LINGUISTIC AGENCY AND IDENTIFICATION IN HEALTH NARRATIVES

by

ARIANA NICOLE SPUNT

Bachelor of Arts, 2014
Texas Christian University
Fort Worth, Texas

Submitted to the Faculty
Graduate Division
Bob Schieffer College of Communication
Texas Christian University
In partial fulfillment of the
Requirements for the degree of

MASTER OF SCIENCE

May 2018
Linguistic Agency and Identification in Health Narratives

Ariana Nicole Spunt

Texas Christian University, 2018

Advisor: Adam Richards, Ph.D.

This study explains the role of linguistic agency and identification in health narratives about depression. Specifically, this study aimed to explore this relationship in the context of individuals attitudes of depression stigma. Theoretical frameworks of explanation included Narrative Paradigm and linguistic agency. Participants included 152 undergraduate students who completed an online questionnaire including narratives with human and depression agency. Results both supported and differed from previous research of linguistic agency. Specifically, disease agency did not function as hypothesized and human agency only partially functioned as expected. The central goal of this study was to explore linguistic agency and identification in a new health context, aiming to explore how agency and identification may reduce or increase depression stigma. Overall, the main effect of agency was not supported and high levels of identification in a human agency narrative increased stigma. Conversely, disease agency and low identification in a narrative decreased depression stigma. The theoretical and practical implications of these findings were discussed.
TABLE OF CONTENTS

Introduction Page 7

Linguistic Agency and Depression Page 11

The Effects of Linguistic Agency in Health Advocacy Page 15

Identification in Narratives Page 17

Cognitive Processes Page 20

Identification in Narratives Page 22

Methods Page 24

Participants Page 22

Procedures Page 23

Measures Page 26

Depression Stigma Scale Page 25

Identification Page 27

Perceived Linguistic Agency Page 27

Results Page 28

Figure 1 Page 29

Table 1 Page 32

Table 2 Page 33

Table 3 Page 34

Table 4 Page 34

Discussion Page 35

Linguistic Agency Page 36

Identification Page 38
LIST OF TABLES AND FIGURES

1. Figure 1: Interaction of Agency Manipulation and Identification  
   Page 29

2. Table 1: Effects of Identification on Perceived Stigma  
   Page 32

3. Table 2: The Effect of Agency on Perceived Stigma at 
   Levels of Identification  
   Page 33

4. Table 3: Descriptive Statistics and Pearson’s Product-Moment 
   Correlations for All Variables  
   Page 34

5. Table 4: Effects of Identification on Personal Stigma  
   Page 34
Linguistic Agency and Identification in Health Narratives

Depression is one of the leading causes of disability in the United States, as millions suffer from the mental illness of depression and deal with associated consequences of stigma (World Health Organization, 2001). Corrigan et al. (2017) described stigma as the social rejection of a person because of an undesirable attribute and a rejection that can have negative physical, mental, social, and economic consequences for the sufferer. Health communication researchers should study depression stigma reduction in order to benefit society and this growing public health concern. Because depression affects millions of people of all ages, from teens to the elderly, this health concern is a growing epidemic in the United States (Brain & Behavior Research Foundation, n.d.). Health communicators must apply persuasion techniques to implement messages about depression for several reasons. Messages about depression could include information about anti-depressive drugs, suicide prevention, and stigma reduction. When considering which of these messages to focus on for the current study, public stigma is a widely researched phenomenon, focusing mostly on health issues such as anti-smoking campaigns, obesity, HIV/AIDS, and mental illness such as schizophrenia (Brent, 2016; Ellerby, 2015; Puhl & Heuer, 2010; Stuber, Galea, & Link 2008). Studies have not focused on specific depression stigma message design, which could be an important tool for health communicators to reduce stigma. Two persuasive communication strategies that can be applied to reduce stigma include linguistic agency and narratives. These two different design structures implement a macro and micro level view, meaning that linguistic agency is grammatical structure (micro level) and narratives are the overarching story-telling aspect (macro level). The purpose of the present research is to assess the combined effects of these structures when advocating for depression stigma reduction in health messages.
Linguistic agency affects a reader’s perceptions of a health message. Linguistic agency is a grammatical design that assigns action or responsibility to a specific entity (Bell, McGlone, & Dragojevic, 2014a). For example, when speaking of depression, it is possible to assign human agency to a sufferer of the disease (e.g., “Billy suffered from depression.”) or disease agency to the depression itself (e.g., “Depression affected Billy.”). Linguistic agency assignment can play a crucial role in changing attitudes towards health perceptions. Previously, linguistic agency studies have focused on health messages including perceived threat and susceptibility to diseases (Bell, McGlone, & Dragojevic, 2014b; Chen et al., 2015; Dragojevic, Bell, & McGlone, 2014; McGlone, Bell, Zaitchik, & McGlynn, 2012). Because a message must contain some sort of agency, there is a great deal of potential for linguistic agency to be used effectively in persuasive health messages. There is no choice in assigning agency or not, as it is an essential part of grammatical structure (Bell et al., 2014a; McGlone & Pfiester, 2009). The choice comes in what or whom the agency is assigned to. People are sometimes unaware of their stigma attitudes and prejudice or unwilling to change their attitudes. Linguistic agency offers a way for people to reframe mental illness, and then consequently alter their stigma without an elaborate, cognitive response of facing their stigma beliefs. Although linguistic agency is most frequently used in promotional health messages, some research has applied linguistic agency to the use of health narratives (Chen et al., 2015). It is possible that characteristics of narratives alter the way linguistic agency functions in the telling of a story. In this thesis, I explore the possibility that identification in narratives affects the persuasive effectiveness of using linguistic agency in a narrative health message.

Using narratives, or stories, is a common way in which humans understand, process, and convey information. Fisher’s Narrative Paradigm (1984, 1985), states that people are naturally
storytellers, and that persuasion goes beyond rational logic-based arguments. Instead, humans use their personal experiences and values to interpret arguments, accepting those that are similar to them and consistent with their beliefs as common sense. Fisher extends Burke’s idea of humans as “symbol-using animals,” explaining that society functions by exchanging symbols and making meaning through stories (Burke, 1968 p. 16; Fisher, 1984, p. 6). Fisher argues that narratives as a form of sensemaking incorporate a beginning, middle, and an end, which goes beyond the scope of traditional argumentation, more specifically compared to the rational world paradigm (Aristotle’s proposal of rational argumentation). We do not view our environment as a set of laws and prescribed rules to be followed, but rather narratives help us understand actions of others, our own actions, and how we make sense of the two together. Therefore, story-telling is more persuasive than logic-based arguments because of its connection to the way humans already process their worldview. If humans create meaning through narrative as an effective means of sensemaking, then using narratives for identification purposes is a logical method of persuasion.

Many variables, such as identification and perceived similarity with characters, aid in persuasiveness of narratives. Identification is defined a multitude of ways, but is generally explained as perceived similarity to a character, which consequently leads to adopting his or her attitudes, beliefs, and goals (de Graaf, Hoeken, Sanders, & Beentjes, 2012). Communication researchers studied identification as a measured variable (e.g., Slater & Rouner, 2002; Green, 2006; Hoffner & Buchanan, 2005), but few studies used experimental manipulations in order to demonstrate its causal effect on persuasive outcomes (e.g., de Graaf et al., 2012). Identification is most frequently studied in media characters within television shows and advertisements (Basil,
1996; Cohen, 2001; Hoffner & Buchanan, 2005), but is also relevant to promotional health
messages in the context of people’s stories with depression recovery.

Some communication research has investigated character identification in narratives and
the use of identification in persuasive appeals (de Graaf et. al, 2012; Hoeken, Kolthoff, &
Sanders, 2016). However, the absence of established causality has created a gap in identification
research. Without establishing causality of identification on persuasive outcomes, we are unable
to confidently conclude that identification was the mechanism by which outcomes were
significant. Causal conclusions cannot be drawn without manipulating identification, and most
studies simply measure the construct. This issue of causality in narrative and character
identification research has only recently been addressed, and a few newer studies aim to
manipulate identification in new and unique ways. For example, recent studies have
manipulated story perspective, self-referencing, and character-reader similarity (de Graaf, 2014;
de Graaf et al., 2012). Although this research has shown that identification can be manipulated to
affect persuasive outcomes, it also calls for further study of the mechanisms by which
identification persuades.

By combining these macro and micro levels of message design structures, identification
in narratives and linguistic agency, the current study could greatly increase the perceived
persuasiveness of health messages. Researchers have already shown linguistic agency increases
persuasive appeals, but as I will argue, the use of identification in narratives may cause the
effects of linguistic agency to differ. Therefore, identification moderates the effect of linguistic
agency.
Literature Review

Linguistic Agency and Depression

Linguistic agency is the assignment of responsibility of an action to a specific entity in a sentence structure (McGlone et al., 2013). Linguistic assignment can be given to a human, such as “I have depression,” or to the disease, such as “Depression affects me.” When assignment is given to the human, responsibility for the action falls on the human. When the assignment is given to the disease, the responsibility for the action shifts to the disease. Describing health consequences with different linguistic assignments leads to different perceptions of disease-human relationship. Chen et al. (2015) argued that “the ascription of causality to the health threat implies passivity of affected persons” (p. 977). When disease agency is used to frame a health problem, the person involved is perceived as not accountable for the action, as the cause for the event is through the disease.

In the context of depression and stigma, linguistic agency assigned to the disease or the depressed person has the potential to affect perceptions of stigma and change the way the public views sufferers of depression. On the one hand, human agency may lead others to view the person as accountable for his or her depression, thereby increasing stigma toward depressed people. On the other hand, disease assignment may lead others to blame the depression for negative symptoms, thereby decreasing stigma toward depressed people.

The public perceives depression – although a mental illness – as a mood or pessimistic attitude because it is internal and does not have a physical manifestation (Jin, 2015; Weiner, Perry, & Magnusson, 1988). As a result, depression is a commonly stigmatized disease (Park, 2016). Stigma is a belief that labels an out-group as devalued or inept because of some defining characteristic, such as mental illness. Stigma brings consequences, such as status loss, difficulty
in maintaining friendships, feelings of inferiority, and rejection (Park, 2016). When people experience stigma, it affects their efficacy to seek treatment and is a barrier to recovery in general (Botha, Shamblaw, & Dozois, 2017). Even when people understand depression to be a real disease, they are still fearful of people with it (Wang et al., 2007). For this reason, the strategic use of character identification in a narrative in combination with disease agency could reduce message recipients’ perceptions of depression stigma.

