

**LANGUAGE USE OF SUCCESSFUL LIARS**

Fulfilling the Requirements for the Degree of  
Master of Science

by  
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## **ABSTRACT**

Little research has been done to determine whether the cues to deception researched by academia and delivered to law enforcement agencies are equally useful for detecting both skilled and unskilled liars. This study investigated the effects of deceptive skill on six linguistic variables including parts of speech and emotional affect. Data was gathered from transcripts of a deceptive group communication task conducted in an online synchronous chat environment. An analysis of transcripts confirmed that liars can be distinguished from truth-tellers, and revealed that skill is also a factor affecting language patterns.

Analyzed with a Mixed Model ANOVA, first-person pronouns, second-person pronouns, and conjunctions all showed a main effect for role, distinguishing liars from truth-tellers. Furthermore, skilled liars were found to use fewer words, first- and second-person pronouns, and conjunctions in synchronous chat.

## BIOGRAPHICAL SKETCH

Antony Berzack attended six high schools: Winston Churchill High, Rockville High, Washington Ethical High, Trevor Day School, Brandeis High, and Public School Repertory Company, before graduating at 16 in New York City. After finding work editing music videos and attending film classes at The New School, Mr. Berzack moved to the College of Santa Fe. Mr. Berzack returned from New Mexico to Adelphi University in Long Island where he produced holographs and VPH diffraction gratings under the guidance of noted professor G. N. Rao and freelance holographer Jason Sapan, while completing an undergraduate degree with honors in both Sociology and Communications. Receiving a perfect score on the verbal section of the Graduate Record Examination, he chose to study the language use of successful deceivers under Dr. Jeffery Hancock in the Department of Communications at Cornell University in Ithaca, New York.

While at Cornell, Mr. Berzack became a founding partner of the RailSmith Collective, a collaboration of fine-art printmakers from New York City and Austin, Texas. An active donor from his teens, Mr. Berzack earned his 'Gallon Donor' award in the summer of 2010 from the Blood Bank of New York, and supported Manhattan Borough President Scott Stringer in his efforts to preserve the valuable democratic institutions of borough politics. Amongst other events in 2011, while finishing his thesis on leave, Mr. Berzack developed *H.U.G.S* for the iOS, sold the script for *City of Gold* to be directed by Przemyslaw Reut, began manufacturing *CalendarWare*, and competed in the Staten Island Triathlon.

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## INTRODUCTION

Lies and suspicion are pervasive in our day-to-day interactions, arising in at least a quarter of all conversations (Buller & Burgoon, 1996). Deception ranges in type, breadth and impact as deceivers “control information by encoding messages that alter the veracity, completeness, directness, relevance, clarity, and personalization.” (p. 209). Over the last century, research into deception has grown into a field of its own, committed to the applied goal of increasing our ability to understand deception and its detection. One of the areas of research across different communication media has been synchronous, text-based computer-mediated communication. My research interest is whether successful and unsuccessful liars communicate similarly. The research question of this study is whether there is a correlation between linguistic cues to deception and expertise at a synchronous deception task. Examining whether highly successful liars are correlated with differences in language use in this setting may strengthen our ability to detect normally elusive deceivers, and provide validation for the utility of verbal cues to deception.

First I will review the literature on deception skill and known cues to deception in synchronous chat . Following the literature review I will discuss the present study that is a content analysis of players’ language in an online game called *Mafia*. This online game was selected because it provided a forum where deception in synchronous chat occurs frequently and is measurable. Finally I will present the results and discussion of the study where significant results were found.

Liars vary in success rate, but one important assumption to address before moving forward is that people’s success at deception or deception detection will differ

based on skill. I will first present the developmental differences in lying ability, arguing that learning to lie is a skill that we all develop as humans. Then I will address other factors that differentiate deceptive ability, in order to This is intended to build the idea that while many different reasons exist for why liars have different skill levels, the importance is recognizing the way those differences manifest themselves in group chat environments.

