

MPC MAJOR RESEARCH PAPER

The Rhetorical Construction of Corporate Public Apologies

Amanda Lai

Dr. Gregory Levey

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ABSTRACT

In this major research paper (MRP), I analyzed the ways in which rhetorical strategies are used in the construction of corporate public apologies.

Organizational reputation management has become increasingly important in the digital age. When companies are criticized or accused of wrongdoing, it is essential to issue a timely and effective response to salvage stakeholder relationships.

Speaking from the Rhetorical Tradition, Aristotle demonstrated that the art of persuasion is largely built upon three rhetorical appeals: the appeal to pathos (emotion), ethos (character), and logos (logic). Through methods of coding and rhetorical analyses, I examined 7 corporate public apologies released by high profile companies between 2008 and 2012. I found that corporate public apologies tend to appeal to ethos more than any other means of persuasion. Reflecting good organizational character is therefore, germane to organizations in crisis. Employed the least was the appeal to logos, or logic. I found that this rhetorical strategy was used primarily to strengthen other persuasive appeals such as appeals to emotion or character. Logos, used in isolation, was rare and arguably ineffective.

It is in my opinion that the focus on rhetorical strategies is lacking in public relations literature. To conclude, I made several recommendations to organizations responding to criticisms or accusations of misconduct. These recommendations are to be taken with the understanding that their effectiveness was not considered for this project.

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Introduction

As corporations enter the digital age, organizational reputation management has become increasingly important. With the overarching goal of repairing a damaged reputation, organizations must issue public apologies that are capable of persuading stakeholders to reinstate their trust in them. Persuasion, then, becomes a key aspect of delivering a successful public apology. In this Major Research Paper (MRP), I will be exploring the ways in which strategies of persuasion (known as rhetoric) are used in the construction of corporate public apologies. Such persuasive tactics date back at least to ancient Greek society, when Aristotle argued that in order to deliver an influential speech, one must be able to appeal to the public's emotions (pathos), logic (logo), and sense of good character (ethos). When executed strategically, these means of persuasion can help the speaker communicate a message in a manner that is persuasive and favourable to the audience. The ways in which these appeals are employed can ultimately shed light on how corporate public apologies are constructed.

Therefore, it is through the guiding principles of the rhetorical tradition that I will be deconstructing 7 corporate public apologies released between 2008 and 2012. My analysis will be guided by the following research questions:

- RQ 1:** Which rhetorical appeals are used in the construction of corporate public apologies?
- RQ 2:** Which of these strategies is most commonly used?
- RQ 3:** Which of these strategies is least used?
- RQ 4:** How are these strategies employed through the use of language?

With these questions in mind, I hope to highlight the importance of rhetorical appeals in the construction of corporate public apologies since Aristotelian rhetoric is insufficiently acknowledged in public relations literature (Skerlep, 2001, p. 177). As the art of persuasion, rhetoric can help make an apology more effective. This is important since businesses, confronted with allegations of wrongdoing, are facing social legitimacy crises and are rapidly losing public trust (Ide & Yarn, 2003, p. 1114). This loss of trust creates a hurdle for organizations that wish to communicate a 'true apology', one that favours public reconciliation over commercial interests. Tom McNiff (2009) describes the appearance of such an apology:

First, you have to actually be sorry. Then, you have to admit fully, without rationalizations or excuses, that what you did was wrong. If possible, you should make restitution to those you have offended. Finally, your outward behavior should reflect the inner change of heart and mind.

A successful apology is therefore one that manages to persuade, but at the same time appears genuine. My hope is that the findings that stem from this research may help public relations professionals understand the function of rhetorical appeals and provide practical models of application.

In an era where information is demanded, accessed and shared instantaneously, CEOs are coming to realize that managing a company crisis requires a new level of strategy if they wish to reach their publics. Kevin Read (2007) asserts that

...with the advent of new media, in particular, web 2.0 techniques, new types of threats have emerged that are more difficult to assess. In part, with the new media revolution, in particular blogs, forums and chat rooms a new generation of individuals are merging who can stir up hostile opinion, quickly and virulently in an unaccountable manner. (p. 336)

Here, Read depicts an emerging generation of individuals who are equipped with a range of digital weaponry, capable of damaging an organization's reputation almost instantly. Due to this rapid spread and exchange of public opinion, it is a corporation's main agenda to respond to criticisms in a timely and appropriate manner (Chung, 2011, p. 5). With the new media revolution, it is clear that quelling hostile public opinion can become a grueling task for public relations professionals (Read, 2007 p.337).

Effective organizational responses to public criticism are therefore crucial if stakeholder relationships are to be salvaged. Restoring trust after an incident of misconduct can be highly challenging. Whether they are criticized for a product recall, an accident, or a criminal offence, organizations will be judged based on their responses.

Public apologies are the most common and anticipated form of organizational responses to charges of wrongdoing. Whether the offence was committed intentionally or not and whether the organization had any control over the situation are irrelevant. Organizations must successfully communicate to their audiences in order to maintain a positive image, which Keith Michael Hearit (2006) argues should be a company's "currency, their stock in trade" (p. 11). Restoring trust after being falsely or rightfully charged is the primary purpose of a corporate public apology. Tom McNiff (2009) argues that Americans are quick to "condemn behaviour that violate our laws and offends our sensibilities. Yet, [they] are willing – even eager – to...embrace transgressors when they show true remorse". Due to the

forgiving nature of American society (McNiff, 2009), public apologies have become a critical aspect of an organization's crisis management effort. To better understand the role of apology in a corporate context, one must first be acquainted with the historical transitions that led up to the phenomenon.

In the following chapter, I will be tracing back the history of apology from the Classical Ages to the Modern Era, touching upon the emergence of public apologies and the factors that contributed to its corporate evolution. I will then present a literature review of the theoretical orientations that serve as the foundation of this paper.

The History of Apology

Although the understanding of apology has evolved drastically over time, the practice of apologizing has always been highly rhetorical. Historically, apologies were used to serve very different ends in the Classical period, the Middle Ages and the Modern era. This transformation marks not only the evolution of the apology's conceptual nature, but more importantly, its rhetorical makeup.

The Classical Period

The modern understanding of apology involves a systematic discourse of reconciliation and can be described as the acknowledgment and expression of regret for fault or wrongdoing without defense (Hearit, 2006, p. 4). In antiquity, apologies were nothing of the sort. They were configured as responsive statements and described strictly as defensive speech against charges of wrongdoing (Ellwanger,

2000, p. 31). The defensive apology, or *apologia*, was found most prominently in institutional discourse, such as courts and state assemblies in ancient society (Ellwanger, 2000, p. 31). What is important to note here is that citizens were rarely summoned to offer such apologies. Only those who were accused of committing crimes or who worked within the forensic profession were required to concern themselves with the delivery of apologetic speech (Ellwanger, 2000, p. 31). Thus, the practice of apology in the Classical period was rooted in institutional contexts and used most commonly as a means to defend one's character.

The Middle Ages

During the Middle Ages, the line of separation between matters of state and religion began to blur (Ellwanger, 2000, p. 32). This overlap sparked radical changes in apologetic practices, which would eventually lead to a new understanding of apology familiar to modern society today (Ellwanger, 2000, p. 32). Since antiquity, defensive apologetic discourse was used in matters of state, however, with the growing dominance of the Christian church, different practices were developed in dealing with "transgression and the negotiation of punishment" (Ellwanger, 2000, p. 32). Although defensive speech was still largely a part of apologetic discourse throughout Medieval society, the confessional rituals promoted by the Church led to the merging of two rhetorics which had until then, remained separate: the rhetorics of defense and regret (Ellwanger, 2000, p. 32). Adam Ellwanger (2000) explains that, "this intermingling of apology and confession laid the seeds for the remorseful apology that would emerge in the Modern era" (p. 32). As such, the Middle Ages

introduced the element of confession to the ancient apology of defense. This shift in apologetic discourse continued to evolve as it entered the early days of the Reformation.

The Modern Era

During the Modern era, Protestant Christians began to distance themselves from seeking forgiveness through confessional practices mediated by Catholic church authorities. Instead, for the first time in Christian history, “the repenting of personal sins could be truly private” (Ellwanger, 2000, p. 32) and forgiveness was sought through personal prayer. The key difference between these two practices of confession is that Catholicism produced sinners who were obligated to confess, whereas Protestants believed in a voluntary and remorseful apology. It was the progressive secularization of Western society after the Reformation that led to “a renewed divorce between practices of defense and the formal expression of regret” (Ellwanger, 2000, p. 33). This concept of the remorseful apology is what contemporary society today agrees upon as the appropriate way to reconcile relationships and accusations of wrongdoing since traditional defensive apologies focus primarily on restoring image and are ‘unapologetic’ in nature (Ellwanger, 2000, p. 36). Put to secular ends, the modern apology is a way for individuals to acknowledge fault, and more importantly, to express genuine regret.

Today, apology and forgiveness are “inescapable moral negotiations” that are socially expected if transgressors wish to repair a damaged reputation and mend broken relationships (Waldschlagel, 2011, p. iii). Whether the fault falls upon an

individual or an organization, apologies are necessary to achieve any level of reconciliation. As modern society continues to navigate through the digital age, apologies that were once considered private are now becoming public. The rise of the public apology suggests significant changes in societal values and behaviours, and an exploration of these changes may lead to a better understanding of public apologies and their rhetorical blueprint. What follows is an overview of the social changes that led up to the rise of public apologies, which eventually paved the way for the emergence of corporate apologetic discourse.

The Rise of the Public Apology

The public apology differs radically from the private expression of remorse. Private apologies are usually self-motivated responses, whereas public apologies, although perceived as voluntary offerings, could be arguably described as responses to offenses circulating in the mass media.

The rise of the public apology can be largely credited to the birth of the public sphere, a term coined by Jurgen Habermas to describe the space where private citizens would come together as a public, and through reason, discuss issues of collective concern (Habermas, 1991, p. 27). This allowed citizens to become more instrumental in the formation of public opinion, however, it also led to an unprecedented form of government: citizens were bound to a new standard code of ethics (Ellwanger, 2000, p. 56) and those who violated such principles of ethical behaviour were held socially accountable to one another. In other words, a violator's relationship with his or her community was suspended until an apology

was issued, symbolizing the admittance of wrongdoing. Receiving forgiveness from the public meant wiping the slate clean and acceptance back into society (Bennett, 2006, p, 133).

The prevalence of public apologies can also be attributed to the Western fascination with collective guilt, confession, and forgiveness (Ellwanger, 2000, p. 64). The rise of the public sphere empowered citizens and gave new emphasis to both human and civil rights; this ultimately led to Western society's obsession with ritualized regret (Ellwanger, 2000, p. 64) as a form of social punishment. Ellwanger (2000) explains,

Medieval confession demanded a diminution of the self that is retained in the apology of regret. It is this peculiar brand of belittlement that makes public apology an effective means to punish minor offenses in the public sphere. Private persons are rarely called upon to offer public apologies, mainly because their actions are of very little interest to the mass media or its consumers. Those whom we extract public apologies are typically people who live in the public eye and who enjoy an unusual degree of power. (p. 64)

Inarguably, the advent of the public sphere influenced the rise of the public apology in modern society. Citizens were able to come together and act as arbiters of ethical behaviour, scorning those who failed to comply. The public sphere ultimately transformed the act of apology from a private transaction between individuals to a public practice of reconciliation with one's community. As the domestication of the public sphere progressed, public apologetic discourse continued to evolve. Due to recent changes in society, a new genre of public apology began to emerge, one that was highly organizational in nature and the subject of this research paper: the corporate public apology.

The Emergence of Corporate Apologetic Discourse

The public apology phenomenon, now better understood after dissecting its history, has also infiltrated the corporate arena. Keith Michael Hearit (2006) argues that American culture has recently entered the organizational age. As Western society transitioned from an individual-based to an organizational-based society, the discourse too has evolved from “an individual-driven rhetoric to a corporate form of discourse” (p. 121). The identities of individuals are now an amalgamation of the brands they purchase, the companies they represent, and the organizations they support since “Western culture has created an eponymous society, one in which social identity is composed of the many organizations to which its residents belong” (Hearit, 2006, p. 8). This new society is marked by the emergence of modern organizations as social actors. For Hearit (2006),

On a de facto, day-to-day level, society tends to treat corporations as individuals, and although they are recognized to consist of large numbers of people, their acts nonetheless are viewed to have a singular quality to them. (p. 9)

What is emphasized here is that organizations today have an identifiable image that should be maintained and a reputation that must be managed. Their social personae are their currency and any damage to it will have tangible consequences on the organization’s success (Hearit, 2006, p. 11).

The concept of public apologia was first associated with individuals such as professional athletes, religious leaders, and politicians accused of wrongdoing (Hearit, 2006, p. 13). More recently, however, organizations (whether they be non-profits or corporate giants) have become the primary sources of public apologies

(Hearit, 2006, p. 13). The rise of corporate apologetic discourse is a phenomenon that can be explained by a number of factors. In the following section, I will be discussing a number of considerations that, together, created the perfect climate for the development of corporate public apologies.

Social Movements

The first factor that gave rise to corporate apologia was the triumph of various social movements in the 1960s (the consumer, ecology, civil, and women's rights movements, to name a few). These movements brought society into an era of growing mistrust of institutions, and businesses were increasingly being challenged in areas of product safety, equal opportunity and environmental responsibility (Hearit, 2006, p. 13). Public opinion concerning these matters is highly influential and can have negative consequences on the reputation of any organization. It was during this time that businesses learned the significance of responding to public criticism (Hearit, 2006, p. 13).

Technology

A second factor to consider when examining the rise of corporate apologia is the advancement of communication technologies. The countless number of media outlets serving the public today acts as a vehicle for challenging corporate decision-making. With the arrival of the digital age, the Internet allows citizens to share and access information at previously unimaginable speeds. This exchange can foster the formation of influential public opinions, especially when corporations are being criticized. Organizations must therefore release timely and effective responses to

criticisms if they wish to maintain a positive reputation and prevent further damage to their corporate image.

Consumerism

Hearit (2006) suggests that another factor leading up to the rise of the corporate public apology is the triumph of consumerism:

The consumer has become the final arbiter of corporate behaviour, and organizations often find that they have no other choice but to acquiesce to customer demands...with customers as the final judge, companies have found that they have no choice but to respond vigorously to customer complaints before they lose control of an issue or problem. (p. 14)

This description of the modern day customer illustrates how a consumer's experience can easily determine the success or failure of a company. Therefore, it is crucial for organizations to respond to accusations of wrongdoing by way of public apology to satisfy consumers and other influential stakeholders.

Having explored the history of public apologies and the factors that contributed to its corporate evolution, I will now be giving a theoretical overview of this study's foundation.

Literature Review: Theoretical Overview

In this section, a number of theoretical concepts vital to this research will be explored and discussed in a way that will allow for a better understanding of rhetoric in apology.

Apologia vs. Apology

When analyzing apologetic discourse, the distinction between *apologia* and *apology* must be made. Traditional *apologia* was first articulated as a genre of rhetoric by Ware and Linkugel (1973) and refers to the self-defense of one's character using four strategies: denial, bolstering, differentiation, and transcendence.

Throughout history, the function of *apologia* has been changed and refined. Earlier theorists saw *apologia* as strategies that “deny the wrongdoing that has been done or that redefine or transcend that wrongdoing” (Koesten & Rowland, 2004, p. 70). Thus, while an apology involves the admission of guilt and acceptance of responsibility, *apologia* serves strictly as a strategy of self-defense. Today, amid the proliferation of corporate crises and the importance of reputation management, responses to public criticisms are more likely to abandon the defensive discourse of *apologia* and instead exemplify an approach of self-disclosure through public apology.

Corporate Apologia

As discussed earlier in the historical overview, corporate *apologia* is an extension of traditional apologetic discourse. Josh Greenberg and Charlene Elliott (2009) argue that such organizational responses to crisis involve “the use of *apologia* as a strategy for reputational defense in the face of intense criticism” (p. 194). William Benoit (1995), however, believes that in addition to defensive strategies, corporations should be adopting formal apologies (when appropriate) to

victims in order to repair damaged reputations and relationships during times of crisis. This type of formal apology represents a sub-genre of apologia known as *corporate apologia* – strategies employed by corporations to defend their reputations, which can at times, include the delivery of a public apology.

For example, international footwear and athletic apparel company Nike employed corporate apologia strategies without the use of a public apology during a time when the organization faced mounting criticism of its use of Asian sweatshop labour (Greenberg & Elliott, 2009, p. 195). Nike denied any responsibility, claiming that it had been “unfairly targeted by activists who had an axe to grind and who were relying on incomplete and inaccurate information” (Greenberg & Elliott, 2009, p.195). The company then tried shifting the blame by scapegoating external actors like sub-contactors in developing countries (Greenberg & Elliott, 2009, 0p. 195). In contrast, Maple Leaf Foods made use of corporate apologia strategies, which included the delivery of an emotional public apology. During its Listeriosis crisis, company CEO Michael McCain apologized to the public and abandoned all defensive tactics. As a representative of the organization, McCain accepted full responsibility, irrespective of the financial losses (\$25-30 million and class action lawsuits), a bold act that was necessary to regain the public’s trust (Elliott & Greenberg, 2009, p. 195). McCain’s accountability was “embraced with pretty much universal praise by the mainstream media, PR industry observers, and within the blogosphere” (Elliott & Greenberg, 2009, p. 196). The outcome of both cases differed, with Maple Leaf Foods’ approach being the most fruitful. This juxtaposition favours public apologies as effective corporate apologia strategies.

Drawing on Benoit's (1995) image restoration theory, *mortification* is favoured as a way to manage reputation during a corporate crisis. Mortification occurs when an organization "accepts responsibility for the action and asks stakeholders for forgiveness" (Coombs, Frandsen, Holladay, & Johansen, 2004, 240). It is the element of mortification that bridges the practice of apologia, or defensive speech, to the notion of apology. In other words, without mortification, an apology cannot exist.

In essence, corporate apologia involves rhetorical strategies that help organizations defend their reputations. In contrast to traditional apologia, it involves the option of delivering a formal public apology in response to criticisms or accusations of misconduct. As stated earlier in the introduction of this paper, I will be analyzing the responses of 7 organizations that chose to deliver public apologies in an effort to salvage their image and mend stakeholder relationships.

Aristotelian Rhetoric

The last component of this theoretical overview is the concept of Aristotelian rhetoric. The abundance of corporate public apologies in today's media landscape only puts more pressure on public relations practitioners and professional communicators to compose apology speeches that will successfully repair a tarnished image. In order to be successful, public apologies must first and foremost be able to persuade the public to believe that the company is worthy of their trust. Restoring public trust will in turn reinstate public opinion and a positive brand persona. For Taryn Fuchs-Burnett (2002), consumers are

...Placing a high premium on the so-called corporate apology and while the supply of apologies has been abundant as of late, consumers are acting monopolistically in that they are withholding their acceptance until corporations are ready to raise the level of quality of the apology (p. 31)

With this recent development in public standards, the notion of trust becomes a critical element in the consumer-corporation relationship. Companies who have been publically criticized are therefore burdened with the grueling task of persuading stakeholders that despite any incidents of misconduct, they are still reputable and trustworthy organizations. Persuasive speech, or what Aristotle refers to as rhetoric, is therefore a major aspect of effective public apology discourse.

For Skerlep (2005), the practice of public relations has shown very little interest in the art of rhetoric (p. 177). Aristotelian rhetoric is an oral tradition that recognizes three modes of persuasion, which Aristotle considers to be types of argumentation. The first is *ethos*, a speaker's ability to legitimize his or her message by establishing a credible self-image. The second is *pathos*, a speaker's ability to influence the emotions of the hearers. The third, and what Aristotle believes to be the most essential, is *logos*, a speaker's ability to demonstrate logic on the topic of the speech (Skerlep, 2005, p. 177). For Aristotle, the art of public speaking is effective if the orator can employ these three modes of persuasion – they are “...the only true constituents of the art: everything else is merely accessory” (Aristotle, 2010, p. 3).

Delving deeper into this theoretical overview, I will now provide an in-depth description of each rhetorical appeal while highlighting its features in detail.

Pathos

Demonstrating a level of sincerity when publically expressing remorse is a highly emotional transaction. For Kevin Read (2007), many PR practitioners to date have failed to recognize the importance of these transactions when engaging with stakeholders (p. 336). Although this conception has been around since antiquity, the relevance of emotion is still frequently overlooked.

It was through the manipulation of emotions such as anger, despair, and hope that classical orators could sway public opinion most effectively (DeSteno, Wegener, Petty, Rucker, & Braverman., 2004, p.43). Many ancient Greeks, however, were suspicious of pathos due to its potentially manipulative nature; scholars felt that the presence of emotions distracted individuals from rationally assessing the issue at hand (Read, 2007, p. 333). In contrast, others like Aristotle, believed it was “a force that needed to be harnessed when seeking to make persuasive arguments” (Read, 2007, p. 332). It was believed that a person who mastered the ability to evoke emotion would be the most successful rhetorician (DeSteno et al., 2004, p. 43). The rationalization for this can be grounded today in new psychoanalytical models of the human mind which demonstrate that, “emotions [do] profoundly influence our logical faculties without us realizing it” (Read, 2007, p. 333). Therefore, an effective speaker is one that manages to influence public opinion through the arousal of emotion.

Ethos

The second mode of persuasion that is recognized in Aristotelian rhetoric is the appeal to *ethos*, or to one's character. When a speaker successfully highlights his/her reputation in a positive light, it can be argued that the public instills a higher level of confidence in the orator's message. Aristotle expands on this notion in a passage from *Rhetoric*:

Therefore (we have a case of persuasion) through character when the speech is such that it makes the speaker worthy of belief. For we believe good men more fully and quickly, (and that is true) generally concerning all matters and absolutely (so) in matters that are not precise but admit doubt. It is necessary that this happen through the speech, rather than on account of a pre-existing opinion about the character of the speaker. For not as some writers on rhetoric posit in their treatises (saying) that the goodness of the speaker contributes nothing to persuasion; rather character has almost the greatest authority in winning belief. (Fortenbaugh, 1992, p. 209)

In essence, an audience is more likely to believe a speaker who is perceived as respected and trusted in society. In *Rhetoric*, Aristotle identifies three attributes that make up such a persuasive character; wisdom, virtue, and goodwill (Fortenbaugh, 1992, p. 210). Orators who demonstrate these traits are likely to be trusted and believed. What is important to note is that to win goodwill is to exhibit a character that is attractive to the audience – the speaker can readily achieve this when the audience is already favourably disposed (Fortenbaugh, 1992, p. 215). It becomes more challenging, however, when the audience is not favorably disposed. This is usually the case when organizations accused of wrongdoing prepare to deliver a public apology to an already skeptical audience.

Thus, appealing to ethos can be a highly useful rhetorical strategy that public speakers may consider using when attempting to influence an audience. Aristotle argues that swaying public opinion can be done most effectively by an orator whose character is perceived as good and credible.

Logos

The last mode of persuasion identified in Aristotelean rhetoric, *logos*, is concerned with the ability to use logic as a means for argumentation. It depends on “...the proof, or apparent proof, provided by the words of the speech itself” (Aristotle, 2010, p. 7). The appeal to logos is influenced by the actual speech, usually on the occasion that a truth, or apparent truth, has been proved by way of argumentation on the subject at hand (Aristotle, 2010, p. 7). As the developer of inductive and deductive logic, Aristotle classifies logos, or rational argumentation, as the most important way of persuading the audience (Skerlep, 2001, p. 180). Typically in the form of facts, figures, and statistics, data can be used as a means of rational argumentation – they serve as evidence in support of what the speaker is attempting to communicate. Presenting evidence is a valuable way to persuade the public. The influential power of data is explained by Denise Troll Covey in *Using Data to Persuade: State Your Case and Prove It* (2005) as she discusses the ways in which libraries choose to validate the quality of their services. Covey observes,

Libraries continue to gather traditional input and output data to show their potential to provide service and the actual service they provide. These are meaningful data, but the more purposeful, effective data these days are outcomes and performance measures that show what good libraries do and how well they perform given their human and financial resources. Measures of efficiency,

effectiveness, quality, usability, and what difference the library make are much needed – and very persuasive – in an era pressured for accountability. (p. 84)

This example demonstrates how factual information can be presented as a way to sway public perception. By exhibiting facts, figures, and statistics, public speakers who appeal to logos are able to frame the attitudes of the audience on a particular subject.

