

Gelotophobia, Attachment, and Humor Production: Further Test of a Security Theory

Nathan Miczo*

Abstract

The security theory of humor proposes that feelings of security affect the production of humorous messages. Gelotophobia, the fear of being laughed at, potentially mediates relationships between attachment insecurity (anxiety, avoidance) and two forms of humor production (positive, negative). Participants completed the Experiences in Close Relationships scale, the Humor Orientation Scale, the Humor Aggressiveness Scale, and the Geloph-15. Attachment anxiety was related to more aggressive humor and greater gelotophobia; attachment avoidance was negatively associated with humor orientation and positively related to gelotophobia. Additionally, gelotophobia was negatively related to both forms of humor production. Finally, there was evidence that gelotophobia mediated the relationships between attachment anxiety and HAS and attachment avoidance and HOS.¹

Keywords: gelotophobia; humor orientation; humor aggressiveness; security; attachment

Incongruity lies at the heart of contemporary definitions of humor (Carrell, 2008). These incongruities can involve, for example, an opposition between overlapping scripts (Attardo, 2001), or a violation of expectations (Archakis & Tsakona, 2005). Given the potential for incongruities in everyday interaction, opportunities to note or create them with others, expressing mutual pleasure through joking and laughing together are a recurrent feature of social life. Enjoying humor with others, taking a joke at one's own expense, and producing humor have, accordingly, become important interpersonal skills. Recent research on the construct of gelotophobia (Titze, 2009), or the fear of being laughed at, suggests this jocularity can have a darker side. The construct cuts to the

¹ Paper presented to the Interpersonal and Small Group Communication Interest Group, Central States Communication Association Conference, Madison, WI, April 2015. The author would like to thank Drs. Joshua Averbek and Brian Quick for assistance with portions of the data analysis.

* Nathan Miczo, Department of Communication, Western Illinois University, Macomb, IL; n-miczo@wiu.edu

heart of the distinction between *laughing with* and *laughing at*. The very ambiguity of humorous situations, and the need to interpret the laughter within them, becomes a sword of Damocles for gelotophobes, who tend to interpret all laughter as directed at them (Platt, 2008). In their model of the causes and consequences of gelotophobia, Ruch, Hofmann, Platt, and Royer (2014) cited parental influences as a contributing factor, positing that gelotophobes fail to “develop an interpersonal bridge to their caretakers” (p. 33), a suggestion implicating feelings of insecurity (as in, for example, attachment theory (Bowlby, 1982)). This investigation was guided by the security theory of humor (STH; Miczo, 2004), a mid-level theory designed to understand and explain differences in humor production abilities. STH is rooted in the oft-noted connection between feelings of safety/security and the enjoyment (Nelson, 2012) and production (Goodchilds, 1972; Morreall, 1983) of humorous messages. The social nature of laughter and humor, however, suggest that *relational* security is particularly consequential to that connection. Accordingly, disruptions to feelings of relational security should have negative repercussions for producing humor. Thus, one goal of this investigation was to replicate prior research on STH using the attachment theory (Bowlby) dimensions of anxiety and avoidance (Brennan, Clark, & Shaver, 1998) as indicators of relational insecurity. Guided by the Ruch, Hofmann, Platt and Royer model and the STH, the second goal of this study was to examine gelotophobia as a potential mediator of the link between attachment insecurity and two forms of humor production: positive and negative.