## LITERATURE REVIEW

### **Deceptive Skill**

Human beings learn to lie. At a young age, children are not able to lie successfully because certain abilities are under-developed, but all individuals learn this skill. In accordance with Piaget's general model of cognitive development, everyone has a baseline deceptive ability reflecting one's ability or familiarity with perspective-taking, intentionality, and peer interaction. These are three intertwined and important factors that increase the ability to deceive and understand deception (LaFreniere, 1988; Spence, 2004).

Once committed to the act of deceiving, in order not to get caught, liars must suppress and avoid exhibiting signs of stereotypical deceptive behavior, because observers particularly look for these behaviors to detect deceit. (Vrij & Semin, 1996; Vrij, 2004; Vrij, Edward, & Bull, 2001). This perspective-taking allows liars to anticipate the cues to deception that receivers expect to see, and pointedly avoid delivering those cues. When liars emit these behaviors they are engaging in what is know as "cue-leakage", the non-strategic messages that 'leak' out when a liar is trying to conceal the truth (Burgoon, Chen, & Twitchell, 2009; Hancock et al., 2008).

Intentionality, or goal-orientation, is another important skill of deception that we must acquire as we become better liars. When we begin to understand the desired outcome of deception, and employ learned schema to select appropriate action, we change the way we attempt to deceive (Frye, 1999; LaFreniere, 1998). In children, peer-interaction “may provide a particularly salient environmental stimulus for greater perspective-taking, and a recursive representation of intentionality.” (LaFreniere, 1988, p. 244). Supporting this, Feldman, Tomasian, & Coats (1999) found that adolescents with higher levels of social competence were better at deceiving than adolescents of lower social competence.

This research shows that we all learn deception skills, the ability to lie or detect a lie. It is not necessarily age that predicts the ability to lie successfully, but well-developed higher order cognitions and life experiences that correlate with age, such as perspective taking, goal orientation, and complex social interaction. Studies show differences in the deceptive ability of adults (DePaulo & DePaulo, 1989; Ekman & O’Sullivan, 1991; Ekman, 1999; Feldman, Tomasian, & Coats, 1999; Hartwig et al., 2004; Tilley & Marett, 2005). Feldman, et al. (1999) found gender differences in deception ability among adolescents, showing that females were better at deception than males, and this was confirmed in adults by Tilley & Marett (2005). Other known biological factors may affect deceptive ability: The prefrontal cortex is centrally involved in the capacity to lie, and the developmental changes in the ability to lie mentioned above parallel a neuro-developmental increase in the brain’s white matter (Yang et al., 2005). Yang et al. furthermore found that people with a history of lying had increased prefrontal white matter volumes compared with normal controls and

attained significantly higher “verbal IQ” scores relative to “performance IQ” scores than the control groups.

Although these studies highlight individual differences in deception skill, people typically perform near chance when trying to *detect* lies (Bond & DePaulo, 2006; Levine, Kim, Park, & Hughes, 2006). This has been attributed to a truth bias: “a tendency to overestimate truthfulness in another’s communication - born out of the sense of involvement and feelings of connection, camaraderie, and similarity that are engendered” (Burgoon, Chen, & Twitchell, 2009, p. 5).

Only cases of specific populations of exceedingly good detectors show us ways in which good liars differ from other liars. These populations include prison inmates, Secret Service agents, FBI agents, car salesmen, and clinical psychologists, who all performed significantly better than chance when identifying deceptive statements (DePaulo & DePaulo, 1989; Ekman & O’Sullivan, 1991; Ekman et al., 1999; Hartwig et al., 2004).

Training or experience with deception may be a reason for differences in deceptive ability. Hartwig et al. (2004) showed that the prison population exhibited a lie bias; they expected to be lied to more than the students in the same study did. The explanation was that criminals have extensive experience with deception and thus a more suspicious attitude or a heightened sense of alertness regarding deception. Ekman & O’Sullivan (1991) and DePaulo & DePaulo (1989) also attribute the success of exceptionally good lie detectors to training and experience. Even proponents of the biological theory of deception question the developmental causality of increased prefrontal white matter and the act of lying habitually (Spence, 2005).