Reiterating the principles of rhetoric, Aristotle sums up the primary functions of logos, ethos, and pathos:

There are, then, these three means of effecting persuasion. The man who is to be in command of them must, it is clear, be able (1) to reason logically, (2) to understand human character and goodness in their various forms, and (3) to understand the emotions – that is, to name them and describe them, to know their cases and the way in which they are excited. (Fortenbaugh, 1992, p.124)

After reviewing the three means of persuasion, it can be argued that the consideration of persuasive appeals in public apology research is inadequate. As mentioned in the introduction of this MRP, Aristotlelian rhetoric is insufficiently explored in public relations literature, especially on the topic of public apologies (Skerlep, 2001, p. 177).

Methodology

The methods I used for my research include (1) collecting data using a specific set of criteria, (2) transcribing that data, (3) coding for persuasive appeals and lastly, (4) an in-depth rhetorical analysis.

Data Collection

For the purpose of my research, I analyzed a total of seven public apologies. Considering the length of the MRP, I feel that the analysis of seven apologies will be sufficient to make worthwhile observations. Since there have been countless public apologies that have been issued to date, a set of criteria was designed to help narrow down the selection.

Criteria

The public apologies must first and foremost be corporate in nature. In other words, the apologies must have been released by a large commercial business authorized to act as a single entity and recognized as such by law. Other apologies delivered by public figures such as politicians or celebrities were not considered for this project.

Secondly, to be considered, the public apologies chosen for this project must have been released within the last five years. This ensures that the results and conclusions drawn from my research will be relevant to those interested in studying the rhetorical construction of corporate public apologies. It also ensures that each public apology originates from the same corporate climate, keeping all variables as consistent as possible. Therefore, all public apologies released before 2008 will not be considered for this paper.

I also focused on apologies that have received considerable media coverage and that have been released by high profile companies like RIM, Maple Leaf Foods

and BP Oil. My rationalization for this stems from the fact that corporate giants have larger and more valuable audiences to consider and to ‘convert’. There is, I assume, a higher degree of pressure placed on these organizations to influence their stakeholders and to restore trust. This is beneficial to my analysis, assuming that these organizations have employed what they believe to be the most effective rhetorical strategies.

Lastly, only Western organizations were considered for this project. The reason for this has less to do with the limitations of language than the fact that Western culture, in a corporate context, may differ from others. To keep this paper as relevant as possible to my own audience, I decided to look strictly at corporate public apologies from Canada, the United States and the United Kingdom. This will be discussed in further detail in my limitations section.

Method of Collection

After navigating through a variety of online news publications for media coverage on corporate public apologies matching the criteria above, I narrowed down my data set to the following seven apologies:

Company	Summary of Incident	Year
FedEx	A FedEx employee was caught on tape throwing a customer’s cargo over a fence. The delivery turned out to be a flat screen monitor.	2011
RIM	In 2011, RIM struggled to restore international	2011

	Blackberry Messenger services to users for over three days.	
Alaska Airlines	Computer failures caused service disruptions and flight cancellations for hundreds of Alaska Airlines passengers.	2011
British Petroleum	An oilrig explosion caused 4.9 million barrels of crude oil to spill into the Gulf of Mexico, becoming one of the worst environmental disasters in the world.	2010
Toyota USA	Many Toyota vehicles were recalled for pedal sticking issue.	2010
Domino's Pizza	Two Domino's Pizza employees uploaded a prank video to YouTube of themselves tampering with the customers' food.	2009
Maple Leaf Foods	In 2008, Listeria was found in some of Maple Leaf Foods' products, which led to a number of illnesses and loss of life.	2008

The corporate public apologies chosen were accessed online via the video-sharing website YouTube. All apologies were retrieved from their company's official YouTube channels, with the exception of two (Maple Leaf Foods and Domino's Pizza), which were uploaded by public users.

Data Transcription

Transcripts of the video apologies were retrieved from an online public apology database belonging to the University of Waterloo's Conflict, Culture and Memory Lab (CCM). All transcripts could be accessed through CCM free of charge with the exception of two apologies. Missing from the database were public apologies released by FedEx and Alaska Airlines in 2011. The transcript of the former was retrieved from Lybio.net, the largest online community of scripted text video, while the latter required a manual transcription. All transcripts were double checked for accuracy before coding.

Coding

To address the initial research questions outlined in the introduction, I went through each public apology transcript that made up the data set and coded for instances where each of Aristotle's three rhetorical appeals – pathos, ethos and logos – were used. I searched every apology transcript for words, phrases, expressions or metaphors that appealed to emotion, character, and logic, and took note of how many times a specific appeal was employed. My process of coding was conducted at a sentence-by-sentence level.

Operational definitions

Since at times the appeals to pathos, ethos and logos can have slightly different interpretations; I have given a more specific definition to these operational concepts. This helped to eliminate any sense of ambiguity in the coding system.

Definition: Appeal to Pathos

Pathos can be observed through a specific use of diction. It can be identified when phrases are infused with emotional language. For example, in a recent public apology issued by Scouts Canada to the children who have suffered sexual abuse at the hands of trusted Scouters, Chief Commissioner Steve Kent expresses remorse on behalf of the organization, and appeals to pathos throughout his apology:

Scouts Canada and I personally wish to apologize sincerely and deeply to any and all former scouts who suffered harm at the hands of those who abused the trust and responsibility they had gained as volunteer leaders in our organization. Our sincere efforts to stop and prevent such crimes have not always succeeded. We are sorry for that. We are saddened at any resulting harm.

Words like *sincerely* and *deeply* are all emotionally charged, and can have an effect on the receiver of the message.

To clarify, I will be using two different strategies to identify what I mean by ‘emotional language’. The first strategy is through the use of intensifiers – a linguistic element that conveys, “the degree or the exact value of the quality expressed by the item they modify” (Mendez-Naya, 2008, p. 213). Typically, they are adverbs such as *greatly* or *completely* (Mendez-Naya, 2008, p. 213). These intensifiers, or degree modifiers, have a markedly emotional function (Mendez-Naya, 2003, p. 372); thus, when used in conjunction with neutral language, it can add an emotional component to the message.

The second strategy is through the identification of emotional words in Bradley and Lang’s (1999) study on Affective Norms for English Words (ANEW), a set of “normative emotional ratings for a large number of words in the English

language” (p. 1). The ANEW (see appendix A) is a collection of “verbal materials that have been rated in terms of pleasure, arousal, and dominance” (Bradley & Lang, 1999, p.1). For the purposes of this study, I will strictly be referring to ratings of emotional arousal and will only consider a word to be emotionally charged if the mean rating is above 4.5. This is because Bradley & Lang (1999) utilizes a 9-point rating system where the half-way mark (4.5) represents a neutral emotional state. Anything above 4.5 on the scale represents an increasing degree of emotional arousal, while numbers under 4.5 signify a decreasing level of arousal.

In the context of the present research, pathos can also be identified through the strategic use of pronouns such as “us” and “our”. These pronouns allow organizations to place themselves on an equal level with their stakeholders, giving them a higher degree of relatability. This creates what Ernest G. Bormann calls a social drama, an idea that derives from Bormann’s theory of Symbolic Convergence:

The theory explains the appearance of a group consciousness, with its implied shared emotions, motives, and meanings, not in terms of individual daydreams and scripts but rather in terms of socially shared narrations or fantasies. (Bormann, 1985, p. 128)

For example, in Domino’s Pizza’s public apology, CEO Patrick Doyle addressed his stakeholders by saying, “we want to thank you for hanging in there with us”. The use of pronouns in this statement helped to construct a sense of camaraderie between the organization and its stakeholders. It generated what Bormann calls a shared symbolic drama or vision (Cragan & Shields, 1977, p.274). In this case, the drama being played out was the idea that in times of difficulty, comrades do not abandon one another, but are instead supportive and understanding. This strategy is able to

place the organization in a state of weakness, and give stakeholders the opportunity to demonstrate compassion through forgiveness. Victims of any corporate offence do not wish to feel inferior to the transgressors, which is why apologies are usually poorly received if this occurs. Therefore, if the use of a single or multiple pronouns manages to create the type of social drama described above, I will consider it an appeal to pathos.

In short, corporate public apologies may appeal to pathos by using emotional language (through intensifiers or words from the ANEW with a 4.5+ arousal mean) and strategic pronouns.

Definition: Appeal to Ethos

In order to define ethos, one must reference Aristotle, who argued that a speaker is persuasive if they demonstrate wisdom, virtue, and goodwill (Fortenbaugh, 1992, p. 209). These characteristics are indicative of someone who is trustworthy, which adds credibility to their message. In the context of corporate public apologies, organizations must also prove their credibility by appealing to a number of positive attributes in order to issue a successful response to charges of wrongdoing.

Ethos, or the appeal to character, can be identified in corporate public apologies through a specific use of language or statements that positively reflect the following: (1) the organization's culture, (2) quality of products/services, (3) customer value creation, (4) external relationships, and (5) employees. The rationale for these themes derives from Cravens, Oliver and Ramamoorti's (2003)

corporate Reputation Index (see appendix B). This index presents nine components of good corporate reputation and their illustrative measures. From this index, I was able to identify five components that were present in my data set of corporate public apologies. To reiterate these components, they are as follows: company culture, quality of products/services, value creation, presence of external relationships, and employees. Therefore, language or statements used to positively reflect these components will be coded as an appeal to ethos.

A good example to help illustrate the above would be the 2007 public apology released by JetBlue airlines expressing remorse for the countless number of service disruptions caused by a computer malfunction. JetBlue stated, “We are committed to you, our valued customers, and are taking immediate corrective steps to regain your confidence in us”. The word *committed* is reminiscent of the organization’s “responsiveness to customer needs”, an illustrative measure of the ‘value creation’ component of the Reputation Index. Similarly, in 2005, Best Buy publically apologized for employing high-pressure sales tactics, which left many customers feeling uncomfortable. In its apology, Best Buy claimed that, “In fact, these behaviours are in direct conflict with our desire to serve customers’ needs better than anyone else, and our values of honesty and integrity”. By expressing its ‘desire to serve customers’ this statement also reflects the index’s ‘value creation’ component. What’s more, Best Buy appeals to its own code of ethics by using words like *values*, *honesty* and *integrity*. This falls under the index’s ‘culture’ component.

Thus, when appealing to ethos, words that are selected seem to come from a corporate register. In other words, the language used to highlight good character comes from a word bank where the same few terms are used frequently and repetitively. Some of these include words like *dedication*, *quality*, and *regulatory*. Reflecting themes of good organizational character reminds the audience of the company's credibility and reputation before the transgression occurred. By strategically choosing words that echo these corporate ideals, apologies are appealing to the audience's own code of ethics and expectations.

Definition: Appeal to Logos

Lastly, the appeal to logos, or logic, can be identified in corporate public apologies when facts, figures, or statistics are used to persuade the audience. It was Aristotle who, after all, emphasized the importance of rational argumentation using evidence (Skerlep, 2001, p. 180). In this context, data serves as proof or support for what the speaker is attempting to communicate. This way, audience members are presented with certain facts and are inclined to draw specific conclusions. Numbers are commonly found in public apologies to illustrate a particular picture for the audience. For example, in 2010 Akiyo Toyoda apologized to the American market on behalf of the Toyota Motor Corporation for the safety oversights of their vehicles, stating that,

It has been over 50 years since we began selling in this great country, and over 25 years since we started production here. And in the process, we have been able to share this core value with the 200,000 people at Toyota operations, dealers, and suppliers in this country.

By mentioning its longevity and army of employees, the Toyota Motor Corporation used numbers to appeal to the audience's logic and encourages them to perceive the company in a certain way.

In the context of corporate public apologies, appealing to the audience's logic can also be intended to lessen the severity of the issue at hand or to place blame elsewhere. For example, during the Listeriosis crisis at Maple Leaf Foods in 2008, CEO Michael McCain issued a public apology, reminding stakeholders that "Even though Listeria is a bacteria commonly found in many foods and in the environment, [they] work diligently to eliminate it". By presenting the fact that Listeria is a common bacterium found in our every-day environment, Maple Leaf Foods was implying that the outbreak could have happened to any organization. Although it is sometimes subtle, the appeal to logos can be a powerful and persuasive tool

Rhetorical Analysis

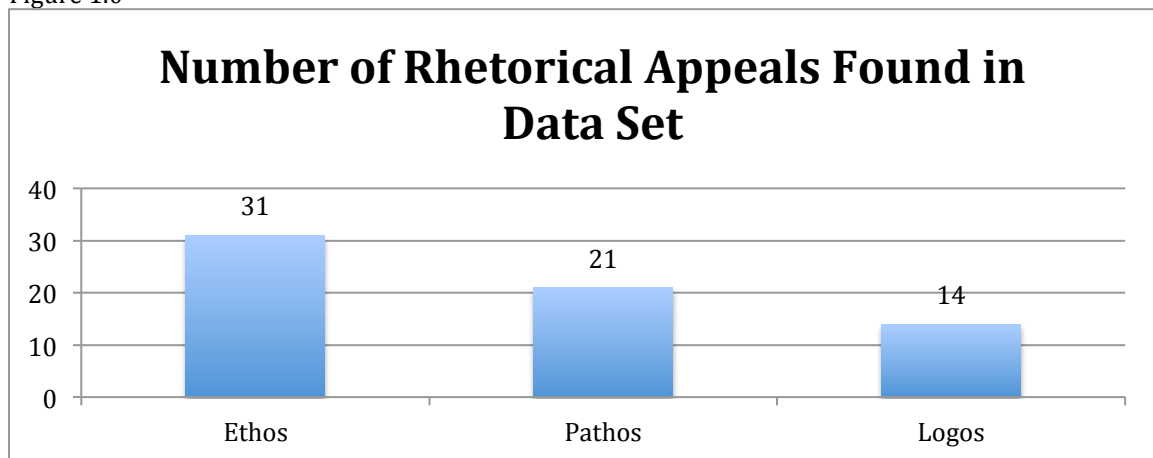
After coding each apology for appeals to pathos, ethos and logos, I conducted an overall rhetorical analysis. Looking specifically at the persuasive appeals that were most commonly or least commonly used, I was able to draw some conclusions from the data.

Findings

Having given each rhetorical appeal a comprehensible operational definition, I will now present the findings of my rhetorical analysis.

In a data set of seven corporate public apologies, 66 rhetorical appeals were identified in total. It should be noted here that all charts and figures represent complete data rather than examples. The chart below illustrates that the appeal to ethos was most frequent, with 31 observable instances. The appeal to pathos was identified 21 different times, and the appeal to logos was identified 14 times. In short, the rhetorical appeal most commonly used in corporate public apologies was the appeal to ethos. The rhetorical appeal used least frequently was the appeal to logos.

Figure 1.0



To further examine these findings, I will discuss my observations on how corporate public apologies managed to appeal to each one of Aristotle's modes of persuasion.

Findings: Pathos

I found that in order to appeal to the public's emotions, corporate public apologies employed three distinct strategies. The first strategy involved using emotionally charged language (more specifically, intensifiers) while apologizing or

expressing sympathy. Table 1.1 illustrates the ways in which each organization belonging to the data set delivered their apologies. All but two organizations – RIM and FedEx – appealed to pathos while expressing their regrets to the public. One observable trend lies in the fact that a number of companies issued apologies around variations of reoccurring words. The present data demonstrates that variants of the word *deep* and *sincere* were commonly used to emphasize apologies.

Table 1.1

Apologies and Expressions of Regret		
Organization	Apology	Emotional Language
Maple Leaf Foods	I offer my deepest sympathies	Deepest
	We are deeply sorry	Deeply
Toyota USA	I want to sincerely apologize	Sincerely
	I am truly sorry	Truly
RIM	I apologize for the service outages this week	-
BP Oil	I'm deeply sorry	Deeply
Domino's Pizza	We sincerely apologize	Sincerely
Alaska Air	Please accept our sincere apologies	Sincere
FedEx	Please accept my apology	-

The second strategy involved the public display of organizational sentiment. Table 1.2 shows how organizations utilized emotional words to describe their own feelings to the public. Four out of seven public apologies employed this strategy in order to appeal to pathos. Words such as *sickens*, *frustrating*, and *embarrassed* were used among others to describe the current emotional states of the organizations.

Table 1.2

Expressions of Organizational Sentiment		
Organization	Sentiment	Emotional Language
Maple Leaf Foods	Words cannot begin to express our sadness for your pain	Sadness, Pain
Toyota USA	-	-
RIM	I know this is very frustrating	Frustrating

BP Oil	We all feel the impact	-
Domino's Pizza	It sickens me	Sickens
Alaska Air	-	-
FedEx	I am upset and embarrassed	Upset, Embarrassed

Table 1.3 presents the arousal ratings as presented in Bradley & Lang's (1999) ANEW for the emotional language used by organizations to express their sentiments. Each word had a mean arousal rating of 4.5 or higher, which placed them in the category of emotional language.

Table 1.3

Mean Ratings for Emotional Arousal as presented in ANEW		
Emotional Language	ANEW Word	Mean Arousal Rating
Pain	Pain	6.5
Frustrating	Frustrated	5.61
Sickens	Sickness	5.61
Upset	Upset	5.86
Embarrassed	Embarrassed	5.87

Lastly, in order to appeal to pathos, I found that corporate public apologies had the tendency to use pronouns such as *we* and *us* to emphasize a seemingly pre-established relationship between stakeholder and organization. As discussed in the Methodology section, above, this strategy is reminiscent of Bormann's Symbolic Convergence theory whereby social dramas are used to create a shared group consciousness (Cragan & Shields, 1977, p.274). These expressions suggest that prior to the transgression, there was an established trusting relationship at work. Table 1.4 demonstrates how organizations employed the use of pronouns to arouse the public's emotions.

Table 1.4

Use of Pronouns to Suggest Pre-Established Stakeholder Relationship		
Organization	Statement	Pronouns creating a social drama
Maple Leaf Foods	We know this has shaken your confidence in us	Your, Us
Toyota USA	I know that we have let you down	We, You
RIM	We've let many of you down	We, You
	You expect better from us, and I expect better from us	You, Us
BP Oil	-	-
Domino's Pizza	Thank you for hanging in there with us	You, Us
Alaska Air	We know that you count on us	You, Us
FedEx	-	-

Findings: Ethos

Persuasion through ethos or character was the most prominent rhetorical appeal found in the construction of corporate public apologies. They were inclined to select language from a corporate register of words and phrases that positively reflect (1) the organization's culture, (2) quality of products/services, (3) customer value creation, (4) external relationships, and (5) its employees.

Under Cravens, Oliver and Ramamoorti's Reputation Index (2003), the Culture component includes 'ethics policy' as one of its illustrative measures. For this research, I am making the assumption that the term *ethics* refers to a company's outlook on the ethical practices surrounding all aspects of its work. Table 2.0 shows how organizations in the data set appealed to ethos by highlighting its corporate culture through ethics policy.

Table 2.0

Words/Statements Reflecting Positive Organizational Culture	
Organization	Statement
Maple Leaf Foods	We work diligently to eliminate it (Listeria)
	Maple Leaf Foods is...a culture of food safety

Toyota USA	-
RIM	We're doing everything in our power
	We're working tirelessly to restore your trust in us
BP Oil	-
Domino's Pizza	-
Alaska Air	Our IT crews are working non-stop to fix the issue
	Our representatives are working diligently
FedEx	This goes directly against all FedEx values
	We are determined to make this right
	We are working within our disciplinary policy
	...Dedicated team members

Positively reflecting the quality of an organization's products and services was also a strategy used in corporate public apologies to highlight good character. It is the first component listed in the Reputation Index, naming 'quality association' as its illustrative measure. After analyzing each apology in the data set, I identified a list of words that were used to associate the organization with themes of high quality. Table 2.1 shows how each organization appealed to ethos by using language that highlights the quality of its products and services.

Table 2.1

Words/Statements Reflecting Quality Associations	
Organization	Word/Statement
Maple Leaf Foods	Standards
	Beyond Regulatory Requirements
Toyota USA	High Quality
	Durable
	Depend On
RIM	Reliable
BP Oil	-
Domino's Pizza	We have auditors across the country...
	High Quality
Alaska Air	-
FedEx	High Standard

The Reputation Index also suggests that showcasing an organization's ability to create customer value can improve its image. The Value Creation component provides 'identification and responsiveness to customer needs' as an illustrative measure. I have interpreted this as an organization's commitment to its customers. In my analysis, I found that in addition to highlighting the positive culture and quality associations of an organization, companies might also express their commitment to their stakeholders as a rhetorical strategy. For example, in the 2008 public apology issued by Maple Leaf Foods after Listeria was found in some of its products, CEO Michael McCain stated that the company had an "unwavering commitment" to keeping its customers' food safe. He ended the apology by saying, "I commit to you that our actions are guided by putting your interest first". By emphasizing its commitment to customers, Maple Leaf Foods highlighted its ability to create customer value, which indicated a positive corporate reputation.

According to the index, External Relationships are also an indicator of high corporate reputation. Described as the 'existence of alliance relationships', I found two apologies that employed this strategy. After the Gulf spill in 2010, BP stated in its public apology: "For the strong support of the government, thank you". By demonstrating visible state support, it is more likely that an organization will succeed in motivating the public to view them as a credible corporation. A year prior, Domino's Pizza was caught in a social media crisis when two of its employees uploaded a food-tampering prank video onto YouTube. President of Domino's USA Patrick Doyle closed the apology by saying "There are so many people who have come forward with messages of support for us and we want to thank you..." By

demonstrating community support, there is a higher probability that public perception for an organization will be more positive.

Strengthening Appeals to Ethos

The most noteworthy of my findings was a rhetorical strategy that used logos to strengthen appeals to ethos. As described in the methodology section, the appeal to logos, or logic, can be identified in corporate public apologies when facts, figures, or statistics are used to persuade the audience. I found that logos was frequently used to influence the public's perception of organizational character. In other words, facts, figures, and statistics were used to highlight the positive attributes of a company's reputation – the ultimate goal of ethos. This strategy was employed most often to show that a company is a long-standing organization with a high degree of employee loyalty/support. Employees are often used as indicators of organizational reputation (Cravens & Oliver, 2006, p. 293) and are a component of Cravens et al.'s (2003) corporate Reputation Index that can be measured by an employee's satisfaction with his/her employer. Carmeli and Tishler (2004) show that human capital and managerial capabilities (p. 1270) both “contribute to organizational performance, in conjunction with perceived organizational reputation” (Cravens & Oliver, 2006, p. 293). Thus, I argue that demonstrating the ability to retain human capital is indicative of employee satisfaction with employers. Employees are therefore indicators of good organizational reputation, which rationalizes how corporations choose to highlight their employees in public apologies. Table 2.2

demonstrates how organizations utilize logos, or facts, figures and statistics, to showcase the employee support they have.

Table 2.2

Using Logos to Showcase Employees	
Organization	Word/Statement
Maple Leaf Foods	Maple Leaf Foods is 23,000 people who live in a culture of food safety
Toyota USA	All 172,000-plus Toyota and dealership employees across North America will work hard
RIM	-
BP Oil	Where oil reaches the shore, thousands of people are ready to clean it up
Domino's Pizza	Our great system where 125,000 men and women work for local business owners around the US
Alaska Air	On behalf of the 13,000 employees of Alaska Airlines and Horizon Air
FedEx	It absolutely does not represent the 290,000 professional, dedicated team members worldwide

In short, I found that in corporate public apologies, logos was used to emphasize the presence of a strong employee support system, which, according to Cravens et al.'s (2003) index, can indicate high corporate reputation.