The consequential effects of reducing stigma are crucial for the lives of sufferers of depression. Linguistic agency has been used in various health threat contexts but is especially relevant in the context of depression stigma. When health communicators describe depression as a biological disease or a hormone imbalance in antidepressant advocacy, research has shown that viewers believe the sufferer is not to blame (Jin, 2015). Thus, if the assignment of agency can influence the degree to which people make attributions of blame to the disease or the depressed person, this message framing strategy has the potential to affect how people stigmatize others with depression. Given Jin’s (2015) finding, I expect that disease agency leads to less stigmatization of depression compared to human agency.

This issue is important because of the agentic choices that message designers make without an understanding of how their language choice may affect perceptions of depression. For example, a brochure produced by the Anxiety and Depression Association of America (2016a) begins with the following:

Most people feel depressed at times. Losing a loved one, getting fired from a job, going through a divorce, and other difficult situations can lead a person to feel sad, lonely, scared, nervous, or anxious. Depression is more than just sadness. It interferes with daily
life and causes pain for you and everyone who cares about you. It’s a common illness, but a very serious one.

The passage begins with human agency, whereas the latter sentences display disease agency. Interspersed throughout the brochure is a mix of assignment to humans (e.g., “It may be difficult to tell if a child, adolescent, or teen is suffering from depression.”) and to the disease (e.g., “Depression in children, adolescents, and teens increases risk for suicide.”). Presumably, this informative message was written without awareness to how linguistic assignment may affect stigmatization. If human agency leads to unintentional stigmatization of people with depression, such language should be avoided.

Other depression campaigns also exhibit mixed used of agency. Erika’s Lighthouse is a nonprofit organization aimed to raise awareness about depression among adolescents (Erika’s Lighthouse, 2017b). The predominant standout message first encountered on the webpage for teens (Erika’s Lighthouse, 2017a) states that “up to 20% of teens will suffer from at least one depressive episode before they reach adulthood.” The subtext then goes on to say “We know that you’re here because depression isn’t just a statistic to you. It’s affected your life, either personally, or maybe you have a friend or family member with depression.” The standout message uses human agency, the second sentence uses disease agency, and the third compound sentence uses disease agency in the first clause and human agency in the second clause. Evidently, those who crafted this message did not write these messages with attention to agency.

The National Institute of Mental Health (2016) introduces its online entry about depression with human agency:

Do you feel sad, empty, and hopeless most of the day, nearly every day? Have you lost interest or pleasure in your hobbies or being with friends and family? Are you having
trouble sleeping, eating, and functioning? If you have felt this way for at least 2 weeks, you may have depression, a serious but treatable mood disorder.

Later material on this web page uses disease agency (e.g., “Depression affects different people in different ways.”), but mainly frames its ensuing discussion with human agency (e.g., “Older children and teens with depression may get into trouble at school, sulk, and be irritable. Teens with depression may have symptoms of other disorders, such as anxiety, eating disorders, or substance abuse.”).

In a final example, the “R U OK?” campaign was developed by Texas Christian University’s Office of Student Affairs to build awareness of mental illness and its effects (TCU Student Affairs Counseling & Mental Health Center, n.d.). On its website, the first standout message uses disease agency:

It’s more common than you think: Mental illness is on the rise at America’s colleges, and TCU is not immune. 1 out of every 4 adults in the United States is affected by a mental illness at some point in their lives.

An adjacent standout message uses human agency:

Don’t be afraid: If you are having thoughts of suicide, please don’t be afraid to ask for help. You do not have to go through this alone. You will not shock or scare anyone if you reach out for help. Nor will you be scrutinized or penalized in any way. Most people know someone who at one point thought about, attempted, or died by suicide.

The former message attributes consequences to the disease, whereas the latter message attributes consequences to the people with the disease.

As these examples clearly show, depression messages produced for the public do not seem to strategically attend to agency in their references to the disease of depression and people
with depression. The purpose of this research is to determine if such usage can have positive or negative effects on perceptions of depression stigma.

The Effects of Linguistic Agency in Health Advocacy

Recent research about linguistic agency has shown its ability to significantly influence persuasiveness (Bell, et al., 2014a, 2014b; Chen et al., 2015; Dragojevic et al., 2014; McGlone et al., 2012). Studies on linguistic agency have focused on effects of agency assignment in individually targeted health warnings and health policy advocacy (Bell et al., 2014a, 2014b). These studies differ by applying linguistic agency to either a personal threat to one’s own health that an individual must change (e.g. Bell et al., 2014a) or attitudinal perceptions of a disease as a public health threat and general safety concern (e.g., Bell et al., 2014b) For the latter, Bell et al.’s (2014b) study focused on the use of linguistic agency in public health advocacy (to get vaccinated for HPV). This persuasive appeal for a health behavior change found that disease assignment resulted in participants rating HPV as more severe, rating vaccination as more effective, and rating mandatory vaccinations as more favorable. Here, the authors claim that disease agency “bestows potency to the agent, thereby making threats more alarming and medical interventions seem more effective” (Bell, et al., 2014b, p. 1178). This research has implications and consequences for public health communication regarding threatening health conditions. These findings imply that a change in grammar may lead people to take health threats and diseases more seriously. This specific application of linguistic agency serves the purpose of investigating personal risk and perceived severity to public health threats. These messages did not attempt to affect personal risk or vulnerability, but rather served a public advocacy role.

Other linguistic agency research focused on personal change. Past studies have used linguistic agency to increase people’s sense of personal vulnerability to a health threat (Bell, et
al., 2014a; McGlone et al., 2012). In one study, researchers used the H1N1 epidemic as a health threat to test the effect of linguistic agency on perceived risk, severity, susceptibility, and intent to vaccinate, finding that disease agency increased these perceptions (McGlone et al., 2013). Another study manipulated linguistic agency in a flyer about bacterial threats, finding again that perceived severity and susceptibility were highest with disease agency (Bell et al., 2013).

The current study aims to apply linguistic agency to a novel health context. Previous studies called for future researchers to move beyond the threat context and apply linguistic agency to other persuasive appeals, as existing research on linguistic agency has only focused on personal health threats and health policy advocacy (Bell et al., 2014a; Chen et al., 2015). The current study offers an opportunity to add depression stigma to that list.

Prior research has shown the use of linguistic agency to have persuasive effects, with several health communication studies showing that disease agency is more effective than human agency. Assigning responsibility to the disease, rather than the human, strengthens a persuasive argument. Within the context of stigma, allowing the disease to be responsible for depression rather than the human will shift the blame away from the human. Therefore, the following hypothesis is proposed:

H1: Disease agency messages will elicit less depression stigma compared to human agency.

Prior research has only explored linguistic agency in health threat messages, but linguistic agency may function differently when used in combination with other persuasive strategies. One such strategy is narrative persuasion, which has received limited attention in the linguistic agency literature (Chen et al., 2015). Stories are a common message strategy by which health communicators convey information about depression awareness (Erika’s Lighthouse,
Thus, investigating how agency in depression narratives functions to reduce stigma is an important step. One common feature of persuasion narratives, identification, serves to frame how linguistic agency may differentially function in stories of depression.

### Identification in Narratives

Narrative persuasion can be used to change attitudes and beliefs (Chung & Slater, 2013; de Graaf et. al, 2012; de Graaf et. al, 2014; Dunlop et al., 2010). Generally, researchers have shown that message recipients who become invested in a narrative are more affected by it (Green, 2006). This concept of investment has been operationalized in a variety of distinct but related ways, including narrative engagement, transportation, absorption, perceived similarity, and identification (de Graaf et al., 2012). A common method by which scholars theorize the persuasive impact of narratives is through character identification (Hoeken et al., 2016).

Character identification is the feeling of similarity to, or liking of a character. Identification has been shown to lead to message recipients’ adoption of a character’s attitudes, beliefs, and goals (de Graaf et al., 2012; Oatley, 1994). Identification has also been shown to increase persuasive outcomes in health narratives generally (de Graaf, 2014; Murphy, Frank, Chatterjee, & Baezconde-Garbanati, 2013; Oliver, Dillard, Bae, & Tamul, 2012) and particularly in narratives intended to reduce stigma (Chung & Slater, 2013). Studies on stigma reduction have shown that identification with a character can aid in social acceptance of out-groups (Chung & Slater, 2013). For example, Igartua and Frutos (2017) used a film promoting immigration and found that “individuals who saw the film that reinforced a message of condemnation of racism and of empathy toward immigrants experienced greater identification with the out-group.
characters than the participants who viewed the film that showed only positive intergroup contact” (p. 171). These findings exemplify the idea that identification with stigmatized characters can lead to positive outcomes, such as the proposed stigma reduction in this study. Ultimately, identification as a persuasive element can change the way another variable affects persuasive outcomes.

Researchers rarely manipulate identification in studies but treat the variable as a measured outcome of narratives. Therefore, such research is not well positioned to assess its causal role in determining persuasive outcomes. The literature that is available on character identification supports the current study’s operationalization of manipulating identification. One aspect of identification is deemed through character-based factors, which is the perceived similarity of the reader and the character in a narrative (Krieken, Hoeken, & Sanders, 2017). Here, identification is manipulated through demographic variables such as age, race, university, social status, and living situation (de Graaf, 2014; Hoeken et al., 2016; McKeever, 2015). For example, several studies have manipulated race to find that participants identified more with characters of their own racial demographic (McQueen, Kreuter, Kalesan, & Alcaraz, 2011; van den Henden, Dahl, Schoormans, & Snelders, 2012). Significant results have also been found in studies manipulating character’s gender (de Graaf & Hostux, 2011). Physical characteristics of videogame avatars have also been manipulated for character identification (Williams, 2011). Because manipulation of identification through demographics has been significant in previous research, it is logical to assume that the current study will be successful in manipulating identification. The current study aims to add to the body of research by manipulating identification via character similarity and assessing its moderating role of the effect of linguistic agency on persuasive outcomes. Identification in narratives has shown to be a persuasive
element, but the micro-level of grammar within linguistic agency have not been studied with identification.

One previous study has explored linguistic agency within narratives, although the narrative was not as much an engaging and emotional story as it was an informational brochure with a patient excerpt. Studies on linguistic agency recurrently find that disease agency led to greater perceived susceptibility to disease in contexts of public health informational messages. The one exception to this pattern investigated agency in conjunction with narratives. Chen et al. (2015) manipulated linguistic agency in conjunction with narrative point of view (i.e., first person, third person) in messages about colon cancer. The study found no significant main effect for point of view, nor did point of view interact with disease agency. For this reason, the narrative in this thesis will be only in first-person, in order to control for point of view. The narratives were found to be highly persuasive, furthering the idea that narratives are an effective form of persuasion. Furthermore, identification served as a measured variable, and correlated positively with favorable persuasive outcomes. Their study differs from the present research in that point of view is held constant (here, first person).