## **Cues to Deception in Synchronous Chat**

One branch of deception research studies behavioral consequences of these functions/factors in terms of language use. These studies analyze the linguistic differences between truth-tellers and liars in different media, and have labeled these differences *cues to deception* (Carpenter, 1990; DePaulo, Malone, Muhlenbruck, Charlton, & Cooper, 2003; Hancock, Curry, Goorha, & Woodworth, 2008; Johnson & Raye, 1981; Mehrabian & Wiener, 1966; Newman, Pennebaker, Berry & Richards, 2003; Raskin & Esplin, 1991; Sporer, 1997; Vrij, 2004; Wiener & Mehrabian, 1968; Zhou, Burgoon, Nunamaker, & Twitchell, 2004).

Importantly, no studies have examined whether liars in the field are more successful if they use fewer cues to deception compared to liars who use more. This study is important because the current corpus of cues used by law enforcement to identify liars may not catch all of them. More sophisticated, or additional criteria, may be required to catch better liars, because it may be demonstrated that deception skill has an affect on a liar's usage of the cues monitored.

There are three over-arching constructs that cues are based upon: quantity of details, complications in the conversation, and complexity of details. Scholars have found that cues exhibit themselves very differently depending on the medium and participants (Qin, Burgoon, Blair & Nunamaker, 2005; Hancock et al., 2008; Zhou et al., 2004) but I will focus on studies of synchronous communication. Cues have been noted for their utility in deception detection when participants have been instructed to rely upon them (DeTurck, 1990; Fielder & Walka, 1993; Vrij, Edward, & Bull, 2000).

In deception research, a significant difference has always been observed between the quantity of messages sent by truth-tellers and the quantity sent by deceivers; in synchronous chat deceivers tend to interact less than their truth-telling counterparts (Burgoon, et al. 2003; DePaulo et al., 2004; Hancock et al., 2008; Zhou, 2005; Zhou & Sung, 2008). Deceivers are required to monitor, correct, and adjust their portrayal of a false event as they proceed, and this cognitive load can cause cue leakage through necessary corrections, explanations, and additions to spontaneous utterance; the amount of complication in the conversation arising from an individual — such as admitting lack of memory, grammar/spelling errors, and filled pauses (i.e. “um”, “ah”, “uh”) — is a positive indication of deception (Driscoll, 1994; Zhou et al., 2004).

Sensorial, subjective, and emotional terms are indications of the complexity of detail in statements. Johnson and Raye’s (1981) Reality Monitoring theory posits that when reported, false memories lack the sensorial information experienced by truth-tellers, and that to compensate false memories will be presented with more subjective information. Low levels of sensorial, temporal, and spatial terms are strong indicators of a lie according to deception studies based on Reality Monitoring (DePaulo and DePaulo, 1989). Porter & Yuille (1996) found that deceivers exhibited less emotional affect, and theorized it was because no ‘real’ feelings were produced from the event. Emotion can be measured by parsing for specific emotion words (e.g., happy, sad) which express positive or negative affect, agreeability (Newman et al., 2003; Sporer, 1997) or by using the technique of lexical diversity.

In 1966, Mehrabian and Wiener proposed that liars will engage in social distancing from the lies they tell, and found deceptive participants engaged in

seemingly indirect, evasive, irrelevant, unclear, or impersonal rather than direct, relevant, clear, and personal conversation. Generalizing terms, such as *everyone*, *none*, or *all*, or the use of the passive voice implies unspecificity, and have been shown to be valid cues to deception (Zhou et al., 2004). The types of pronouns used by participants are also indications of immediacy — as first-person pronouns express ownership of a statement, whereas second and third-person pronouns distance the speaker from the lie (DePaulo, et al., 2004).

