Running head: LOSING THE GAME

Losing The Game is not a Choice and Winning The Game is not an Option:

Trends in Game Loss and the Paradox of Studying The Game

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Abstract

In a diary study, 12 participants were asked to record when and why they lost The Game for a period of four weeks in order to investigate the psychological forces behind The Game. The Game loss logs were collected weekly and finally coded into the 13 most prevalent recurring categories. Gameological Self-Assessments (GSAs) such as this one inherently create new Game loss-cues, which accounted for over half of the total Game losses in this experiment. Directed forgetting studies do not pertain to the semantic aspects of The Game. No strong evidence of habituation was found within the GSA, though sensitization played an important role in loss frequency. Writing down loss-cues contributes to rehearsal of episodic memories of particular instances of loss and primes the participant for subsequent losses. The Zeigarnik effect is clearly at work here, as GSAs create an ongoing task to which the brain devotes a certain amount of energy until its completion. The very thing that allows us to analyze causes of Game loss greatly affects any data gathered that it may be impossible to examine everyday (non-GSA) Game loss patterns.

Losing The Game is not a Choice and Winning The Game is not an Option: Trends in Game Loss and the Paradox of Studying The Game

I just lost The Game.

Invariably when one loses The Game, those within earshot who are also playing groan and become visibly frustrated, and those who are not familiar with The Game want to know what kind of fun they may be missing out on. When an innocent bystander witnesses one of my losses and asks me about The Game, I always give them a fair chance to withdraw their inquiry. I warn them that once they know the rules of The Game, they will be playing The Game for the rest of their lives—or at least until they successfully win The Game (which is an extremely rare but possible occurrence) and break contact with everyone they know who still plays and loses. This scares away a few people, but most often, their curiosity wins and they beg me to tell them about this mysterious game. After I explain the rules, some rookies ask five minutes of clarifying questions, and once they are sure of their understanding, most are quick to say, "That's stupid!" And I think most Game players would tend to agree—at least on a surface level. The Game is so simple that its explanation can make it seem that it does not exist at all. This paper will explore the realms in which The Game does very much exist. You, the uninitiated reader, have been sufficiently warned: reading on will insure your life-long infection of the social virus that is The Game.

Now for the Rules of The Game:

1) The purpose of The Game is *not to think about The Game*.

2) If you think about The Game, you've lost The Game.

3) If you lose The Game, you have to tell everyone around you that you've lost.

Rule 1 implies that winning The Game is at worst impossible and at best thankless. If you

have truly won The Game, you have forgotten about it completely and so can receive no praise or commendation. Another way of stating Rule 2 is that if you think about losing The Game or if you think about The Game as something you can lose, you've already lost. Within Rule 3 one finds the reason that it spreads like a virus, inevitably infecting most people with whom players of The Game spend a significant amount of time. This is a window into the social factors that play heavily into The Game and why people lose it, but because The Game is so intangible and elusive, it also contains a strong personal level, and each player's connection to The Game is different. Obviously, different people lose with different frequency and for different reasons—and I lose more often than most anyone I know. Variations in the rules can be found in different social circles. For example, I was taught a version of The Game in which players have a grace period, during which they are immune from losing for up to 30 minutes after they or anyone around them loses. Some versions have different grace periods and some have none at all.

Jonty Haywood, the author of LoseTheGame.com estimates that well over a million people are aware of the game, and are therefore playing the game. The Game has been mentioned on radio and TV stations, including a feature on BBC Radio 4's national 10pm news—which reaches over 6 million listeners. There are over 80,000 people in different Facebook.com groups devoted to The Game, with the biggest group containing over 33,000 people. And the numbers are growing every day. Haywood reports a "large increase in interest in The Game in the last 6 months or so."

Through the lens of memory research, I wanted to begin to trace some of the factors that affect why people lose The Game. Theories of association, habituation and sensitization, directed forgetting, and the Zeigarnik effect will be used to frame the discussion of this experiment.

Haywood coined the term "Gameology" to discuss research that looks at why people lose

the game. He performed a Gameological Self-Assesment (GSA) on himself and published the results on the web page. The Game has made its way so strongly into his life that he lost every couple of minutes, and he was forced to terminate the experiment after 14 hours (he plays with no grace period). His brief analysis included the following theories:

> Starting a GSA will initially cause abnormal/erratic loss behaviour. I hypothesize that players will quickly habituate to this new version of The Game. Although this assessment does not provide an example of a usual day's losing, the formation of certain associations and them then causing later loss is clear (LoseTheGame.com 2007).

Because Gameology is an extremely young field, his is the only GSA I am aware of. I expected my findings to be in line with his hypotheses. I knew that the act of notating losses would increase the frequency of losses, and I figured it would create a completely new cause for Game loss: the notation device (i.e. notebook).

Association

To discuss the associative nature of The Game, I will turn to William James' succinct discussion of memory's reliance on association:

> The machinery of recall is thus the same as the machinery of association, and the machinery of association, as we know, is nothing but the elementary law of habit in the nerve-centres ... The condition which makes it possible at all (or in other words, the 'retention' of the experience) is neither more nor less then the brain-paths which associate the experience with the occasion and cue of the recall (1890).

This model for memory explains the recall, and therefore the loss, of the The Game. Something a player associates with The Game cues the loss; so a GSA should allow one to track the

participant's associations with The Game. Similar to Ebbinghaus's famous nonsense syllables (1885), The Game itself has no (or very few) a priori associations. The concept of The Game has the "lack of meaning" Ebbinghaus was in search of. Only through playing The Game are associations formed. I expect this particularity to allow this Gameological assessment to reveal a part of individuals' meaning-making processes, the ways each participant forms associations.

Directed forgetting

As the goal for Game players is to forget about The Game, and as players give themselves the instruction to forget it as soon as they learn how to play it, I thought that studies on directed forgetting would illuminate elements of The Game. Wylie et al. (2007) designed an experiment in which, after being presented with each word, one at a time from a 54-word list, their participants were given the instruction either to remember or to forget the word. They found significant differences in recall and in brain activity regarding the to-be-forgotten words; and they concluded that "intentional forgetting depends on neural structures distinct from those involved in unintentional forgetting and intentional remembering. These results...suggest that frontal control processes may be critical for directed forgetting." Forgetting, then, seems to be an active process. However, forgetting The Game often proves to be more problematic for several reasons. I thought that one reason may lie in Payne and Corrigan's (2007) discovery of emotional constraints on intentional forgetting. "When the to-be-forgotten list was emotional, directed forgetting failed...Emotion may short-circuit attempts to forget those parts of the past people would most like to forget." If a player attaches a negative connotation to the idea of losing The Game—because losing anything is usually undesirable—or a positive connotation because of amusing associations —one of my participants says, "To play The Game is to love The Game, and to love The Game is

to lose The Game"—The Game may become emotionally charged, and therefore harder to forget.