Secondly, Chen et al. (2015) used identification as it pertains with the narrator, who was the only character in the first-person point of view condition. Their use of narrative also lacked many of the engaging elements associated with storytelling, such as plot structure defined by Fisher’s Narrative Paradigm (1985), and was focused more on the communication of factual information associated with the disease of the narrator. The current study uses the concept of narrative differently, in that a narrative is an engaging story where a character advocates for a position that he or she concludes is true (Allen & Priess, 1997; Reinhart, 2006). Narrative structures include a beginning, middle, and end, and therefore rely on a causal chain of events
that lead to some sort of advocacy or attitude change at the end (Green, 2001). However, in Chen et al.’s (2015) study, the narrative presented is simply an experiential account of a disease. Most narratives include elements of narrative engagement as a mechanism through which narratives persuade, and Chen et al. (2015) used these sparingly. Elements such as identification, transportation, perceived similarity, and emotional response are all persuasive features of narratives (de Graaf et al., 2012; Green, 2001). Because identification has been established as relevant in the study of linguistic agency (Chen et al., 2015), it is useful and practical to consider it here as a fundamental aspect of the narrative’s persuasiveness. Here, identification could alter how disease or human agency functions in narratives.

**Cognitive Processes**

Identification in narratives has been consistently shown to be a mechanism through which persuasion occurs (Cohen, 2001; de Graaf et al., 2012; Green, 2006; Green & Brock, 2000; Hoeken et al., 2016; Slater & Rouner, 2002). Busselle and Bilandzic (2009) used the term narrative engagement as a catch-all for the experience a reader goes through while reading a narrative. More specifically, the researchers proposed that readers cognitively adapt mental models of meaning while in the narrative experience. Mental models are schemas (or mental representations) that help us interpret information we receive and aid us in creating judgments about new information or experiences (Roskos-Ewoldson, Davies, & Roskoes-Ewoldson, 2004). The readers’ mental models of meaning are created by relating a character’s experience in the narrative to their own past experiences and attitudes. The reader then constantly adapts their mental models as they process new information in the narrative. Certain narrative aspects directly contribute to the cognitive processing of a reader’s mental models, such as identification.
Busselle and Bilandzic (2009) argued that “narrative comprehension requires that a reader locate him or herself within the mental model of the story.” (p. 323).

When identification is used in a narrative, readers experience a cognitive process of relating to the character, and therefore, adopt similar attitudes and goals of the character. The process occurs as follows. First, a reader leaves behind their objective observer role and assumes a cognitive perspective taking role, where they locate themselves in the story (Busselle & Bilandzic, 2009). Second, a reader understands and internalizes a character’s emotions, which is a dimension within identification. Identification as a construct is usually made up of measures of empathy, feeling similar or connected to a character, imagining events of being the character, and imagining events from the character’s position (Cohen, 2001; de Graaf, 2012). Readers then have either a similar emotional experience to the character or at least understand the character’s emotions and empathize with their feelings, as either empathy or sympathy (Oatley, 1994). The mental model perspective adds insight into how readers experience identification, which then leads to attitudes and beliefs similar to a character.

Linguistic agency studies have not explained or explored the cognitive processes a reader undergoes, although researchers have stated that linguistic agency is a grammatical structure that is typically processed without conscious awareness (Bell et al., 2014a). This is because agency is always present in sentence structure and communication requires agency. The current study proposes that linguistic agency functions differently at levels of high and low identification because of the process previously explained. Disease agency has been shown to affect persuasive outcomes, but using identification in a narrative adds an experience in which the reader encounters the consequences of stigma and how stigma can lead to life-altering decisions. First, readers can see how an individual’s life is consumed by depression, and then disease agency can
allow the reader to realize depression as a mental illness rather than the fault of the character (or person). Second, the reader may find the character at fault as a result of the combination of high identification and human agency. High identification would allow the reader to engage with and feel similar to the character, and human agency would blame the character for their depression. Therefore, depression stigma may be increased under these conditions. Here, mental models of meaning could be used negatively in that previous negative thoughts and experiences with depressed people would be brought to attention and aid in formulating stigma perceptions. In combination with human agency, high identification could lead to increased depression stigma.

The majority of linguistic agency studies have shown that disease agency is rated the highest with perceived threat, susceptibility, and fear of disease. Although these studies did not manipulate identification, identification has been shown to relate with such variables. For example, de Graaf (2014) found that perceived risk was affected by similarity. In de Graaf’s (2014) study, self-referencing, when readers connect the material to their own lives and past experiences, is closely tied with the current study’s proposition of a moderating effect of identification. Although de Graaf did not find significance with identification, she did with self-referencing. The definition of self-referencing used in de Graaf’s study is similar to the current study’s interpretation of identification. Self-referencing refers to the customization of a message to the reader, which then allows the reader to feel more similar and connected to the character. In the current study, this connection from self to character is manipulated by auto-populating the readers’ demographic information. In de Graaf’s (2014) study, self-referencing significantly predicted risk perceptions of disease severity. Another study done by Dunlop (2010) used self-referencing and perceived risk as moderators for attitude change. More specifically, Dunlop found through a mediation analysis that perceived risk and self-referencing were associated,
which in turn led to intentions to change. Here, self-referencing and perceived risk are moderators for each other, showing their relevance to each other conceptually. Furthermore, the experience of transportation, or being engaged with the narrative, was the starting point for successful persuasion. Although linguistic agency studies have focused on variables such as perceived risk thus far, it is clear from other research that identification is associated with perceived risk and can therefore be applied alongside the study of agency assignment. Although linguistic agency contexts and moderators need to be continuously researched, there are plenty of logical conclusions one can draw from the relationships and associations in previous studies.

In the context of depression stigma, readers who identify and feel similar to a character may be more likely to reduce their stigma towards depression because they can see themselves in the character’s position. However, this relationship may change in context of human agency. Linguistic agency studies haven’t considered this variable, which may strengthen or weaken the stigma reduction. Researchers have shown disease agency to be most effective in persuasive appeals, and the tactic relates directly to the concept of stigma in that it eliminates blame and responsibility of the person for their illness. Contrastingly, human agency may have the opposite effect of blaming the person and assigning responsibility for the disease. Identification may increase depression stigma in the circumstance of human agency, as individuals who are invested in the character but may blame the character for their depression may experience more depression stigma. Therefore, identification can be seen as moderating this relationship. The following hypothesis is proposed:

H2: Human agency will elicit more depression stigma compared to disease agency, whereas this difference will be weaker in magnitude at low identification.
Method

Participants

Participants were undergraduate students enrolled in a basic communication course at a university in the southern United States who participated for a small amount of course credit. A total of 199 people comprised the initial sample. Of these, the lower quartile \((n = 47)\) were removed because they were deemed to have spent inadequate time on the page on which they were to read the narrative (i.e., less than 56 seconds). The final sample included the remaining 152 participants. Participants were 74.5% female and 25.5% male. Participants ranged from 18 to 59 years of age \((M = 19.84, SD = 4.28)\). Approximately 74.5% of participants self-identified as Caucasian, 4.6% as African-American, 11.8% as Hispanic, 3.3% as Asian, 0.7% as Native American, and 5.2% as other.

Design and Procedures

After giving informed consent, participants completed a pretest consisting of demographic questions. They were then randomly assigned to linguistic agency and identification conditions. These conditions were manipulated in a first-person narrative about a character’s experience with depression and depression stigma. Participants were told that they were reading a personal story of an alleged essay submission to the university newspaper for Depression Awareness Month, and the researchers were interested in their impressions of the story. Linguistic agency assignment was manipulated by attributing agency within the narrative either to the human or to the disease of depression (see Appendix B). Consistent with the Narrative Paradigm (Fisher, 1985), the narratives included a story line with a beginning, middle, and end. The narratives offered a story of depression, suicide, and social support. This narrative was created in order to relate to depression stigma and provide some context for stigmatized
beliefs. The narrative began with introducing the character and a description of the character’s personality traits and life situation. The character was beginning college and worried how his or her depression would affect college life. When the character arrived at college, friendships were difficult and the character experienced stigmatization from roommates. In the middle of the narrative, the character survived a suicide attempt and described the roommates’ reactions. In the end, the character described a newfound support system and how managing the disease was easier with this help. Last, the narrative concluded with a message about stigma and treating those with depression with compassion.

Identification was manipulated according to similarities in demographic characteristics between the character and participant, which is a common method by which to induce identification (Tukachinsky, 2014). An auto-population method was used to input information based on participants’ demographic information that was assessed in the pretest questionnaire. The author of the narrative first described himself/herself before detailing his/her experience with depression. In particular, character features of classification, sex, and college major were either matched (for the high identification condition) or mismatched (for the low identification condition). For those in the high identification condition, the character descriptions were input such that the character was the same classification, sex, and major as the participants. For those in the low identification condition, the character descriptions were randomized to include different traits. For example, if a participant answered his/her classification as a freshman, low identification was randomly assigned to upperclassman (vs. underclassman) in the narrative. Similarly, males in the low identification condition read about a female character, and subsequent pronouns were changed to reflect the sex of the character. In terms of college major, high identification included the same school the major was in. For example, participants in the
major of Communication Studies would select their home college as the College of Communication during the pretest questionnaire. For participants in the high identification condition, the narrative would read that the character was in the College of Communication. For participants in the low identification condition, the narrative would read that the character studied a major in a different college, which was randomly assigned from the remaining college options (i.e., the College of Education, the College of Fine Arts, the College of Nursing & Health Sciences, the College of Science & Engineering, or the College of Liberal Arts). Last, one sentence was included toward the end of the narrative as another identification manipulation. The high identification condition read, “I know you can understand my struggle,” whereas the low identification condition read, “It may be difficult for you to understand my struggle.”

After reading the narrative, participants answered questions about stigma, identification, and their perceptions of the message. The participants then received a debrief statement about the purpose of the study.

Measures

Depression Stigma Scale

A total of eighteen questions were used to measure depression stigma, with nine items measuring personal stigma ($M = 2.52, SD = 0.79$), which refers to one’s personal beliefs about depression, and nine items measuring perceived stigma ($M = 4.16, SD = 0.99$), which refers to others’ beliefs about depression (Griffiths, Christensen, Jorm, Evans, & Groves, 2004). Participants were asked to indicate their level of agreement with statements on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree). Examples of personal stigma statements read: “People with depression could snap out of it if they wanted to,” “Depression is not a real medical illness,” and “Depression is a sign of personal weakness.” Examples of perceived stigma read:
“Most people believe that people with depression are dangerous,” “Most people believe that it is best to avoid people with depression so that you don’t become depressed yourself,” and “If they had depression, most people would not tell anyone.” Internal reliability for personal stigma was $\alpha = .79$ and perceived stigma was $\alpha = .84$.