Filler phrases (i.e. “y’know”, or “I mean”) and connecting phrases (phrases like “afterwards”, “later on”, or even “let’s move on”) are phrases that skim over events, indicating a lack of information and have been positive indications of deception (Driscoll, 1994). Conjunctions are also cases of filler phrases that connect events but do not add information. Modifiers, or terms that express uncertainty, are also expressions of distancing. However, it has been argued that liars may express less uncertainty in order to mimic what they believe truth-tellers would express (Buller & Burgoon, 1996; Burgoon, Blair, Qin, & Nunamaker, 2005).

## THE PRESENT STUDY

There is a knowledge gap between the research into deception ability, and the research into cues to deception. While we know some of the cues emitted by deceivers, we do not know if successful deceivers produce less of these cues. The present study examined the language of deceivers and deception detectors participating in an online game called *Mafia*, which is a chat-based deception game played in a group. As a text-based game, *Mafia* is conducive to an automated content analysis for the presence of cues to deception. Fortunately, the game also provides clear insight into

whether individuals are deceivers or truth-tellers, and whether they were successful or not depending on their role and the end result of the game. *Mafia* has already been used as a task scenario in previous deception research by Zhou & Sung (2008). Therefore, the game Mafia will serve as a testing ground to examine how language may provide indications of deception.

Based on the previously discussed linguistic cues, we can hypothesize the effect of playing the role of liar in *Mafia*. Previous research has shown that deceivers speak less frequently in synchronous communication than truth-tellers (DePaulo et al., 2003; Vrij, 2000; Zhou & Sung, 2008). Therefore, I predict that:

**H1a: Liars will use fewer words than truth-tellers.**

Interpersonal Deception Theory predicts greater involvement and immediacy in language from liars who want to control the conversation, though liars generally may encounter more complications through this active pursuit (Buller & Burgoon, 1996; Johnson & Raye, 1981; Marett & George, 2004; Porter & Yuille, 1996). Different types of pronouns (i.e., personal, impersonal, first-, second-, and third-person) are also markers of complexity in language. Liars tend to use first-person pronouns, which are markers of self-reference (DePaulo et al. 2003), less frequently than do truth tellers. Meanwhile, the use of second-person and third-person pronouns tends to increase when individuals lie (DePaulo et al., 2003; Niederhoffer & Pennebaker, 2002). Therefore I predict that:

**H1b: Liars will use fewer first person pronouns and more second and third person pronouns than truth-tellers.**

The use of affect words also indicates complexity of thought, and Ekman (1999) and Newman (2003) found that negative affect words tend to be used more frequently by liars than by individuals who are telling the truth. Therefore I predict that:

**H1c: Liars will use more negative affect than truth tellers.**

On the other hand, conjunctions (i.e., and, or, but) are coded as “filler words” that are indicators of social distancing. Mehrabian and Wiener (1966) proposed liars would use conjunctions more frequently, primarily because these words serve as a buffer for information that the liars themselves are processing for the first time. Therefore I predict that:

**H1d: Liars will use more conjunctions than truth-tellers.**

The above literature review shows us how liars stand out from truth tellers. The second area of interest in the present study is how deception skill affects patterns of linguistic cues. Do skilled liars communicate differently from unskilled liars?

Interpersonal Deception Theory, developed by Buller & Burgoon, describes how deceivers dynamically manage their behavior in response to the reactions of others. If deception cues are words that differentiate liars from truth-tellers, and skilled liars try to behave like truth-tellers, then perhaps skilled liars are using a different amount of cues. I propose, based on the construct of deceptive cues and the literature on deceptive ability, that skilled liars display less revealing cues than unskilled liars. Therefore the following hypotheses were constructed:

**H2a: Skilled Liars will use more words than unskilled liars.**

**H2b: Skilled Liars will use more first person pronouns and less second and third person than unskilled liars.**

**H2c: Skilled Liars will use less negative affect than unskilled liars.**

**H2d: Skilled Liars will use fewer conjunctions than unskilled liars.**

## METHOD

### **Overview of the game Mafia on the Internet:**

The purpose of the game *Mafia*, played with 7-14 participants, is for a minority group of deceivers (mafia) to hide amongst the majority of truth-tellers (villagers). Participants interact over a series of rounds in a synchronous chat-room environment that represents a village. Each round consists of two parts, Night and Day. During the Night together, the small group of deceivers (usually two or three members) secretly select one person for the system to remove (kill) before each Day begins. During the Day the mafia attempts to avoid revealing their role, pretending to be regular villagers while villagers attempt to detect the deceivers amongst them.

During the Day, discussion is limited to 10 minutes, at the end of which time a vote must be taken to eliminate the player whom the majority believes to be a member of the mafia. The majority of players must place a vote to remove someone. If they fail to do so, a 'no vote' is filed, and play continues until the next Night without a player being removed. Play continues until there are only three participants left, at which point victory is declared.

The website that hosts the game *Mafia* was created in January of 2008. The game is played in real-time, using a live chatting and voting system. Alexa.com, an Internet metrics site, states that the average time spent per day on the site by an individual user is 28 minutes (roughly equal to the length of one to two games). The percentage of visits to the game site that come directly from a search engine is 2.7%.

This low percentage indicates that most users come to the site because they have either bookmarked it, recently visited it, or know the address well enough to type it directly into their web browsers.

### **Overview of Study:**

The design of this study was a Mixed Model content analysis of the language of participants in a deception game. The participants were gathered from the aforementioned website which hosts chat-based games of *Mafia*. When the game begins, the server randomly assigns a role to each participant as either a member of the deceptive mafia or of the truth-telling villagers. Each game is treated as a unit of analysis, nested within players whose language within each game was analyzed. The words and phrases were coded using the Linguistic Inquiry and Word Count (LIWC) database (Pennebaker, Francis, & Booth, 2001).

The LIWC database contains more than 2,000 words divided into 72 linguistic dimensions. Each word used by the players in communications during the games was compared with words contained in the LIWC database. Prior deception studies analyze select categories from the LIWC database to examine theoretically-bound relationships between liars and specific word types such as word count, pronouns, or words that express negative affect (Hancock, Curry, Goorha, & Woodworth, 2008). The LIWC database for the five variables other than word count is included in Appendix A.

### **Procedure:**

A preliminary list of *Mafia* players who had played at least 50 games was collected from the public website. Each player's win/loss record, broken down for

each role he or she played since joining the site, was recorded from the public site. Based on these criteria, the sample for this study was 36 players. Transcripts of up to five games for each of the players were then saved into separate files, and parsed to measure each player's use of cues.

### **Measures**

The independent variable “deception skill” was measured by the number of games a player won as a mafia member divided by the total number of games played as a mafia member. The average win-record for the truth-role in my sample was 52%, ranging from 25% to 74%. The average win-record for the deception role in my sample was 51%, ranging from 23% to 69%. A binary category was created for deception skill, with a median split at 51%.

The average number of games played by each player in my sample was 3.07. A successful player is one who played on a winning team. A winning team is one where the players last until the last round of play. Software automatically recorded the number of words uttered by participants within a game, and parsed for words in the select LIWC categories (pronouns, conjunctions, and negative affect). Results for pronouns and negative affect were transformed with a log 10 transformation of the original value plus 1. Conjunctions were transformed into a binary of presence.

## **RESULTS**

Existing linguistic categories from LIWC were used to find the linguistic differences of *Mafia* players. In examining the degree of freedoms, it is important to note that in Mixed Models non-integer degree of freedoms occur in the analysis when

tests of fixed effects involve a linear combination of variances at different levels of the model (i.e., individual and group) (Littell, Miliken, Stroup, & Wolfinger, 1996).