Though it would seem they would pertain to The Game, an important difference exists between most directed forgetting studies and forgetting The Game. It is one of the main reasons why I think it is very difficult forget The Game, and it lies within the content of what one is attempting to forget. The aforementioned studies concern themselves with episodic memory. Participants are asked to remember or forget specific words or lists. The Game, on the other hand, is also part of the semantic memory system. Game players are trying to forget the existence of a set of rules, not specific events. Though episodic memories may cue associations with other episodic memories, eventually leading to a loss, the player does not lose until he associates these episodes with the semantic rules of The Game, the abstract concept of The Game itself. Forgetting the concept of "The Game" is closer to forgetting the concept of "word" or "list." Golding et al. found that in trying to intentionally forget pairs of words, that "semantic relation was able to override an instruction to forget" (1994). So while techniques of directed forgetting immediately after Game losses may help minimize consolidation of new episodic associations—which may have the effect of lowering frequency of losses—directed forgetting can not help players to forget The Game all together. It may actually create new associations with concepts surrounding directed forgetting.

Zeigarnik effect

One of the most important factors in this Gameological study is the Zeigarnik effect, or the "preferential recall of uncompleted tasks" (Marrow 1969). Zeigarnik found that "unfinished tasks are remembered approximately twice as well as completed ones" (1927). An intention leads to a "quasi-need" to release tension—discussed by Kurt Lewin—by completing the intended task. One

of the first experiments in this explored memory in waiters/waitresses and discussed why they could keep the most complicated of orders in their heads, but forgot them completely after the check was paid. In the same way, a participant who intends to engage fully in a GSA may acquire a quasi-need that affects Game losses.

Method

Participants

Data was gathered from 12 participants, including myself. They range in age from 21 to 53 years old, and they have varying levels of contact with me. They have been playing The Game for different amounts of time and learned about it from varying sources. They are listed in order of how long they have been playing.

Participant	**Age**	**Sex**	**Playing for...**	**Relationship to me**	**How often we come into contact**
TP	21	Male	Just over 2 years	Loose acquaintance	Less than once a week, in person
DHL	21	Male	Just over 2 years	Close friend	2-3 times a week, in person
HF	21	Female	2 years	Loose acquaintance	Less than once a week, in person
Myself	22	Male	2 years	NA	NA
NS	22	Male	2 years	Acquaintance	Once a week or less, in person
AR	25	Male	2 years	Acquaintance	Less than once a week, in person
TS	21	Male	Just under 2 years	Close friend	Several times daily, in person
JM	23	Male	1.5 years	Close friend	Several times daily, in person
DAL	25	Male	Just over 1 year	Close friend	Very rarely, over the phone
KD	21	Female	Just over 1 year	Close friend	Several times a week, in person
BB	23	Female	Just over 6 months	Close friend	Once a week, over the phone
VA	53	Female	Duration of this experiment	My mother	Several times a week, over the phone

All participants learned how to play The Game from me during the past two years except TP, DL, HF, AR, and NS; and I learned how to play The Game from DL. KD, VA, and TS had never lost The Game prior to their participation in this GSA.

Over the course of the experiment, three participants dropped out. HF never provided any data. NS and AR stopped sending data after the first week. Their incomplete data is not considered in this experiment.

Procedure

To begin this Gameological diary study, during the week between September 30th and October 7th, I approached each of the participants individually in person (aside from the three living in different states who were contacted by phone) and said to them,

> I just lost the game. Do you play The Game? I am working on a project. As you probably know, the object of The Game is 'not to think about The Game.' If you think about The Game, you lose The Game. If you lose The Game, you have to inform everyone around you that you lost The Game. Now, the rules of my project are, if you lose The Game, you have to write it down, recording the date and time as well as, to your best ability, retracing the thought process that led you to think about the game—in other words: why you lost The Game. Are you interested in participating?

I asked them to obtain a notebook that would be designated solely to notating their Game loses, and, in an attempt to control the affect of the notebook on their losses, I divided them into two groups: one that would be carrying the notebook around with them at all times and one that would be leaving the notebook at home and recording the day's Game losses later. The participants were then contacted by phone on October 7 and informed again as to the rules of my

experiment. They were also informed as to whether they should carry their notebook around with them or keep it at home. DAL, BB, JM, KD, DHL, and NS were to carry them at all times while myself, TS, AR, TP, HF, and VA were to keep them at home. I told the participants I would be contacting them through email every Sunday. The subject of the emails read, "Data collection," and the body read as follows: "Hello, Please take a couple minutes and type out what was written this week in your experiment journal in a Word document (or equivalent) and send it to me as soon as you can." I reviewed the Game loss logs as they were sent to me and saved them onto my computer.

During the experiment I took care not to type the words "The Game" in the emails and not to initiate conversations about or mention The Game to my participants at all in our daily interactions unless I lost while around them.

I coded the logs in terms of the reasons for each loss by dividing them into the most prevalent loss-cue categories:

	Loss-Cue Category	Examples
1	Hearing or thinking the words "game" or "lost"	KD: "Heard the word 'game' while arm wrestling." VA: "Driving by the movie theatre, I saw the title, 'The Game Plan.'"
2	Hearing or thinking about cognitive concepts like "thought," "remember," "forget," "memory"	Myself: "Talking about how to say the word 'remember' in different languages." DHL: "Tracing back how I came to a thought."
3	Seeing or thinking about other people who also play The Game	DHL: "Catie called." TP: "See Cory at BBQ."
4	References to inside jokes	Myself: "Josh brought up The Bear—inside joke." BB: "Sto parlando in italiano e ho perso il gioco" (speaking in Italian made her lose The Game)
5	Reasons directly related to the business of my experiment	DAL: "I opened up an email from Cory about transcribing this log." Myself: "Thought I should email participants."