Security theory of humor

The central proposition of STH is that feelings of security affect the development of humor production abilities. Mikulincer and Shaver (2009) defined the sense of security as “the sense that the world is generally safe and positively challenging, that one can rely on others for protection and support when needed, and that it is easy and rewarding to explore the world and engage in social (affiliative) and nonsocial (skill-learning) activities without fear of injury or demoralizing failure” (pp. 9-10). Secure individuals ought to be more likely to engage the incongruities and expectancy violations of daily life (Green & Campbell, 2000; Grossmann, Grossmann, & Zimmermann, 1999), as well as to feel comfortable enacting play frames (Fry, 1963; Goffman, 1974/1986; Raskin, 1985) and expressing their insights to others. Differences in feelings of security are therefore held to affect

the type of humor typically produced. A major goal of the theory, therefore, is to provide a coherent framework for explaining the production of socially positive and socially negative forms of humor identified in numerous functional typologies (e.g., Lefcourt, 2001; Martin, Puhlik-Doris, Larsen, Gray, & Weir, 2003; Meyer, 2000; Ziv, 1984).

Socially positive humor is conceptualized as affiliative (Alexander, 1986; Martin, Puhlik-Doris, Larsen, Gray, & Weir, 2003) and unifying (Meyer, 2000), functioning to reduce tension and conflict (Ziv, 1984), enhance positive feelings, and solidify relational bonds (Lefcourt, 2001). In the present study, socially positive humor was operationalized with the humor orientation construct (HO; Booth-Butterfield & Booth-Butterfield, 1991), a “positive communication attribute” (Booth-Butterfield & Booth-Butterfield, 1991, p. 206) used “for prosocial purposes” (Wanzer & Booth-Butterfield, 2012, p. 55). Several studies testing STH have found a negative relationship between HO and various measures of interpersonal-relational anxiety (Miczo, 2004; Miczo, Averbek, & Mariani, 2009, Miczo & Welter, 2006; Miczo, Welter, & Norton, 2011).

Socially negative humor is conceptualized as aggressive (Martin, Puhlik-Doris, Larsen, Gray, & Weir, 2003) and dividing (Meyer, 2000), functioning to enforce social norms, reduce another’s status (Ziv, 1984), as well as disparage and put others down (Lefcourt, 2001). In this study, socially negative humor was conceptualized as verbally aggressive humor, measured by the Humor Aggressiveness Scale (HA; Miczo & Welter, 2006). Miczo and Welter (2006) found that HA was positively related to ethnocentrism, while Miczo, Welter, and Norton (2011) found it was related to less concern for interaction partners. Thus, aggressive humorists are able to encode humor, at the same time using it in ways that highlight self-other distinctions. Miczo, Averbek, and Mariani (2009) utilized attachment theory (Bowlby, 1982) as a framework for explaining differences in the use of these two types of humor.

Humor production and attachment security

According to Bowlby (1982), attachment refers to the affectional bond that develops between an individual and a caregiver who is perceived to be a source of comfort, security, and wisdom. Although the theory was originally developed to explain patterns in child development, Hazan and Shaver (1987) extended the theory to cover adult romantic relationships. In the adult context, the

theory has emphasized how cognitive “working models” (Bowlby, 1973, p. 204) of self and other concerning responsiveness and availability of caregivers affect cognition, affect, and behavior. The present investigation adopts the dimensional approach pioneered by Brennan, Clark and Shaver (1998), who found that a large number of attachment-related items could be defined by the dimensions of anxiety (over abandonment) and avoidance (of intimacy). The anxiety dimension is characterized by fear of abandonment, rejection, and failure; a low sense of self-worth; and doubt about one’s ability to present oneself positively. Avoidance involves a desire to avoid intimacy and closeness with others; a positive sense of self-worth, coupled with low regard for others’ worth; and excessive self-reliance.

Links between both forms of attachment insecurity and humor production are derived from the competencies underlying humor creation. Regarding anxiety, though anxious individuals desire closeness, their uncertainty about the stability of their relationships is easily aroused. Reducing uncertainty means minimizing the incongruities of social life as much as possible. Paradoxically, although humor is relationally valued, the serious relational attitude of anxious individuals inhibits playfulness, including the playful attitude underlying much humor. Further, given the self-focus and self-consciousness typically associated with anxiety (Segrin, 2001), anxious individuals should be less likely to enact humor by clowning around or acting silly. Additionally, according to Fiske, Morling, and Stevens (1996), anxiety can cause people to align themselves with more powerful in-groups and to “perceive others as ideal targets for control” (p. 122). Vicariously identifying with in-groups can create feelings of superiority, a situation facilitative of the use of disparaging, aggressive humor. Teasing, putting others down, putting them “in their place” by pointing out their failings can also be done utilizing aggressive humor. These suppositions lead to the first hypothesis:

H1: Anxious attachment is (a) negatively related to HO and (b) positively related to HA.