### **Main Effect: Linguistic Differences between Liars and Truth-Tellers**

The findings revealed that deception role did not significantly affect a player's amount of words  $F(1, 46.16) = .21, p = .65$ , which does not support the first hypothesis (H1a). In this study, pronoun usage was found to be different between liars and truth-tellers. Role significantly affected the number of pronouns an individual used, showing that liars tended to use more pronouns overall than truth-tellers  $F(1, 49.28) = 4.62, p < .05$ . Contrary to the hypothesis, liars used more first-person pronouns  $F(1, 59.72) = 3.84, p = .06$ , and less second-person pronouns, although this attained only borderline significance  $F(1, 57.90) = 2.99, p = .09$ . There were no differences in use of third-person pronouns  $F(1, 52.50) = .77, p = .38$ . Contrary to hypothesis H1c, there were no significant results for differences in negative affect,  $F(1, 63.62) = .02, p = .89$ . Consistent with Hypothesis H1d, liars used more conjunctions than did truth tellers,  $F(1, 48.94) = 6.57, p = .01$ .

### **Linguistic Differences between Skilled and Unskilled Players**

The second set of hypotheses focused on the language differences between skilled and unskilled players. This section examines the effect of skill on word usage. To examine differences between skilled and unskilled liars, we ran Mixed Model ANOVAs using only the data from occasions in which people were playing as the role of mafia. Skill level was a binary variable created by using a median split on people's overall success in the mafia role as described previously in the Measures section. Consistent with H2a, skilled liars used more words than unskilled liars  $F(1, 13.07) =$

8.84,  $p = .01$ ). There was a trend for skilled liars to use more pronouns overall  $F(1, 14.80) = 3.66$ ,  $p = .08$ , and to use more first-person pronouns  $F(1, 22) = 3.05$ ,  $p = .10$ , but there were no differences between skill categories for second-person or third-person pronouns or for negative emotion terms. Messages by skilled liars were significantly more likely to include a conjunction than those by unskilled liars  $F(1, 15.23) = 14.85$ ,  $p = .002$

Skill level significantly affected total pronoun usage  $T(1, 51.56) = -3.43$ ,  $p = .001$ ,  $\beta = .07$ . While the aforementioned role category shows liars used more pronouns than truth tellers, the skill category shows that successful players used fewer overall pronouns than unsuccessful players.

### **Interaction Effect between Skill and Role**

As an exploratory effort, an analysis was conducted to examine the interaction between skill and role regarding the usage of cues to deception. Skill level was made a binary factor, split at the median of 51% as a player's minimum win average. Most of the findings revealed no significance between the two factors. The findings revealed that this interaction did not significantly affect a player's amount of words  $F(1, 50.54) = .54$ ,  $p = .47$  nor overall pronoun usage  $F(1, 48.21) = .42$ .

The interaction affects on second-person pronouns  $F(1, 58.87) = 2.14$ ,  $p = .145$  showed a trend, as well as third-person pronouns  $F(1, 51.34) = 1.55$ ,  $p = .22$ . Finally, an interaction affect on words expressing negative affect  $F(1, 63) = 2.68$ ,  $p = .107$  could be found significant in future studies.

## **DISCUSSION**

To identify key indicators of deception, this paper sought to discover language differences between differently skilled liars and truth-tellers. This preliminary paper on the subject does not have statistically sound analyses on many of the variables regarding this comparison, but hopefully a follow-up of such a study has been justified by the trends observed. The majority of findings were for the main effects of role and skill on deceptive cues, which still provides meaningful discussion.