6	References to taking notes or notating Game losses	DHL: “Picked up a pen which I had used to write down loss.” KD: “Saw notebook in bag; lost.”
7	References to pockets	TP: “Things in pockets.” Myself: “Put trash in back pocket.”
8	References to making a note to oneself	Myself: “Lost when I saw a note I'd written myself to look at a specific Pollock painting.” KD: “Writing a list of things to do for the next day; lost the game.”
9	References to time	DHL: “Someone checks my watch. I think of checking the time when I lose.” BB: “As I thought of time, I thought of the last time I was really specific in notating time, which was when I lost the game.”
10	References to things, especially songs, being stuck in ones head	Myself: “Drifter in the Dark was stuck in my head after Josh sang it.” TP: “Thinking of dreams. Things in my head. The game is in my head.”
11	References to unfinished or ongoing tasks	TP: “Thinking of things I have to do, like recording when I lose the game.” DAL: “I was thinking about what homework I had for the week and remember I was keeping a log of times I lost the game.”
12	Losses that came “out of no where”	VA: “In the shower The Game popped into my head.” BB: “Lying in bed, I have no idea what my thought process was at that point.”
13	Other personal causes that reoccurred for single individuals	BB: turning off the lights in her apartment Myself: trash in my pockets, which reminded me of scraps of paper I would notate losses on

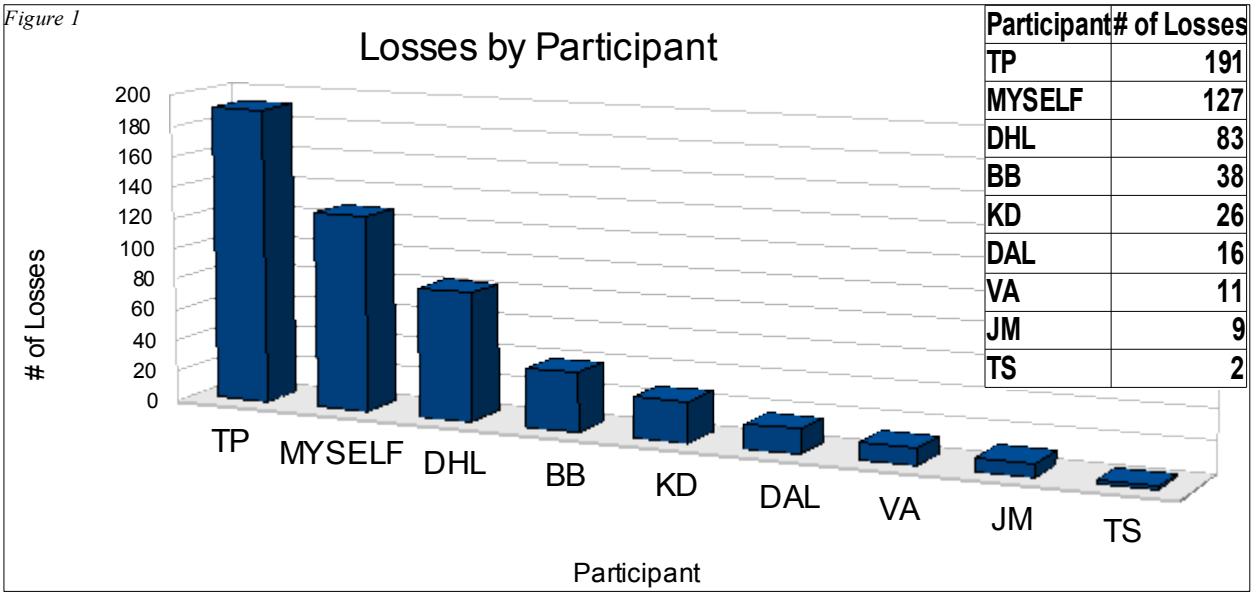
The vast majority of losses fell under these categories, and if a single loss clearly involved causes from two different categories (such as remembering an ongoing task involving another player of The Game), it was coded as having been cued by both categories. For example, when I lost because of finding trash in my pocket, the loss was coded both for *trash* and *pocket*.

I then conducted interviews concerning meta-memory and The Game with many of the participants who completely the study.

Results

The number of total losses differed greatly among participants, with TP losing 191 times and TS losing only twice. Figure 1 shows the total number of losses per participant, and Figure 2 shows the number of losses by all participants combined per day.

Figure 1



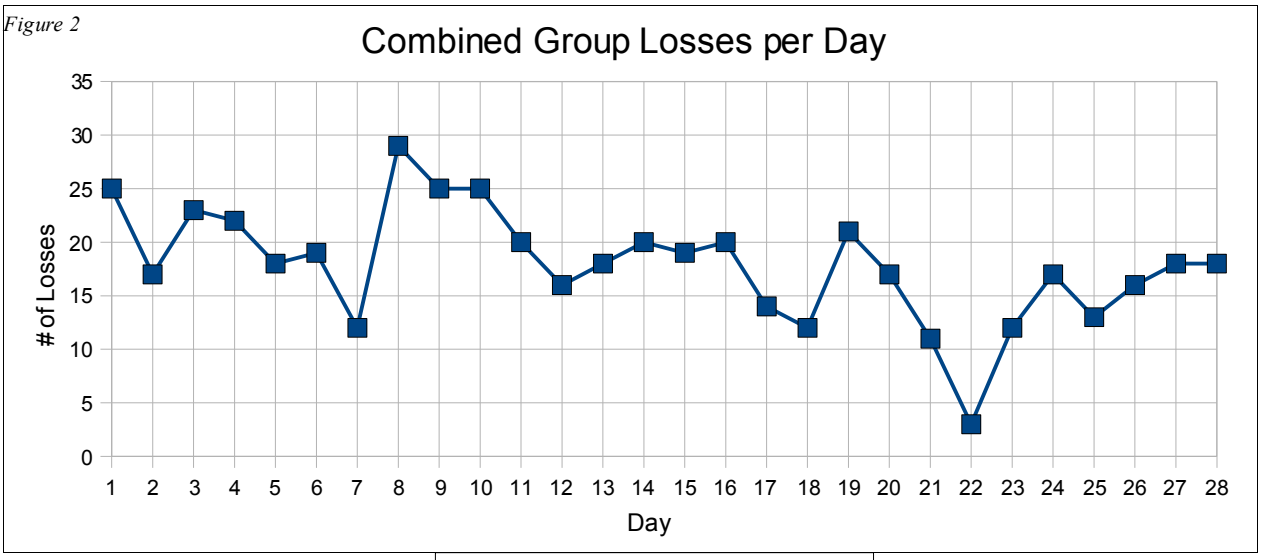
Participant	# of Losses
TP	191
MYSELF	127
DHL	83
BB	38
KD	26
DAL	16
VA	11
JM	9
TS	2

There is a loose, but clear correlation between loss frequency and how long participants have been playing The Game. The three who have been playing for more than two years lost the most, though not exactly in order. The biggest exception to this correlation is TS, who has been playing for almost two years and lost only two times.

