I feel like smashing things. T F
57. Alien intelligence is probably responsible for UFOs. T F
58. I have noticed tingling sensations along the back of my legs. T F
59. At least once a month or so, I'll keep singing or thinking a part of a song again and again. T F
60. When I am alone or feel low, reciting poetry or prose is a pleasant experience. T F
61. At least once in my life, just before falling down, I had the intense sensation of a smell from childhood. T F
62. When I see a child starving from hunger on T.V. commercials, I feel sad. T F
63. I have been visited by a Spiritual Being. T F
64. Two or three times in my life, there have been a few brief moments when I felt very close to a Universal Consciousness. T F
65. People say that I repeat myself often. T F

Appendix O

Debriefing Form

Carleton University Responsiveness to Suggestion Scale

You have just been administered the Carleton University Responsiveness to Suggestion Scale. This scale assessed the extent to which subjects respond both behaviourally and subjectively to a standardized series of hypnotic suggestions. The seven suggestions in the scale vary in difficulty and were selected because they assess patterns of responding that have traditionally been considered central to the topic of hypnosis. Previous research has indicated that testing subjects in small groups with this scale provides a reliable and valid index of the person's responsiveness to hypnotic suggestion, and the group format is more efficient than testing each subject individually.

People vary widely in their responsiveness to this scale. Most people pass at least a few of the suggestions, a small group of people pass most or all of the suggestions, and another small group do not pass any of the suggestions. The extent to which people respond to hypnotizability scales appears to be unrelated to gender, intelligence or measure of psychopathology.

At Carleton, this scale is used for two major purposes. First, to collect normative data on hypnotizability and second, as a screening device for classifying the subjects' level of hypnotizability. Usually subjects who wish to participate in future hypnosis experiments can only do so if they have first participated in a screening session like this.

If you have any questions or ethical concerns regarding this experiment, please contact either or both of the following faculty members:

Dr. Bill Jones, 788-2600 (ext.2648); Office: Loeb B559
(Faculty Supervisor and Head of the Department)

Dr. Lise Paquet, 788-2600 (ext.2692); Office: Loeb A533 (Chair
of Ethics Committee)

Appendix P

Debriefing Form (General)

The Socio-cognitive perspective of hypnotic responding claims that the actions of subjects in a hypnotic situation are actively generated and that participants are actively involved in creating and managing their subjective behavioral displays during the hypnotic sessions.

In addition, imaginative and fantasy variables have long been found to correlate with hypnotic responding.

Play of Fantasy Role Playing Games (eg. Advanced Dungeons & Dragons, CyberPunk, Champions) seems constituted mainly of the active "role playing" which is thought to happen in hypnotic settings. In addition to this, the importance of the players imaginative involvement in the fictional setting of the game suggests high ability in imaginative variables. This study examined indices of involvement in FRPGs and their correlation to hypnotizability and Absorption, Imagery Vividness, Fantasy Proneness and Dissociative Ability, in addition comparisons were made between game players and non-players on these measures. An IQ measure and a two measures of psychopathology were included in the study as well to show that players of Fantasy Role Playing Games are no different than average individuals in terms of such mental functioning.

A secondary question which this study examined concerned a possible link between fantasy related activity, in this case Fantasy Role Playing and childhood abuse. There is some evidence in the literature that an unpleasant family environment can lead to immersion in fantasy. As a result, you were administered the Abuse history inventory. The experimenters are aware that participating in a study dealing with this subject matter can be particularly difficult for those who have had such experiences in their life. If this study has brought you emotional distress in any way, we urge you to contact one of the counselling agencies listed on the next page of this handout.

We very much want to thank you for your participation in this important psychological study. If you have any questions or ethical concerns regarding this experiment, please contact either or both of the following faculty members.

Dr. W. Jones, 788-2600 ext. 2648, Loeb B559 (Dept. Head)

Dr. L. Paquet, 788-2600 ext. 2692, Loeb A812 (Ethics Chair)

Services for Victims of Abuse**24 Hour Help Telephone Lines**

Distress Center	238-3311
Salvation Army Crisis Center	236-7977
Rape Crisis Center	729-8889

Services for Abused Women (English)

Gloucester Services for Abused Women	745-4818
Interval House	234-5181
Lanark County Interval House	1-800-267-7946

Services for Abused Women (French)

Service de Gloucester	745-3665
La Presence	233-8297
Maison d'Amitie	747-0020

Carleton University School Services

Peer Counselling	788-2755
Health Services	788-6674
Women's Centre	788-2712
Status of Women	788-5622
Counselling and Student Life Services	788-6600