Logos was also used to appeal to ethos in other ways not listed in the reputation index. The general success of a company may be highlighted through the use of logos by referencing the longevity and geographical scope of the organization. I would argue that the longevity of a company can at times be indicative of long-term success while geographical scope has the potential to demonstrate high profitability – often times, it can be assumed that only profitable organizations have the opportunity to expand globally. For example, Maple Leaf Foods references their century-old brand in its public apology when CEO Michael McCain stated, “This is the toughest situation we have faced in 100 years as a company”. Furthermore,

Domino's Pizza alluded to its geographical scope by mentioning that it has locations in "more than 60 countries around the world". These figures illustrate how companies attempt to bolster their credibility by using facts, or logos appeals, to attest to positive components of their reputation.

Lastly, in BP's apology, the organization provided numerical figures concerning the resources they were providing to help clean up the spill: "More than 2 million feet of boom, 30 planes and over 1,300 boats are working to protect the shoreline". This statement confirmed the organization's commitment to taking responsibility for the accident – an act I would argue to be representative of the organization's culture in terms of ethics policy. As Cravens et al. (2003) suggested in their Reputation Index, positively reflecting organizational culture through ethics can help build a stronger corporate reputation.

Through my rhetorical analysis of corporate public apologies, I found that the appeal to ethos can be achieved through logos, or by providing facts, figures or numbers to make a stronger, more persuasive argument. Components of the Reputation Index that were positively reflected in the data set are as shown in table 2.3.

Table 2.3

Appeals to Ethos using Components of the Reputation Index		
Component	Illustrative Measure	Number of Appeals Found in Data Set
Culture	Ethics Policy	10
Products/Services	Quality Association	9
Value Creation	Identification and Responsiveness to Customer Needs	2
External Relationships	Existence of Alliance Relationships	2
Employees	Employee Satisfaction with Employer	6
Other	Not Listed in Reputation Index	3

Findings: Logos

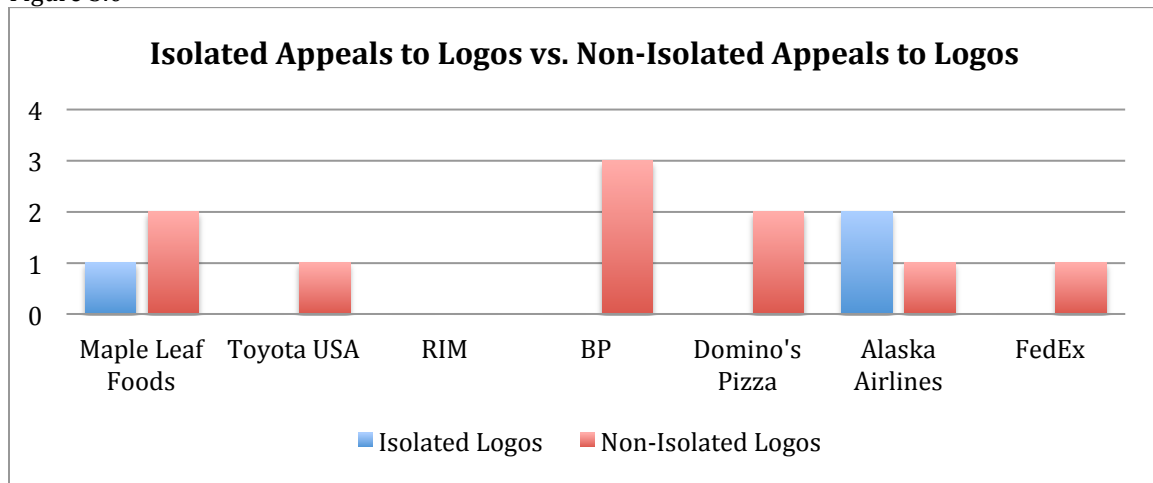
My final observations are associated with appeals to logos. I found that logos was the rhetorical strategy used least in the construction of corporate public apologies. Earlier, I discussed how logos was often used to strengthen appeals to ethos or good organizational character. It should be noted, however, that in one other occasion, logos was employed to strengthen an emotional appeal. This usage was found in BP Oil's public apology for the Gulf spill. Then-CEO Tony Hayward explained to the public that, "The gulf is home to thousands of BP employees and [they] all feel the impact". By strategically presenting the fact that BP employees also live in the gulf, the oil company managed to communicate that it too was suffering from the negative consequences of the spill. This allowed BP to play on the audience's emotions by attempting to arouse sympathy from them.

In essence, I found that logos was used most commonly in conjunction with other rhetorical appeals. One must not, however, fail to overlook the instances when logos was used in isolation. These occurrences can be highly revealing of how the rhetorical strategy can be used effectively or ineffectively. Through my rhetorical analysis, I took note of three incidents where logos was not used to strengthen or support another appeal.

First, in the public apology issued by Maple Leaf Foods, Michael McCain explained that, "...Listeria is commonly found in many foods and in the environment..." This factual information is an appeal to logos, whose function will be revisited in the Discussion section of this paper.

Another instance where the appeal to logos was used in isolation can be found in the public apology issued by Alaska Airlines in 2011 due to a severe service disruption. The organization provided precise statistics regarding flight cancellations and passengers affected: “And as of mid-day, the two airlines have combined to cancel around 140 flights. And unfortunately, these cancellations have affected nearly 12,000 of our passengers”. The chart below (3.0) is a visual depiction of how appeals to logos are used in corporate public apologies.

Figure 3.0



To summarize, out of all seven corporate public apologies the appeal to logos was used primarily to strengthen appeals to ethos. Facts, figures and statistics were primarily used to showcase an organization’s positive character. This was managed by organizations through the referencing of company culture, quality of products/services, ability to create customer value, external relationships, and its employees. It should be noted that only two organizations employed the use of logos in isolation. These findings will be dissected more thoroughly in the following discussion section.

Discussion

In this section, I will be conducting an in-depth discussion on the results of my study. There are some noteworthy findings that should be explored in order to better understand the rhetorical strategies involved in the construction of corporate public apologies.

RQ 1: Which rhetorical appeals are used in the construction of corporate public apologies?

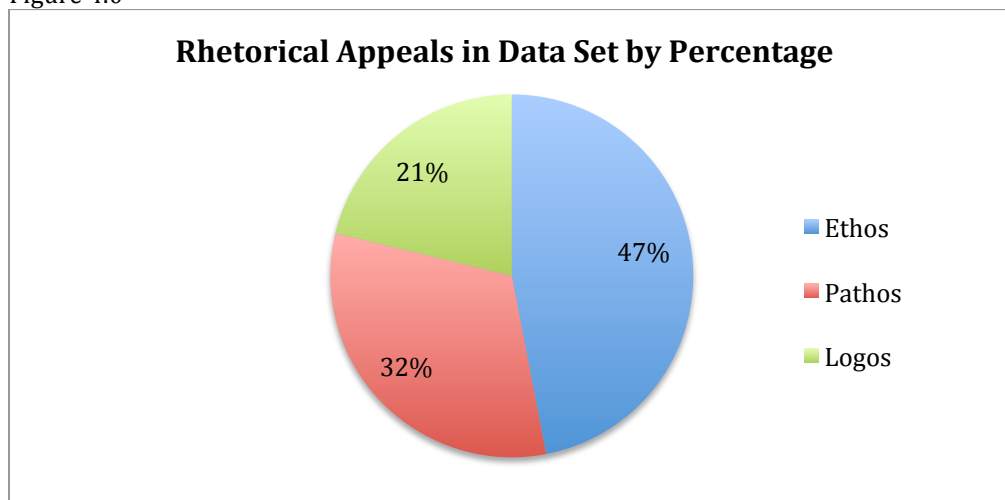
After analyzing the contents of my data set, it is clear that organizations employ the use of ethos, pathos, and logos as methods of persuasion. Some appeals, however, are more prominent than others. This leads me to address my second research question:

RQ 2: Which of these strategies is most commonly used?

Figure 4.0 presents the rhetorical makeup of my data set by percentage. Forty-seven percent of the rhetorical appeals used in my sample were appeals to ethos. This can be rationalized by the fact that public apologies have the overarching goal of coming to the reputational defence of an organization in the face of intense criticism (Greenberg & Elliott, 2009, p. 194). In attempts to defend one's reputation after a transgression, it is important to point out the positive attributes of an organization to the critical (and skeptical) public. By appealing to indicators of good corporate reputation, such as ethical company culture, high quality products/services, and supportive external relationships (Cravens et al. 2003), an

organization is able to remind the public of its good reputation prior to the incident of misconduct. Thus, the appeal to ethos corresponds with the primary function of a public apology, which is to repair a damaged corporate reputation and to prevent that damage from getting exacerbated (Greenberg & Elliott, 2009, p. 194). This may explain the finding that the most prominent rhetorical appeal used in the construction of corporate public apologies is the appeal to ethos.

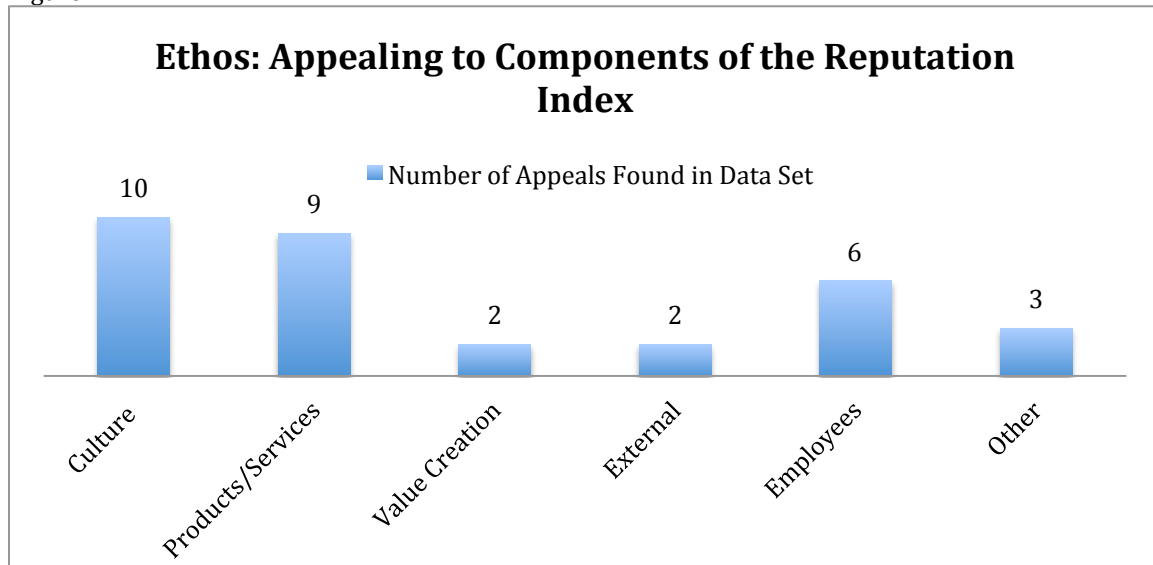
Figure 4.0



Discussion: Ethos

As presented in the findings, appeals to ethos tend to positively reflect several components of Cravens et al.'s (2003) Reputation Index. According to figure 4.1, positive aspects of a company's organizational culture were emphasized most frequently, which, in the context of this study, is measured by their ethics policy (Cravens et al., 2003).

Figure 4.1



Corporate public apologies are usually responses to acts of wrongdoing or misconduct. These acts are the very elements that challenge or contradict an organization's code of ethics. Kathleen Gill (2000) states that, "in offering the apology, the offender exercises the moral capacities that seem to have failed in committing the offense. After such a display, the offender may be reestablished as a more trustworthy and respectable member of the community" (p. 24).

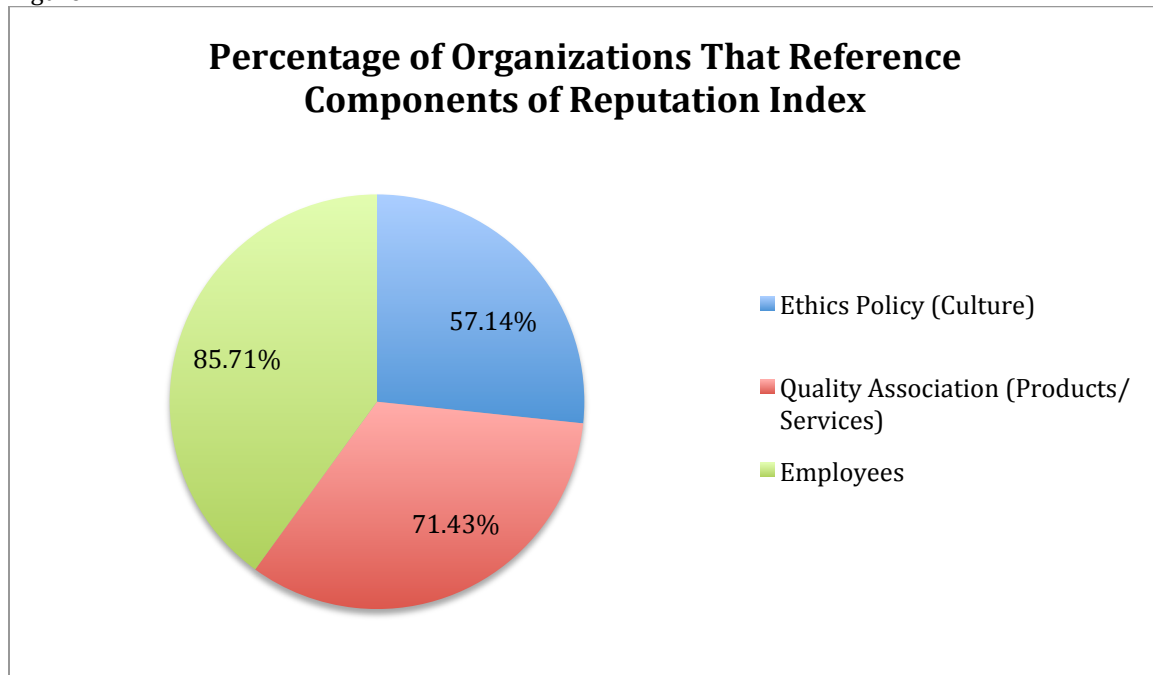
It is therefore sensible for any publically criticized organization to first take on the task of countering negative public opinion about their ethical policies. For instance, when a FedEx employee was captured on tape throwing a customer's plasma computer monitor over a fence, the company asserted that the act "goes directly against all FedEx values" (Fedex, 2011). By highlighting the positive attributes of both their work and moral ethics, companies attempt to secure their positive ethical reputations.

The second component of the Reputation Index that was stressed most was the quality of a company's products and services. This strategy is employed to assure the public that any acts of misconduct or wrongdoing are isolated incidents that do not affect the quality of a company's products or services. I argue that by appealing to quality associations, organizations are able to deflect the public's attention away from the negative aspects of the transgression. For example, when Toyota USA apologized for a sticking pedal situation in recalled Toyota vehicles, President Jim Lentz reminded the public that, "Toyota has always prided itself on building high quality, durable cars..." This communicated to public stakeholders that despite the recall, Toyota still remained a quality brand.

It is unsurprising that the third component most frequently highlighted is an organization's employees. As mentioned earlier in the findings, employees are indicators of good corporate reputation; it is not possible to create quality products and services without the support of employees (Cravens & Oliver, 2006, p. 294). Every organization in the data set (with the exception of RIM) appealed to ethos by highlighting the strong support of their staff.

Appealing to ethos through ethics policy and quality association was not as common across the entire data set. In terms of highlighting positive ethics policy, only four out of seven organizations mentioned this component in their public apology. Two out of seven organizations chose not to make reference to the quality of their products or services, while only one left out any mention of their employees. Figure 4.2 illustrates these findings.

Figure 4.2



Companies referenced their employees through the provision of numerical figures which is one way logos appeals were executed. The most noteworthy finding of this study is concerned with the ways in which logos is used to strengthen such appeals to ethos, and in one incident, the appeal to pathos. As previously discussed, logos can be identified in instances where facts, figures or statistics were used as evidence for, in most cases, good organizational character. Since we are in an era that pressures for accountability (Covey, 2005, p. 84), data – especially measurable data – can be very persuasive when presented strategically (Covey, 2005, p. 84). In essence, the findings suggest that the strategic employment of logos in corporate public apologies occurs when data is used as a supportive or strengthening agent. The following section will, however, also account for appeals to logos used in isolation – a persuasive strategy I argue to be tactless.

Discussion: Logos

The appeal to logos was the rhetorical strategy used the least in my sample set of corporate apologies. Logos was identified only 14 times across all seven public apologies. Seventy-six percent (11 out of 14) of the logos appeals were used to strengthen other rhetorical appeals, in particular ethos. The charts below (figures 4.3 and 4.4) provide a comparative view on how logos was used. Chart 4.3 shows the number of times logos is observed, while chart 4.4 recodes any incidents where logos was used to strengthen ethos or pathos as strictly appeals to ethos and pathos. This leaves only three incidents where logos was used in isolation.

Figure 4.3

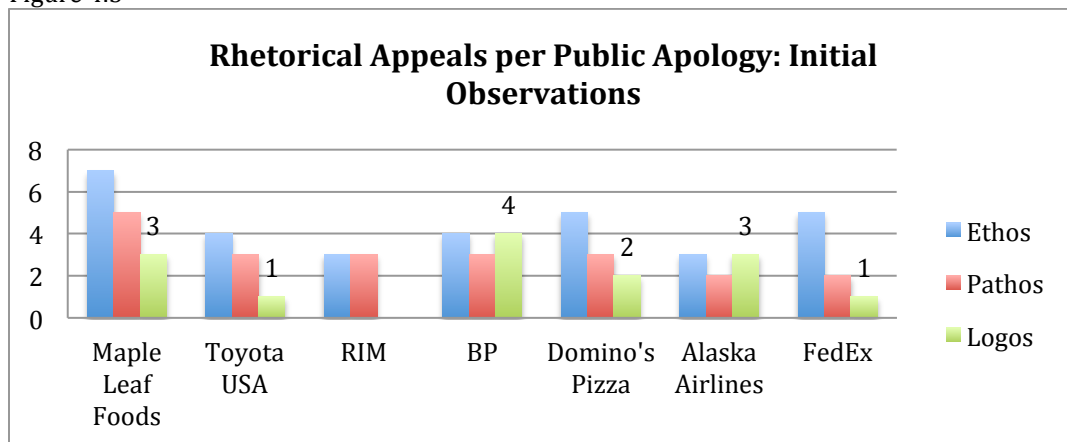
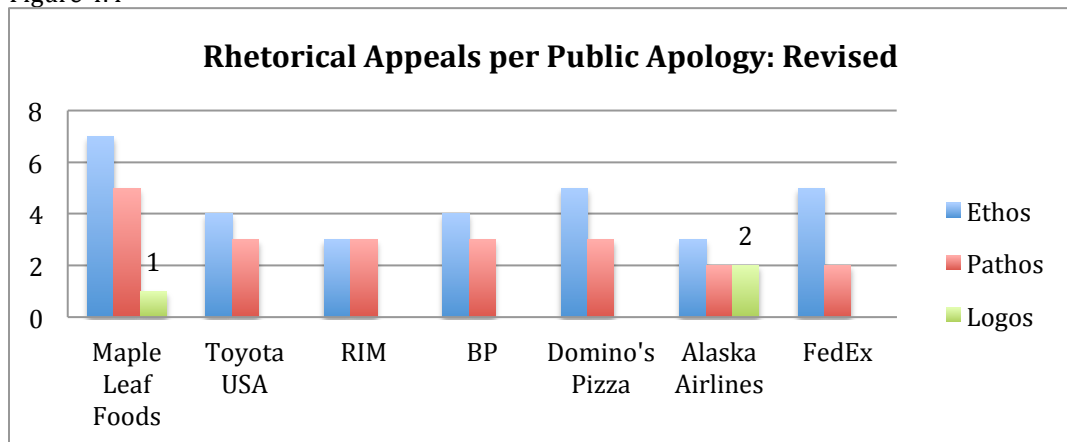


Figure 4.4



What these findings suggest is that logos was rarely employed as a rhetorical strategy on its own. It was almost always used to support or strengthen other rhetorical appeals, mainly ethos, or good organizational character. To dissect the reasons as to why logos was rarely used in isolation, I will be analyzing the three incidents where this strategy was employed.

The first was one that was mentioned in an earlier section of this paper. Maple Leaf Foods issued a public apology in response to a *Listeria* outbreak in some of its products, which led to illness and loss of life. The appeal to logos can be identified when CEO Michael McCain stated, “Even though *Listeria* is a bacteria commonly found in many foods and in the environment, we work diligently to eliminate it”. I argue that by asserting that *Listeria* is a common bacteria found in our environment, Maple Leaf Foods appeared to be using strategies of diminution. Diminution involves “explanations or excuses that attempt to reduce the severity of the offender’s actions” (Boyd, 2011, p. 302). For Kathleen Gill, (2000) justifications, explanations, and excuses are all forms of remedial strategies and can be referred to as accounts (p. 12). An account is “a statement made by a social actor to explain unanticipated or untoward behaviour” (Gill, 2000, p. 12). When organizations give accounts, they are providing explanations for the actions, which lead to a freeing of blameworthiness (Gill, 2000, p. 12). The appeal to logos identified in Maple Leaf Foods’ apology functioned as a strategy of diminution. Pontari, Schlenker, and Christopher.(2002) argue that the public can be unreceptive towards excuse makers:

...the public's (and our own) sometimes frustrated or fed-up response to excuse makers would suggest that such explanations do not provide absolution for wrongdoings, and in fact, can create images of and opinions toward excuse makers that are less than desirable. (p. 498)

Thus, appealing to logos in isolation may be misinterpreted as an organization's attempt to provide excuses or justifications for the transgression. This can be considered a rationale for why logos was employed so rarely as a rhetorical strategy on its own.

The remaining two logos appeals identified in the sample both came from Alaska Airlines' public apology for major service disruptions in 2011. The company stated that, "...the two airlines have combined to cancel around 140 flights" and that the cancellations "...have affected nearly 12,000 of [its] passengers." In these two incidents, the appeals to logos were used to highlight negative aspects of the situation rather than to strengthen other rhetorical appeals such as ethos and pathos. As mentioned in the literature review, Covey (2005) emphasizes the persuasive power of presenting factual or numeric data. Using numbers to highlight the negative aspects of a company's performance can be more detrimental to its reputation; I argue that rather than presenting numerical estimates, Alaska Airlines should have generalized their statement by using words such as *many* or *numerous*. These words may even lessen the severity of the situation since they come across as vague, whereas the provision of estimated numbers and figures achieve the opposite result.

To summarize, my findings indicated that the appeal to logos was seldom used in isolation. In the events where logos was used as its own strategy, I argue

that it threatened the organizational reputation of the company. Firstly, I observed how using facts, figures or statistics in corporate public apologies may be perceived as a strategy of diminution or a means to justify an organization's actions. Secondly, by strictly appealing to logos, I observed how this strategy was used to highlight the negative aspects of a company's performance. There is not one case in my sample that demonstrated the use of logos to be an effective rhetorical strategy on its own.