**Identification**

Eight questions were used to assess identification with the character (de Graaf, Hoeken, Sanders, & Beentjes, 2012.) A 7-point Likert scale ($1 = \text{strongly disagree}; 7 = \text{strongly agree}$) assessed if the participant identified with the character in the narrative ($M = 2.38, SD = 1.20$). The statements read: “I put myself in the position of Taylor,” “During reading, I imagined what it would be like to be in Taylor’s position,” and “I empathized with Taylor.” Internal reliability was $\alpha = .85$.

**Perceived Linguistic Agency**

The linguistic agency manipulation check was modeled after previous linguistic agency studies (Bell, et al., 2014a, 2014b; Chen et al., 2015; Dragojevic et al., 2014; McGlone et al., 2012). Three questions asked participants to identify statements in the narrative they read. They were shown two versions of a sentence that differed according to agency conditions and were to indicate which version they read. For the first question, they were asked to identify between: “Although I would sometimes have short stretches of negative feelings would sometimes affect me, depression didn’t control me” or “Although I would sometimes have short stretches of negative feelings, I didn’t let depression control me.” The second sentence read: “Searching for help, I told my roommates about how depression caused me to struggle” or “Searching for help, I told my roommates about how I struggled because of depression.” The third sentence read: “Depression overwhelmed me and took away my hope” or “I was overwhelmed and no longer
had hope because of depression.” Participants’ answers were coded such that 1 equaled “disease agency” and 2 equaled “human agency.” Responses to the three items were averaged. Thus, the three dichotomous categorical variables formed a composite continuous variable, with values closer to 2 representing more human agency versions selected ($M = 1.48$, $SD = .31$).

**Results**

**Manipulation Checks**

Table 3 reports the means, standard deviations, and bivariate correlations between variables. Manipulation checks were tested using a factorial analysis of variance (ANOVA) whereby the two experimental variables were entered as factors. For the linguistic agency manipulation check, the effect of the linguistic agency variable was significant [$F(1, 149) = 72.68$, $p < .01$, $\eta^2 = .57$]. People in the human agency condition ($M = 1.65$, $SD = 0.26$) were more likely to select the human agency sentences compared to people in the disease agency condition ($M = 1.33$, $SD = 0.25$). Thus, the manipulation was successful. Further, the identification manipulation had no effect on sentence selection [$F(1, 149) = 1.85$, $p = .176$]. However, the interaction of linguistic agency and identification had a small effect on sentence selection [$F(1, 149) = 3.99$, $p < .05$, $\eta^2 = .04$]. This interaction is visually decomposed in Figure 1, which shows that people in the low identification condition more accurately identified the agency to which they were exposed compared to people in the high identification condition. Although not ideal, the interaction effect only accounted for a minute amount of explained variance in the selection of agency sentence versions. Overall, the linguistic agency manipulation was considered successful.
Figure 1

Interaction of Agency Manipulation and Identification

Endorsement of Human Agency

Identification

Agency

Human

Disease
The effect of the identification manipulation on perceived identification was not significant \[ F(1, 149) = 2.13, p = .146 \]. Further, perceived identification was not affected by the agency manipulation \[ F(1, 149) = 0.002, p = .964 \] or its interaction with the identification manipulation \[ F(1, 149) = 1.83, p = .178 \]. Despite the apparent failed manipulation check for identification, it is appropriate to explore the effects of perceived identification. Ultimately, this research was interested in the effect of the psychological state of identification with the narrative (rather than the manipulation of identification within the message). In message effects research like this, where the focus is on the effect of an elicited psychological state on some distal persuasive outcome, manipulation checks actually are not necessary (O’Keefe, 2003). As O’Keefe described, in such research, the message manipulation simply functions as a means to elicit differences the psychological state of interest. That is, the message feature is only present “as a methodological device for creating variance in the psychological state” (O’Keefe, 2003, p. 255). Thus, whether or not the participants actually received a high or a low identification narrative is less important for the purposes of the study. Instead, what is relevant is the degree to which participants felt similar to the character. Thus, questions about identification’s effects fall into a class III claim in O’Keefe’s terminology, whereby the psychological state (i.e., the manipulation check) serves as a mediating variable between the effect of the message manipulation on the persuasive outcome. In the present research, perceived identification mediated the effect of the experimental identification variable on depression stigma.

Hypothesis testing

Hypotheses were tested in PROCESS version 2.16.3 for SPSS (Hayes, 2013). A moderated mediation model (i.e., Model 14) was tested whereby perceived identification partially mediated the effect of the identification manipulation (coded 0 = low, 1 = high) on
depression stigma perceptions, with the linguistic agency manipulation (coded $0 = \text{human}, 1 = \text{disease}$) moderating the effect of perceived identification on depression stigma perceptions. Two separate models were tested using the sub dimensions of personal stigma and perceived stigma included in the depression stigma scale as different outcomes (Griffiths et al., 2004).

Hypothesis 1 (H1) predicted that disease agency would elicit less depression stigma compared to human agency. This prediction was tested by assessing the main effect of agency on depression stigma in both personal and perceived stigma models. For the model predicting personal stigma, which can be seen in Table 4, the model was not significant, $F(4, 147) = 2.17, p = .07$, two-tailed. Thus, the effect of agency on personal stigma was not directly assessed. For perceived stigma, the model was significant, $F(4, 147) = 4.86, p = .001$, two-tailed. These results are reported in Table 1. In addition to a main effect for perceived identification ($B = 0.35, p < .001$) in which greater identification associated with more perceived stigma, there was main effect for linguistic agency ($B = 1.81, p < .01$, where $0 = \text{human agency}$ and $1 = \text{disease agency}$). Disease linguistic agency was associated with more, rather than less, perceived stigma. Because the effect of linguistic agency was significant in the opposite direction, H1 was not supported. H1 predicted disease agency would decrease stigma, but disease agency increased perceived stigma.
Table 1

Effects of Identification on Perceived Stigma

<table>
<thead>
<tr>
<th></th>
<th>coeff</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived ID</td>
<td>.3512</td>
<td>.0869</td>
<td>4.0419</td>
<td>.0001</td>
<td>.1795</td>
<td>.5529</td>
</tr>
<tr>
<td>ID Manipulation</td>
<td>.1022</td>
<td>.1553</td>
<td>.6579</td>
<td>.5516</td>
<td>-.2048</td>
<td>.4091</td>
</tr>
<tr>
<td>Agency Manipulation</td>
<td>1.8089</td>
<td>.5831</td>
<td>3.1024</td>
<td>.0023</td>
<td>.6566</td>
<td>2.9611</td>
</tr>
<tr>
<td>Interaction</td>
<td>-.3570</td>
<td>.1285</td>
<td>-2.7779</td>
<td>.0062</td>
<td>-.6109</td>
<td>-.1030</td>
</tr>
</tbody>
</table>

Note. Agency was coded as follows: human agency = 0, disease agency = 1. *P*-values are two-tailed.

The second hypothesis predicted that human agency would elicit more stigma compared to disease agency at levels of high identification, but that this effect of agency would weaken as identification decreased. As shown in Table 1, the interaction of perceived identification and the linguistic agency manipulation significantly predicted perceived stigma (*B* = 0.35, *p* < .01). This interaction was decomposed using the Johnson-Neyman technique (See Table 2). At lower levels of identification (< 4.21), disease agency increasingly associated with greater perceived stigma. This effect was not expected, as *H2* predicted that human agency would elicit marginally more stigma compared to disease agency as low levels of identification. Further, *H2* predicted that, relative to lower levels of perceived identification, human agency would elicit more stigma compared to disease agency at high levels of perceived identification. The 95% confidence intervals indicated marginal support for this effect at high levels of perceived identification (> 6.70). However, this effect was significant with 90% confidence intervals, which given the
directional nature of the prediction, provides partial support for $H2$. Overall, among lower levels of identification, disease agency elicited more stigma compared to human agency, whereas among high levels of identification, human agency elicited more stigma compared to disease agency.