The average number of losses per day for all participants combined was 17.64. The data in Figure 2 shows the number of losses per day hovering around this average. However, the individual differences in frequency of loss (Figure 3) affect the group data so much that it may be difficult to consider the group data too significantly. The biggest peak in the group data occurred on my highest loss day and TP's second highest; and the lowest valley is occurred on the one day

for which TP reported no data, though even adding TP's average of 7.07 losses per day, day 22 would have matched the lowest day for the group data. Both the highest and lowest days were just after data collection, when participants were contacted by me and reviewed their week's losses while typing the data from their notebooks.

Figure 2

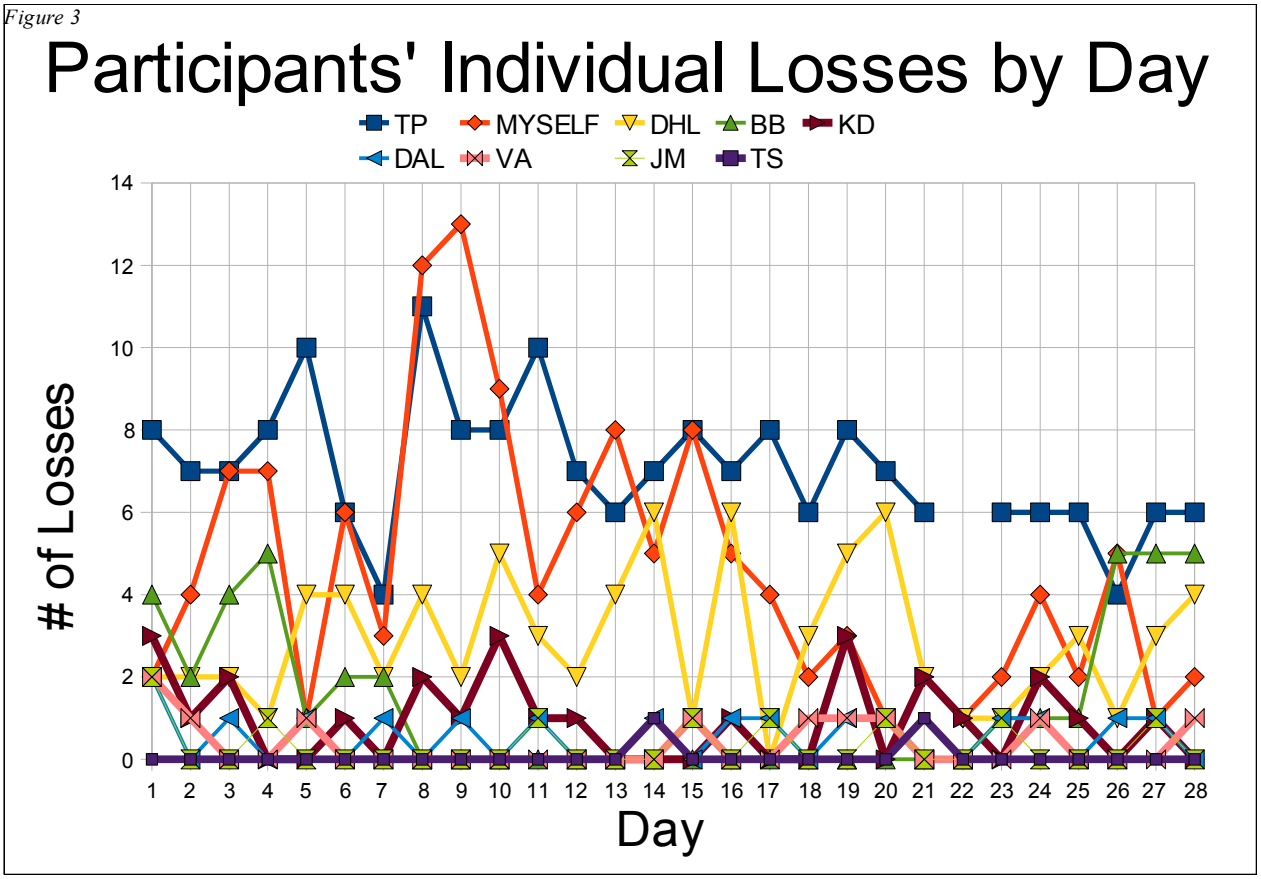


Combined Group Losses per Week

	Weekly losses	Weekly average
week1	136	19.43
week2	153	21.86
week3	114	16.29
week4	97	13.86

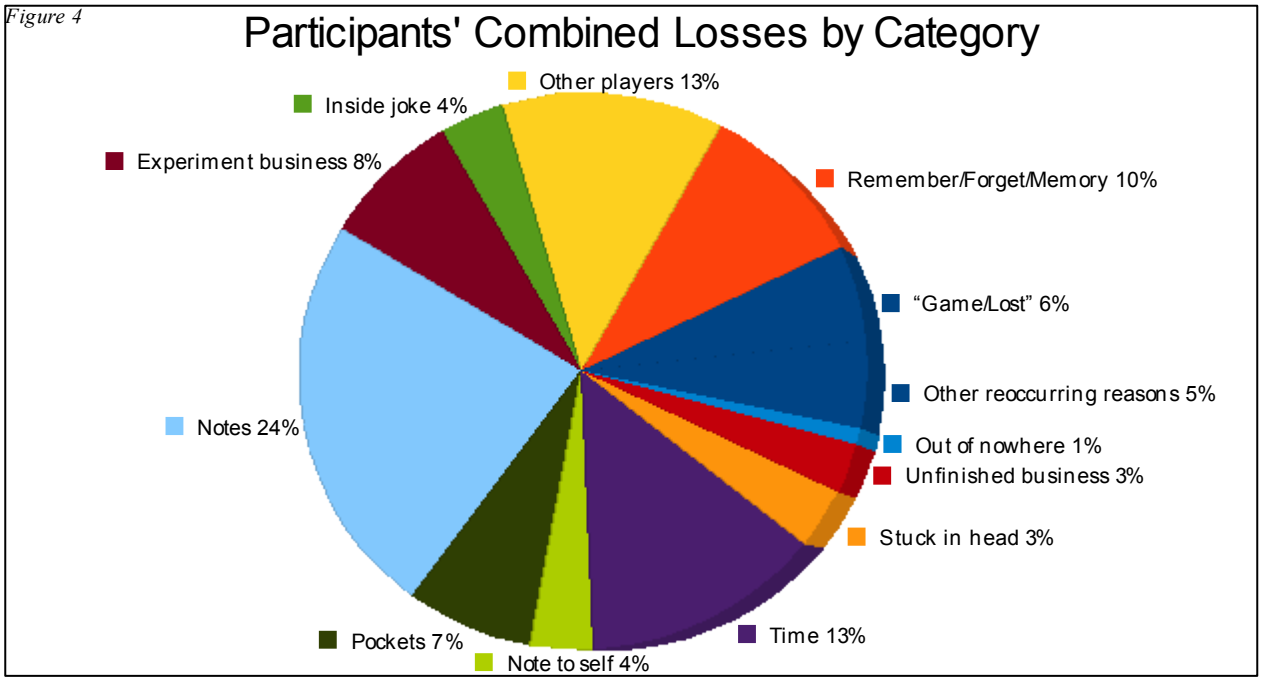
Both in terms of total losses and losses due to references to notating losses, there was no clear difference between those participants who carried their notebooks with them and those who kept them at home.