Discussion: Pathos

The final research question is concerned with how rhetorical strategies are employed through the use of language. The remainder of this discussion section will address this. The last rhetorical strategy that will be assessed in this discussion is the appeal to pathos or emotion. Using intensifiers as a means to arouse emotion was a noteworthy tactic. According to my findings, emotional intensifiers were employed only during the expression of remorse, or an apology. In one instance, an intensifier was identified when a company offered its sympathies to the victims; however, for the most part, intensifiers were used to accentuate an organization's expression of remorse. This indicated that the actual act of apologizing is a highly significant element of the corporate public apology. In short, when issuing the actual apology, organizations hope to arouse a level of emotion in the public by using intensifiers as a rhetorical strategy. This positions the act of apologizing as a necessary component of corporate apologia. Companies are no longer addressing their stakeholders in a strictly defensive manner; rather, they are fixated on the reconciliation and reparation of relationships by which the admittance of guilt is

now the primary focus (Rowland & Koesten, 2004, p 68).

Another significant trend that I observed in my research was the humanization of corporations. In today's society, corporations are often portrayed as "...greedy, impersonal, and completely indifferent to the effects their activities have on society" (Dominick & Williams, 1996, p. 55). Even in the court of law, Paul A. Dominick and Turner B. Williams (1996) argue that defence lawyers must present corporations as responsible and conscientious individuals, rather than as faceless entities (p. 55). By humanizing the corporation, lawyers are able to persuade members of the jury to become "...more sensitive to the harmful effects that an adverse judgment could have on individuals within the corporation, rather than the corporate entity" (Dominick & Williams, 1996, p.55). This is precisely the rhetorical strategy that organizations employed in public apologies when appealing to pathos through the expression of organizational sentiment.

As observed in my findings, organizations tended to express their own personal sentiments using emotional language in corporate public apologies. One example was when FedEx's Senior Vice-President stated that he was "upset and embarrassed" by the behaviour of one of their couriers. In addition to arousing emotion, I argue that CEOs and other authoritative figures expressed their sentiments with the goal of humanizing their company. The common belief that 'all humans make mistakes' may better persuade stakeholders to accept an organization's apology and forgive them for their wrongdoings. Therefore, by including organizational sentiments in public apologies, corporations are portrayed

in a more humanized light. This, as Dominick and Williams (1996) assert, persuades the public to accept the apology.

Lastly, the appeal to pathos was used to create what Bormann (1985) calls *social dramas*. By strategically employing the use of pronouns like *you* and *us*, organizations managed to construct an imagined social situation. When fabricated, these dramas place the audience in a fictional role that helps to fulfill the interests of the speaker. For example, in the context of corporate public apologies, these social themes positioned the public and the organization as comrades, overriding the more realistic roles of victim and transgressor. By reinforcing such fantasy themes, an organization may appear less foreign to its audience and motivate the public to accept the organization's message.

What these findings suggest is that rational argumentation can at times be fruitless when emotional threats are involved (Read, 2007, p. 337). It is therefore important for public relations practitioners to recognize the need for emotional appeals.

...It then becomes important to understand how tone and language can be used to help steer communications. To ensure that language evokes the necessary emotional responses corporate spokespeople need to gain access to a range of rhetorical techniques. (Read, 2007, p. 337)

In respect to corporate public apologies, these techniques may include strategies that involve intensifying expressions of remorse, communicating organizational sentiments and constructing social dramas. Each of these tactics has the ability to arouse public emotion. When employed strategically, a rhetorician may be able

steer these emotions in a certain direction.

By constructing public apologies using the most suitable rhetorical appeals, organizations have the potential to regain control over their image and reputation. By utilizing each method of persuasion strategically, it is possible to restore the trust of skeptical stakeholders.

Limitations

Unfortunately, this study does not come without limitations. There are four factors that must be taken into consideration before applying this research to the future study of corporate public apologies. The limitations are as follows: sample size, cultural relativity, outcome and severity, and social cues.

Sample Size

The current research was based on a data set of 7 corporate public apologies released between 2008-2012. This sample size was hardly a representative sample. Ideally, a study on public apologies would include many more. Paul Slansky and Arleen Sorkin, authors of *My Bad: 25 Years of Public Apologies and the Appalling Behaviour That Inspired Them* says that, “there have been over 200 public apologies issued in 2006” alone (Johnson, 2009). Therefore, it must be acknowledged that the current sample size was much too small to form any conclusions regarding the ways in which corporate public apologies are rhetorically constructed.

Cultural Relativity

Another factor that must be taken into consideration is the cultural limitations of the study. The corporate public apologies that were retrieved came from Western companies:

- Maple Leaf Foods (Canada)
- Toyota USA (USA)
- RIM (Canada)
- BP Oil (UK)
- Domino's Pizza (USA)
- Alaska Airlines (USA)
- FedEx (USA)

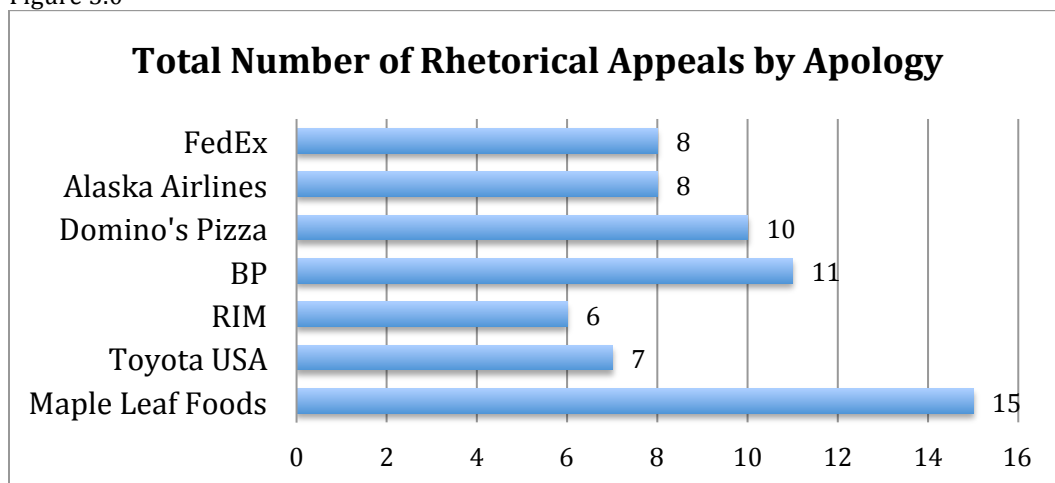
The ways in which Western corporations apologize can differ from those belonging to other cultures. Therefore, the findings of this study may not be applicable to organizations outside the West. In 1997, a comparative study on Japanese and American apology styles was published in the *Communication Research* journal. Naomi Sugimoto (1997) revealed several cultural differences in the use of strategies when issuing an apology. One difference that is relevant to the current study is the way in which remorse is expressed. Japanese apologies tend to use more repetition in their statements of remorse (e.g., 'Sorry, sorry, I'm very sorry'), whereas American apologies used more intensified statements (e.g., "I'm terribly sorry") (Sugimoto, 1997, p. 360). According to my earlier findings, the word 'terribly' is an intensifier, a rhetorical strategy used to appeal to the audience's emotions. Intensifiers were found to be one of three strategies employed in corporate public apologies to arouse public emotion. It can be argued that this strategy may be less effective in a Japanese context. Therefore, the act of apologizing can be culturally relative and should be taken into consideration.

Severity

Another consideration this study failed to acknowledge was the gravity of each individual situation. Each event to which the public apologies were responding had varying degrees of severity. For example, both BP Oil and Maple Leaf Foods were responding to organizational crises that involved the loss of life, whereas RIM and Alaska Airlines were apologizing for mere service disruptions. The severity of these issues lacked assessment and may have impacted the ways in which their corresponding apologies were strategically constructed.

Chart 5.0 below shows the number of rhetorical appeals used by each organization in their public apologies. It may be worth asking whether or not there is a positive correlation between the number of rhetorical appeals and the gravity of the issue. Looking at the chart, Maple Leaf Foods and BP Oil employed the most rhetorical strategies in their responses. Interestingly, both of these events resulted in loss of life, the most severe outcome of any organizational crisis.

Figure 5.0



Thus, for future research, I would recommend that the severity of the crises be assessed appropriately.

Social Cues

One other limitation is the lack of acknowledgement for the presence of social cues. J.B. Walther (2007) explains how social cues can comprise facial expressions, body language, and tone of voice, and can provide the basis of first impressions (p. 2439). I argue that these cues can be revealing of a speaker's own emotions (passion, compassion, sympathy etc.) as well as character (eloquence, style of dress, etc.). These can be considered strategies of persuasion, and can influence the public perception of an organization.

One example can be drawn from BP Oil's crisis management efforts after the Macondo oil well spilled over 184 million gallons of crude oil into the Gulf of Mexico (O'Connor, 2011, p. 1959). For the American people, BP's spokesperson Tony Hayward came across as elitist and arrogant when he expressed remorse for the spill (O'Connor, 2001, p. 1986).

In one incident, Hayward arrived on the beach in expensive, high-end business attire while expressing his frustrations to the media over the amount of time he'd had to commit to managing the oil spill which, for O'Connor (2011), "suggested that he was an elite who had much better things to do than work for the welfare of the victims of the spill..." (p. 1986). This idea was later confirmed when the media published photos of Hayward with his son at a yacht race on the Isle of Wight (O'Connor, 2011, 0. 1986). What's more, Hayward's nationality also had an impact on the public's perception of BP.

For O'Connor (2011), "his British accent probably exacerbated the negative connotations of his resentful statements because it pegged him and the company as foreign non-Americans who might not care much about the U.S. coastline" (p. 1986). The way Hayward spoke sounded arrogant to Americans, who may have been reminded of "their former colonization and awakened the long-held belief that the British view themselves as socially superior" (O'Connor, 2011, p. 1986).

Effectiveness

Finally, it is also worth noting that the effectiveness of the strategies identified in this study was not taken into consideration. This MRP makes the assumption that the rhetorical tactics used in the corporate public apologies led to a positive outcome for the organizations. Since the aftermath of the crises was not assessed, I am unable to conclude how effective each method of persuasion was.

Thus, through the mere analysis of public apology transcripts, one may overlook the influential power of social cues. It is possible for organizations to take advantage of these cues and use them effectively as methods of persuasion.

Conclusion

There is much to say about the rhetorical construction of corporate public apologies. The persuasive stratagems identified in this study are meant to serve as guidelines for public relations practitioners who are unfamiliar with rhetorical appeals. Through the analysis of several public apologies issued by high profile companies, I have discussed a number of rhetorical devices that organizations use to

respond to criticism. The purpose of these devices is to influence the public and inspire them to reinstate their trust. As such, the rhetorical appeals employed in corporate public apologies are valuable entities that should be observed on a larger scale. To summarize, the strategies observed are as follows:

Ethos

1. Use language that positively reflects organizational reputation (especially themes regarding employee support, quality associations, and organizational culture).

Logos

2. Use logos appeals to strengthen other rhetorical devices rather than in isolation

Pathos

3. Use intensifiers to emphasize expressions of remorse
4. Humanize the company by expressing organizational sentiments
5. Draw the public into constructed social dramas by using strategic pronouns

These 5 rhetorical strategies were observed in a data set comprised of 7 corporate public apologies, whose outcomes were not adequately assessed. A limitation is that these strategies were employed without properly examining the aftermath of the crises. The question that remains is whether or not these strategies were successful in persuading the public to, once again, view these organizations as reputable entities. It is only by making the assumption that each public apology

analyzed for this project played a role in salvaging the company's image that I make the following recommendations:

In the event that an organization is required to issue a public apology, PR practitioners and professional communicators should consider following these five guidelines in order to effectively communicate to the public. It is imperative that future studies on this topic be conducted using a different form of analysis where the sample size can be considered representative. The limitations of this study should also be addressed in any future attempts to analyze the rhetorical makeup of corporate public apologies.

In an age where the mistrust of organizations is burgeoning, the topic of effective public apology should be increasingly relevant to organizations. What is most alarming is that even the actions of an organization's members can now have detrimental consequences to the company's image and reputation strictly by association. For this reason, it is not only those in control of businesses that should understand the functionality of rhetoric; it is every social actor associated with one. Especially in an age of what Slansky and Sorkin (2006) call 'political correctness', everyone is more accountable for what they say and what they do than ever before.

One factor contributing to the current apology glut is the advent of political correctness, which, while making it no longer okay to say one doesn't like black people (or gay people, or poo people, or Jews, or whomever), fails to keep a lot of people from saying precisely such things anyway, and then demands that they feign sorrow. The patently bogus retractions that follow are by definition inadequate, because what they're basically saying is 'I'm sorry I was unable to keep my true awfulness hidden'. And we're all sorry we had to see it, but you know, whatever. (p. 2)

The relevance of effective apology is, once again, an increasingly important topic for public relations professionals. By understanding the function of rhetorical appeals, a corporate public apology can be constructed successfully and reap prosperous results for an organization.

Appendix A

Affective Norms for English Words. All Subjects
Bradley, M.M., & Lang, P.J. (1999)

Table 1

Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency	Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency
abduction	621	2.76 (2.06)	5.53 (2.43)	3.49 (2.38)	1	anguished	19	2.12 (1.56)	5.33 (2.69)	3.45 (2.37)	2
abortion	622	3.50 (2.30)	5.39 (2.80)	4.59 (2.54)	6	ankle	638	5.27 (1.54)	4.16 (2.03)	4.77 (1.74)	8
absurd	623	4.26 (1.82)	4.36 (2.20)	4.73 (1.72)	17	annoy	20	2.74 (1.81)	6.49 (2.17)	5.09 (2.04)	2
abundance	624	6.59 (2.01)	5.51 (2.63)	5.80 (2.16)	13	answer	639	6.63 (1.68)	5.41 (2.43)	5.85 (1.88)	152
abuse	1	1.80 (1.23)	6.83 (2.70)	3.69 (2.94)	18	anxious	21	4.81 (1.98)	6.92 (1.81)	5.33 (1.82)	29
acceptance	625	7.98 (1.42)	5.40 (2.70)	6.64 (1.91)	49	applause	640	7.50 (1.50)	5.80 (2.79)	6.48 (2.11)	14
accident	2	2.05 (1.19)	6.26 (2.87)	3.76 (2.22)	33	appliance	641	5.10 (1.21)	4.05 (2.06)	5.05 (1.34)	5
ace	626	6.88 (1.93)	5.50 (2.66)	6.39 (2.31)	15	arm	642	5.34 (1.82)	3.59 (2.40)	5.07 (1.50)	94
ache	627	2.46 (1.52)	5.00 (2.45)	3.54 (1.73)	4	army	23	4.72 (1.75)	5.03 (2.03)	5.03 (2.45)	132
achievement	3	7.89 (1.38)	5.53 (2.81)	6.56 (2.35)	65	aroused	24	7.97 (1.00)	6.63 (2.70)	6.14 (1.97)	20
activate	4	5.46 (0.98)	4.86 (2.56)	5.43 (1.84)	2	arrogant	25	3.69 (2.40)	5.65 (2.23)	5.14 (2.71)	2
addict	581	2.48 (2.08)	5.66 (2.26)	3.72 (2.54)	1	art	643	6.68 (2.10)	4.86 (2.88)	5.30 (2.33)	208
addicted	628	2.51 (1.42)	4.81 (2.46)	3.46 (2.23)	3	assassin	26	3.09 (2.09)	6.28 (2.53)	4.33 (2.68)	6
admired	5	7.74 (1.84)	6.11 (2.36)	7.53 (1.94)	17	assault	27	2.03 (1.55)	7.51 (2.28)	3.94 (3.10)	15
adorable	6	7.81 (1.24)	5.12 (2.71)	5.74 (2.48)	3	astonished	28	6.56 (1.61)	6.58 (2.22)	5.16 (1.79)	6
adult	546	6.49 (1.50)	4.76 (1.95)	5.75 (2.21)	25	astronaut	501	6.66 (1.60)	5.28 (2.11)	5.20 (1.95)	2
advantage	629	6.95 (1.85)	4.76 (2.18)	6.36 (2.23)	73	athletics	644	6.61 (2.08)	6.10 (2.29)	6.12 (2.12)	9
adventure	630	7.60 (1.50)	6.98 (2.15)	6.46 (1.67)	14	autumn	29	6.30 (2.14)	4.51 (2.50)	5.15 (1.85)	22
affection	7	8.39 (0.86)	6.21 (2.75)	6.08 (2.22)	18	avalanche	645	3.29 (1.95)	5.54 (2.37)	3.61 (2.00)	1
afraid	8	2.00 (1.28)	6.67 (2.54)	3.98 (2.63)	57	avenue	646	5.50 (1.37)	4.12 (2.01)	5.40 (1.53)	46
aggressive	9	5.10 (1.68)	5.83 (2.33)	5.59 (2.40)	17	awed	30	6.70 (1.38)	5.74 (2.31)	5.30 (2.03)	5
agility	22	6.46 (1.57)	4.85 (1.80)	5.87 (1.52)	3	baby	31	8.22 (1.20)	5.53 (2.80)	5.00 (2.80)	62
agony	10	2.43 (2.17)	6.06 (2.67)	4.02 (2.49)	9	bake	647	6.17 (1.71)	5.10 (2.30)	5.49 (1.88)	12
agreement	631	7.08 (1.59)	5.02 (2.24)	6.22 (1.85)	106	bandage	648	4.54 (1.75)	3.90 (2.07)	4.52 (1.89)	4
air	632	6.34 (1.56)	4.12 (2.30)	5.10 (1.56)	257	bankrupt	32	2.00 (1.31)	6.21 (2.79)	3.27 (2.39)	5
alcoholic	582	2.84 (2.34)	5.69 (2.36)	4.45 (2.56)	3	banner	649	5.40 (0.83)	3.83 (1.95)	4.80 (1.57)	8
alert	11	6.20 (1.76)	6.85 (2.53)	5.96 (2.24)	33	bar	650	6.42 (2.05)	5.00 (2.83)	5.47 (1.94)	82
alien	633	5.60 (1.82)	5.45 (2.15)	4.64 (2.07)	16	barrel	651	5.05 (1.46)	3.36 (2.28)	4.89 (1.57)	24
alimony	634	3.95 (2.00)	4.30 (2.29)	4.63 (2.30)	2	basket	547	5.45 (1.15)	3.63 (2.02)	5.76 (1.45)	17
alive	635	7.25 (2.22)	5.50 (2.74)	6.39 (2.15)	57	bastard	33	3.36 (2.16)	6.07 (2.15)	4.17 (2.40)	12
allergy	636	3.07 (1.64)	4.64 (2.34)	3.21 (1.77)	1	bath	502	7.33 (1.45)	4.16 (2.31)	6.41 (1.87)	26
alley	637	4.48 (1.97)	4.91 (2.42)	4.00 (1.70)	8	bathroom	548	5.55 (1.36)	3.88 (1.72)	5.65 (1.59)	18
alone	12	2.41 (1.77)	4.83 (2.66)	3.70 (2.42)	195	bathtub	652	6.69 (1.57)	4.36 (2.59)	5.76 (1.76)	4
aloof	13	4.90 (1.92)	4.28 (2.10)	4.69 (1.92)	5	beach	34	8.03 (1.59)	5.53 (3.07)	5.44 (2.52)	61
ambition	14	7.04 (1.98)	5.61 (2.92)	6.93 (2.07)	19	beast	653	4.23 (2.41)	5.57 (2.61)	4.89 (2.29)	7
ambulance	15	2.47 (1.50)	7.33 (1.96)	3.22 (2.29)	6	beautiful	654	7.60 (1.64)	6.17 (2.34)	6.29 (1.81)	127
angel	16	7.53 (1.58)	4.83 (2.63)	4.97 (2.34)	18	beauty	35	7.82 (1.16)	4.95 (2.57)	5.53 (2.10)	71
anger	17	2.34 (1.32)	7.63 (1.91)	5.50 (2.82)	48	bed	549	7.51 (1.38)	3.61 (2.56)	6.88 (1.78)	127
angry	18	2.85 (1.70)	7.17 (2.07)	5.55 (2.74)	45	bees	583	3.20 (2.07)	6.51 (2.14)	4.16 (2.11)	15

4

Affective Norms for English Words. All Subjects
Bradley, M.M., & Lang, P.J. (1999)

Table 1

Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency	Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency
beggar	36	3.22 (2.02)	4.91 (2.45)	4.09 (2.38)	2	brutal	53	2.80 (1.90)	6.60 (2.36)	4.59 (2.70)	7
bench	655	4.61 (1.40)	3.59 (2.07)	4.68 (1.38)	35	building	550	5.29 (1.15)	3.92 (1.94)	5.25 (1.57)	160
bereavement	656	4.57 (1.70)	4.20 (2.15)	4.33 (1.73)	4	bullet	673	3.29 (2.06)	5.33 (2.48)	3.90 (2.61)	28
betray	37	1.68 (1.02)	7.24 (2.06)	4.92 (2.97)	4	bunny	54	7.24 (1.32)	4.06 (2.61)	4.97 (2.18)	1
beverage	657	6.83 (1.48)	5.21 (2.46)	5.63 (2.17)	5	burdened	55	2.50 (1.32)	5.63 (2.07)	5.03 (2.35)	4
bird	38	7.27 (1.36)	3.17 (2.23)	4.42 (2.26)	31	burial	56	2.05 (1.41)	5.08 (2.40)	3.55 (1.95)	11
birthday	39	7.84 (1.92)	6.68 (2.11)	5.89 (2.61)	18	burn	586	2.73 (1.72)	6.22 (1.91)	4.22 (1.83)	15
black	543	5.39 (1.80)	4.61 (2.24)	5.14 (1.79)	203	bus	541	4.51 (1.57)	3.55 (1.80)	4.84 (1.75)	34
blackmail	40	2.95 (1.95)	6.03 (2.70)	3.54 (2.67)	2	busybody	674	5.17 (2.02)	4.84 (2.41)	5.45 (1.97)	7
bland	658	4.10 (1.08)	3.29 (1.89)	4.88 (1.27)	3	butter	57	5.33 (1.20)	3.17 (1.84)	4.67 (1.69)	27
blase	41	4.89 (1.16)	3.94 (1.76)	4.57 (1.44)	7	butterfly	58	7.17 (1.20)	3.47 (2.39)	4.65 (2.27)	2
blasphemy	659	3.75 (2.26)	4.93 (2.34)	4.75 (1.59)	4	cabinet	675	5.05 (0.31)	3.43 (1.85)	4.73 (1.66)	17
bless	42	7.19 (1.69)	4.05 (2.59)	5.52 (2.22)	9	cake	59	7.26 (1.27)	5.00 (2.37)	5.16 (2.05)	9
blind	43	3.05 (1.99)	4.39 (2.36)	3.28 (1.91)	47	cancer	60	1.50 (0.85)	6.42 (2.83)	3.42 (2.99)	25
bliss	660	6.95 (2.24)	4.41 (2.95)	6.12 (2.15)	4	candy	61	6.54 (2.09)	4.58 (2.40)	5.33 (1.91)	16
blisters	661	2.88 (1.75)	4.10 (2.34)	3.98 (1.90)	3	cane	677	4.00 (1.80)	4.20 (1.93)	4.27 (1.95)	12
blond	662	6.43 (2.04)	5.07 (2.70)	5.74 (1.67)	11	cannon	678	4.90 (2.20)	4.71 (2.84)	5.17 (2.29)	7
bloody	584	2.90 (1.98)	6.41 (2.00)	3.96 (1.89)	8	capable	62	7.16 (1.39)	5.08 (2.07)	6.47 (1.94)	66
blossom	44	7.26 (1.18)	5.03 (2.65)	5.53 (2.21)	7	car	551	7.73 (1.63)	6.24 (2.04)	6.98 (2.06)	274
blubber	663	3.52 (1.99)	4.57 (2.38)	3.86 (1.97)	1	carcass	679	3.34 (1.92)	4.83 (2.07)	4.90 (1.79)	7
blue	544	6.76 (1.78)	4.31 (2.20)	5.63 (1.64)	143	carefree	63	7.54 (1.38)	4.17 (2.84)	5.78 (2.50)	9
board	664	4.82 (1.23)	3.36 (2.12)	4.98 (1.77)	239	caress	64	7.84 (1.16)	5.14 (3.00)	5.83 (2.13)	1
body	665	5.55 (2.37)	5.52 (2.63)	5.34 (2.12)	276	cash	503	8.37 (1.00)	7.37 (2.21)	6.96 (2.39)	36
bold	45	6.80 (1.61)	5.60 (2.21)	6.67 (1.81)	21	casino	680	6.81 (1.66)	6.51 (2.12)	5.12 (2.15)	2
bomb	46	2.10 (1.19)	7.15 (2.40)	4.54 (2.88)	36	cat	504	5.72 (2.43)	4.38 (2.24)	6.16 (2.05)	7
book	47	5.72 (1.54)	4.17 (2.49)	5.30 (2.05)	193	cell	587	3.82 (1.70)	4.08 (2.19)	4.12 (2.13)	65
bored	48	2.95 (1.35)	2.83 (2.31)	4.11 (1.70)	14	cellar	681	4.32 (1.68)	4.39 (2.33)	4.66 (1.61)	26
bottle	666	6.15 (1.49)	4.79 (2.44)	4.78 (1.65)	76	cemetery	65	2.63 (1.40)	4.82 (2.66)	4.27 (2.14)	15
bouquet	667	7.02 (1.84)	5.46 (2.47)	6.15 (1.80)	4	chair	66	5.08 (0.98)	3.15 (1.77)	4.56 (1.60)	66
bowl	49	5.33 (1.33)	3.47 (2.12)	4.69 (1.67)	23	champ	682	7.18 (1.97)	6.00 (2.43)	6.77 (2.00)	1
boxer	585	5.51 (1.80)	5.12 (2.26)	5.10 (1.64)	1	champion	67	8.44 (0.90)	5.85 (3.15)	6.50 (2.85)	23
boy	50	6.32 (1.60)	4.58 (2.37)	5.34 (2.20)	242	chance	683	6.02 (1.77)	5.38 (2.58)	4.64 (1.93)	131
brave	668	7.15 (1.64)	6.15 (2.45)	7.22 (1.86)	24	chaos	684	4.17 (2.36)	6.67 (2.06)	3.86 (1.95)	17
breast	51	6.50 (1.78)	5.37 (2.39)	5.39 (2.27)	11	charm	68	6.77 (1.58)	5.16 (2.25)	5.57 (2.25)	26
breeze	669	6.85 (1.71)	4.37 (2.32)	5.54 (1.67)	14	cheer	69	8.10 (1.17)	6.12 (2.45)	6.00 (2.06)	8
bride	670	7.34 (1.71)	5.55 (2.74)	5.74 (2.36)	33	child	70	7.08 (1.98)	5.55 (2.29)	5.10 (2.30)	213
bright	671	7.50 (1.55)	5.40 (2.33)	6.34 (1.82)	87	chin	685	5.29 (1.27)	3.31 (1.98)	5.26 (1.48)	27
broken	672	3.05 (1.92)	5.43 (2.42)	4.14 (1.62)	63	chocolate	505	6.88 (1.89)	5.29 (2.55)	5.18 (1.97)	9
brother	52	7.11 (2.17)	4.71 (2.68)	5.12 (2.31)	73	christmas	686	7.80 (1.55)	6.27 (2.56)	5.37 (2.09)	27