The first significant finding of this study was that liars used more first-person pronouns and less second person pronouns than truth-tellers, when the opposite was hypothesized. The opposite was expected because of the findings of past studies that discovered the non-immediacy of deceivers' language (Mehrabian & Webber, 1966; DePaulo, et al., 2004) and that deceivers modify their language to be more other-focused (Zhou, Burgoon, Nunamaker et al., 2004, Hancock et al., 2007). This could be an effect of the deception task. In this sample, truth-tellers are on the hunt to find liars by communicating with them, and have more 'other'-oriented language, while liars are busy controlling their image, and having more self-oriented language. Liars in synchronous chat may be forgetting or neglecting to look like they are hunting out other liars by having the 'other'-oriented language of second-person pronouns, due to the cognitive load caused by the lie.

As hypothesized, skilled liars used more first-person pronouns than unskilled liars. However, with the results from role being that liars use more first-person pronouns we would have actually expected skilled liars to use less. This is an important finding because it is the only variable in this study that distinguishes truth-tellers from liars even when liars are successful. A similar relationship was found

with conjunctions. The findings confirmed the hypothesis that liars would use more conjunctions, yet skilled liars used more conjunctions as well.

The second significant finding was that skilled liars used more words than their unskilled counterparts, as hypothesized. Interpersonal Deception Theory states that liars try to control the conversation, and we can state that successful liars are ones who control the conversation more than unsuccessful liars by speaking more.

### CONCLUSION

This research advances our understanding of how linguistic behavior changes dependent on role, skill level, and possibly the platform of use. Agreeing with my professor Jeffrey Hancock, understanding deception in mediated contexts becomes increasingly important as more and more deceptive practices are carried out online where there is room for inveiglement and obfuscation. In support of his research, the findings of this study compliment views of deception as an interactive process, and improve our understanding of not only the profiles of liars in general, but the factor of deceptive skill on linguistic behavior.

Appendix: LIWC Dictionary Categories Used in the Study

Negative Emotion				1st-Person Pronouns
abandon*	enrag*	maddening	snob*	i
abuse*	envie*	madder	sob	ld
abusi*	envious	maddest	sobbed	l'd
ache*	envy*	maniac*	sobbing	l'll
aching	evil*	masochis*	sobs	lm
advers*	excruciat*	melanchol*	solemn*	l'm
afraid	exhaust*	mess	sorrow*	ive
aggravat*	fail*	messy	sorry	l've
aggress*	fake	miser*	spite*	me
agitat*	fatal*	miss	stammer*	mine
agoniz*	fatigu*	missed	stank	my
agony	fault*	misses	startl*	myself
alarm*	fear	missing	steal*	
alone	feared	mistak*	stench*	
anger*	fearful*	mock	stink*	
angr*	fearing	mocked	strain*	
anguish*	fears	mocker*	strange	
annoy*	feroc*	mocking	stress*	
antagoni*	feud*	mocks	struggl*	
anxi*	fiery	molest*	stubborn*	
apath*	fight*	mooch*	stunk	<b>Second-Person Pronouns</b>
appall*	fired	moodi*	stunned	thee
apprehens*	flunk*	moody	stuns	thine
argh*	foe*	moron*	stupid*	thou
argu*	fool*	mourn*	stutter*	thoust
arrogan*	forbid*	murder*	submissive*	thy
asham*	fought	nag*	suck	ya
assault*	frantic*	nast*	sucked	y'all
asshole*	freak*	needy	sucker*	y'all
attack*	fright*	neglect*	sucks	ye
aversi*	frustrat*	nerd*	sucky	you
avoid*	fuck	nervous*	suffer	youd
awful	fucked*	neurotic*	suffered	you'd
awkward*	fucker*	numb*	sufferer*	youll
bad	fuckin*	obnoxious*	suffering	you'll
bashful*	fucks	obsess*	suffers	your
bastard*	fume*	offence*	suspicio*	youre
battl*	fuming	offend*	tantrum*	you're