Figure 3



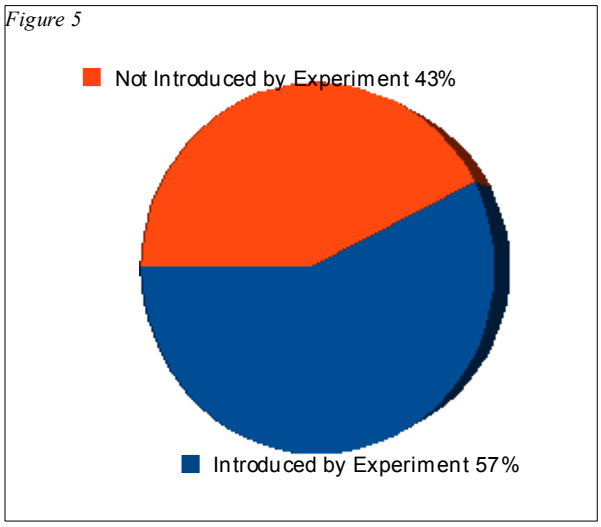
The most common coded loss-cue category was Category 6, References to taking notes or notating Game losses, which accounted for 24% of total losses for all participants. Next was Category 9, References to time (14%), followed by Category 3, Seeing or thinking about other people who also play The Game (13%) and Category 5, Reasons directly related to the business of my experiment (8%). Figure 4 shows the percentages of total losses from all participants divided by cue-loss category.

Figure 4



Cue loss categories that were introduced or initiated by this experiment (such as references to notes, pockets, and time) made up 57% of the total coded losses, as shown in Figure 5. Participants had never experienced losses cued by these causes before participating in this experiment.

Figure 5



Below (in Figure 6) are the percentages of losses per category for each participant. References to notes were the most frequent loss-cue (or were tied for most frequent) for six of the nine participants. Seeing or thinking about other Game

players was also one of the biggest causes for loss for six participants. References to time, though the second biggest category in the group data, were only a significant loss-cue for three participants.