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Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency	Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency
church	71	6.28 (2.31)	4.34 (2.45)	5.00 (2.42)	348	cozy	88	7.39 (1.53)	3.32 (2.28)	4.89 (2.28)	1
circle	687	5.67 (1.26)	3.86 (2.13)	5.03 (1.46)	60	crash	89	2.31 (1.44)	6.95 (2.44)	3.44 (2.21)	20
circus	72	7.30 (1.84)	5.97 (2.59)	5.39 (2.25)	7	crime	704	2.89 (2.06)	5.41 (2.69)	4.12 (2.24)	34
city	73	6.03 (1.37)	5.24 (2.53)	5.74 (2.08)	393	criminal	705	2.93 (1.66)	4.79 (2.51)	3.34 (1.73)	24
cliff	553	4.67 (2.08)	6.25 (2.15)	4.35 (2.11)	11	crisis	706	2.74 (2.23)	5.44 (3.07)	3.60 (2.47)	82
clock	688	5.14 (1.54)	4.02 (2.54)	4.67 (1.97)	20	crown	90	6.58 (1.42)	4.28 (2.53)	6.06 (2.15)	19
clothing	74	6.54 (1.85)	4.78 (2.88)	5.33 (2.14)	20	crucify	91	2.23 (1.72)	6.47 (2.47)	3.74 (2.48)	2
clouds	533	6.18 (2.18)	3.30 (2.08)	5.22 (1.66)	38	crude	707	3.12 (1.65)	5.07 (2.37)	4.27 (1.94)	15
clumsy	689	4.00 (2.22)	5.18 (2.40)	3.86 (1.79)	6	cruel	92	1.97 (1.67)	5.68 (2.65)	4.24 (2.84)	15
coarse	690	4.55 (1.42)	4.21 (1.84)	5.00 (1.43)	10	crushed	93	2.21 (1.74)	5.52 (2.87)	3.36 (2.69)	10
coast	691	5.98 (1.86)	4.59 (2.31)	5.67 (1.71)	61	crutch	708	3.43 (1.62)	4.14 (2.05)	3.91 (1.79)	1
cockroach	75	2.81 (2.11)	6.11 (2.78)	4.74 (2.58)	2	cuddle	94	7.72 (1.92)	4.40 (2.67)	5.85 (2.42)	.
coffin	76	2.56 (1.96)	5.03 (2.79)	4.08 (2.54)	7	cuisine	709	6.64 (1.48)	4.39 (1.99)	5.41 (1.19)	1
coin	692	6.02 (1.96)	4.29 (2.48)	5.66 (1.68)	10	curious	95	6.08 (1.63)	5.82 (1.64)	5.42 (1.60)	46
cold	693	4.02 (1.99)	5.19 (2.23)	4.69 (1.73)	171	curtains	710	4.83 (0.83)	3.67 (1.83)	5.05 (1.56)	8
color	694	7.02 (1.57)	4.73 (2.64)	6.17 (1.82)	141	custom	96	5.85 (1.53)	4.66 (2.12)	5.00 (1.87)	14
column	695	5.17 (0.85)	3.62 (1.91)	4.81 (1.58)	71	cut	711	3.64 (2.08)	5.00 (2.32)	4.70 (1.98)	192
comedy	77	8.37 (0.94)	5.85 (2.81)	5.44 (2.08)	39	cute	97	7.62 (1.01)	5.53 (2.71)	4.86 (2.32)	5
comfort	696	7.07 (2.14)	3.93 (2.85)	5.70 (2.05)	43	cyclone	98	3.60 (2.38)	6.36 (2.89)	4.89 (2.56)	.
computer	552	6.24 (1.61)	4.75 (1.93)	5.29 (1.99)	13	dagger	99	3.38 (1.77)	6.14 (2.64)	4.52 (2.27)	1
concentrate	78	5.20 (1.28)	4.65 (2.13)	4.97 (1.75)	11	damage	712	3.05 (1.65)	5.57 (2.26)	3.88 (1.86)	33
confident	79	7.98 (1.29)	6.22 (2.41)	7.68 (1.94)	16	dancer	507	7.14 (1.56)	6.00 (2.20)	6.02 (1.93)	31
confused	80	3.21 (1.51)	6.03 (1.88)	4.24 (1.91)	44	danger	713	2.95 (2.22)	7.32 (2.07)	3.59 (2.31)	70
consoled	81	5.78 (1.64)	4.53 (2.22)	4.44 (1.84)	2	dark	714	4.71 (2.36)	4.28 (2.21)	4.84 (2.15)	185
contempt	82	3.85 (2.13)	5.28 (2.04)	5.13 (1.73)	15	dawn	715	6.16 (2.33)	4.39 (2.81)	5.16 (2.23)	28
contents	83	4.89 (0.89)	4.32 (2.14)	4.85 (1.49)	16	daylight	716	6.80 (2.17)	4.77 (2.50)	5.48 (2.14)	15
context	84	5.20 (1.38)	4.22 (2.24)	5.17 (1.39)	2	dazzle	717	7.29 (1.09)	6.33 (2.02)	5.62 (1.81)	1
controlling	85	3.80 (2.25)	6.10 (2.19)	5.17 (3.15)	23	dead	588	1.94 (1.76)	5.73 (2.73)	2.84 (2.32)	174
cook	697	6.16 (1.89)	4.44 (1.96)	5.14 (1.49)	47	death	100	1.61 (1.40)	4.59 (3.07)	3.47 (2.50)	277
cord	698	5.10 (1.09)	3.54 (2.09)	5.00 (1.22)	6	debt	101	2.22 (1.17)	5.68 (2.74)	3.02 (2.16)	13
cork	699	5.22 (1.13)	3.80 (2.18)	4.98 (1.04)	9	deceit	718	2.90 (1.63)	5.88 (2.46)	3.95 (2.12)	2
corner	700	4.36 (1.21)	3.91 (1.92)	4.12 (1.66)	115	decompose	102	3.20 (1.81)	4.65 (2.39)	4.02 (1.91)	1
corpse	86	2.18 (1.48)	4.74 (2.94)	3.59 (2.44)	7	decorate	719	6.93 (1.30)	5.14 (2.39)	6.05 (1.86)	2
corridor	701	4.88 (1.14)	3.63 (2.41)	5.00 (1.48)	17	defeated	103	2.34 (1.66)	5.09 (3.03)	3.11 (2.34)	15
corrupt	702	3.32 (2.32)	4.67 (2.35)	4.64 (2.30)	8	defiant	104	4.26 (2.12)	6.10 (2.51)	5.77 (2.40)	3
cottage	87	6.45 (1.52)	3.39 (2.54)	5.39 (1.78)	19	deformed	720	2.41 (1.66)	4.07 (2.34)	3.95 (2.18)	.
couple	506	7.41 (1.97)	6.39 (2.31)	6.02 (2.28)	122	delayed	721	3.07 (1.74)	5.62 (2.39)	3.64 (1.94)	25
cow	554	5.57 (1.53)	3.49 (2.13)	5.32 (1.61)	29	delight	105	8.26 (1.04)	5.44 (2.88)	5.79 (2.24)	29
coward	703	2.74 (1.64)	4.07 (2.19)	2.83 (1.61)	8	demon	106	2.11 (1.56)	6.76 (2.68)	4.89 (2.89)	9

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Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency	Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency
dentist	589	4.02 (2.23)	5.73 (2.13)	3.80 (2.16)	12	dreadful	131	2.26 (1.91)	5.84 (2.62)	4.10 (2.36)	10
depressed	107	1.83 (1.42)	4.72 (2.95)	2.74 (2.13)	11	dream	132	6.73 (1.75)	4.53 (2.72)	5.53 (1.98)	64
depression	108	1.85 (1.67)	4.54 (3.19)	2.91 (2.27)	24	dreary	731	3.05 (1.58)	2.98 (2.18)	3.81 (1.64)	6
derelict	722	4.28 (1.84)	4.10 (1.94)	4.78 (1.56)	1	dress	133	6.41 (1.34)	4.05 (1.89)	5.00 (1.89)	67
deserter	109	2.45 (1.80)	5.50 (2.55)	3.77 (2.29)	.	drown	591	1.92 (1.48)	6.57 (2.33)	2.86 (1.99)	3
desire	508	7.69 (1.39)	7.35 (1.76)	6.49 (1.83)	79	dummy	732	3.38 (1.70)	4.35 (2.25)	3.67 (2.02)	3
despairing	110	2.43 (1.47)	5.68 (2.37)	3.43 (2.11)	4	dump	733	3.21 (1.87)	4.12 (2.36)	3.83 (1.87)	4
despise	111	2.03 (1.38)	6.28 (2.43)	4.72 (2.80)	7	dustpan	555	3.98 (1.68)	3.43 (2.00)	5.45 (1.81)	.
destroy	112	2.64 (2.03)	6.83 (2.38)	4.94 (2.86)	48	earth	134	7.15 (1.67)	4.24 (2.49)	5.61 (2.30)	150
destruction	723	3.16 (2.44)	5.82 (2.71)	3.93 (2.29)	38	easy	734	7.10 (1.91)	4.48 (2.82)	7.00 (1.63)	125
detached	113	3.86 (1.88)	4.26 (2.57)	3.63 (2.15)	12	easysgoing	135	7.20 (1.50)	4.30 (2.52)	5.25 (1.75)	1
detail	724	5.55 (1.58)	4.10 (2.24)	5.21 (1.60)	72	eat	136	7.47 (1.73)	5.69 (2.51)	5.60 (2.12)	61
detest	114	2.17 (1.30)	6.06 (2.39)	5.83 (2.60)	1	ecstasy	735	7.98 (1.52)	7.38 (1.92)	6.68 (2.08)	6
devil	115	2.21 (1.99)	6.07 (2.61)	5.35 (2.75)	25	education	137	6.69 (1.77)	5.74 (2.46)	6.15 (2.35)	214
devoted	116	7.41 (1.37)	5.23 (2.21)	6.18 (2.36)	51	egg	736	5.29 (1.82)	3.76 (2.39)	4.49 (2.16)	12
diamond	117	7.92 (1.20)	5.53 (2.96)	5.54 (2.28)	8	elated	138	7.45 (1.77)	6.21 (2.30)	5.53 (2.35)	3
dignified	118	7.10 (1.26)	4.12 (2.29)	6.12 (2.40)	7	elbow	737	5.12 (0.92)	3.81 (2.14)	4.88 (1.52)	10
dinner	509	7.16 (1.50)	5.43 (2.14)	6.10 (1.87)	91	elegant	139	7.43 (1.26)	4.53 (2.65)	5.95 (2.09)	14
diploma	119	8.00 (1.39)	5.67 (2.80)	6.76 (2.50)	.	elevator	738	5.44 (1.18)	4.16 (1.99)	4.32 (1.69)	12
dirt	725	4.17 (1.77)	3.76 (2.26)	4.83 (1.82)	43	embarrassed	140	3.03 (1.85)	5.87 (2.55)	2.87 (1.99)	8
dirty	590	3.08 (2.05)	4.88 (2.29)	4.70 (2.12)	36	embattled	141	4.39 (1.63)	5.36 (2.37)	4.81 (1.79)	1
disappoint	120	2.39 (1.44)	4.92 (2.64)	3.29 (2.32)	.	employment	147	6.47 (1.81)	5.28 (2.12)	5.73 (2.08)	47
disaster	121	1.73 (1.13)	6.33 (2.70)	3.52 (2.42)	26	engaged	143	8.00 (1.38)	6.77 (2.07)	6.49 (2.22)	47
discomfort	726	2.19 (1.23)	4.17 (2.44)	3.86 (2.26)	7	engine	148	5.20 (1.18)	3.98 (2.33)	5.00 (1.77)	50
discouraged	122	3.00 (2.16)	4.53 (2.11)	3.61 (2.01)	15	enjoyment	145	7.80 (1.20)	5.20 (2.72)	6.46 (1.77)	21
disdainful	123	3.68 (1.90)	5.04 (2.14)	4.55 (1.92)	2	ennui	146	5.09 (1.76)	4.40 (2.33)	4.67 (1.80)	.
disgusted	124	2.45 (1.41)	5.42 (2.59)	4.34 (1.94)	6	enraged	149	2.46 (1.65)	7.97 (2.17)	6.33 (2.92)	1
disloyal	125	1.93 (1.61)	6.56 (2.21)	3.79 (2.75)	2	erotic	512	7.43 (1.53)	7.24 (1.97)	6.39 (2.16)	8
displeased	126	2.79 (2.23)	5.64 (2.48)	4.19 (2.19)	7	errand	150	4.58 (1.74)	3.85 (1.92)	4.78 (1.51)	7
distressed	127	1.94 (1.10)	6.40 (2.38)	3.76 (2.41)	4	event	740	6.21 (1.63)	5.10 (2.40)	5.52 (1.57)	81
disturb	727	3.66 (2.00)	5.80 (2.39)	4.55 (1.90)	10	evil	741	3.23 (2.64)	6.39 (2.44)	5.25 (2.60)	72
diver	510	6.45 (1.55)	5.04 (2.10)	5.04 (1.91)	1	excellence	151	8.38 (0.96)	5.54 (2.67)	7.28 (2.32)	15
divorce	128	2.22 (1.88)	6.33 (2.71)	3.26 (2.24)	29	excitement	152	7.50 (2.20)	7.67 (1.91)	6.18 (2.17)	32
doctor	129	5.20 (2.54)	5.86 (2.70)	4.89 (2.75)	100	excuse	153	4.05 (1.41)	4.48 (2.29)	4.07 (2.10)	27
dog	511	7.57 (1.66)	5.76 (2.50)	6.25 (2.10)	75	execution	154	2.37 (2.06)	5.71 (2.74)	4.11 (2.66)	15
doll	728	6.09 (1.96)	4.24 (2.43)	4.61 (2.07)	10	exercise	155	7.13 (1.58)	6.84 (2.06)	5.68 (2.44)	58
dollar	729	7.47 (1.72)	6.07 (2.67)	6.33 (2.42)	46	fabric	742	5.30 (1.20)	4.14 (1.98)	5.03 (1.61)	15
door	130	5.13 (1.44)	3.80 (2.29)	4.69 (1.72)	312	face	556	6.39 (1.60)	5.04 (2.18)	5.67 (1.58)	371
dove	730	6.90 (1.54)	3.79 (2.28)	5.48 (1.70)	4	failure	156	1.70 (1.07)	4.95 (2.81)	2.40 (2.18)	89

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Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency	Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency
fall	743	4.09 (2.21)	4.70 (2.48)	4.00 (2.15)	147	friend	174	7.74 (1.24)	5.74 (2.57)	6.74 (1.89)	133
FALSE	744	3.27 (1.40)	3.43 (2.09)	4.10 (1.56)	29	friendly	175	8.43 (1.08)	5.11 (2.96)	5.92 (2.42)	61
fame	157	7.93 (1.29)	6.55 (2.46)	6.85 (2.14)	18	frigid	758	3.50 (1.85)	4.75 (2.56)	4.27 (1.98)	5
family	158	7.65 (1.55)	4.80 (2.71)	6.00 (1.87)	331	frog	176	5.71 (1.74)	4.54 (2.03)	5.34 (1.96)	1
famous	745	6.98 (2.07)	5.73 (2.68)	6.32 (2.18)	89	frustrated	177	2.48 (1.64)	5.61 (2.76)	3.50 (2.12)	10
fantasy	746	7.41 (1.90)	5.14 (2.82)	6.43 (2.05)	14	fun	759	8.37 (1.11)	7.22 (2.01)	6.80 (1.85)	44
farm	557	5.53 (1.85)	3.90 (1.95)	5.59 (1.81)	125	funeral	178	1.39 (0.87)	4.94 (3.21)	2.97 (2.55)	33
fascinate	159	7.34 (1.68)	5.83 (2.73)	6.15 (1.89)	3	fungus	179	3.06 (1.75)	4.68 (2.33)	4.06 (1.94)	2
fat	160	2.28 (1.92)	4.81 (2.80)	4.47 (3.06)	60	fur	180	4.51 (1.88)	4.18 (2.44)	4.32 (1.97)	13
father	161	7.08 (2.20)	5.92 (2.60)	5.63 (2.89)	383	game	760	6.98 (1.97)	5.89 (2.37)	5.70 (1.65)	123
fatigued	162	3.28 (1.43)	2.64 (2.19)	3.78 (1.97)	3	gangrene	181	2.28 (1.91)	5.70 (2.96)	3.36 (2.34)	.
fault	747	3.43 (1.38)	4.07 (1.69)	4.02 (1.66)	22	garbage	182	2.98 (1.96)	5.04 (2.50)	4.24 (2.02)	7
favor	748	6.46 (1.52)	4.54 (1.86)	5.67 (1.76)	78	garden	761	6.71 (1.74)	4.39 (2.35)	6.02 (1.71)	60
fear	592	2.76 (2.12)	6.96 (2.17)	3.22 (2.20)	127	garment	762	6.07 (1.61)	4.49 (2.50)	5.30 (1.96)	6
fearful	163	2.25 (1.18)	6.33 (2.28)	3.64 (2.18)	13	garter	534	6.22 (1.59)	5.47 (2.15)	5.82 (1.62)	2
feeble	164	3.26 (1.47)	4.10 (2.07)	2.71 (1.64)	8	gender	763	5.73 (1.55)	4.38 (2.13)	5.60 (1.84)	2
festive	749	7.30 (2.26)	6.58 (2.29)	5.77 (2.34)	2	gentle	183	7.31 (1.30)	3.21 (2.57)	5.10 (2.16)	27
fever	750	2.76 (1.64)	4.29 (2.31)	3.52 (2.15)	19	germs	764	2.86 (1.39)	4.49 (2.24)	3.79 (1.59)	1
field	558	6.20 (1.37)	4.08 (2.41)	5.84 (1.94)	274	gift	184	7.77 (2.24)	6.14 (2.76)	5.52 (2.54)	33
fight	751	3.76 (2.63)	7.15 (2.19)	5.27 (2.69)	98	girl	185	6.87 (1.64)	4.29 (2.69)	5.80 (2.16)	220
filth	165	2.47 (1.68)	5.12 (2.32)	3.81 (2.06)	2	glacier	186	5.50 (1.25)	4.24 (2.29)	4.92 (2.12)	1
finger	752	5.29 (1.42)	3.78 (2.42)	5.05 (1.70)	40	glamour	187	6.76 (1.60)	4.68 (2.23)	5.76 (2.49)	5
fire	166	3.22 (2.06)	7.17 (2.06)	4.49 (2.49)	187	glass	765	4.75 (1.38)	4.27 (2.07)	5.00 (1.46)	99
fireworks	513	7.55 (1.50)	6.67 (2.12)	5.51 (1.98)	5	gloom	188	1.88 (1.23)	3.83 (2.33)	3.55 (2.07)	14
fish	559	6.04 (1.94)	4.00 (2.19)	6.02 (1.68)	35	glory	189	7.55 (1.68)	6.02 (2.71)	6.85 (2.23)	21
flabby	167	2.66 (1.87)	4.82 (2.81)	3.31 (1.90)	.	god	190	8.15 (1.27)	5.95 (2.84)	5.88 (2.89)	318
flag	753	6.02 (1.66)	4.60 (2.35)	5.50 (1.66)	16	gold	191	7.54 (1.63)	5.76 (2.79)	5.85 (2.46)	52
flirt	754	7.52 (1.19)	6.91 (1.69)	6.24 (2.33)	1	golfer	535	5.61 (1.93)	3.73 (2.26)	5.55 (1.79)	3
flood	755	3.19 (1.66)	6.00 (2.02)	3.24 (2.14)	19	good	766	7.47 (1.45)	5.43 (2.85)	6.41 (2.05)	807
flower	168	6.84 (1.78)	4.00 (2.44)	4.98 (2.17)	23	gossip	767	3.48 (2.33)	5.74 (2.38)	3.57 (2.26)	13
foam	756	6.07 (2.03)	5.26 (2.54)	5.24 (1.97)	37	graduate	192	8.19 (1.13)	7.25 (2.25)	6.94 (2.44)	30
food	514	7.65 (1.37)	5.92 (2.11)	6.18 (2.48)	147	grass	768	6.12 (1.44)	4.14 (2.11)	5.44 (1.36)	53
foot	757	5.02 (0.93)	3.27 (1.98)	4.98 (1.42)	70	grateful	193	7.37 (0.97)	4.58 (2.14)	6.18 (1.77)	25
fork	560	5.29 (0.97)	3.96 (1.94)	5.74 (1.52)	14	greed	769	3.51 (1.93)	4.71 (2.26)	4.88 (2.03)	3
foul	169	2.81 (1.52)	4.93 (2.23)	4.51 (1.89)	4	green	194	6.18 (2.05)	4.28 (2.46)	4.82 (2.05)	116
fragrance	170	6.07 (1.97)	4.79 (2.54)	5.14 (1.91)	6	greet	770	7.00 (1.52)	5.27 (2.31)	5.95 (2.07)	7
fraud	171	2.67 (1.66)	5.75 (2.45)	3.58 (2.50)	8	grenade	771	3.60 (1.88)	5.70 (2.52)	4.29 (2.50)	3
free	172	8.26 (1.31)	5.15 (3.04)	6.35 (2.40)	260	grief	195	1.69 (1.04)	4.78 (2.84)	3.50 (2.35)	10
freedom	173	7.58 (2.04)	5.52 (2.72)	6.76 (2.29)	128	grime	772	3.37 (1.34)	3.98 (2.29)	4.47 (1.28)	.

Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency	Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency
grin	773	7.40 (1.87)	5.27 (2.64)	6.00 (1.86)	13	honest	210	7.70 (1.43)	5.32 (1.92)	6.24 (2.13)	47
gripe	774	3.14 (1.56)	5.00 (2.19)	4.67 (1.79)	.	honey	792	6.73 (1.70)	4.51 (2.25)	5.44 (1.47)	25
guillotine	196	2.48 (2.11)	6.56 (2.54)	4.64 (2.63)	.	honor	211	7.66 (1.24)	5.90 (1.83)	6.70 (2.04)	66
guilty	197	2.63 (1.98)	6.04 (2.76)	3.09 (2.22)	29	hooker	793	3.34 (2.31)	4.93 (2.82)	4.73 (2.48)	.
gun	593	3.47 (2.48)	7.02 (1.84)	3.53 (2.72)	118	hope	794	7.05 (1.96)	5.44 (2.47)	5.52 (2.20)	178
gymnast	515	6.35 (1.79)	5.02 (2.20)	5.31 (1.79)	1	hopeful	212	7.10 (1.46)	5.78 (2.09)	5.41 (1.92)	12
habit	775	4.11 (1.77)	3.95 (2.11)	4.30 (1.79)	23	horror	213	2.76 (2.25)	7.21 (2.14)	4.63 (2.70)	17
hairdryer	561	4.84 (0.84)	3.71 (1.75)	5.57 (1.27)	.	horse	214	5.89 (1.55)	3.89 (2.17)	4.67 (1.60)	117
hairpin	776	5.26 (1.45)	3.27 (2.41)	5.05 (1.32)	1	hospital	215	5.04 (2.45)	5.98 (2.54)	4.69 (2.16)	110
hamburger	777	6.27 (1.50)	4.55 (2.14)	5.32 (1.21)	6	hostage	216	2.20 (1.80)	6.76 (2.63)	2.83 (2.32)	2
hammer	198	4.88 (1.16)	4.58 (2.02)	4.75 (1.88)	9	hostile	217	2.73 (1.50)	6.44 (2.28)	4.85 (2.58)	19
hand	778	5.95 (1.38)	4.40 (2.07)	5.35 (1.49)	431	hotel	795	6.00 (1.77)	4.80 (2.53)	5.12 (1.84)	126
handicap	779	3.29 (1.69)	3.81 (2.27)	4.00 (2.24)	6	house	563	7.26 (1.72)	4.56 (2.41)	6.08 (2.12)	591
handsome	199	7.93 (1.47)	5.95 (2.73)	5.19 (2.22)	40	hug	218	8.00 (1.55)	5.35 (2.76)	5.79 (2.41)	3
haphazard	780	4.02 (1.41)	4.07 (2.18)	4.29 (1.67)	2	humane	796	6.89 (1.70)	4.50 (1.91)	5.70 (1.91)	5
happy	200	8.21 (1.82)	6.49 (2.77)	6.63 (2.43)	98	humble	219	5.86 (1.42)	3.74 (2.33)	4.76 (2.25)	18
hard	781	5.22 (1.82)	5.12 (2.19)	5.59 (1.63)	202	humiliate	797	2.24 (1.34)	6.14 (2.42)	2.60 (1.94)	.
hardship	782	2.45 (1.61)	4.76 (2.55)	4.22 (2.40)	9	humor	220	8.56 (0.81)	5.50 (2.91)	6.08 (2.14)	47
hat	783	5.46 (1.36)	4.10 (2.00)	5.39 (1.43)	56	hungry	221	3.58 (2.01)	5.13 (2.44)	4.68 (2.05)	23
hate	201	2.12 (1.72)	6.95 (2.56)	5.05 (2.95)	42	hurricane	798	3.34 (2.12)	6.83 (2.06)	3.07 (2.18)	8
hatred	202	1.98 (1.92)	6.66 (2.56)	4.30 (2.76)	20	hurt	222	1.90 (1.26)	5.85 (2.49)	3.33 (2.22)	37
hawk	536	5.88 (1.62)	4.39 (2.29)	5.50 (1.69)	14	hydrant	564	5.02 (0.93)	3.71 (1.75)	5.53 (1.30)	3
hay	784	5.24 (1.24)	3.95 (2.58)	5.37 (1.64)	19	icebox	799	4.95 (1.00)	4.17 (2.11)	5.05 (1.05)	3
headache	203	2.02 (1.06)	5.07 (2.74)	3.60 (1.98)	5	idea	800	7.00 (1.34)	5.86 (1.81)	6.26 (2.00)	195
headlight	785	5.24 (1.51)	3.81 (2.22)	4.88 (1.47)	.	identity	801	6.57 (1.99)	4.95 (2.24)	6.40 (1.89)	55
heal	786	7.09 (1.46)	4.77 (2.23)	5.79 (1.80)	2	idiot	223	3.16 (1.91)	4.21 (2.47)	3.18 (2.13)	2
health	204	6.81 (1.88)	5.13 (2.35)	5.83 (1.91)	105	idol	802	6.12 (1.86)	4.95 (2.14)	5.37 (2.17)	7
heart	787	7.39 (1.53)	6.34 (2.25)	5.49 (2.11)	173	ignorance	803	3.07 (2.25)	4.39 (2.49)	4.41 (2.38)	16
heaven	205	7.30 (2.39)	5.61 (3.20)	6.15 (2.56)	43	illness	804	2.48 (1.40)	4.71 (2.24)	3.21 (1.85)	20
hell	788	2.24 (1.62)	5.38 (2.62)	3.24 (2.36)	95	imagine	805	7.32 (1.52)	5.98 (2.14)	7.07 (1.99)	61
helpless	206	2.20 (1.42)	5.34 (2.52)	2.27 (1.83)	21	immature	806	3.39 (1.70)	4.15 (1.96)	4.85 (2.20)	7
heroin	789	4.36 (2.73)	5.11 (2.72)	4.80 (2.54)	2	immoral	807	3.50 (2.16)	4.98 (2.48)	4.66 (2.33)	5
hide	207	4.32 (1.91)	5.28 (2.51)	3.40 (2.12)	22	impair	808	3.18 (1.86)	4.04 (2.14)	4.09 (2.18)	4
highway	562	5.92 (1.72)	5.16 (2.44)	5.66 (1.81)	40	impotent	224	2.81 (1.92)	4.57 (2.59)	3.43 (2.43)	2
hinder	790	3.81 (1.42)	4.12 (2.01)	4.21 (1.54)	.	impressed	225	7.33 (1.84)	5.42 (2.65)	5.51 (2.21)	30
history	208	5.24 (2.01)	3.93 (2.29)	4.83 (2.08)	286	improve	226	7.65 (1.16)	5.69 (2.15)	6.08 (2.25)	39
hit	594	4.33 (2.35)	5.73 (2.09)	4.88 (2.01)	115	incentive	809	7.00 (1.72)	5.69 (2.45)	5.93 (2.02)	12
holiday	791	7.55 (2.14)	6.59 (2.73)	6.30 (2.17)	17	indifferent	810	4.61 (1.28)	3.18 (1.85)	4.84 (1.67)	11
home	209	7.91 (1.63)	4.21 (2.94)	5.90 (2.30)	547	industry	227	5.30 (1.61)	4.47 (2.43)	4.91 (2.04)	171

Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency	Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency
infant	811	6.95 (2.08)	5.05 (2.66)	5.67 (2.48)	11	kettle	832	5.22 (0.91)	3.22 (2.23)	5.00 (1.40)	3
infatuation	516	6.73 (2.08)	7.02 (1.87)	4.90 (2.28)	4	key	833	5.68 (1.62)	3.70 (2.18)	4.98 (2.04)	88
infection	228	1.66 (1.34)	5.03 (2.77)	3.61 (2.64)	8	kick	834	4.31 (2.18)	4.90 (2.35)	5.50 (1.93)	16
inferior	812	3.07 (1.57)	3.83 (2.05)	2.78 (2.08)	7	kids	835	6.91 (1.99)	5.27 (2.36)	5.07 (2.03)	32
inhabitant	813	5.05 (1.34)	3.95 (1.97)	5.37 (1.43)	.	killer	244	1.89 (1.39)	7.86 (1.89)	4.54 (3.11)	21
injury	595	2.49 (1.76)	5.69 (2.06)	3.57 (1.62)	27	kind	245	7.59 (1.67)	4.46 (2.55)	5.95 (1.93)	313
ink	229	5.05 (0.81)	3.84 (1.88)	4.61 (2.13)	7	kindness	246	7.82 (1.39)	4.30 (2.62)	5.67 (2.63)	5
innocent	814	6.51 (1.34)	4.21 (1.99)	5.28 (2.08)	37	king	247	7.26 (1.67)	5.51 (2.77)	7.38 (2.10)	88
insane	815	2.85 (1.94)	5.83 (2.45)	4.12 (2.23)	13	kiss	248	8.26 (1.54)	7.32 (2.03)	6.93 (2.28)	17
insect	816	4.07 (2.16)	4.07 (2.46)	4.56 (2.47)	14	kitten	517	6.86 (2.13)	5.08 (2.45)	6.86 (2.01)	5
insecure	230	2.36 (1.33)	5.56 (2.34)	2.33 (1.95)	3	knife	596	3.62 (2.18)	5.80 (2.00)	4.12 (2.18)	76
insolent	231	4.35 (1.76)	5.38 (2.37)	4.50 (2.06)	2	knot	836	4.64 (1.36)	4.07 (2.15)	4.67 (1.65)	8
inspire	232	6.97 (1.91)	5.00 (2.53)	6.34 (2.11)	3	knowledge	249	7.58 (1.32)	5.92 (2.32)	6.78 (2.41)	145
inspired	233	7.15 (1.85)	6.02 (2.67)	6.67 (2.31)	25	lake	250	6.82 (1.54)	3.95 (2.44)	4.90 (2.10)	54
insult	817	2.29 (1.33)	6.00 (2.46)	3.62 (2.05)	7	lamb	837	5.89 (1.73)	3.36 (2.18)	4.91 (1.96)	7
intellect	818	6.82 (1.96)	4.75 (2.50)	6.30 (1.98)	5	lamp	838	5.41 (1.00)	3.80 (2.12)	5.27 (1.61)	18
intercourse	819	7.36 (1.57)	7.00 (2.07)	6.40 (1.78)	9	lantern	839	5.57 (1.19)	4.05 (2.28)	5.07 (1.82)	13
interest	234	6.97 (1.53)	5.66 (2.26)	5.88 (1.78)	330	laughter	251	8.45 (1.08)	6.75 (2.50)	6.45 (2.45)	22
intimate	821	7.61 (1.51)	6.98 (2.21)	5.86 (2.29)	21	lavish	840	6.21 (2.03)	4.93 (2.40)	5.64 (1.61)	3
intruder	822	2.77 (2.32)	6.86 (2.41)	4.00 (2.68)	1	lawn	841	5.24 (0.86)	4.00 (1.79)	5.37 (1.11)	15
invader	823	3.05 (2.01)	5.50 (2.40)	4.00 (2.60)	1	lawsuit	842	3.37 (2.00)	4.93 (2.44)	3.92 (2.02)	1
invest	824	5.93 (2.10)	5.12 (2.42)	5.88 (1.95)	3	lazy	843	4.38 (2.02)	2.65 (2.06)	4.07 (1.93)	9
iron	565	4.90 (1.02)	3.76 (2.06)	5.10 (1.27)	43	leader	844	7.63 (1.59)	6.27 (2.18)	7.88 (1.60)	74
irritate	235	3.11 (1.67)	5.76 (2.15)	5.03 (2.05)	.	learn	252	7.15 (1.49)	5.39 (2.22)	6.34 (2.17)	84
item	825	5.26 (0.86)	3.24 (2.08)	5.26 (1.67)	54	legend	845	6.39 (1.34)	4.88 (1.76)	5.54 (1.64)	26
jail	236	1.95 (1.27)	5.49 (2.67)	3.81 (2.71)	21	leisurely	253	6.88 (1.81)	3.80 (2.38)	5.15 (1.90)	5
jealousy	237	2.51 (1.83)	6.36 (2.66)	3.80 (2.41)	4	leprosy	254	2.09 (1.40)	6.29 (2.23)	4.00 (2.30)	1
jelly	238	5.66 (1.44)	3.70 (2.29)	4.53 (1.77)	3	lesbian	597	4.67 (2.45)	5.12 (2.27)	5.35 (2.20)	.
jewel	239	7.00 (1.72)	5.38 (2.54)	5.59 (2.19)	1	letter	846	6.61 (1.59)	4.90 (2.37)	5.73 (1.48)	145
joke	826	8.10 (1.36)	6.74 (1.84)	6.15 (1.86)	22	liberty	255	7.98 (1.22)	5.60 (2.65)	6.29 (2.44)	46
jolly	827	7.41 (1.92)	5.57 (2.80)	6.39 (1.72)	4	lice	256	2.31 (1.78)	5.00 (2.26)	3.95 (2.29)	2
journal	828	5.14 (1.49)	4.05 (1.96)	5.26 (1.42)	42	lie	257	2.79 (1.92)	5.96 (2.63)	3.30 (2.42)	59
joy	240	8.60 (0.71)	7.22 (2.13)	6.28 (2.15)	40	life	258	7.27 (1.88)	6.02 (2.62)	5.72 (2.51)	715
joyful	241	8.22 (1.22)	5.98 (2.54)	6.60 (1.80)	1	lightbulb	566	5.61 (1.28)	4.10 (2.02)	5.82 (1.56)	.
jug	829	5.24 (1.65)	3.88 (2.15)	5.05 (1.62)	6	lighthouse	847	5.89 (2.08)	4.41 (2.44)	5.25 (2.02)	.
justice	242	7.78 (1.35)	5.47 (2.54)	6.47 (2.26)	114	lightning	598	4.57 (2.66)	6.61 (1.77)	3.67 (2.19)	14
kerchief	830	5.11 (1.33)	3.43 (2.08)	5.25 (1.28)	1	limber	848	5.68 (1.49)	4.57 (2.26)	5.34 (1.84)	2
kerosene	243	4.80 (1.59)	4.34 (2.51)	4.63 (1.99)	6	lion	518	5.57 (1.99)	6.20 (2.16)	4.12 (2.33)	17
ketchup	831	5.60 (1.35)	4.09 (2.08)	5.29 (1.81)	1	listless	259	4.12 (1.73)	4.10 (2.31)	4.14 (1.73)	1

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lively	849	7.20 (1.97)	5.53 (2.90)	6.09 (1.95)	26	memories	871	7.48 (1.61)	6.10 (2.10)	5.88 (1.92)	15
locker	850	5.19 (1.31)	3.38 (2.13)	5.36 (1.87)	9	memory	274	6.62 (1.50)	5.42 (2.25)	5.11 (2.12)	76
loneliness	260	1.61 (1.02)	4.56 (2.97)	2.51 (2.27)	9	menace	275	2.88 (1.64)	5.52 (2.45)	4.98 (2.25)	9
lonely	261	2.17 (1.76)	4.51 (2.68)	2.95 (2.12)	25	merry	872	7.90 (1.49)	5.90 (2.42)	6.64 (1.66)	8
loser	851	2.25 (1.48)	4.95 (2.57)	3.02 (2.17)	1	messy	873	3.15 (1.73)	3.34 (2.37)	4.75 (1.51)	3
lost	852	2.82 (1.83)	5.82 (2.62)	2.86 (1.64)	173	metal	874	4.95 (1.17)	3.79 (1.96)	5.38 (1.40)	61
lottery	853	6.57 (2.04)	5.36 (2.45)	4.81 (2.11)	1	method	875	5.56 (1.76)	3.85 (2.58)	5.67 (1.58)	142
louse	262	2.81 (1.92)	4.98 (2.03)	3.57 (2.26)	3	mighty	276	6.54 (2.19)	5.61 (2.38)	7.23 (2.11)	29
love	263	8.72 (0.70)	6.44 (3.35)	7.11 (2.56)	232	milddew	277	3.17 (1.36)	4.08 (1.79)	4.40 (1.79)	1
loved	264	8.64 (0.71)	6.38 (2.68)	6.62 (2.53)	56	milk	876	5.95 (2.16)	3.68 (2.57)	5.83 (1.50)	49
loyal	265	7.55 (1.90)	5.16 (2.42)	6.91 (2.23)	18	millionaire	278	8.03 (1.42)	6.14 (2.70)	6.97 (2.40)	2
lucky	266	8.17 (1.06)	6.53 (2.34)	6.05 (2.25)	21	mind	877	6.68 (1.84)	5.00 (2.68)	6.37 (2.19)	325
lump	854	4.16 (2.34)	4.80 (2.82)	4.32 (2.18)	7	miracle	279	8.60 (0.71)	7.65 (1.67)	5.35 (2.58)	16
luscious	267	7.50 (1.08)	5.34 (2.51)	5.68 (1.84)	2	mischievous	878	5.57 (2.05)	5.76 (1.95)	5.56 (1.88)	5
lust	519	7.12 (1.62)	6.88 (1.85)	5.49 (2.27)	5	misery	879	1.93 (1.60)	5.17 (2.69)	2.55 (1.45)	15
luxury	268	7.88 (1.49)	4.75 (2.91)	6.40 (2.45)	21	mistake	880	2.86 (1.79)	5.18 (2.42)	3.86 (2.42)	34
machine	855	5.09 (1.67)	3.82 (2.40)	5.23 (2.06)	103	mobility	881	6.83 (1.79)	5.00 (2.18)	6.43 (1.48)	8
mad	856	2.44 (1.72)	6.76 (2.26)	5.86 (2.20)	39	modest	280	5.76 (1.28)	3.98 (2.24)	4.96 (2.16)	29
madman	857	3.91 (2.49)	5.56 (2.78)	4.79 (2.55)	2	mold	882	3.55 (1.70)	4.07 (1.98)	4.33 (1.83)	45
maggot	269	2.06 (1.47)	5.28 (2.96)	4.03 (2.09)	2	moment	281	5.76 (1.65)	3.83 (2.29)	4.81 (1.92)	246
magical	858	7.46 (1.64)	5.95 (2.36)	5.73 (2.19)	12	money	282	7.59 (1.40)	5.70 (2.66)	6.25 (2.33)	265
mail	859	6.88 (1.74)	5.63 (2.36)	5.67 (1.79)	47	month	283	5.15 (1.09)	4.03 (1.77)	4.85 (1.14)	130
malaria	860	2.40 (1.38)	4.40 (2.54)	3.22 (1.90)	3	moody	883	3.20 (1.58)	4.18 (2.38)	4.39 (1.71)	5
malice	270	2.69 (1.84)	5.86 (2.75)	4.74 (2.72)	2	moral	884	6.20 (2.15)	4.49 (2.28)	5.90 (2.20)	142
man	537	6.73 (1.70)	5.24 (2.31)	5.53 (2.23)	1207	morbid	284	2.87 (2.14)	5.06 (2.68)	4.34 (2.50)	1
mangle	861	3.90 (2.01)	5.44 (2.10)	4.61 (1.84)	.	morgue	285	1.92 (1.32)	4.84 (2.96)	3.61 (1.94)	1
maniac	862	3.76 (2.00)	5.39 (2.46)	4.22 (2.07)	4	mosquito	885	2.80 (1.91)	4.78 (2.72)	4.51 (2.15)	1
manner	863	5.64 (1.34)	4.56 (1.78)	5.05 (1.83)	124	mother	286	8.39 (1.15)	6.13 (2.71)	5.74 (2.37)	216
mantel	864	4.93 (1.40)	3.27 (2.23)	4.95 (1.61)	3	mountain	287	6.59 (1.66)	5.49 (2.43)	5.46 (2.36)	33
manure	865	3.10 (1.74)	4.17 (2.09)	4.67 (1.36)	6	movie	288	6.86 (1.81)	4.93 (2.54)	5.00 (1.79)	29
market	866	5.66 (1.02)	4.12 (1.83)	5.27 (1.40)	155	mucus	886	3.34 (2.29)	3.41 (2.17)	4.80 (1.83)	2
massacre	867	2.28 (1.74)	5.33 (2.63)	3.50 (2.26)	1	muddy	887	4.44 (2.07)	4.13 (2.13)	4.73 (1.77)	10
masterful	271	7.09 (1.78)	5.20 (2.85)	7.18 (2.56)	2	muffin	888	6.57 (2.04)	4.76 (2.42)	5.51 (1.63)	.
masturbate	599	5.45 (2.02)	5.67 (2.18)	5.63 (2.25)	.	murderer	289	1.53 (0.96)	7.47 (2.18)	3.77 (3.06)	19
material	868	5.26 (1.29)	4.05 (2.34)	5.12 (1.45)	174	muscular	290	6.82 (1.63)	5.47 (2.20)	6.58 (2.28)	16
measles	272	2.74 (1.97)	5.06 (2.44)	4.13 (2.16)	2	museum	889	5.54 (1.86)	3.60 (2.13)	5.32 (1.68)	32
medicine	869	5.67 (2.06)	4.40 (2.36)	4.70 (1.91)	30	mushroom	567	5.78 (2.22)	4.72 (2.33)	5.52 (2.10)	2
meek	273	3.87 (1.69)	3.80 (2.13)	3.67 (2.23)	10	music	291	8.13 (1.09)	5.32 (3.19)	6.39 (2.44)	216
melody	870	7.07 (1.79)	4.98 (2.52)	5.46 (1.78)	21	mutation	890	3.91 (2.44)	4.84 (2.52)	4.07 (2.10)	.