Table 2

The Effect of Agency on Perceived Stigma at Levels of Identification

<table>
<thead>
<tr>
<th>Identification</th>
<th>$b$</th>
<th>SE</th>
<th>$t$</th>
<th>$p$</th>
<th>95%</th>
<th>90%</th>
<th>95%</th>
<th>90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0000</td>
<td>1.4519</td>
<td>.4603</td>
<td>3.1542</td>
<td>.0020</td>
<td>.5422</td>
<td>2.3615</td>
<td>.6899</td>
<td>2.21</td>
</tr>
<tr>
<td>1.3000</td>
<td>1.3448</td>
<td>.4241</td>
<td>3.1706</td>
<td>.0019</td>
<td>.5066</td>
<td>2.1830</td>
<td>.6427</td>
<td>2.0469</td>
</tr>
<tr>
<td>1.6000</td>
<td>1.2377</td>
<td>.3884</td>
<td>3.1863</td>
<td>.0018</td>
<td>.4700</td>
<td>2.0053</td>
<td>.5947</td>
<td>1.8807</td>
</tr>
<tr>
<td>1.9000</td>
<td>1.1306</td>
<td>.3533</td>
<td>3.1997</td>
<td>.0017</td>
<td>.4323</td>
<td>1.8289</td>
<td>.5457</td>
<td>1.7155</td>
</tr>
<tr>
<td>2.2000</td>
<td>1.0235</td>
<td>.3190</td>
<td>3.2081</td>
<td>.0016</td>
<td>.3930</td>
<td>1.6540</td>
<td>.4954</td>
<td>1.5516</td>
</tr>
<tr>
<td>2.5000</td>
<td>.9164</td>
<td>.2858</td>
<td>3.2062</td>
<td>.0017</td>
<td>.3516</td>
<td>1.4813</td>
<td>.4433</td>
<td>1.3895</td>
</tr>
<tr>
<td>2.8000</td>
<td>.8093</td>
<td>.2541</td>
<td>3.1848</td>
<td>.0018</td>
<td>.3071</td>
<td>1.3115</td>
<td>.3887</td>
<td>1.2300</td>
</tr>
<tr>
<td>3.1000</td>
<td>.7022</td>
<td>.2246</td>
<td>3.1270</td>
<td>.0021</td>
<td>.2584</td>
<td>1.1460</td>
<td>.3305</td>
<td>1.0739</td>
</tr>
<tr>
<td>3.4000</td>
<td>.5951</td>
<td>.1981</td>
<td>3.0036</td>
<td>.0031</td>
<td>.2036</td>
<td>.9867</td>
<td>.2672</td>
<td>.9231</td>
</tr>
<tr>
<td>3.7000</td>
<td>.4880</td>
<td>.1762</td>
<td>2.7693</td>
<td>.0063</td>
<td>.1398</td>
<td>.8363</td>
<td>.1963</td>
<td>.7797</td>
</tr>
<tr>
<td>4.0000</td>
<td>.3809</td>
<td>.1607</td>
<td>2.3704</td>
<td>.0191</td>
<td>.0633</td>
<td>.6985</td>
<td>.1149</td>
<td>.6470</td>
</tr>
<tr>
<td>4.2107</td>
<td>.3057</td>
<td>.1547</td>
<td>1.9762</td>
<td>.0500</td>
<td>.0000</td>
<td>.6114</td>
<td>.0000</td>
<td>.5073</td>
</tr>
<tr>
<td>4.3000</td>
<td>.2738</td>
<td>.1535</td>
<td>1.7837</td>
<td>.0765</td>
<td>-.0296</td>
<td>.5772</td>
<td>.0197</td>
<td>.5280</td>
</tr>
<tr>
<td>4.3566</td>
<td>.2536</td>
<td>.1532</td>
<td>1.6553</td>
<td>.1000</td>
<td>.0000</td>
<td>.5073</td>
<td>.0000</td>
<td>.5073</td>
</tr>
<tr>
<td>4.5000</td>
<td>.1667</td>
<td>.1558</td>
<td>1.0700</td>
<td>.2864</td>
<td>-.1412</td>
<td>.4747</td>
<td>-.0912</td>
<td>.4247</td>
</tr>
<tr>
<td>4.9000</td>
<td>.0597</td>
<td>.1673</td>
<td>.3566</td>
<td>.7219</td>
<td>-.2709</td>
<td>.3902</td>
<td>-.2172</td>
<td>.3365</td>
</tr>
<tr>
<td>5.2000</td>
<td>-.0474</td>
<td>.1861</td>
<td>-.2549</td>
<td>.7991</td>
<td>-.4152</td>
<td>.3204</td>
<td>-.3555</td>
<td>.2606</td>
</tr>
<tr>
<td>5.5000</td>
<td>-.1545</td>
<td>.2104</td>
<td>-.7345</td>
<td>.4638</td>
<td>-.5703</td>
<td>.2613</td>
<td>-.5028</td>
<td>.1937</td>
</tr>
<tr>
<td>5.8000</td>
<td>-.2616</td>
<td>.2385</td>
<td>-1.0970</td>
<td>.2744</td>
<td>-.7329</td>
<td>.2097</td>
<td>-.6564</td>
<td>.1331</td>
</tr>
<tr>
<td>6.1000</td>
<td>-.3687</td>
<td>.2692</td>
<td>-1.3698</td>
<td>.1728</td>
<td>-.9007</td>
<td>.1632</td>
<td>-.8143</td>
<td>.0768</td>
</tr>
<tr>
<td>6.4000</td>
<td>-.4758</td>
<td>.3017</td>
<td>-1.5773</td>
<td>.1169</td>
<td>-.1072</td>
<td>.1204</td>
<td>-.9752</td>
<td>.0235</td>
</tr>
<tr>
<td>6.5367</td>
<td>-.5246</td>
<td>.3169</td>
<td>-1.6553</td>
<td>.1000</td>
<td>-.1042</td>
<td>.0000</td>
<td>-.1042</td>
<td>.0000</td>
</tr>
<tr>
<td>6.7000</td>
<td>-.5829</td>
<td>.3355</td>
<td>-1.7377</td>
<td>.0844</td>
<td>-.1245</td>
<td>.0800</td>
<td>-.1382</td>
<td>-.0276</td>
</tr>
<tr>
<td>7.0000</td>
<td>-.6900</td>
<td>.3702</td>
<td>-1.8640</td>
<td>.0643</td>
<td>-.1426</td>
<td>.0415</td>
<td>-.1302</td>
<td>-.0773</td>
</tr>
</tbody>
</table>

Note. Agency was coded as follows: human agency = 0, disease agency = 1. $P$-values are two-tailed.
**Table 3**

*Descriptive Statistics and Pearson’s Product-Moment Correlations for All Variables (N = 251)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perc ID</td>
<td>4.38</td>
<td>1.20</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Pers Stig</td>
<td>2.52</td>
<td>0.79</td>
<td>-0.14</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Perc Stig</td>
<td>4.16</td>
<td>0.99</td>
<td>0.23**</td>
<td>0.23**</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Agency</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>0.11</td>
<td>0.13</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>5. ID Man</td>
<td>--</td>
<td>--</td>
<td>0.11</td>
<td>0.089</td>
<td>0.06</td>
<td>0.04</td>
<td>--</td>
</tr>
</tbody>
</table>


*p < .05. **p < .01.

**Table 4**

*Effects of Identification on Personal Stigma*

<table>
<thead>
<tr>
<th></th>
<th>coeff</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived ID</td>
<td>-.0342</td>
<td>.0718</td>
<td>-.4765</td>
<td>.6344</td>
<td>-.1762</td>
<td>.1077</td>
</tr>
<tr>
<td>ID Manipulation</td>
<td>.1818</td>
<td>.1284</td>
<td>1.4160</td>
<td>.1589</td>
<td>-.0719</td>
<td>.4355</td>
</tr>
<tr>
<td>Agency Manipulation</td>
<td>.8164</td>
<td>.4820</td>
<td>1.6939</td>
<td>.0924</td>
<td>-.1361</td>
<td>1.7689</td>
</tr>
<tr>
<td>Interaction</td>
<td>-.1469</td>
<td>.1062</td>
<td>-1.3833</td>
<td>.1687</td>
<td>-.3569</td>
<td>-.0630</td>
</tr>
</tbody>
</table>

*Note.* Agency was coded as follows: human agency = 0, disease agency = 1. *P*-values are two-tailed.
Discussion

The current study aimed to explore the effects of identification and linguistic agency on depression stigma. The previous research on linguistic agency’s role in health messages has shown disease agency as more effective than human agency. Therefore, a depression awareness message framed with disease agency was hypothesized to reduce depression stigma better than one framed with human agency. However, significant findings did not support this notion and instead showed that human agency led to significantly higher perceived depression stigma compared to disease agency. Further, at levels of low identification, disease agency led to more, rather than less, perceived stigma compared to human agency. This finding goes against other research about linguistic agency that indicates disease agency as more persuasive and effective in health messages (Bell, et al., 2014a, 2014b; Chen et al., 2015; Dragojevic et al., 2014; McGlone et al., 2012). In combination with the concept of identification, human agency increased perceived depression stigma for those who highly identified with the narrative, which provided some support for the hypothesis of moderation. The thinking behind this hypothesis considered the effect that disease agency has on health messages. Disease agency was expected to shift responsibility away from the sufferer of depression, which would allow people to blame the disease of depression instead of the person experiencing it. For example, an individual who is failing classes in college, sleeping frequently, and has little hope can be described as depressed. Individuals who read the disease agency narrative may attribute the reason of these circumstances as the fault of the depression, whereas individuals reading the human agency narrative may blame the person as responsible for these actions. Identification changes this relationship by the emotional responses created by connection with a character (Hoeken & Sinkeldam, 2014). When an individual feels similar to a character, he or she is more likely to
adopt the character’s attitudes and beliefs (Oatley, 1995). The combination of human agency and high identification led to individuals experiencing high levels of perceived stigma because of the strong involvement with the story and the character’s responsibility for their depression (through human agency).

**Linguistic Agency**

Previous research found significant support for disease agency’s positive effect on persuasive outcomes with variables such as susceptibility to and severity of a disease (Bell et al., 2014a; Dragojevic et al., 2014; McGlone et al., 2012), whereas other research focused on personal health threats and public health advocacy (Bell et al., 2014b). The current study takes a different approach from the variables in the previous research of perceived severity, susceptibility, and risk, by exploring a personal narrative with clear personal health concern for the audience. The change in variables from previous research and the addition of a narrative may be why linguistic agency did not have the expected effects. One previous study explored linguistic agency within a narrative, although identification was not manipulated and only measured. In this study, Chen et al.’s (2015) hypothesis of disease agency leading to greater perceived risk was not only unsupported, but the opposite was found to be significant. Contrary to previous research, the researchers found that human agency led to greater perceived susceptibility to cancer. The researchers explain this finding by the nature of the “ locus of the threats studied to date” (Chen et al., 2015, p. 984). That is, previous research investigated susceptibility to harm that originates outside the body – radon gas, bacteria, and viruses (Bell et al., 2014a, 2014b; Chen et al., 2015; Dragojevic et al., 2014; McGlone et al., 2012). Chen et al. (2015) focused on cancer, which is classified as a threat inside of an individual’s body because of the nature of the disease as mutating cells. Although the current study is not focused on
susceptibility, the consideration of locus may apply similarly. It is possible that because depression is an internal disorder, similar to the nature of cancer in the previously discussed study, agency functions differently.

Further, an individual’s established stigma beliefs may influence his or her response to health messages about depression. Stigma creates stereotypes and discrimination about mental health disorders and sufferers of the disease, where individuals stigmatizing others may experience fear, pity, or repulsion toward those with a mental illness (Corrigan et al., 2016). If an individual possesses these negative attitudes and labels those with mental illness as members of an outgroup, his or her response to health messages about depression may be already colored by these previous beliefs and emotions about mental illness. Established stigma beliefs are another area that further research needs to explore, as linguistic agency and stigma have only been studied in the current study. Relatedly, the way in which an individual views depression or has experience with mental health issues could change his or her mental schema when processing narratives. In order to understand a narrative, the reader must locate themselves in the story (Busselle & Bilandzic, 2009). According to Deictic Shift Theory, a reader must switch to the time and place of the story’s characters in order to identify and take the characters perspective (Segal, 1995a; 1995b). However, the readers’ previous experience with mental illness may determine where they locate themselves in the narrative. For example, they could identify with the stigmatized person because they suffer from ADHD and understands the shame. Further, they may understand mental illness because someone in their family suffers from bipolar disorder, or they may have a friend who is in counseling for depression. These life situations have created mental models on how some individual views the reality of mental illness, which may affect the way in which they experience the narrative about depression (Busselle & Bilandzic, 2009).
In the current study, $H2$ was partially supported, as human agency (relative to disease agency) increased perceived depression stigma at levels of extremely high identification. Although disease agency did not decrease stigma, the results of human agency increasing stigma lead to the practical implications of usage in health messages. Because human agency at levels of high identification increased perceived depression stigma, the assumption can be made that an awareness of an individual’s responsibility for his or her mental health is at the foundation of depression stigma. Further, when individuals read a narrative and believe a person is responsible for his or her depression (human agency) and he or she identifies with the character (high feelings of involvement in the story), he or she has higher levels of perceived stigma. This idea is consistent with research on the persuasiveness of narratives in that individuals create meaning through stories and become involved in narratives that help them make sense of the world (Fisher, 1985).