Figure 6

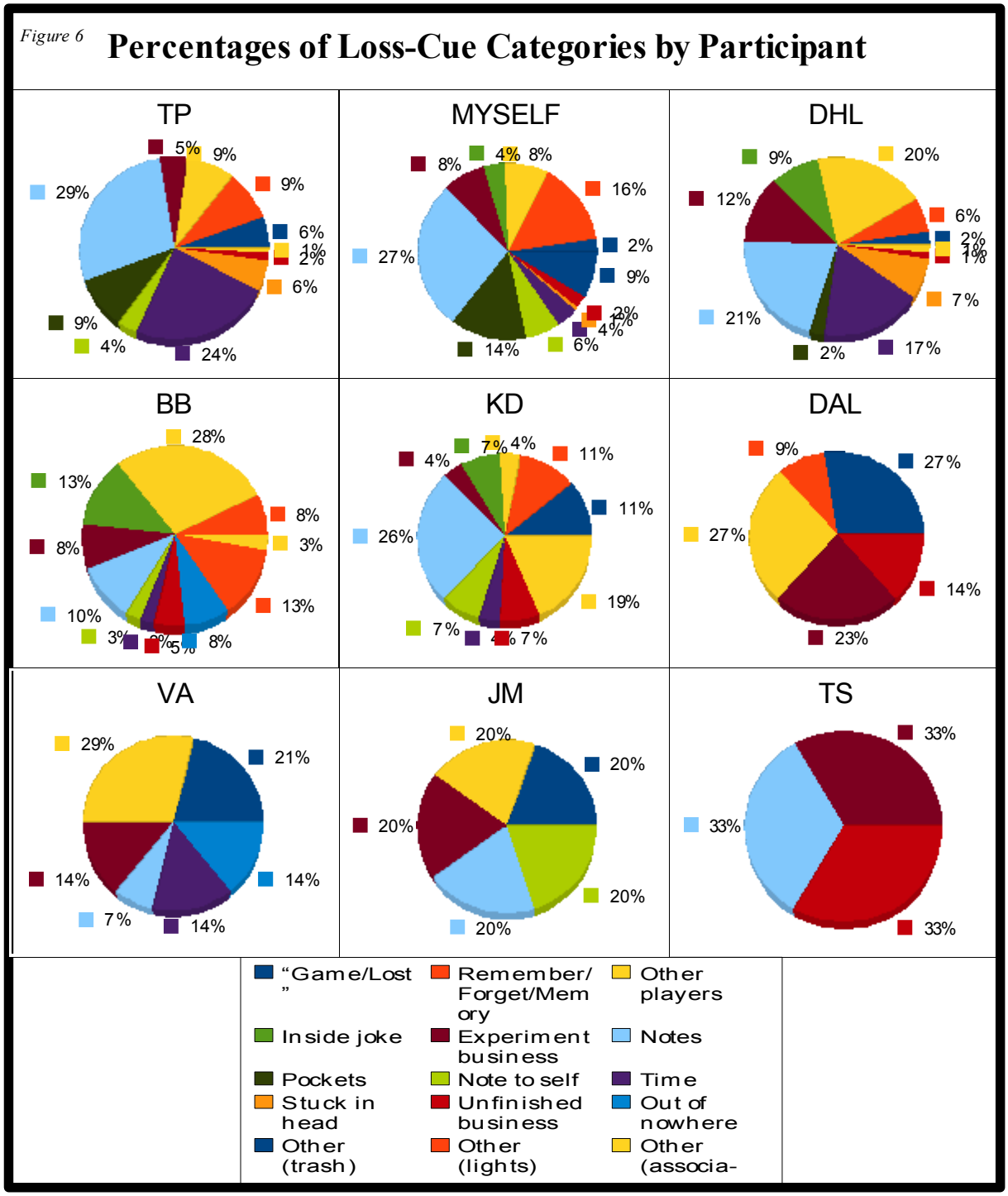


Figure 7

ESTIMATED NUMBER OF LOSSES DURING EXPERIMENT AND AFTER END OF EXPERIMENT			
Participant	**Losses during**	**Losses after**	**% of change**
TP	191	20	-90%
MYSELF	127	About 35	-72%
DHL	83	25	-70%
BB	38	0	-100%
KD	26	4	-85%
DAL	16	0	-100%
VA	11	5	-69%
JM	9	18	200%
TS	2	0	-100%
GROUP	***503***	***72***	***-79%***

Estimated Game loss frequency (Figure 7) was vastly lower in the month after the experiment ended. For TP this estimate meant a drop-off of almost a 170 losses or 90%. For the group as a whole, it meant a drop-off of 79%. Three participants did not lose The Game at all after the experiment's end, and the lowest percent of drop-off was VA with 69%—still a significant change. JM, the one anomaly, experienced twice as many losses in the month following the experiment.

Several specific loss-cue categories for two participants are analyzed below to explore habituation and sensitization (Figure 8, Figure 9).

Figure 8

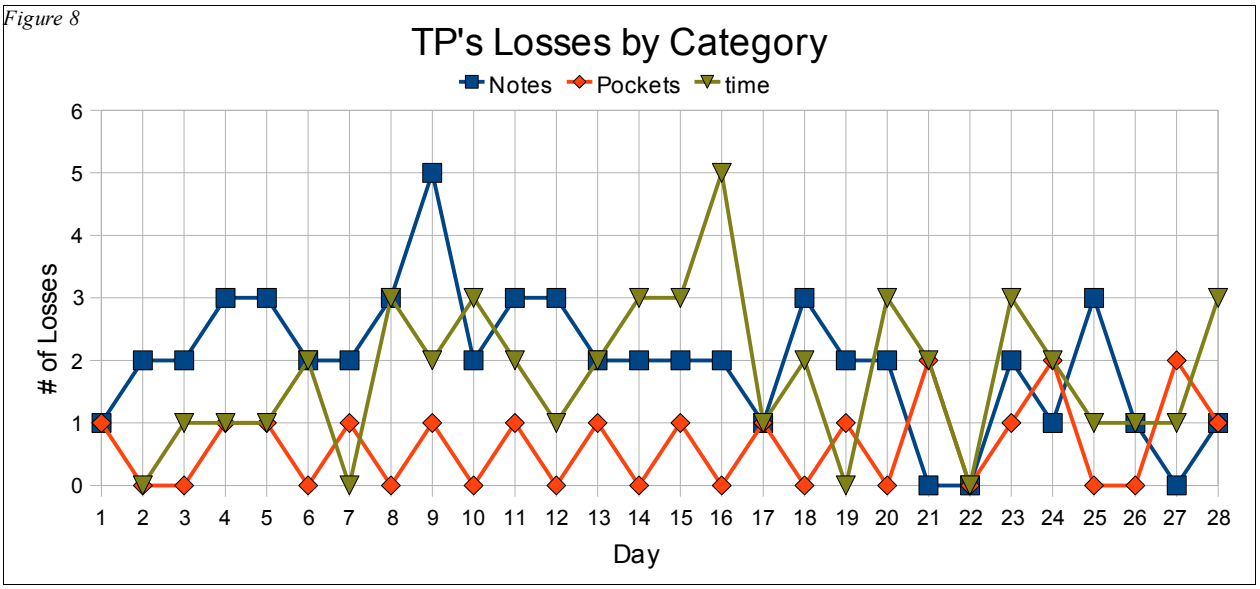
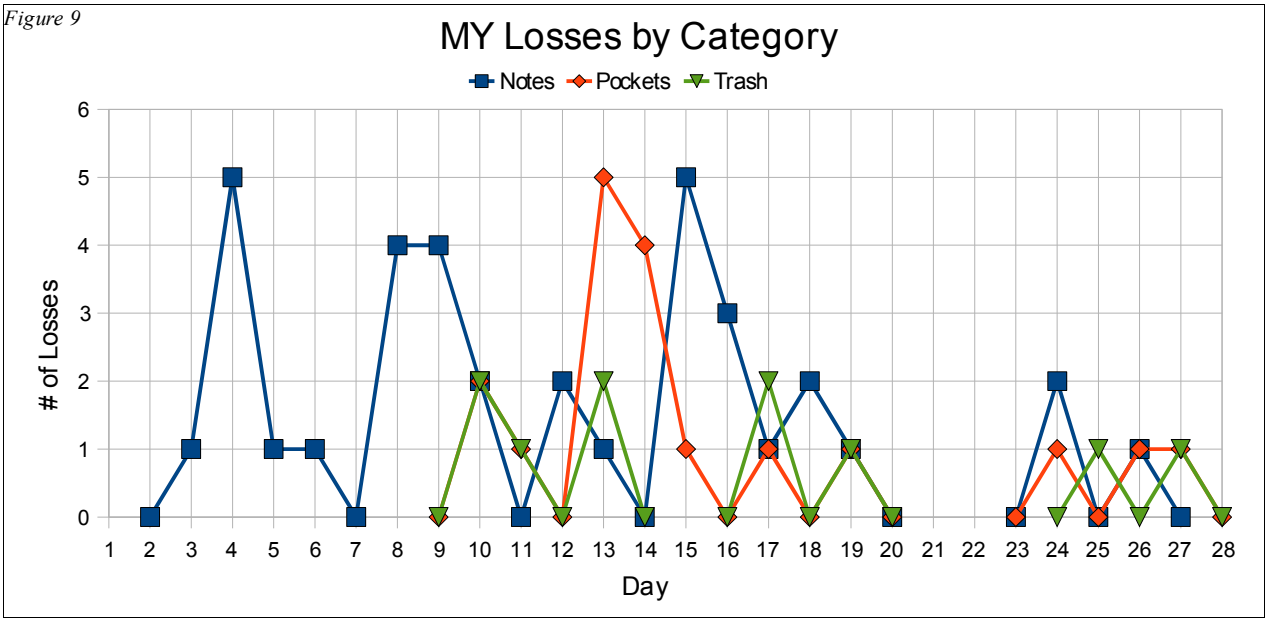