With respect to avoidance, a certain amount of distance, or detachment, may be beneficial for gaining a comic perspective. Given that avoidant adults are able to detach themselves from their emotions (Fraley, Davis, & Shaver, 1998), this should allow them a comfortable space for crafting humorous messages. Rather than drawing closer to others, though, the goal of the avoidant is to maintain an emotionally safe distance, thereby minimizing the risks of intimacy. This can be accomplished in two ways. First, avoidants can use less socially positive humor. Two studies

utilizing the affiliative humor subscale of the humor styles questionnaire (HSQ; Martin et al., 2003) found a negative relationship between attachment avoidance and positive humor (Cann, Norman, Welbourne, & Calhoun, 2008; Kazarian & Martin, 2004). Second, relational distance can be created through aggressive humor. Creating a relational barrier by disparaging, criticizing, teasing, and mocking partners will reduce opportunities for closeness and connection. This reasoning results in the second hypothesis:

H2: Avoidant attachment is (a) negatively related to HO and (b) positively related to HA.

Gelotophobia: The fear of being laughed at

According to Titze (2009), gelotophobes believe something is wrong with them and they avoid social activities, fearing they will look ridiculous to others. At the core of gelotophobia are intense feelings of shame that inhibit the gelotophobe from self-expressiveness and social participation for fear of displaying inappropriate behaviors that will cause ostracizing laughter from others. Although Titze first identified the concept in a clinical setting, Ruch and Proyer (2008a, b) posited that the underlying feelings and reactions may comprise a dimension applicable to non-clinical populations. Drawing upon Titze's (2009) clinical observations, Edwards, Martin, and Dozois (2010) proposed that gelotophobia "develops as a result of being exposed to punitive and critical parenting styles involving little display of affection and the use of shame and ridicule as a method of discipline" (p. 95). As a result, the child develops a negative self-image, marked by feelings of inadequacy that inhibit engagement with peers and the social world.

Locating gelotophobia in early child-caregiver experiences suggests that attachment theory (Bowlby, 1982) is a viable theoretical lens through which to view the phenomena. The harsh disciplinary tactics described by Edwards, Martin, and Dozois (2010), as part of a caregiver's overall parenting style, can be applied either consistently or inconsistently. If the sequence is applied inconsistently, so that the child sometimes receives critical and shaming messages (e.g., expressed via such aggressive humor forms as teasing, ridicule, sarcasm), but at other times receives more warm and supportive messages, then the child might develop a more contingent sense of dependency conceptually equivalent to an anxious attachment style.

Two lines of evidence converge to support the connection between gelotophobia and attachment

anxiety. First, recent studies have found that gelotophobia is related to social anxiety and social phobia but is distinct from those constructs. The Edwards, Martin and Dozois (2010) study mentioned above found that gelotophobia was strongly predicted by social anxiety, but not by specific fears (e.g., animals). Nevertheless, the correlations were not so strong as to suggest the constructs were isomorphic. In a similar vein, Carretero-Dios, Ruch, Agudelo, Platt, and Royer (2010) found that gelotophobia was correlated with social anxiety and fear of negative evaluation, although factor analysis once again revealed separate constructs.