beaten	furious*	offens*	tears	yours
bitch*	fury	outrag*	teas*	youve
bitter*	geek*	overwhelm*	temper	you've
blam*	gloom*	pain	tempers	he
bore*	goddam*	pained	tense*	hed
boring	gossip*	painf*	tensing	he'd
bother*	grave*	paining	tension*	her
broke	greed*	pains	terribl*	hers
brutal*	grief	panic*	terrified	herself
burden*	griev*	paranoi*	terrifies	hes
careless*	grim*	pathetic*	terrify	he's
cheat*	gross*	peculiar*	terrifying	him
complain*	grouch*	perver*	terror*	himself
confront*	grr*	pessimis*	thief	his
confus*	guilt*	petrif*	thieve*	oneself
contempt*	harass*	pettie*	threat*	she
contradic*	harm	petty*	ticked	she'd
crap	harmed	phobi*	timid*	she'll
crappy	harmful*	piss*	tortur*	shes
craz*	harming	piti*	tough*	she's
cried	harms	pity*	traged*	<b>Third-Person Pronouns</b>
cries	hate	poison*	tragic*	lets
critical	hated	prejudic*	trauma*	let's
critici*	hateful*	pressur*	trembl*	our
crude*	hater*	prick*	trick*	ours
cruel*	hates	problem*	trite	ourselves
crushed	hating	protest	trivi*	us
cry	hatred	protested	troubl*	we
crying	heartbreak*	protesting	turmoil	we'd
cunt*	heartbroke*	puk*	ugh	we'll
cut	heartless*	punish*	ugl*	we're
cynic*	hell	rage*	unattractive	weve
damag*	hellish	raging	uncertain*	we've
damn*	helpless*	rancid*	uncomfortabl*	their*
danger*	hesita*	rape*	uncontrol*	them
daze*	homesick*	raping	uneas*	themselves
decay*	hopeless*	rapist*	unfortunate*	they
defeat*	horr*	rebel*	unfriendly	theyd
defect*	hostil*	reek*	ungrateful*	they'd
defenc*	humiliat*	regret*	unhapp*	theyll
defens*	hurt*	reject*	unimportant	they'll
degrad*	idiot	reluctan*	unimpress*	theyve

depress*	ignor*	remorse*	unkind
depriv*	immoral*	repress*	unlov*
despair*	impatien*	resent*	unpleasant
desperat*	impersonal	resign*	unprotected
despis*	impolite*	restless*	unsavo*
destroy*	inadequa*	revenge*	unsuccessful*
destruct*	indecis*	ridicul*	unsure*
devastat*	ineffect*	rigid*	unwelcom*
devil*	inferior*	risk*	upset*
difficult*	inhib*	rotten	uptight*
disadvantage*	insecur*	rude*	useless*
disagree*	insincer*	ruin*	vain
disappoint*	insult*	sad	vanity
disaster*	interrup*	sadde*	vicious*
discomfort*	intimidat*	sadly	victim*
discourag*	irrational*	sadness	vile
disgust*	irrita*	sarcas*	villain*
dishearten*	isolat*	savage*	violat*
disillusion*	jaded	scare*	violent*
dislike	jealous*	scaring	vulnerab*
disliked	jerk	scary	vulture*
dislikes	jerked	sceptic*	war
disliking	jerks	scream*	warfare*
dismay*	kill*	screw*	warred
dissatisf*	lame*	selfish*	warring
distract*	lazier*	serious	wars
distraught	lazy	seriously	weak*
distress*	liabilit*	seriousness	weapon*
distrust*	liar*	severe*	weep*
disturb*	lied	shake*	weird*
domina*	lies	shaki*	wept
doom*	lone*	shaky	whine*
dork*	longing*	shame*	whining
doubt*	lose	shit*	whore*
dread*	loser*	shock*	wicked*
dull*	loses	shook	wimp*
dumb*	losing	shy*	witch
dump*	loss*	sicken*	woe*
dwell*	lost	sin	worr*
egotis*	lous*	sinister	worse*
embarrass*	low*	sins	worst

they've

emotional	luckless*	skeptic*	worthless*
empt*	ludicrous*	slut*	wrong*
enemie*	lying	smother*	yearn*
enemy*	mad	smug*	

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