Figure 9



Discussion

An enormous difference in frequency of loss was found between participants. The most common loss-cues among the group were references to notes, and more than half of the total losses were due to loss-cues that were introduced by this study. These new loss-cues include notes, time, pockets, experiment business, and ongoing tasks, which none of the participants had associated with The Game prior to participating in this experiment. DAL calls the development of these new loss-cues the spread of "the cancer of mnemonic associations." This study definitely formed new associations for each participant. References to notes contributed significantly to most participants' losses, but references to time—which were the second leading loss-cue in the group data—only strongly affected three participants. This shows how easily the participants with high frequencies of loss can skew the group data. The same affect can be seen when looking at how much the two most frequent Game losers skewed the group data for combined losses by day in Figure 2. Most group data sets in this study, rather than representing the entire group, tend to show

the combined results from TP, myself, and DHL, the three who lost the most, while the other participants' data gets buried and has very little affect on the group numbers.

One problem with GMAs is that the very act of recording one's losses significantly affects loss frequency and loss-cues, as this study demonstrates. But since no valid Game loss data can be obtained for most Game players before or after a GSA, comparisons between loss frequency before, during, and after the experiment are difficult. However, some participants did have definitive loss figures before this GSA. KD, VA, and TS had never lost the game at all; the experiment caused their first losses, created and strengthened their first momentous associations with The Game. Also, there are some statistics that can begin to show the affect of GSAs on Game loss taken from participants' estimations of their losses in the month following the experiment. Post-experiment losses were obviously not documented, but estimations showed a 79% drop-off in number of losses after the conclusion of loss notation. So it is safe to say that in general, GSAs cause participants to lose at least three times more often than they do normally without recording losses—an even higher preference for ongoing tasks than Zeigarnik found in her experiments.

Several factors play into this. As discussed before in relation to directed forgetting studies, playing The Game is a mostly futile exercise in directed forgetting. The object of The Game is to forget about The Game. One can experience the strengthening or weakening of episodic associations with The Game—or loss-cues—but because the concept of The Game depends largely on logical structures of semantic memory, it is difficult to forget its existence. The GSAs in this study showed the introduction, development, and recession of new loss-cues. Whereas the technique of consciously limiting any associations just after losing the game to avoid creating new recurring loss cues can be affective following normal losses, GSAs sabotage this possibility. When

one makes a note of the associations that led them to lose The Game, they are actively rehearsing the association in writing, involving language, visual, and kinesthetic brain functions and making directed forgetting (even of episodic associations) much more difficult.

The Zeigarnik effect also plays a large role in increased Game loss during GSAs. By agreeing to the parameters of this experiment, participants took on an ongoing task, which would not be completed for a full month. This gave them the intention or the quasi-need to document their Game losses. As was mentioned in all the post-GSA interviews I conducted, notating losses became part of participants' routine, part of the things that needed to be done in any given day. Phrases like "What do I need to remember to do today? I need to remember homework, I need to remember laundry, I need to remember The Game. I just lost The Game!" were common in participants' reports on their experience. I found this especially true in my own experience with the GSA, as I took on the tasks of remembering to document my losses, doing the related research for this study, and collecting data from participants. And while only 3% of losses were attributed directly to the category of References to unfinished or ongoing tasks, I believe the Zeigarnik effect to have been behind a large amount of the total losses. After completion of the GSA, participants plagued by losses due to seeing any notebook whatsoever or simply reaching into their pockets began to lose the association between these things and The Game. The loss-cues introduced by the GSA stopped causing losses after losses no longer needed to be recorded. I believe the notion of loss documentation as an ongoing task to be the biggest contributer to the skyrocketing frequency of loss during GSAs. Participants are put in a month-long state of Kurt Lewin's tension, so their Game associations are primed to cause frequent loss.

The combined group weekly averages for peaked during the second week and fell slowly

for the remaining two weeks. The final week's average may have been lower because TP, the most frequent loser reported no data for day 22. The peak in the second week may be largely due to the fact the my own three highest loss days and two of TP's were in that week. So while the group average did fall slightly over the course of the final three weeks, missing data and individual differences probably rule out any evidence of habituation to the GSA. There is no clear habituation curve for any of the participants except perhaps for my own. My loss frequency slowed drastically from the second to third week but then rose again slightly during the fourth week. So no significant habituation to the GSA occurred. The biggest evidence of habituation I was able to find was in my own phenomenological experience with the study. During the research, data analysis, and writing of this paper, I would go for periods of hours without losing The Game. I was able, apparently, to dissociate The Game itself from the data sets and theories behind this study. I was able to carry on conversations about, check out books relating to, and write about the experiment without thinking of The Game as something I was playing and something that could be lost.

While there was no real evidence of habituation in the GSA, I believe, there were factors of sensitization at work. There is the obvious sensitization incurred by the act of notating the game and the Zeigarnik effect already discussed, but this can also be found in looking at both the individuals' total daily losses and individuals' daily losses by category. Losses often come in waves. Each loss primes the participant for subsequent losses, leading to rapid increases in loss frequency, which might explain my jump from three losses on day 7 to twelve losses on day 8. This was at a time when References to notes became a regular loss-cue for me, and random pencils and unrelated notebooks, even just the act of writing something down, became loss cues. I believe

I was primed by each loss into a state where consciousness of The Game was just one association away from many mundane objects and activities; I was more likely to find associations in just about anything that would lead me to Game losses. On day 9, I lost even more frequently. These losses were caused by such unrelated things as “saw a guy who looks like [AR]” and “heard someone in the hall—might have been [AR].” The associative pathway between AR and The Game had become so sensitized that a sound that might have possibly been him triggered a loss—while in contrast, participants who were losing less frequently, and so were less sensitized, could be around other Game players, including myself, without losing for long periods of time.