**Identification**

One important element in regard to the persuasiveness of narratives is identification (de Graaf et al, 2012). Perceived identification is an important aspect of narratives, as involvement with the story should lead the reader to empathize with the character. Instead, the use of human agency may provide the reader with a sense of blame toward the sufferer of depression an individual’s established stigma beliefs may influence his or her response to health messages about depression. Previously, identification has been shown to decrease stigma (Chung & Slater, 2013; Igartua & Frutos, 2017). Here, perceived identification had a positive main effect on perceived stigma. Further, I showed that perceived identification interacted agency such that disease agency elicited more stigma at low identification, but human agency elicited more stigma at high identification. Although perceived identification alone may reduce stigma, the current
research demonstrates the importance of considering how the variable interacts with other message features that characterize narratives, such as the grammatical structure used to frame the agency of the characters.

While the experimental manipulation of identification failed in the current study, the perceived feeling of identification was still a significant moderator of linguistic agency. The difficulties that accompany the operationalization of identification are common in the literature of identification, as the variable is difficult to manipulate and rarely done successfully (Tukachinsky, 2014). The choice to manipulate identification via demographic variables is generally supported in the literature, but the construct as a whole has issues with inconsistent definitions within the current research (Cohen, 2001; de Graaf et al., 2012; de Graaf, 2014; Tukachinsky, 2014; Green, 2006; Green & Brock, 2000; Krieken et al., 2017; McKeever, 2015; Murphy et al., 2011; Murphy et al., 2013). Identification can involve a variety of concepts such as transportation, empathy, self-referencing, perspective-taking, and similarity. The multitude of terms and definitions available for identification create an inconsistency among the current research for identification, as well as issues with operationalizing and manipulating the variable. Identification has shown to be a mechanism by which narratives persuade, so it is crucial for scholars to search for an agreed upon means of operationalizing this concept. It is possible that this inconsistency hindered the current study, as it may be that a different conceptualization and manipulation of identification could have been more beneficial in interactions with agency and depression stigma. For example, perspective-taking has been used in identification research and may be an aspect of identification that is crucial to the process (de Graaf, 2012; Moyer-Gusé). Further, there are other mechanisms closely related to identification that aid in the process of persuasion, such as the experience of empathy. Specifically, emotions evoked by the character
through identification may be a driving factor in why an individual experiences attitude change (Hoeken & Sinkeldam, 2015).

The narrative in the current study was created by the author based on the Narrative Paradigm (Fisher, 1984). However, because the process through which narratives persuade is complex, it is possible that the narrative in the current study failed to engage audiences and connect to transportation. The identification literature is varied with explanations of how narratives persuade, but researchers agree that a narrative must be engaging for audiences to connect (Busselle & Bilandzic, 2009; Green & Brock, 2000; Hoeken & Sinkeldam, 2014; Slater & Rouner, 2002). Although it would be helpful to have an agreed upon definition and explanation for identification, little is known about the specifics of how to create an engaging, transporting, and absorbing narrative. Moreover, most of the current research of identification in narratives focuses on the medium of television or some sort of audiovisual component (Hoffner & Buchanan, 2005; Murphy et al., 2011; Sestir & Green, 2010; Tal Or & Cohen, 2010; Tisinger, 2004; Tukachinsky, 2012; McKinley, 2010). Busselle & Bilandzic (2009) have proposed four dimensions that are incorporated as “narrative engagement,” and although specifically applied to audiovisual experiences, the aspects connect well with written narratives, as well. The dimensions include the focused attention of the audience, narrative presence (how closely the story feels more real than reality), emotional response, and storyline comprehension (Busselle & Bilandzic, 2009; Hoeken & Sinkeldam, 2014). This is the clearest explanation of requirements for an engaging narrative experience, but the specifics of creating narrative engagement require further research. One notion suggests that transportation, creating imagery for a reader to become lost in a story, is a necessary first step before identification can occur (Busselle & Bilandzic, 2009; Green & Brock, 2000). If this is true, the length of the narrative may be important in order
to provide enough context for a reader to become absorbed. Because the narrative in the current study was one page in length, engagement may have not been manipulated as desired. This complex construct of identification in narratives has shown to be persuasive, but more research is necessary in order to better determine exactly how identification should be experimentally manipulated in the future.

Despite identification’s failed manipulation, its measured counterpart significantly moderated linguistic agency. Ultimately, the decision to treat the measurement identification, rather than the manipulation of identification, as a predictor of depression stigma is supported by O’Keefe’s (2003) argument about message effects research: When a message induction is tasked with creating variance in perceptions, the measured perception ought to function as the independent variable. That is, in the present research, how participants identified with the character in story was more important than whether the character was described to be demographically similar. This point reduces the problematic nature of the failed identification manipulation.

**Depression Stigma**

It is important to situate the impact of the findings specifically for the depression stigma literature. First, the interaction between linguistic agency and perceived identification was only significant for perceived stigma and not personal stigma. Depression stigma is conceptualized as having two dimensions (Griffiths, Christensen, Jorm, Evans, & Groves, 2004) – personal stigma and perceived stigma. Personal stigma is an individual’s own beliefs and attitudes regarding stereotypes and prejudice, and perceived stigma is an individual’s perception of the public’s view of such beliefs (Corrigan, 2004; Griffiths et al., 2004). Research generally supports the notion that individuals report higher perceived stigma than personal stigma (Eisenberg, Downs,
Golberstein, & Zivin, 2009; Peluso & Blay, 2009; Pompeo, 2014). A common explanation for this finding is the social desirability bias, as individuals may be unwilling to admit attitudes and beliefs that are unpopular or contrary to socially acceptable social norms. Social desirability describes the phenomenon of responding to questions based on social norms that will reflect on the individual in a positive light (Edwards, 1953). Because stigma encompasses prejudice, negative stereotypes, and discrimination, participants may feel uncomfortable admitting these beliefs. Therefore, participants may consider the judgement of the public and answer about their own position closer to acceptable social norms. Because perceived stigma relates to an individual’s awareness of public perceptions, it’s likely that individuals will believe perceived stigma is higher. However, because personal stigma refers to the specifics of an individual’s core morals, it is logical that they may reflect their beliefs inaccurately if their beliefs are highly stigmatizing. Therefore, the finding that perceived stigma was significant and personal stigma is not a unique finding and is concurrent with the current literature.

Perceived stigma could be exaggerated by the inclusion of the college student sample, as college students are highly susceptible to peer pressure and conformity to social norms (Pompeo, 2014). The difference in findings between perceived and personal stigma may reflect a misrepresentation of stigma. There are two possibilities to explain the difference in stigma findings. First, students may be overestimating public stigma (Eisenberg et al., 2009). Because participants in the current study reported high levels of perceived stigma but not personal stigma, this reflects the idea that the participants believe the public stigmatizes those with depression but they personally do not. If students are overdramatizing the prevalence of depression stigma, this is a crucial notion for campus-based mental centers and how they should direct their campaigns.
If perceptions of depression stigma are greater than the actual depression stigma, mental health campaigns can focus on reducing perceived depression stigma as a priority.

Practically, this study has important implications for health communicators intending to reduce stigmatization of mental health. Particularly, there are specific situations where linguistic agency and identification are helpful in stigma reduction based on the current study’s findings. First, extreme levels of high identification within the human agency narrative showed to increase stigma. Because of this, identification tactics should not be used in combination with human agency. For example, if a depression awareness campaign is targeting perceived public stigma on a college campus, narratives should be used with high identification and disease agency. High identification and disease agency may increase the audience’s empathy and result in a successful stigma reduction campaign. Secondly, a narrative with disease agency and low identification should not be used. Low identification may produce the effect that health campaigns want in reducing stigma, but only within a human agency narrative. If the audience does not identify with the character, they may not be involved in the story and may just see the suffering person through the lens of a bystander. Ultimately, the recommendation to health campaigns for depression stigma reduction is consistent with the previous literature review to adapt disease agency and high identification narratives.

Limitations and Conclusion

Several limitations such as the conceptualization of identification and the current study’s manipulation of identification have already been discussed. However, another notable limitation is the decision to manipulate agency solely in individual narratives rather than including a mixed-agency narrative. Because the current study argues that mixed-agency messages may be utilized in health campaigns haphazardly, this idea implies that mixed-agency messages are
ineffective. However, it is possible that the strategic use of both human and disease agency may be advantageous to health outcomes. Linguistic agency studies have yet to investigate this possibility, and further research about mixed-agency message conditions is needed in order to establish whether such messages are effective. Further, these types of mixed-agency messages are present in the measures for the current study. The measure for depression stigma contained such mixed-agency messages, which may have affected the stigma outcome.

Next, findings from this study may not generalize to other health conditions. The current study focused on depression and depression stigma, but other health issues may not produce the same results. However, other mental illnesses such as mood disorders and anxiety disorders may have similar findings due to the similar nature of the illnesses. Oftentimes, the mental illness literature does not differentiate between specific mental illnesses and clusters together mental illnesses such as depression, anxiety, bipolar disorder, and schizophrenia (Link, Yang, Phelan, & Collins, 2004; Rüsch, Angermeyer, & Corrigan, 2005). Further, it is possible that findings may generalize to a stigmatized health issue such as mental disabilities. Mental illnesses are usually classified and studied alongside other intellectual disabilities, such as Down’s syndrome (Ditchman, Werner, Kosyluk, Jones, Elg, & Corrigan, 2013). The thinking behind this idea is that mentally disabled individuals are oftentimes inaccurately stigmatized due to the locus of control of the impairment. The mentally disabled cannot always control reactions and emotions appropriately and are stigmatized due to seemingly abnormal behavior and inability to attain autonomy in life (Jahoda, Wilson, Stalker, & Cairney, 2010). Because the current study focuses on a similar attribution of control, the findings may generalize to the mentally disabled population, as well as those with mental illness. The last problem with generalizability is the current study’s use of a college student sample. This sample may be problematic in that college
students experience high stress when entering college and over 50% of students report experiencing depression since beginning school (Furr, Westefeld, McConnell, & Jenkins, 2001). The rate of depression may be relatively high because of the life situation of the participants, and further may hinder generalizability because of the age and life circumstances of the sample. However, because of the high levels of depression present in college, public health campaigns about depression may want to specifically address this population.