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Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency	Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency
mutilate	292	1.82 (1.45)	6.41 (2.94)	3.41 (2.71)	3	orchestra	299	6.02 (1.89)	3.52 (2.29)	5.17 (2.14)	60
mystic	891	6.00 (2.21)	4.84 (2.57)	5.52 (1.93)	3	orgasm	920	8.32 (1.31)	8.10 (1.45)	6.83 (2.18)	7
naked	892	6.34 (2.42)	5.80 (2.80)	6.00 (2.05)	32	outdoors	521	7.47 (1.80)	5.92 (2.55)	6.27 (2.24)	6
name	893	5.55 (2.24)	4.25 (2.47)	5.16 (2.08)	294	outrage	921	3.52 (2.12)	6.83 (2.26)	5.26 (2.72)	4
narcotic	894	4.29 (2.30)	4.93 (2.57)	4.44 (2.43)	2	outstanding	922	7.75 (1.75)	6.24 (2.59)	6.40 (2.29)	37
nasty	895	3.58 (2.38)	4.89 (2.50)	5.00 (2.17)	5	overcast	923	3.65 (1.61)	3.46 (1.92)	4.20 (1.79)	9
natural	896	6.59 (1.57)	4.09 (2.37)	5.57 (1.69)	156	overwhelmed	300	4.19 (2.61)	7.00 (2.37)	3.89 (2.58)	4
nature	293	7.65 (1.37)	4.37 (2.51)	4.95 (2.72)	191	owl	522	5.80 (1.31)	3.98 (1.87)	5.82 (1.62)	2
nectar	294	6.90 (1.53)	3.89 (2.48)	4.54 (2.06)	3	pain	301	2.13 (1.81)	6.50 (2.49)	3.71 (2.53)	88
needle	897	3.82 (1.73)	5.36 (2.89)	3.95 (2.17)	15	paint	924	5.62 (1.72)	4.10 (2.36)	5.75 (1.71)	37
neglect	898	2.63 (1.64)	4.83 (2.31)	3.85 (2.29)	12	palace	302	7.19 (1.78)	5.10 (2.75)	5.69 (2.17)	38
nervous	899	3.29 (1.47)	6.59 (2.07)	3.56 (1.73)	24	pamphlet	925	4.79 (1.05)	3.62 (2.02)	4.63 (1.48)	3
neurotic	900	4.45 (2.23)	5.13 (2.76)	4.41 (2.05)	10	pancakes	523	6.08 (1.83)	4.06 (2.13)	5.76 (1.61)	.
news	901	5.30 (1.67)	5.17 (2.11)	4.60 (1.88)	102	panic	601	3.12 (1.84)	7.02 (2.02)	3.20 (1.67)	22
nice	902	6.55 (2.44)	4.38 (2.69)	5.58 (2.20)	75	paper	303	5.20 (1.21)	2.50 (1.85)	4.47 (1.67)	157
nightmare	295	1.91 (1.54)	7.59 (2.23)	3.68 (2.76)	9	paradise	304	8.72 (0.60)	5.12 (3.38)	6.03 (2.79)	12
nipple	903	6.27 (1.81)	5.56 (2.55)	5.57 (2.00)	.	paralysis	926	1.98 (1.44)	4.73 (2.83)	2.56 (1.82)	6
noisy	904	5.02 (2.02)	6.38 (1.78)	4.93 (1.76)	6	part	927	5.11 (1.78)	3.82 (2.24)	4.75 (1.59)	500
nonchalant	296	4.74 (1.11)	3.12 (1.93)	4.31 (1.54)	1	party	305	7.86 (1.83)	6.69 (2.84)	5.83 (2.46)	216
nonsense	905	4.61 (1.63)	4.17 (2.02)	4.90 (1.55)	13	passage	928	5.28 (1.44)	4.36 (2.13)	5.02 (1.62)	49
noose	906	3.76 (1.64)	4.39 (2.08)	4.17 (1.92)	3	passion	306	8.03 (1.27)	7.26 (2.57)	6.13 (2.24)	28
nourish	907	6.46 (1.69)	4.29 (2.51)	5.80 (1.62)	.	pasta	524	6.69 (1.64)	4.94 (2.04)	5.80 (1.47)	.
nude	520	6.82 (1.63)	6.41 (2.09)	5.96 (2.29)	20	patent	307	5.29 (1.08)	3.50 (1.84)	4.90 (1.79)	35
nuisance	908	3.27 (1.86)	4.49 (2.69)	4.36 (1.73)	5	patient	929	5.29 (1.89)	4.21 (2.37)	4.90 (2.31)	86
nun	909	4.93 (1.89)	2.93 (1.80)	4.93 (1.69)	2	patriot	930	6.71 (1.69)	5.17 (2.53)	5.90 (1.54)	10
nurse	538	6.08 (2.08)	4.84 (2.04)	4.84 (2.20)	17	peace	308	7.72 (1.75)	2.95 (2.55)	5.45 (2.84)	198
nursery	910	5.73 (2.30)	4.04 (2.74)	5.18 (2.23)	13	penalty	931	2.83 (1.56)	5.10 (2.31)	3.95 (1.97)	14
obesity	911	2.73 (1.85)	3.87 (2.82)	3.74 (2.45)	5	pencil	309	5.22 (0.68)	3.14 (1.90)	4.78 (1.73)	34
obey	912	4.52 (1.88)	4.23 (1.72)	4.26 (2.40)	8	penis	932	5.90 (1.72)	5.54 (2.63)	5.92 (2.54)	.
obnoxious	913	3.50 (2.18)	4.74 (2.42)	5.39 (2.20)	5	penthouse	933	6.81 (1.64)	5.52 (2.49)	6.52 (1.82)	1
obscene	914	4.23 (2.30)	5.04 (2.30)	4.48 (1.91)	2	people	525	7.33 (1.70)	5.94 (2.09)	6.14 (2.02)	847
obsession	915	4.52 (2.13)	6.41 (2.13)	4.77 (2.38)	5	perfection	310	7.25 (2.05)	5.95 (2.73)	6.71 (2.26)	11
ocean	297	7.12 (1.72)	4.95 (2.79)	5.53 (2.75)	34	perfume	934	6.76 (1.48)	5.05 (2.36)	5.93 (1.69)	10
odd	916	4.82 (2.04)	4.27 (2.46)	4.77 (1.89)	44	person	311	6.32 (1.74)	4.19 (2.45)	5.35 (2.02)	175
offend	917	2.76 (1.50)	5.56 (2.06)	3.73 (2.03)	4	pervert	312	2.79 (2.12)	6.26 (2.61)	4.72 (2.83)	1
office	568	5.24 (1.59)	4.08 (1.92)	5.59 (1.89)	255	pest	313	3.13 (1.82)	5.62 (2.15)	5.29 (2.13)	4
opinion	298	6.28 (1.45)	4.89 (2.46)	5.53 (1.93)	96	pet	935	6.79 (2.32)	5.10 (2.59)	5.85 (2.28)	8
optimism	918	6.95 (2.24)	5.34 (2.58)	6.61 (2.06)	15	phase	936	5.17 (0.79)	3.98 (1.82)	4.65 (1.72)	72
option	919	6.49 (1.31)	4.74 (2.23)	6.34 (1.80)	5	pie	314	6.41 (1.89)	4.20 (2.40)	5.35 (1.78)	14

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Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency	Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency
pig	937	5.07 (1.97)	4.20 (2.42)	5.34 (1.88)	8	quality	950	6.25 (1.59)	4.48 (2.12)	5.64 (1.59)	114
pillow	315	7.92 (1.40)	2.97 (2.52)	4.56 (2.17)	8	quarrel	338	2.93 (2.06)	6.29 (2.56)	4.02 (2.16)	20
pinch	938	3.83 (1.70)	4.59 (2.10)	4.76 (1.73)	6	quart	951	5.39 (2.01)	3.59 (2.51)	5.20 (1.86)	3
pistol	939	4.20 (2.58)	6.15 (2.19)	5.05 (2.77)	27	queen	952	6.44 (1.43)	4.76 (2.18)	5.49 (2.12)	41
pity	940	3.37 (1.57)	3.72 (2.02)	4.12 (1.82)	14	quick	953	6.64 (1.61)	6.57 (1.78)	6.57 (1.91)	68
pizza	526	6.65 (2.23)	5.24 (2.09)	5.69 (1.90)	3	quiet	339	5.58 (1.83)	2.82 (2.13)	4.42 (2.30)	76
plain	941	4.39 (1.46)	3.52 (2.05)	4.71 (1.68)	48	rabbit	527	6.57 (1.92)	4.02 (2.19)	6.08 (1.72)	11
plane	539	6.43 (1.98)	6.14 (2.39)	4.78 (2.19)	114	rabies	340	1.77 (0.97)	6.10 (2.62)	3.85 (2.34)	1
plant	316	5.98 (1.83)	3.62 (2.25)	4.71 (2.12)	125	radiant	954	6.73 (2.17)	5.39 (2.82)	5.61 (2.17)	8
pleasure	317	8.28 (0.92)	5.74 (2.81)	6.15 (2.31)	62	radiator	955	4.67 (1.05)	4.02 (1.94)	4.81 (1.38)	4
poetry	318	5.86 (1.91)	4.00 (2.85)	5.31 (1.81)	88	radio	341	6.73 (1.47)	4.78 (2.82)	5.28 (1.85)	120
poison	319	1.98 (1.44)	6.05 (2.82)	3.10 (2.44)	10	rage	342	2.41 (1.86)	8.17 (1.40)	5.68 (3.01)	16
politeness	320	7.18 (1.50)	3.74 (2.37)	5.74 (1.70)	5	rain	569	5.08 (2.51)	3.65 (2.35)	4.78 (1.68)	70
pollute	321	1.85 (1.11)	6.08 (2.42)	4.92 (2.51)	1	rainbow	343	8.14 (1.23)	4.64 (2.88)	4.72 (2.37)	4
poster	942	5.34 (1.75)	3.93 (2.56)	4.91 (1.87)	4	rancid	956	4.34 (2.28)	5.04 (2.27)	4.59 (1.86)	.
poverty	322	1.67 (0.90)	4.87 (2.66)	3.21 (2.21)	20	rape	344	1.25 (0.91)	6.81 (3.17)	2.97 (2.94)	5
power	323	6.54 (2.21)	6.67 (1.87)	7.28 (2.35)	342	rat	345	3.02 (1.66)	4.95 (2.36)	4.55 (2.14)	6
powerful	324	6.84 (1.80)	5.83 (2.69)	7.19 (2.52)	63	rattle	346	5.03 (1.23)	4.36 (2.18)	4.17 (1.56)	5
prairie	325	5.75 (1.43)	3.41 (2.17)	4.62 (2.13)	21	razor	957	4.81 (2.16)	5.36 (2.44)	4.91 (1.95)	15
present	943	6.95 (1.85)	5.12 (2.39)	5.83 (1.78)	377	red	570	6.41 (1.61)	5.29 (2.04)	5.78 (1.59)	197
pressure	944	3.38 (1.61)	6.07 (2.26)	3.45 (2.07)	185	refreshment	347	7.44 (1.29)	4.45 (2.70)	5.00 (1.92)	2
prestige	945	7.26 (1.90)	5.86 (2.08)	6.90 (1.96)	29	regretful	348	2.28 (1.42)	5.74 (2.32)	3.43 (2.52)	1
pretty	326	7.75 (1.26)	6.03 (2.22)	5.50 (1.97)	107	rejected	349	1.50 (1.09)	6.37 (2.56)	2.72 (2.58)	33
prick	946	3.98 (1.73)	4.70 (2.59)	4.47 (1.88)	2	relaxed	350	7.00 (1.77)	2.39 (2.13)	5.55 (1.90)	14
pride	327	7.00 (2.11)	5.83 (2.48)	7.06 (2.15)	42	repentant	351	5.53 (1.86)	4.69 (1.98)	5.42 (2.06)	1
priest	328	6.42 (2.00)	4.41 (2.71)	4.88 (2.07)	16	reptile	958	4.77 (2.00)	5.18 (2.19)	4.77 (2.02)	.
prison	329	2.05 (1.34)	5.70 (2.56)	4.20 (2.58)	42	rescue	352	7.70 (1.24)	6.53 (2.56)	6.45 (2.29)	15
privacy	330	5.88 (1.50)	4.12 (1.83)	5.66 (1.78)	12	resent	959	3.76 (1.90)	4.47 (2.12)	4.46 (2.09)	8
profit	331	7.63 (1.30)	6.68 (1.78)	5.85 (2.47)	28	reserved	353	4.88 (1.83)	3.27 (2.05)	4.30 (1.93)	27
progress	947	7.73 (1.34)	6.02 (2.58)	6.76 (2.05)	120	respect	354	7.64 (1.29)	5.19 (2.39)	6.89 (2.11)	125
promotion	332	8.20 (1.15)	6.44 (2.58)	6.79 (2.28)	26	respectful	355	7.22 (1.27)	4.60 (2.67)	5.67 (2.38)	4
protected	333	7.29 (1.79)	4.09 (2.77)	5.80 (2.54)	31	restaurant	960	6.76 (1.85)	5.41 (2.55)	5.73 (1.41)	41
proud	334	8.03 (1.56)	5.56 (3.01)	6.74 (2.73)	50	reunion	961	6.48 (2.45)	6.34 (2.35)	5.64 (1.95)	11
pungent	948	3.95 (2.09)	4.24 (2.17)	4.78 (1.52)	4	reverent	356	5.35 (1.21)	4.00 (1.60)	4.67 (1.68)	3
punishment	335	2.22 (1.41)	5.93 (2.40)	3.50 (2.43)	21	revolt	357	4.13 (1.78)	6.56 (2.34)	6.18 (2.11)	8
puppy	336	7.56 (1.90)	5.85 (2.78)	5.51 (2.39)	2	revolver	962	4.02 (2.44)	5.55 (2.39)	4.39 (2.47)	14
pus	602	2.86 (1.91)	4.82 (2.06)	4.35 (1.82)	.	reward	358	7.53 (1.67)	4.95 (2.62)	6.00 (2.14)	15
putrid	337	2.38 (1.71)	5.74 (2.26)	4.89 (2.09)	.	riches	359	7.70 (1.95)	6.17 (2.70)	6.74 (2.43)	2
python	949	4.05 (2.48)	6.18 (2.25)	4.52 (2.56)	14	ridicule	360	3.13 (2.24)	5.83 (2.73)	3.87 (2.70)	5

Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency	Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency
rifle	603	4.02 (2.76)	6.35 (2.04)	4.16 (2.71)	63	seat	380	4.95 (0.98)	2.95 (1.72)	4.84 (1.88)	54
rigid	963	3.66 (2.12)	4.66 (2.47)	4.61 (2.04)	24	secure	381	7.57 (1.76)	3.14 (2.47)	5.93 (2.57)	30
riot	361	2.96 (1.93)	6.39 (2.63)	4.18 (2.47)	7	selfish	382	2.42 (1.62)	5.50 (2.62)	4.64 (2.31)	8
river	362	6.85 (1.69)	4.51 (2.42)	5.10 (1.86)	165	sentiment	977	5.98 (1.71)	4.41 (2.30)	5.09 (1.46)	23
roach	363	2.35 (1.70)	6.64 (2.64)	4.82 (2.94)	2	serious	383	5.08 (1.59)	4.00 (1.87)	5.12 (1.65)	116
robber	964	2.61 (1.69)	5.62 (2.72)	3.62 (2.38)	2	severe	978	3.20 (1.74)	5.26 (2.36)	3.83 (1.91)	39
rock	965	5.56 (1.38)	4.52 (2.37)	5.15 (2.01)	75	sex	384	8.05 (1.53)	7.36 (1.91)	5.75 (2.25)	84
rollercoaster	528	8.02 (1.63)	8.06 (1.71)	5.10 (2.76)	.	sexy	530	8.02 (1.12)	7.36 (1.91)	6.82 (2.13)	2
romantic	364	8.32 (1.00)	7.59 (2.07)	6.08 (2.29)	32	shadow	385	4.35 (1.23)	4.30 (2.26)	4.19 (1.82)	36
rotten	365	2.26 (1.37)	4.53 (2.38)	4.32 (2.09)	2	shamed	386	2.50 (1.34)	4.88 (2.27)	2.98 (1.94)	1
rough	966	4.74 (2.00)	5.33 (2.04)	4.81 (1.70)	41	shark	606	3.65 (2.47)	7.16 (1.96)	2.63 (2.16)	.
rude	366	2.50 (2.11)	6.31 (2.47)	4.91 (2.49)	6	sheltered	387	5.75 (1.92)	4.28 (1.77)	3.76 (1.91)	4
runner	571	5.67 (1.91)	4.76 (2.40)	5.47 (1.84)	1	ship	388	5.55 (1.40)	4.38 (2.29)	5.12 (2.31)	83
rusty	367	3.86 (1.47)	3.77 (2.16)	4.53 (1.62)	8	shotgun	979	4.37 (2.75)	6.27 (1.94)	5.29 (2.67)	8
sad	368	1.61 (0.95)	4.13 (2.38)	3.45 (2.18)	35	shriek	980	3.93 (2.22)	5.36 (2.91)	4.30 (1.86)	5
safe	967	7.07 (1.90)	3.86 (2.72)	5.81 (2.06)	58	shy	389	4.64 (1.83)	3.77 (2.29)	3.44 (1.96)	13
sailboat	529	7.25 (1.71)	4.88 (2.73)	5.86 (1.71)	1	sick	607	1.90 (1.14)	4.29 (2.45)	3.04 (1.65)	51
saint	968	6.49 (1.70)	4.49 (1.90)	5.37 (2.11)	16	sickness	390	2.25 (1.71)	5.61 (2.97)	3.84 (2.50)	6
salad	369	5.74 (1.62)	3.81 (2.29)	5.47 (1.68)	9	silk	391	6.90 (1.27)	3.71 (2.51)	4.81 (1.93)	12
salute	370	5.92 (1.57)	5.31 (2.23)	5.46 (2.05)	3	silly	981	7.41 (1.80)	5.88 (2.38)	6.00 (2.09)	15
sapphire	371	7.00 (1.88)	5.00 (2.72)	5.55 (2.24)	.	sin	392	2.80 (1.67)	5.78 (2.21)	3.62 (2.29)	53
satisfied	372	7.94 (1.19)	4.94 (2.63)	6.14 (2.37)	36	sinful	393	2.93 (2.15)	6.29 (2.43)	4.24 (2.73)	3
save	969	6.45 (1.93)	4.95 (2.19)	6.00 (1.79)	62	sissy	394	3.14 (1.96)	5.17 (2.57)	3.58 (2.74)	.
savior	373	7.73 (1.56)	5.80 (3.01)	6.64 (2.18)	6	skeptical	395	4.52 (1.63)	4.91 (1.92)	4.50 (1.61)	7
scalding	970	2.82 (2.12)	5.95 (2.55)	3.82 (2.30)	1	skijump	531	7.06 (1.73)	7.06 (2.10)	4.90 (2.32)	.
scandal	971	3.32 (1.81)	5.12 (2.22)	4.34 (1.73)	8	skull	608	4.27 (1.83)	4.75 (1.85)	4.86 (1.62)	3
scapegoat	972	3.67 (1.65)	4.53 (2.13)	3.52 (1.70)	1	sky	572	7.37 (1.40)	4.27 (2.17)	5.16 (2.00)	58
scar	973	3.38 (1.70)	4.79 (2.11)	3.88 (1.71)	10	skyscraper	573	5.88 (1.87)	5.71 (2.17)	4.33 (2.36)	2
scared	604	2.78 (1.99)	6.82 (2.03)	2.94 (2.19)	21	slap	396	2.95 (1.79)	6.46 (2.58)	4.21 (2.29)	2
scholar	374	7.26 (1.42)	5.12 (2.46)	6.59 (2.02)	15	slaughter	397	1.64 (1.18)	6.77 (2.42)	3.82 (2.75)	10
scissors	974	5.05 (0.96)	4.47 (1.76)	5.16 (1.84)	1	slave	398	1.84 (1.13)	6.21 (2.93)	3.29 (2.76)	30
scorching	975	3.76 (1.83)	5.00 (2.74)	4.10 (2.01)	.	sleep	399	7.20 (1.77)	2.80 (2.66)	5.41 (2.41)	65
scorn	375	2.84 (2.07)	5.48 (2.52)	3.93 (2.64)	4	slime	400	2.68 (1.66)	5.36 (2.63)	4.17 (1.82)	1
scornful	376	3.02 (2.03)	5.04 (2.56)	4.59 (2.18)	5	slow	982	3.93 (1.60)	3.39 (2.22)	4.35 (1.61)	60
scorpion	976	3.69 (2.63)	5.38 (3.08)	3.98 (2.44)	.	slum	401	2.39 (1.25)	4.78 (2.52)	3.83 (2.18)	8
scream	605	3.88 (2.07)	7.04 (1.96)	4.75 (2.21)	13	slush	983	4.66 (1.88)	3.73 (2.23)	4.91 (1.48)	.
scum	377	2.43 (1.56)	4.88 (2.36)	4.26 (1.99)	.	smallpox	402	2.52 (2.08)	5.58 (2.13)	4.29 (2.17)	2
scurvy	378	3.19 (2.00)	4.71 (2.72)	4.48 (2.48)	1	smooth	984	6.58 (1.78)	4.91 (2.57)	5.09 (2.09)	42
seasick	379	2.05 (1.20)	5.80 (2.88)	3.41 (2.39)	.	snake	609	3.31 (2.20)	6.82 (2.10)	3.78 (2.05)	44

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Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency	Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency
snob	403	3.36 (1.81)	5.65 (2.36)	5.11 (2.25)	1	sun	532	7.55 (1.85)	5.04 (2.66)	6.16 (2.09)	112
snow	575	7.08 (1.83)	5.75 (2.47)	5.80 (1.97)	59	sunlight	1003	7.76 (1.43)	6.10 (2.30)	5.63 (2.15)	17
snuggle	404	7.92 (1.24)	4.16 (2.80)	5.66 (2.47)	4	sunrise	420	7.86 (1.35)	5.06 (3.05)	5.29 (2.41)	10
social	985	6.88 (1.82)	4.98 (2.59)	5.91 (2.07)	380	sunset	421	7.68 (1.72)	4.20 (2.99)	5.66 (2.08)	14
soft	986	7.12 (1.34)	4.63 (2.61)	6.00 (1.80)	61	surgery	612	2.86 (2.19)	6.35 (2.32)	2.75 (1.86)	6
solemn	405	4.32 (1.51)	3.56 (1.95)	4.61 (1.87)	12	surprised	422	7.47 (1.56)	7.47 (2.09)	6.11 (2.19)	58
song	987	7.10 (1.97)	6.07 (2.42)	5.85 (2.12)	70	suspicious	423	3.76 (1.42)	6.25 (1.59)	4.47 (1.99)	13
soothe	988	7.30 (1.85)	4.40 (3.08)	5.36 (2.24)	2	swamp	1004	5.14 (2.24)	4.86 (2.36)	5.29 (1.63)	5
sour	989	3.93 (1.98)	5.10 (1.95)	4.64 (1.50)	3	sweetheart	424	8.42 (0.83)	5.50 (2.73)	6.03 (2.24)	9
space	574	6.78 (1.66)	5.14 (2.54)	5.20 (2.44)	184	swift	1005	6.46 (1.76)	5.39 (2.53)	6.29 (1.85)	32
spanking	990	3.55 (2.54)	5.41 (2.73)	3.91 (2.51)	.	swimmer	576	6.54 (1.64)	4.82 (2.49)	5.96 (1.91)	.
sphere	991	5.33 (0.87)	3.88 (1.99)	5.00 (0.92)	22	syphilis	425	1.68 (1.23)	5.69 (3.25)	3.33 (2.67)	.
spider	610	3.33 (1.72)	5.71 (2.21)	4.75 (2.11)	2	table	426	5.22 (0.72)	2.92 (2.16)	4.47 (1.66)	198
spirit	406	7.00 (1.32)	5.56 (2.62)	5.82 (2.42)	182	talent	427	7.56 (1.25)	6.27 (1.80)	6.49 (1.75)	40
spouse	407	7.58 (1.46)	5.21 (2.75)	5.53 (1.97)	3	tamper	1006	4.10 (1.88)	4.95 (2.01)	4.58 (2.10)	1
spray	992	5.45 (1.63)	4.14 (2.28)	5.12 (1.43)	16	tank	613	5.16 (1.87)	4.88 (1.86)	4.78 (1.93)	12
spring	993	7.76 (1.51)	5.67 (2.51)	6.26 (1.98)	127	taste	1007	6.66 (1.57)	5.22 (2.38)	5.50 (1.65)	59
square	408	4.74 (1.02)	3.18 (1.76)	4.51 (1.45)	143	taxi	1008	5.00 (1.96)	3.41 (2.14)	4.64 (1.83)	16
stagnant	994	4.15 (1.57)	3.93 (1.94)	4.71 (1.36)	5	teacher	1009	5.68 (2.12)	4.05 (2.61)	5.11 (2.20)	80
star	409	7.27 (1.66)	5.83 (2.44)	4.68 (2.15)	25	tease	1010	4.84 (2.51)	5.87 (2.56)	4.67 (2.37)	6
startled	410	4.50 (1.67)	6.93 (2.24)	4.48 (1.57)	21	tender	1011	6.93 (1.28)	4.88 (2.30)	5.33 (1.75)	11
starving	611	2.39 (1.82)	5.61 (2.53)	3.63 (2.10)	6	tennis	540	6.02 (1.97)	4.61 (2.60)	5.61 (2.12)	15
statue	995	5.17 (0.70)	3.46 (1.72)	4.95 (1.40)	17	tense	428	3.56 (1.36)	6.53 (2.10)	5.22 (2.02)	15
stench	996	2.19 (1.37)	4.36 (2.46)	4.29 (1.91)	1	termite	429	3.58 (2.08)	5.39 (2.43)	3.87 (1.87)	.
stiff	997	4.68 (1.97)	4.02 (2.41)	4.93 (2.04)	21	terrible	430	1.93 (1.44)	6.27 (2.44)	3.58 (2.34)	45
stink	411	3.00 (1.79)	4.26 (2.10)	4.16 (1.98)	3	terrific	431	8.16 (1.12)	6.23 (2.73)	6.60 (2.15)	5
stomach	998	4.82 (2.06)	3.93 (2.49)	4.68 (1.85)	37	terrified	432	1.72 (1.14)	7.86 (2.27)	3.08 (2.75)	7
stool	999	4.56 (1.72)	4.00 (2.14)	4.98 (1.85)	8	terrorist	614	1.69 (1.42)	7.27 (2.38)	2.65 (2.30)	.
storm	1000	4.95 (2.22)	5.71 (2.34)	4.54 (2.04)	26	thankful	433	6.89 (2.29)	4.34 (2.31)	5.32 (2.00)	6
stove	1001	4.98 (1.69)	4.51 (2.14)	5.36 (1.87)	15	theory	434	5.30 (1.49)	4.62 (1.94)	4.88 (1.81)	129
street	412	5.22 (0.72)	3.39 (1.87)	4.81 (1.21)	244	thermometer	1012	4.73 (1.05)	3.79 (2.02)	4.39 (1.51)	.
stress	413	2.09 (1.41)	7.45 (2.38)	3.93 (2.75)	107	thief	435	2.13 (1.69)	6.89 (2.13)	3.79 (2.55)	8
strong	414	7.11 (1.48)	5.92 (2.28)	6.92 (2.43)	202	thorn	436	3.64 (1.76)	5.14 (2.14)	4.45 (1.50)	3
stupid	415	2.31 (1.37)	4.72 (2.71)	2.98 (2.18)	24	thought	1013	6.39 (1.58)	4.83 (2.46)	6.02 (1.70)	515
subdued	416	4.67 (1.31)	2.90 (1.81)	4.08 (1.56)	8	thoughtful	437	7.65 (1.03)	5.72 (2.30)	5.61 (2.11)	11
success	417	8.29 (0.93)	6.11 (2.65)	6.89 (2.40)	93	thrill	438	8.05 (1.48)	8.02 (1.65)	6.54 (2.30)	5
suffocate	418	1.56 (0.96)	6.03 (3.19)	3.44 (2.81)	1	tidy	1014	6.30 (1.56)	3.98 (2.22)	5.49 (1.93)	1
sugar	1002	6.74 (1.73)	5.64 (2.18)	5.50 (1.50)	34	time	439	5.31 (2.02)	4.64 (2.75)	4.63 (2.24)	1599
suicide	419	1.25 (0.69)	5.73 (3.14)	3.58 (3.02)	17	timid	440	3.86 (1.55)	4.11 (2.09)	3.09 (1.91)	5

Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency	Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency
tobacco	441	3.28 (2.16)	4.83 (2.90)	4.08 (2.27)	19	useful	466	7.14 (1.60)	4.26 (2.47)	5.93 (2.10)	58
tomb	442	2.94 (1.88)	4.73 (2.72)	3.72 (2.05)	11	useless	467	2.13 (1.42)	4.87 (2.58)	3.92 (2.62)	17
tool	1015	5.19 (1.27)	4.33 (1.78)	5.67 (1.62)	40	utensil	1024	5.14 (1.39)	3.57 (1.98)	5.40 (1.47)	.
toothache	443	1.98 (1.15)	5.55 (2.51)	3.90 (1.85)	.	vacation	468	8.16 (1.36)	5.64 (2.99)	6.80 (2.08)	47
tornado	444	2.55 (1.78)	6.83 (2.49)	4.30 (2.42)	1	vagina	1025	6.14 (1.77)	5.55 (2.55)	5.88 (1.74)	10
torture	445	1.56 (0.79)	6.10 (2.77)	3.33 (2.37)	3	valentine	469	8.11 (1.35)	6.06 (2.91)	5.81 (2.45)	2
tower	1016	5.46 (1.75)	3.95 (2.28)	5.78 (2.14)	13	vampire	470	4.26 (1.86)	6.37 (2.35)	5.05 (2.27)	1
toxic	446	2.10 (1.48)	6.40 (2.41)	4.42 (2.51)	3	vandal	471	2.71 (1.91)	6.40 (1.88)	3.91 (2.49)	1
toy	1017	7.00 (2.01)	5.11 (2.84)	6.09 (1.84)	4	vanity	472	4.30 (1.91)	4.98 (2.31)	4.80 (2.03)	7
tragedy	447	1.78 (1.31)	6.24 (2.64)	3.50 (2.34)	49	vehicle	473	6.27 (2.34)	4.63 (2.81)	5.77 (2.61)	35
traitor	448	2.22 (1.69)	5.78 (2.47)	4.61 (2.71)	2	venom	474	2.68 (1.81)	6.08 (2.44)	3.94 (2.23)	2
trash	615	2.67 (1.45)	4.16 (2.16)	5.24 (1.85)	2	vest	1026	5.25 (1.33)	3.95 (2.09)	5.09 (1.24)	4
trauma	616	2.10 (1.49)	6.33 (2.45)	2.84 (1.87)	1	victim	618	2.18 (1.48)	6.06 (2.32)	2.69 (2.04)	27
travel	1018	7.10 (2.00)	6.21 (2.51)	6.31 (2.08)	61	victory	475	8.32 (1.16)	6.63 (2.84)	7.26 (2.14)	61
treasure	449	8.27 (0.90)	6.75 (2.30)	6.36 (2.42)	4	vigorous	476	6.79 (1.54)	5.90 (2.66)	5.41 (2.22)	29
treat	1019	7.36 (1.38)	5.62 (2.25)	5.78 (1.82)	26	village	477	5.92 (1.34)	4.08 (1.87)	4.94 (1.74)	72
tree	450	6.32 (1.56)	3.42 (2.21)	5.08 (2.29)	59	violent	478	2.29 (1.78)	6.89 (2.47)	5.16 (2.86)	33
triumph	451	7.80 (1.83)	5.78 (2.60)	6.98 (2.20)	22	violin	579	5.43 (1.98)	3.49 (2.26)	5.18 (2.01)	11
triumphant	452	8.82 (0.73)	6.78 (2.58)	6.95 (2.55)	5	virgin	1027	6.45 (1.76)	5.51 (2.06)	6.24 (2.48)	35
trophy	453	7.78 (1.22)	5.39 (2.44)	6.44 (2.32)	8	virtue	479	6.22 (2.06)	4.52 (2.52)	6.13 (2.09)	30
trouble	454	3.03 (2.09)	6.85 (2.03)	4.85 (2.39)	134	vision	480	6.62 (1.84)	4.66 (2.43)	6.02 (1.96)	56
troubled	455	2.17 (1.21)	5.94 (2.36)	3.91 (2.33)	31	volcano	619	4.84 (2.14)	6.33 (2.21)	3.25 (1.97)	2
truck	577	5.47 (1.88)	4.84 (2.17)	5.33 (1.83)	57	vomit	481	2.06 (1.57)	5.75 (2.84)	3.58 (2.45)	3
trumpet	456	5.75 (1.38)	4.97 (2.13)	4.57 (1.72)	7	voyage	1028	6.25 (1.91)	5.55 (2.23)	5.18 (1.98)	17
trunk	1020	5.09 (1.57)	4.18 (2.19)	5.14 (1.90)	8	wagon	1029	5.37 (0.97)	3.98 (2.04)	5.05 (1.20)	55
trust	457	6.68 (2.71)	5.30 (2.66)	6.61 (2.04)	52	war	482	2.08 (1.91)	7.49 (2.16)	4.50 (3.00)	464
truth	458	7.80 (1.29)	5.00 (2.77)	6.47 (2.11)	126	warmth	483	7.41 (1.81)	3.73 (2.40)	5.61 (1.67)	28
tumor	459	2.36 (2.04)	6.51 (2.85)	3.58 (2.42)	17	wasp	484	3.37 (1.63)	5.50 (2.17)	3.76 (1.82)	2
tune	1021	6.93 (1.47)	4.71 (2.09)	5.74 (1.82)	10	waste	485	2.93 (1.76)	4.14 (2.30)	4.72 (1.94)	35
twilight	1022	7.23 (1.80)	4.70 (2.41)	5.59 (1.82)	4	watch	580	5.78 (1.51)	4.10 (2.12)	5.37 (1.75)	81
ugly	460	2.43 (1.27)	5.38 (2.23)	4.26 (2.33)	21	water	486	6.61 (1.78)	4.97 (2.49)	5.08 (1.99)	442
ulcer	461	1.78 (1.17)	6.12 (2.68)	4.17 (2.22)	5	waterfall	487	7.88 (1.03)	5.37 (2.84)	5.20 (2.18)	2
umbrella	578	5.16 (1.57)	3.68 (1.99)	5.42 (1.91)	8	wealthy	488	7.70 (1.34)	5.80 (2.73)	6.77 (2.57)	12
unfaithful	462	2.05 (1.55)	6.20 (2.70)	3.02 (2.54)	1	weapon	489	3.97 (1.92)	6.03 (1.89)	5.19 (2.61)	42
unhappy	463	1.57 (0.96)	4.18 (2.50)	3.34 (2.35)	26	weary	490	3.79 (2.12)	3.81 (2.29)	4.00 (1.91)	17
unit	1023	5.59 (1.87)	3.75 (2.49)	5.11 (1.74)	103	wedding	491	7.82 (1.56)	5.97 (2.85)	6.68 (2.08)	32
untroubled	464	7.62 (1.41)	3.89 (2.54)	5.53 (2.54)	.	whistle	1030	5.81 (1.21)	4.69 (1.99)	5.27 (1.87)	4
upset	465	2.00 (1.18)	5.86 (2.40)	4.08 (2.31)	14	white	542	6.47 (1.59)	4.37 (2.14)	5.98 (1.73)	365
urine	617	3.25 (1.71)	4.20 (2.18)	5.24 (1.86)	1	whore	492	2.30 (2.11)	5.85 (2.93)	4.61 (2.73)	2

Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency	Description	Word No.	Valence Mean(SD)	Arousal Mean(SD)	Dominance Mean (SD)	Word Frequency
wicked	493	2.96 (2.37)	6.09 (2.44)	4.36 (2.65)	9	world	500	6.50 (2.03)	5.32 (2.39)	5.26 (2.47)	787
wife	1031	6.33 (1.97)	4.93 (2.22)	5.57 (1.68)	228	wounds	620	2.51 (1.58)	5.82 (2.01)	3.92 (1.57)	8
win	494	8.38 (0.92)	7.72 (2.16)	7.39 (2.36)	55	writer	1036	5.52 (1.90)	4.33 (2.45)	4.73 (1.84)	73
windmill	1032	5.60 (1.65)	3.74 (2.13)	5.24 (1.04)	1	yacht	1037	6.95 (1.79)	5.61 (2.72)	6.10 (2.13)	4
window	495	5.91 (1.38)	3.97 (2.01)	4.91 (1.60)	119	yellow	545	5.61 (1.94)	4.43 (2.05)	5.47 (1.58)	55
wine	496	5.95 (2.19)	4.78 (2.34)	5.31 (2.15)	72	young	1038	6.89 (2.12)	5.64 (2.51)	5.30 (2.49)	385
wink	1033	6.93 (1.83)	5.44 (2.68)	5.70 (1.77)	7	youth	1039	6.75 (2.29)	5.67 (2.52)	5.11 (2.55)	82
wise	497	7.52 (1.23)	3.91 (2.64)	6.70 (2.39)	36	zest	1040	6.79 (2.04)	5.59 (2.66)	6.00 (1.99)	5
wish	1034	7.09 (2.00)	5.16 (2.62)	5.28 (2.09)	110						
wit	1035	7.32 (1.90)	5.42 (2.44)	6.38 (2.01)	20						
woman	498	6.64 (1.76)	5.32 (2.59)	6.33 (1.52)	224						
wonder	499	6.03 (1.58)	5.00 (2.23)	5.32 (2.17)	67						

Appendix B

Index components	Illustrative measures	Anchor scale values:	
		1 = least desirable;	9 = optimal (ideal)
Products/services	Quality associations	Almost none (poor)	Highest (perfect)
	Public awareness of corporate name and products/services	Almost none (poor)	Highest (perfect)
	Extent of brands and umbrella brands	Single brand item	Numerous brand lines
	Warranty claims	Often, numerous	Never
	Liability claims	Often, numerous	Never
Employees:			
All levels	Employee satisfaction with employer	Almost none (poor)	Highest (perfect)
	Turnover	Common, extensive	Almost none (perfect)
	Exit interviews	None conducted	Formal, informative
	Number of applicants for open positions	None, unfilled positions	Excessive, high interest
	Training and development efforts	None or rare	Extensive
	Employee feedback relative to meeting employee needs	None or rare	Highest (perfect)
	Coordination and communication efforts across functional and business areas	None, isolated, lack of information flow	Extensive and regular
	Upper management	CEO personal reputation only	Highest (perfect)
		Competency	Highest (perfect)
		Turnover	Common, extensive
		Compensation and evaluation packages and goal congruence with strategic objectives	Almost none (perfect)
		Information collection from subordinates	Incongruent, at odds with long-term objectives
			Congruent and contribute to achieving long-term objectives
	External relationships (non customer):		
	Suppliers	Payment terms	Regular, participative
		Major supplier quality	
		Relationship quality of major suppliers	
		Relationship duration for major suppliers	
	Partners	Quality of suppliers for suppliers	
		Existence of alliance relationships	
		Longevity of alliance relationships	
		Recognition of key strategic partners	
		Reputation of key strategic partners	
	Competitors	Joint venture contractual agreements	
		Industry participation	
		Competitor response to key corporate initiatives	
	Investors	Market premium	
	Environment	Market stability	
		Environmental policy	
		Dedicated employee positions	
	Society	Liability claims	
		Regulatory intervention	
		Charitable endeavors	
	Innovation	Employee quality of life initiatives	
		Formalized program to generate and evaluate innovation	
		Growth relative to customer needs	
	Value creation	New product/service development	
		Identification and responsiveness to customer needs	
		Customer retention	
Financial strength	Information content of annual report	Frequent loss	
	Additional disclosures	Almost none (poor)	

Table 1 (Continued)

Index components	Illustrative measures	Anchor scale values:	
		1= least desirable;	9 = optimal (ideal)
Strategy	Strategic priorities relative to reputation	Ignores reputation	Highest priority
	Integration of strategy across business units	None	Complete formal and operational integration
	Management control system fostering consistency	No formal system in place	Formal system with perfect consistency
Culture	Ethics policy	None in Place	Highly effective
	Reporting procedure for ethics violations	None in Place	Highly effective
	Upper management attitudes	Unethical or ignores	Corporate priority
Intangible liabilities	Ethics committee on the board	No	Yes
	Inadequate research and development process	No formal process	Highly developed and successful process
	Lack of adequate information infrastructure	No infrastructure	Well-developed
	Organizational structure – lack of flexibility	Totally inflexible	Highly flexible
	Bad word-of-mouth among customers	Numerous and common	Non existent
	Inadequate distribution channels	Numerous and common	Non existent

Appendix C

Maple Leaf Foods (2008)

My name is Michael McCain. As you may know, Listeria was found in some of our products. Even though Listeria is a bacteria commonly found in many foods and in the environment, we work diligently to eliminate it. When Listeria was discovered in the product, we launched immediate recalls to get it off the shelf. Then we shut the plant down. Tragically, our products have been linked to illnesses and loss of life. To Canadians who were ill and to the families who have lost loved ones, I offer my deepest sympathies. Words cannot begin to express our sadness for your pain. Maple Leaf Foods is 23 000 people who live in a culture of food safety. We have an unwavering commitment to keeping your food safe with standards well beyond regulatory requirements. But this week, our best efforts failed and we are deeply sorry. This is the toughest situation we have faced in 100 years as a company. We know this has shaken your confidence in us. I commit to you that our actions are guided by putting your interest first.

Appendix D

Domino's Pizza (2009)

Hello, I'm Patrick Doyle, president of Domino's USA. Recently, we discovered a video of two dominoes team members who thought that their acts would be a funny YouTube hoax. We sincerely apologize for this incident. We thank members of the online community who quickly alerted us and allowed us to take immediate action. Although the individuals in question claim it's a hoax, we are taking this incredibly seriously. This was an isolated incident in Conover, North Carolina. The two team members have been dismissed and there are felony warrants out for their arrests. The store has been shut down and sanitized from top to bottom.

There is nothing more important or sacred to us than our customers trust. We are re-examining all of our hiring practices to make that people like this don't make it into our stores. We have auditors across the country in our stores everyday of the week, making sure that our stores are as clean as they can possibly be and that we are delivering high quality food to our customers day in and day out. The independent owner of that store is reeling from the damage that this has caused and it is not a surprise that this has caused a lot of damage to our brand.

It sickens me that the actions of two individuals could impact our great system, where 125 000 men and women work for local business owners around the US and more than 60 countries around the world. We take tremendous pride in crafting delicious food that they deliver to you every day. There are so many people who have come forward with messages of support for us and we want to thank you for hanging in there with us as we work to regain your trust.

Appendix E

Toyota USA (2010)

Hi, I'm Jim Lentz, president of Toyota Motor Sales USA. I want to let you know that we have developed a comprehensive plan to fix the sticking pedal situation in recalled Toyota vehicles.

But first, I want to sincerely apologize to Toyota owners.

I know that our recalls have caused many of you concern... and for that ... I am truly sorry.

Toyota has always prided itself on building high quality, durable cars that customers can depend on...and I know that we have let you down. I want you to know that all 172,000-plus Toyota and dealership employees across North America will work hard to fix your vehicle properly and regain your trust.

In fact, many of our dealers will have extended hours and some will remain open 24 hours a day to get this job done.

And we're redoubling our efforts to ensure this does not happen again.

The fix can be completed within a short period of time, depending on the work flow at your dealership.

We hope to start making those repairs in just a few days. Owners will be notified by mail when to set up a dealer appointment.

In addition, our dealers have already started fixing the earlier-announced floor mat recall vehicles. We are doing this as quickly as possible, and we ask that you wait to contact your dealer when you receive our letter in the mail.

Some Toyota vehicles are involved in both recalls... and we hope to coordinate your notification so you can take care of both repairs in one dealer visit.

For more details, including a list of the vehicles involved in these recalls, please visit Toyota.com or call the Toyota Customer Experience Center

Once again I apologize for this situation...and I hope you will give us a chance to earn back your trust.

Thank you for your patience and understanding.

Appendix F

BP Oil (2010)

The gulf spill is a tragedy that never should have happened. I'm Tony Hayward. BP has taken full responsibility for cleaning up the spill in the gulf. We've helped organize the largest environmental response in this country's history. More than 2 million feet of boom, 30 planes, and over 1,300 boats are working to protect the shoreline. Where oil reaches the shore, thousands of people are ready to clean it up. We will honor all legitimate claims, and our clean up efforts will not come at any cost to taxpayers.

To those affected and your families, I'm deeply sorry. The gulf is home for thousands of BP employees and we all feel the impact. To all the volunteers and for the strong support of the government, thank you. We know it is our responsibility to keep you informed and do everything we can so this never happens again. We will get this done. We will make this right.

Appendix G

FedEx (2011)

Along with many of you, I've seen the video showing one of our couriers, on behalf of all of us at FedEx please accept our apology. I am upset and embarrassed for our customer's poor experience. This goes directly against all FedEx values. It's just not who we are. We were determined to make this right and I am very pleased that we were able to meet with our customer who has accepted our apology. We have resolved the issue and the customer is satisfied.

Many of you want to know what is happening to the employee, we take this matter very seriously, while we consider employee information private I can assure you we are working with our disciplinary policy and the employee is not working with customers, the most disappointing thing about this incident for me is: It absolutely not represent our 290,000 professional dedicated team members world wide. Our FedEx motto is simply: I will make every FedEx experience outstanding. While this delivery did not live up to that high standard we are already using it as a learning opportunity, we have shared the video internally as a reminder that every single package is precious Cargo to you – our customers. This will serve as a constant reminder of earning your trust with every delivery, which is something we always firmly believed. We will use this unfortunate incident to be an even be a better service provider for you.

Appendix H

Research In Motion (2011)

Hi, I'm Mike Lazaridis.

Since launching BlackBerry in 1999, it's been my goal to provide reliable real-time communications around the world. We did not deliver on that goal this week. Not even close. I apologize for the service outages this week. We've let many of you down. But let me assure you that we're working round the clock to fix this. You expect better from us, and I expect better from us.

It's too soon to say this issue is fully resolved. But let me give you more detail about what's happening. We're now approaching normal BlackBerry service levels in Europe, the Middle East, India and Africa. We continue to monitor the system very closely. We're working very hard to continue to stabilize the system, and we're seeing steady improvements. We expect to see continued progress, and possibly some instability, as the system comes back to normal service levels everywhere. We know that you want to hear more from us, and we're working to update you more frequently through our websites and social media channels as we gather more information. I'd like to give you an estimated time of full recovery around the world – but I cannot do this with certainty at this time.

For those of you affected, I know this is very frustrating. We're doing everything in our power to restore regular service levels, and we're working tirelessly to restore your trust in us. We'll update you again soon. Thank you.

Appendix I

Alaska Airlines (2011)

B: Hi everyone, I'm Brad Tilden.

G: And I'm Glen Johnson.

B: We're here to talk with you about a problem with our computer systems, which has seriously affected our operations today. Early this morning, while a back up power supply system was being installed, a transformer blew and took down the central computer system for both Alaska and Horizon. This system is used to prepare flight plans among other functions.

G: As a result, both Alaska and Horizon have been forced to cancel a number of flights, disrupting the travel plans of our customers. In addition, many flights have been delayed by two hours or more; and unfortunately more delays are expected throughout the Alaska-Horizon route system today.

B: And as of mid-day, the two airlines have combined to cancel around 140 flights.

G: And unfortunately, these cancellations have affected nearly 12,000 of our passengers.

B: Our IT crews have been working non-stop to fix the issue and we're operating on backup systems now. We're working to get as many of our customers as possible on their way as quickly as we can.

G: In the meantime, we are advising all of our customers to check the status of their flight before leaving for the airport either by visiting alaskaair.com or by calling 1-800-alaskaair.

B: We know you count on us to meet our flight schedule so you can make it to your commitments, whether it is a family gathering, an important business obligation or a spring break trip. That's a responsibility that we don't take lightly and we're very sorry for preventing you from getting to your destination on time.

G: Our airport representatives and reservations agents are re-booking customers at no charge on other flights, and we're also working to accommodate them on other airlines if necessary. In addition, we're adding extra Horizon flights as needed throughout the day.

B: If you are among those customers who have been affected, we encourage you to contact our customer care team after you have been re-accommodated. Our representatives are working diligently to respond to every customer and we will make this right for you.

G: On behalf of the 13,000 employees of Alaska Airlines and Horizon Air, please, accept our sincere apologies for any disruption to your travel plans and also, our tanks for your patience and understanding.

B: We look forward to the opportunity to welcome you on one of our flights again soon.

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