This priming can be seen by looking at the most frequent losers' individual losses by category in several different time scales. First, let us consider the development of TP's losses due to References to time over the full course of the GSA. Time only triggered losses a couple times during the first week, but by the second week, TP was averaging two losses per day cued by time. This culminated in day 16 with five time-cued losses. The snowball effect leveled out and TP experienced a daily average of just under two time-cued losses. Second, my losses due to references to trash show the same priming effect. I first formed the association on day 10, when I lost twice because of trash cues. I would often go a day without thinking about it at all, and subsequently lose twice the next day. The first trash-cued loss of the day would prime me for the second. Then trash-cues disappeared for five days, but upon their return, I lost began losing because of them every other day. After going so long without experiencing trash-cued losses, that on the day 25 surely resensitized me to trash, leading to my loss on day 27. Third, on a smaller scale, some losses would prime a participant very strongly for several hours. In the course of a couple hours in day 4, I lost four times when I “saw writing on my hand,” and on day 9, I lost three

times in two hours because of References to cognitive processes and “the word 'remember.'” TP lost three times in four hours because of thinking about Business related to the experiment and three time in three and a half hours because of References to notes. He had been so sensitized to associations with notes that, similar to me at times, he associated The Game with something as vague and mundane as “See someone open a notebook and write inside.”

So while Haywood and I were wrong in our expectations to find habituation within the span of the GSA, different levels of sensitization ran rampant through participants' losses. We were correct, however, in expecting GSAs to not provide an example of a usual day's losing but to show how certain associations cause later losses.

The GSAs allowed for an active tracking of associations, as is especially evident with the loss-cues that were introduced by the experiment. To flesh out the layers of association inherent in The Game and GSAs in particular, I will turn to some particular examples. TP, DHL, and I all formed the association with pockets. I had never associated trash with The Game, but through the progression of notating my losses, to keeping notes in my pockets, to associating trash with those notes, I began to lose because of such a seemingly unrelated cue. DHL said that at one point the pocket he kept his notebook in “became radioactive,” he tried to never use it or think about it, and he was able to successfully weaken the association and avoid further losses due to pockets. To minimize new associations being made with the typing and emailing their weekly data to me, TP and DAL developed the technique of naming the computer file something unrelated to The Game and saving it in obscure folders on their hard drives, so as not to randomly encounter the file during the week. Both DHL, TP, and KD experienced losses cued by the meta-memory concept of association. DHL lost once because of “The concept of one thing reminding you of something

else." TP lost several times: "making connections" and "how things relate." KD lost five times in this way—which made up 19% of her total losses. She wrote in her log, "Thinking about association of a particular dance movement, then about other associations, and finally associated *associations* with the game" and "realized I made an association and lost the game." The very concept of associations became so strongly associated with losing The Game that reflecting on random associative processes made her lose: "Heard 'Round Robin,' associated with Baskin Robbins, and lost the game." Similarly, DHL lost because of the "concept of time (not related to watch or current time)," and TP lost because of the concept of "train of thought" and the concept of memory cued by the sentences "I was going to get the rice started, but I forgot" and "Holly remembers to call in to her internship." The semantic sort of concepts such as association, time, and memory—even when in reference to things such as dance, Baskin Robbins, rice, and internships—turned into loss-cues.

TP experienced another interesting loss-cue: "Piece of tape stuck to my fingers. Trying to get it off frustrates me the same as losing the game, as the more I try, the more stuck it gets." This speaks directly to the sensitization discussion, but it is also worth noting the levels of frustration that GSAs cause. All participants who frequently lost The Game prior to the GSA (as well as most of the other participants) had positive feelings toward losing because they liked being reminded of the things and ideas that cued losses. Once the GSA was underway, many participants experienced extreme negative feelings toward losing The Game. AR wrote this in his log: "when I get free coffee I think of the game. I hate you...Sunday, October 14, 2007 - Almost an entire day of no game-losing. Then you, you fucking asshole, e-mail me about the god damned game and I lose it. I'm about to lose it. Really." However much this may have been an exaggeration meant in jest,

these comments were written on days 6 and 7, the two days before he stopped recording losses and dropped out of the experiment. Even Haywood, who has a very positive relationship with The Game and has dedicated much time and effort to the creation and maintenance of LoseTheGame.com had to end his initial GSA "due to psychological side-effects." Participating in GSAs seems to be a great way to drive yourself crazy.

There were also some trends found in the style of loss notation. Participants who had been playing the game for a long time and were frequent losers prior to the experiment recorded losses in a very concise way, rarely writing more than one typed line of text for any single loss. Most all of their losses fit neatly within the 13 loss-cue categories. Participants who had rarely lost or never lost at all before to the experiment tended to write long narrative accounts of what they were doing and thinking prior to losing. Some of these entries contained near 100 words and were difficult to categorize. This indicates that the more one loses, the more familiar one becomes with one's loss-cues. This self-categorization of one's own loss-cues surely leads to more losses due to these categories.

This brings up one of the most problematic elements of GSA analysis: the method of coding the data recorded in the Game loss logs. In this study, I was the sole coder, which actually might have proved advantageous, as I have had a great deal of experience with crystallizing categories of loss-cues. A coder who loses The Game frequently will most likely code quite differently than one who has never lost. There is also a big difference between coding one's own data and coding that of another participant. In cases where categorizing a loss-cue is debatable, one can more easily look back on one's own loss and pinpoint exactly what caused it. When coding another's data, one is forced to subjectively deal with unfamiliar loss-cues, and the chances

of imperfect categorization rise. Perhaps in future Gameological studies, participants should reflect at the end of the GSA period and code their own loss-cues on top of having an objective coder who did not participate in the GSA. The issue of coding is of utmost importance.

Considering participants' phenomenological accounts of GSAs should play heavily into further Gameological research. Also, further statistical analysis of some of the factors mentioned in this study will help shine more light on the mnemonic machinery behind The Game.

Conclusion

Gameological Self-Assessments inherently create new Game loss-cues, which accounted for over half of the total Game losses in this experiment. Directed forgetting studies do not pertain to the semantic aspects of The Game. No strong evidence of habituation was found within the GSA, though sensitization played an important role in loss frequency. Writing down loss-cues contributes to rehearsal of episodic memories of particular instances of loss and primes the participant for subsequent losses. The Zeigarnik effect is clearly at work here, as GSAs create an ongoing task to which the brain devotes a certain amount of energy until its completion. The very thing that allows us to analyze causes of Game loss greatly affects any data gathered that it may be impossible to examine everyday (non-GSA) Game loss patterns.

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