In conclusion, linguistic agency is a complex grammatical structure inherent to all health campaigns that has the potential to affect outcomes associated with different health contexts and conditions. Because linguistic agency has shown to be a significant element in persuasion within health messages, it is imperative for creators of health messages to be aware of the grammatical impact. Further, creating narratives can be seen as an important tool in disseminating delicate health information such as mental health messages. Because mental health messages about topics such as depression are personal and oftentimes uncomfortable, using a narrative is one way for health campaigns to create an easier conversation. Depression affects millions of individuals, and the stigma associated with the mental illness is inhibiting to the daily lives of those individuals (World Health Organization, 2001). Creating an effective public dialogue about depression stigma is crucial for encouraging those with depression to seek help, as well as educating the public about the dangers of stigmatizing. Within narratives, the use of identification and agency are two elements of a persuasive message that can aid in creating a more successful story to reduce stigma. Here, perceived identification was shown to increase perceived stigma when a depression narrative was framed with human agency. Overall, the current study contributed to the literature by broadening the context for linguistic agency and finding support for the use of perceived identification in narratives increasing perceived depression stigma.
References

Anxiety and Depression Association of America. (2016a). *Depression* [Brochure]. Silver Spring, MD: ADAA.


Appendix A

DEMOGRAPHICS
Directions: Please select the most appropriate response to each question. If there is a separate set of directions, please read those directions carefully and answer each question to the directions for that section of the questionnaire.

1. What is your age? __________

2. What is your biological sex?
   1. Male
   2. Female

3. What is your ethnicity?
   1. White/Caucasian __
   2. African-American__
   3. Asian/Island Pacific __
   4. Native American __
   5. Hispanic __
   6. Other __

4. What is your year in school?
   1. Freshman
   2. Sophomore
   3. Junior
   4. Senior
   5. Nontraditional/Other

5. What school is your major in?
   1. Business
   2. Communication
   3. Education
   4. Fine Arts
   5. Nursing & Health Sciences
   6. Science & Engineering
   7. Liberal Arts

I. Depression
(Beck’s Depressive Inventory II, 1996)
Please indicate the degree to which the following terms describe yourself over the past two weeks, including today. Answer on a scale of 1 to 7, where 1 means “not at all” and 7 means “all the time.”

DEPR 1. Sadness
1 2 3 4 5 6 7

DEPR 2. Pessimism
<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

DEPR 3. Past failure
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DEPR 4. Loss of pleasure
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DEPR 5. Guilty feelings
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DEPR 6. Punishment
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DEPR 7. Self-dislike
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DEPR 8. Self-criticalness
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DEPR 9. Suicidal thoughts
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DEPR 10. Crying
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DEPR 11. Irritability
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DEPR 12. Loss of interest
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DEPR 13. Indecisiveness
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DEPR 14. Loss of energy
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DEPR 15. Change in sleeping
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DEPR 16. Tiredness or fatigue
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DEPR 17. Change in appetite
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DEPR 18. Loss of interest in sex
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
II. Depression Stigma Scale  
(Griffiths, Christensen, Jorm, Evans, & Groves, 2004)
Please answer each question on a scale of 1 to 5, where 1 means “strongly disagree” and 5 means “strongly agree.”

PRS NLSTIG 1. People with depression could snap out of it if they wanted to.  
1 2 3 4 5 6 7

PRS NLSTIG 2. Depression is a sign of personal weakness.  
1 2 3 4 5 6 7

PRS NLSTIG 3. Depression is not a real medical illness.  
1 2 3 4 5 6 7

PRS NLSTIG 4. People with depression are dangerous.  
1 2 3 4 5 6 7

PRS NLSTIG 5. It is best to avoid people with depression so you don’t become depressed yourself.  
1 2 3 4 5 6 7

PRS NLSTIG 6. People with depression are unpredictable.  
1 2 3 4 5 6 7

PRS NLSTIG 7. If I had depression I would not tell anyone.  
1 2 3 4 5 6 7

RS NLSTIG 8. I would not employ someone if I knew they had been depressed.
PRSNLSTIG 9. I would not vote for a politician if I knew they had been depressed.

PRCVDSTIG 1. Most people believe that people with depression could snap out of it if they wanted.

PRCVDSTIG 2. Most people believe that depression is a sign of personal weakness.

PRCVDSTIG 3. Most people believe that depression is not a real medical illness.

PRCVDSTIG 4. Most people believe that people with depression are dangerous.

PRCVDSTIG 5. Most people believe that it is best to avoid people with depression so that you don’t become depressed yourself.

PRCVDSTIG 6. Most people believe that people with depression are unpredictable.

PRCVDSTIG 7. If they had depression, most people would not tell anyone.

PRCVDSTIG 8. Most people would not employ someone they knew had been depressed.

PRCVDSTIG 9. Most people would not vote for a politician they knew had been depressed.
III. Transportation
(Green & Brock, 2000)
Please rate your agreement to the following statements about the passage you just read on a scale of 1 to 7, where 1 means “not at all” and 7 means “very much.”

TRANSP 1. While I was reading the narrative, I could easily picture the events in it taking place.
   1 2 3 4 5 6 7

TRANSP 2. While I was reading the narrative, activity going on in the room around me was on my mind. (R)
   1 2 3 4 5 6 7

TRANSP 3. I could picture myself in the scene of the events described in the narrative.
   1 2 3 4 5 6 7

TRANSP 4. I was mentally involved in the narrative while reading it.
   1 2 3 4 5 6 7

TRANSP 5. After finishing the narrative, I found it easy to put it out of my mind. (R)
   1 2 3 4 5 6 7

TRANSP 6. I wanted to learn how the narrative ended.
   1 2 3 4 5 6 7

TRANSP 7. The narrative affected me emotionally.
   1 2 3 4 5 6 7

TRANSP 8. I found myself thinking of ways the narrative could have turned out differently.
   1 2 3 4 5 6 7

TRANSP 9. I found my mind wandering while reading the narrative. (R)
   1 2 3 4 5 6 7

TRANSP 10. The events in the narrative are relevant to my everyday life.
   1 2 3 4 5 6 7

TRANSP 11. The events in the narrative have changed my life.
   1 2 3 4 5 6 7

IV. Identification
(Murphy et. al, 2013, De Graaf et. al 2012, Cohen, 2001)
Please rate your agreement to the following on the article on a scale of 1 to 7, where 1 means “strongly disagree” and 7 means “strongly agree.”
IDENT 1. I put myself in the position of Taylor.

IDENT 2. During reading, I imagined what it would be like to be in Taylor’s position.

IDENT 3. While I was reading, I pictured what it would be like for Taylor to experience what was described.

IDENT 4. I empathized with Taylor.

IDENT 5. I pictured the described events.

IDENT 6. While I was reading the story, I visualized the events that took place in it.

IDENT 7. I felt for Taylor.

IDENT 8. I had a vivid image of the events told in the story.

IDENT 9. I like Taylor a lot.

IDENT 10. I feel that I know Taylor well.

IDENT 11. I would like to be the kind of person that Taylor is.

IDENT 12. I identified with Taylor.

IDENT 13. I felt a connection to Taylor.

IDENT 14. I was able to understand the events in the narrative in a manner similar to that in which Taylor understood them.

IDENT 15. I think I have a good understanding of Taylor.

IDENT 16. I tend to understand the reasons Taylor does what they do.
IDENT 17. I felt like I could really get inside Taylor’s head.
1 2 3 4 5 6 7

IDENT 18. I could feel the emotions Taylor portrays.
1 2 3 4 5 6 7

IDENT 19. At key moments in the story, I felt like I knew exactly what Taylor was going through.
1 2 3 4 5 6 7

IDENT 20. While reading the narrative, I forgot myself and was fully absorbed.
1 2 3 4 5 6 7

IDENT 21. While reading the narrative, I felt like I was a part of the action.
1 2 3 4 5 6 7

IDENT 22. While reading the narrative, I wanted Taylor to succeed in achieving goals.
1 2 3 4 5 6 7

IDENT 23. When Taylor succeeded I felt joy, but when they failed, I was sad.
1 2 3 4 5 6 7

V. Emotion
For each of the words below, please answer on a scale of 1 to 7, where 1 means “not feeling this way at all,” 4 means “feeling this way somewhat,” and 7 means “feeling this way very strongly.” How did this message make you feel?

1 2 3 4 5 6 7

EMPATHY 2. Compassionate
1 2 3 4 5 6 7

EMPATHY 3. Softhearted
1 2 3 4 5 6 7

EMPATHY 4. Warm
1 2 3 4 5 6 7

EMPATHY 5. Tender
1 2 3 4 5 6 7

EMPATHY 6. Moved
1 2 3 4 5 6 7

EMOT 1. Surprised
1 2 3 4 5 6 7
| EMOT 2. Irritated       | 1 2 3 4 5 6 7 |
| EMOT 3. Fearful        | 1 2 3 4 5 6 7 |
| EMOT 4. Startled       | 1 2 3 4 5 6 7 |
| EMOT 5. Sad            | 1 2 3 4 5 6 7 |
| EMOT 6. Happy          | 1 2 3 4 5 6 7 |
| EMOT 7. Angry          | 1 2 3 4 5 6 7 |
| EMOT 8. Astonished     | 1 2 3 4 5 6 7 |
| EMOT 9. Sickened       | 1 2 3 4 5 6 7 |
| EMOT 10. Content       | 1 2 3 4 5 6 7 |
| EMOT 11. Annoyed       | 1 2 3 4 5 6 7 |
| EMOT 12. Afraid        | 1 2 3 4 5 6 7 |
| EMOT 13. Revolted      | 1 2 3 4 5 6 7 |
| EMOT 14. Dreary        | 1 2 3 4 5 6 7 |
| EMOT 15. Guilty        | 1 2 3 4 5 6 7 |
| EMOT 16. Scared        | 1 2 3 4 5 6 7 |
| EMOT 17. Aggravated    | 1 2 3 4 5 6 7 |
| EMOT 18. Ashamed       | 1 2 3 4 5 6 7 |
EMOT 19. Cheerful
1 2 3 4 5 6 7
EMOT 20. Dismal
1 2 3 4 5 6 7
EMOT 21. Disgusted
1 2 3 4 5 6 7

VI. Perceived Persuasiveness
On a scale of 1 to 7, where 1 means “strongly disagree,” and 7 means “strongly agree,” please rate what you think about the message in this article. “This message was:”

PERSUAS 1. Compelling
1 2 3 4 5 6 7
PERSUAS 2. Persuasive
1 2 3 4 5 6 7
PERSUAS 3. Dumb
1 2 3 4 5 6 7
PERSUAS 4. Weak
1 2 3 4 5 6 7
PERSUAS 5. Convincing
1 2 3 4 5 6 7

VII. Response Efficacy.
Please answer with your opinion of depression on a 1 to 7 scale, where 1 means "strongly disagree" and 7 means "strongly agree."