The second line of evidence concerns research on the negative self-views of gelotophobes. Gelotophobes have been found to underestimate their intellectual abilities (in particular, general intelligence, vocabulary, and attention) relative to their objective tests scores (Proyer & Ruch, 2009b). Additionally, Proyer and Ruch (2009a) found that gelotophobia was negatively correlated with various character strengths and virtues (e.g., authenticity, bravery, curiosity). Other research suggests that gelotophobes devalue their abilities not only to themselves (Radomska & Tomczak, 2010) but also in how they present themselves to social partners (Renner & Heydasch, 2010). This negative self-view is considered a core feature of the internal working model of individuals with anxious attachment styles. Thus, the following hypothesis is proposed:

H3: Gelotophobia is positively related to attachment anxiety.

One advantage of using attachment theory is its formulation of two forms of insecurity, anxiety and avoidance. If the developmental sequence outlined by Edwards, Martin, and Dozois (2010) is applied consistently, rather than inconsistently, so that caregivers always use harsh, emotionally cold tactics of discipline, including aggressive humor forms, then the child should develop more avoidant attachment. Including avoidance in the study of gelotophobia might help account for some of the characteristics attributed to gelotophobes. For example, the “wooden appearance” of gelotophobes described by Titze (2009, p. 32) implies a dampening of affect and emotional responsiveness consistent with the desire to avoid intimacy. In a study of those with more extreme forms of gelotophobia, Platt, Ruch, Hofmann, and Proyer (2012) asked open-ended questions to elicit information on gelotophobes’ experiential worlds. Numerous reported comments resounded with themes of a desire to avoid people and places. As one participant stated, “I am a self-independent loner. I make sure my friends are not friends with one another. I don’t date much and the women I

do date cannot be too social” (Table 2, p. 96). Those with attachment avoidance are thought to possess a positive model of self and a negative model of others. Although the positive self-views are not much in evidence in gelotophobia, the notion that others are cruel mockers of the vulnerable self is consistent with a negative model of others. Therefore, the following hypothesis is proposed:

H4: Gelotophobia is positively correlated to attachment avoidance.

Gelotophobia and humor production

Intuitively, it seems that someone who fears being laughed at would shy away from using humor. However, there is evidence that this is not because they are unable to understand and produce the incongruities necessary for encoding humor. Ruch, Beerman, and Proyer (2009, Study 2) found that gelotophobia was unrelated to the quantity, quality, and content of punch lines produced in response to cartoons. Given the social nature of much humor, however, the act of producing humor when alone may have only a tenuous link to actually using humor in conversation with others. Since the goal of much socially positive humor is to make partners laugh, and gelotophobes cannot distinguish between good-natured and mocking laughter (i.e., they tend to perceive all laughter as derisive) (Platt, 2008; Ruch, Altfreder, & Proyer, 2009; Ruch Beermann, & Proyer, 2009), then they should be less likely to use positive humor with others. In support of this idea, Ruch, Beermann, and Proyer (Study 1) found that gelotophobia was negatively related to the affiliative and self-enhancing subscales of the HSQ. These considerations lead to the following hypothesis:

H5: Gelotophobia is negatively related to HO.

The relationship between gelotophobia and aggressive humor is more complex. In the Ruch, Beermann, and Proyer (2009, Study 1) study mentioned above, gelotophobia was not significantly related to the aggressive humor subscale of the HSQ. However, in that same study, gelotophobes described their own humor style as “socially cold and inept, but also as mean spirited” (p. 121). A construct that sheds light on this discrepancy is katagelasticism, the joy of laughing at others. Ruch and Proyer (2009) found that gelotophobia was not significantly related to katagelasticism; however, Renner and Heydasch (2010) found the two variables were positively correlated. They proposed a distinction between passive and active katagelasticism. Essentially, this is the difference between enjoying seeing others laughed at, and actively producing the messages that provoke laughter at