REEF 1. If I had depression, there are many options available to help manage the symptoms.
1 2 3 4 5 6 7

REEF 2. For those with depression, therapists and other health care professionals can help treat their illness.
1 2 3 4 5 6 7

REEF 3. I feel confident that recommended treatments and techniques to manage depression are effective.
1 2 3 4 5 6 7
VIII. Severity Measures (modified from Rimal & Real, 2003; Turner et al., 2006; Turner et al. 2011)
Please answer with your opinion of depression on a 1 to 7 scale, where 1 means "strongly disagree" and 7 means "strongly agree."

SEV 1a. I believe that the risks associated with depression are a severe threat to me.
1 2 3 4 5 6 7

SEV 1b. I believe that the risks associated with depression are a severe threat to the average college student.
1 2 3 4 5 6 7

SEV 2. I believe that depression can have serious negative consequences.
1 2 3 4 5 6 7

SEV 3. I believe that depression is extremely harmful.
1 2 3 4 5 6 7

SEV 4. The risks associated with depression are serious enough to ruin a person’s life.
1 2 3 4 5 6 7

SEV 5. The risks associated with depression are things that everyone should watch out for.
1 2 3 4 5 6 7

SEV 6. Depression is a more serious topic than most people realize.
1 2 3 4 5 6 7

SEV 7. The risks associated with depression are not really that important.
1 2 3 4 5 6 7

SEV 8. Researchers exaggerate the risks associated with depression.
1 2 3 4 5 6 7

SEV 9. We should concentrate on other, more serious issues and worry less about the risks associated with depression.
1 2 3 4 5 6 7
X. Social Acceptance  
(McCroskey et. al, 2006)  
Please answer with your opinion of the article on a scale of 1 to 7, where 1 means “strongly disagree” and 7 means “strongly agree.”

SOCIAL 1. I think Taylor would be a friend of mine.
1 2 3 4 5 6 7

SOCIAL 2. I would like to have a friendly chat with her.
1 2 3 4 5 6 7

SOCIAL 3. It would be difficult to meet and talk with her. (R)
1 2 3 4 5 6 7

SOCIAL 4. We could never establish a personal friendship with each other. (R)
1 2 3 4 5 6 7

SOCIAL 5. She just wouldn’t fit into my circle of friends. (R)
1 2 3 4 5 6 7

SOCIAL 6. She would be pleasant to be with.
1 2 3 4 5 6 7

SOCIAL 7. She could be sociable with me.
1 2 3 4 5 6 7

SOCIAL 8. I would not like to spend time socializing with her. (R)
1 2 3 4 5 6 7

SOCIAL 9. I could become close friends with her.
1 2 3 4 5 6 7

SOCIAL 10. She seems easy to get along with.
1 2 3 4 5 6 7

SOCIAL 11. She seems unpleasant to be around.
1 2 3 4 5 6 7

SOCIAL 12. She doesn’t seem friendly. (R)
1 2 3 4 5 6 7

XI. Health Locus of Control (HLC) Scale (Wallston, Wallston, & DeVellis, 1978)  
Please answer with your opinion on health on a scale of 1 to 7, where 1 means “strongly disagree” and 7 means “strongly agree.”

LOC 1. If I become sick, I have the power to make myself well again.
1 2 3 4 5 6 7
LOC 2. Often I feel that no matter what I do, if I am going to get sick, I will get sick.

LOC 3. If I see an excellent doctor regularly, I am less likely to have health problems.

LOC 4. It seems that my health is greatly influenced by accidental happenings.

LOC 5. I can only maintain my health by consulting health professionals.

LOC 6. I am directly responsible for my health.

LOC 7. Other people play a big part in whether I stay healthy or become sick.

LOC 8. Whatever goes wrong with my health is my own fault.

LOC 9. When I am sick, I just have to let nature run its course.

LOC 10. Health professionals keep me healthy.

LOC 11. When I stay healthy, I'm just plain lucky.

LOC 12. My physical well-being depends on how well I take care of myself.

LOC 13. When I feel ill, I know it is because I have not been taking care of myself properly.
LOC 14. The type of care I receive from other people is what is responsible for how well I recover from an illness.

1 2 3 4 5 6 7

LOC 15. Even when I take care of myself, it's easy to get sick.

1 2 3 4 5 6 7

LOC 16. When I become ill, it's a matter of fate.

1 2 3 4 5 6 7

LOC 17. I can pretty much stay healthy by taking good care of myself.

1 2 3 4 5 6 7

LOC 18. Following doctor's orders to the letter is the best way for me to stay healthy.

1 2 3 4 5 6 7

XII. Susceptibility

SUSC 1. How likely is it that you could become depressed? (Sliding scale)

Please answer on a scale of 1 to 7, where 1 means “strongly disagree” and 7 means “strongly agree.”

SUSC 2. The percentage of people affected by depression is: (Sliding percentage scale)

SUSC 3. It is likely that I could become depressed.

1 2 3 4 5 6 7

SUSC 4. It is likely that my friends are affected by depression.

1 2 3 4 5 6 7

SUSC 5. Most college students are affected by depression.

1 2 3 4 5 6 7

SUSC 6. I am at risk for having depression.

1 2 3 4 5 6 7

SUSC 7. I might have depression.

1 2 3 4 5 6 7
Appendix B

DEPRESSION AGENCY

Now that you've answered questions pertaining to yourself, we are interested in your opinion on the story submission. In light of Depression Awareness Day, TCU 360 has asked for writing submissions about student experiences. As a potential reader of TCU 360, we are interested in your and other students’ impressions of these stories. The following story was selected for you to evaluate. Please read the following submission and we will ask you questions about your impression afterward. Please proceed to the next page when you are ready to read the story.

**Stigmatizing depression is wrong**

Because Depression Awareness Day is approaching, it is time to consider how your behavior can affect others with depression.

My name is Taylor. I am a $\{e://Field/Gender\}$. $\{e://Field/major\}$. I'm an $\{e://Field/rank\}$. I’m a $\{e://Field/Child\}$. I’m a $\{e://Field/Sibling\}$. I’m a friend. And I’m affected by depression.

In high school, I was a successful, fun-loving, smart, and popular kid. Although I would sometimes have short stretches of negative feelings would sometimes affect me, depression didn’t control me. At home, I had the support of my family and friends, who helped keep mental illness from affecting my experience.

At the beginning of college, I wondered whether depression would allow me to enjoy my time at TCU. I soon found that depression made me unable to sleep or study. It made me constantly sick. The disease frequently led me to be exhausted, often miss class, and even fail to submit assignments.

Depression made it difficult for me to form friendships. Because I was affected by depression, it was easy to keep to myself. The disease made it impossible to be social. Quite quickly, depression caused me to become lonely.

Searching for help, I told my roommates about how depression caused me to struggle. But my roommates didn’t understand. Instead, they stigmatized and avoided me. They teased me for always being sad, saying things like “We’d hang out with you if depression didn’t make you so unhappy.” The disease left me a victim to my roommates’ ridicule. Already isolated, this disease left me without anyone to turn to. Depression overwhelmed me and took away my hope.

On October 9, depression almost took my life. My parents found me unconscious in my room over fall break. Fortunately, they were able to seek help in time. When my roommates found out, they realized the extent to which depression tortured me. My roommates recognized how their hurtful behavior helped contribute to depression’s irresistible grasp on me.

When I came back to campus, my roommates immediately told me how sorry they were. They realized how my disease devastated me and how their actions made the problem worse. I can now genuinely call these people my friends. Although depression still affects me, these people...
are my support system and shoulders to lean on. Because of their continued support, the disease is manageable.

I am not alone: Depression affects millions of people, causing extreme fatigue, irritability, as well as feelings of worthlessness, hopelessness, and guilt. Depression leads to struggles with alcoholism, substance abuse, self-harm, and suicide. Depression affects every part of a person’s life, and I experienced the worst of it. You can help by understanding what it’s like for depression to affect people and treat them not as inferior, but as fellow human beings.

Depression can affect anyone. People affected by depression need your help. People affected by depression need your support. People affected by depression need you to understand that mental illness sucks. Help fight the stigma of mental illness.
HUMAN AGENCY

Now that you've answered questions pertaining to yourself, we are interested in your opinion on the story submission. In light of Depression Awareness Day, TCU 360 has asked for writing submissions about student experiences. As a potential reader of TCU 360, we are interested in your and other students' impressions of these stories. The following story was selected for you to evaluate. Please read the following submission and we will ask you questions about your impression afterward. Please proceed to the next page when you are ready to read the story.

Stigmatizing people with depression is wrong

Because we’re approaching Depression Awareness Day, it is time to consider how your behavior can affect others around you.

My name is Taylor. I am a $\{\text{Gender}\}$. $\{\text{Major}\}$. I'm an $\{\text{Rank}\}$. I'm a $\{\text{Child}\}$. I'm a $\{\text{Sibling}\}$. I'm a friend. And I’m affected by depression.

In high school, I was a successful, fun-loving, smart, and popular kid. Although I would sometimes have short stretches of negative feelings, I didn’t let depression control me. At home, I had the support of my family and friends, who helped me from experiencing the effects of mental illness.

At the beginning of college, I wondered whether I would be able to enjoy my time at TCU while dealing with depression. I soon found that I was unable to sleep or study. I was constantly sick. I frequently was exhausted, often missed class, and even failed to submit assignments.

With depression, I found it difficult to form friendships. Because I was depressed, it was easy to keep to myself. I found it impossible to be social. Quite quickly, I became lonely.

Searching for help, I told my roommates about how I struggled because of depression. But my roommates didn’t understand. Instead, they stigmatized and avoided me. They teased me for always being sad, saying things like “We’d hang out with you if you weren’t so unhappy.” I was a victim to my roommates’ ridicule due to the disease. Already isolated, I was left without anyone to turn to. I was overwhelmed and no longer had hope because of depression.

On October 9, I almost took my life. My parents found me unconscious in my room over fall break. Fortunately, they were able to seek help in time. When my roommates found out, they realized the extent to which I suffered from depression. My roommates recognized how their hurtful behavior helped contribute to my inability to resist depression’s grasp.

When I came back to campus, my roommates immediately told me how sorry they were. They realized how I was devastated by my disease and how their actions made the problem worse. I can now genuinely call these people my friends. Although I still have depression, these people are my support system and shoulders to lean on. Because of their continued support, I am able to manage the disease.
I am not alone: Millions of people suffer from depression. People with depression experience fatigue, irritability, and feelings of worthlessness, hopelessness, and guilt. Those with depression can struggle with alcoholism, substance abuse, self-harm, and suicide. Every part of a person’s life can be subject to depression, and I experienced the worst of it. You can help by understanding what it’s like for people to struggle with depression and treat them not as inferior, but as fellow human beings.

Anyone can have depression. Depressed people need your help. Depressed people need your support. Depressed people need you to understand that mental illness sucks. Help fight the stigma of mental illness.