others. Further, they suggested that gelotophobes are passive katagelasticians, “laughing at others but not being able to create instances that allow laughing at others” (p. 185). These disparate findings can be reconciled, however, if gelotophobes are posited to be active katagelasticians, rather than passive. By their own self-report, they are mean spirited in their use of humor. This active katagelasticism would explain the significant findings of Renner and Heydasch (2010). Thus, because of their own painful history of being laughed at, as well as their tendency to misinterpret all laughter as directed at them, gelotophobes should prefer not to see others getting laughed at. Along those same lines, many forms of verbally aggressive humor (e.g., sarcasm, mockery) are aimed at social correction or norm enforcement (Meyer, 2000), rather than making others laugh per se. If gelotophobes have learned the use of aggressive humor from caregivers, they may resort to using such tactics on others. Given that the aim of much aggressive humor is not laughter but getting the point across, such humor poses a lower risk of producing laughter on the part of targets. The sixth hypothesis follows from these considerations:

H6: Gelotophobia is positively related to HA.

Theorized links between attachment insecurity and humor production are premised on the argument that attachment bonds have already begun influencing personality prior to the development of humor production abilities in children (Cann et al., 2008). By that same argument, however, attachment styles impact a variety of communicative behaviors beyond humor (Mikulincer & Shaver, 2007). Thus, theoretical advancement would be facilitated by identifying mediating mechanisms through which insecurity affects humor production. The hypothesized relationships outlined above posit gelotophobia as a good candidate for such a mechanism. Thus, if the attachment insecurity dimensions of anxiety and avoidance are related to gelotophobia, and gelotophobia is associated with positive and negative humor use, then gelotophobia ought to mediate expected relationships between attachment insecurity and humor production. The final hypothesis reflects this expectation:

H7: Gelotophobia mediates relationships between a) attachment anxiety and HO, b) attachment anxiety and HA, c) attachment avoidance and HO, and d) attachment avoidance and HA.

Method

Participants

Participants were 192 undergraduates (83 males, 100 females; 9 participants did not report demographic information) from a medium-sized Midwestern university in the U.S., with an average age of 20.66 years ($SD = 1.82$; range 18-28). The ethnic composition of the sample was 65% White/Caucasian, 23% Black/African-American, 7% Hispanic/Latin American, .5% Asian/Pacific Islander, and .5% Other. Class standing of the sample was as follows: 25% Freshmen, 8% Sophomore, 30% Junior, 33% Senior. Students were recruited from various courses in the Communication Department and received extra credit for their participation.

Procedure

Participants completed a survey containing items related to attachment, gelotophobia, humor orientation, and humor aggressiveness. Item order was randomly determined using the Research Randomizer website. All items were assessed with 5-point Likert-type scales with 1 = “Strongly Disagree” and 5 = “Strongly Agree.” The final page of the survey asked demographic questions. This study was approved by the university’s Institutional Review Board.

Measures

Attachment Dimensions. The Experiences in Close Relationships scale (Brennan et al., 1998) was used to measure attachment insecurity. Items were adapted to refer to partners more generally rather than only a romantic relationship partner (e.g., Schoemann, Gilath, & Sesko, 2012). This scale contains two 18-item subscales: anxiety over abandonment (e.g., “I worry about being abandoned”) and avoidance of intimacy (e.g., “I prefer not to show others how I feel deep down”). Items were coded so that higher scores reflect greater anxiety ($M = 2.84$, $SD = .67$, $\alpha = .89$) and greater avoidance ($M = 2.44$, $SD = .63$, $\alpha = .88$).

Humor orientation. The Humor Orientation Scale (HOS; Booth-Butterfield & Booth-Butterfield, 1991) was used as the operationalization of prosocial humor. The scale contains 17 items related to an individual’s ability to use humor both frequently (e.g., “I can be funny without having to rehearse a joke”) and effectively (e.g., “People usually laugh when I tell a joke or story”). The scale was

coded so that higher scores reflect greater humor orientation ($M = 3.77$, $SD = .60$, $\alpha = .90$).

Aggressive Humor. The Humor Aggressiveness Scale (HAS; Miczo & Welter, 2006) was used to measure aggressive uses of humor. The HAS is a modified version of Infante and Wigley's (1986) Verbal Aggressiveness Scale, which was adapted in two ways: only the 10 negatively worded items were retained and all items were written to include a negative instance of humor (e.g., "If individuals I am trying to influence really deserve it, I make fun of their character"). Thus, the HAS captures an individual's tendency to use humor to attack another's self-concept. The scale was coded so that higher scores reflect greater humor aggressiveness ($M = 2.78$, $SD = .73$, $\alpha = .85$).

Gelotophobia. The GELOPH-15 (Ruch & Proyer, 2008b) is a 15-item measure designed to tap into the fear of being laughed at (e.g., "When others laugh in my presence I get suspicious"). Although the GELOPH-15 is often used with a 4-point response scale, in order to maintain consistency with the construction of the other items, items were measured with 5-point response scales. Items were coded so that higher scores reflect greater feelings of gelotophobia ($M = 2.57$, $SD = .63$, $\alpha = .85$).

Results

Zero-order correlations for all variables are presented in Table 1. With 192 cases, power to detect a medium effect size of .25 was 94%. Hypotheses 1-6 were tested with correlation analyses. Hypothesis 7 was examined with structural equation modeling.

Hypotheses 1: Attachment anxiety and humor production

Hypothesis 1 predicted that attachment anxiety is negatively related to HO and positively related to HA. Examination of the correlations in Table 1 reveals that attachment anxiety was negatively correlated with HO, $r = -.14$, $p = .06$, though the result was not statistically significant. Attachment anxiety was significantly positively related to HA, $r = .31$, $p < .01$. Thus, H1a is not supported, but H1b is supported.

Hypothesis 2: Attachment avoidance and humor production

The second hypothesis predicted that attachment avoidance is negatively related to HO and positively related to HA. As evident from Table 1, the correlation between attachment avoidance and HO was significant, $r = -.38$, $p < .01$; however, the relationship between attachment avoidance and HA was not significant, $r = .06$, $p = .41$. Thus, H2a is supported, but H2b is not supported.

Hypothesis 3 and 4: Attachment insecurity and gelotophobia Hypothesis 3 predicted a positive relationship between attachment anxiety and gelotophobia, while hypothesis 4 predicted a positive relationship between attachment avoidance and gelotophobia. The correlation analysis revealed support for both hypotheses: attachment anxiety and gelotophobia, $r = .61, p < .01$; attachment avoidance and gelotophobia, $r = .42, p < .01$.

Hypothesis 5 and 6: Gelotophobia and humor production

Hypothesis 5 predicted that gelotophobia is negatively associated with HO. Examination of the correlations in Table 1 reveals a negative relationship between gelotophobia and HO, $r = -.29, p < .01$. H5 is supported.

Hypothesis 6 predicted that gelotophobia is positively associated with HA. Examination of the correlations in Table 1 reveals a positive relationship between gelotophobia and HA, $r = .33, p < .01$. H6 is supported.

The pattern of results for H1 through H6 suggests that examining the potential mediating impact of gelotophobia on the attachment-humor link is warranted.

Hypothesis 7: Gelotophobia as mediator

In order to examine the role of gelotophobia as a mediator of links between attachment anxiety and avoidance and the two forms of humor production (HOS, HAS), structural equation modeling was performed. The first model tested was a full mediation model, where all the relationships specified by the hypothesis were included (i.e., gelotophobia mediates relationships between a) attachment anxiety and HOS, b) attachment anxiety and HAS, c) attachment avoidance and HOS, and d) attachment avoidance and HAS). However, this model was a poor fit to the data, $\chi^2 (df = 1) = 5.56, p < .05, CFI = .98, RMSEA = .15$ (90% CI .05, .29) (see Figure 1). A second model was constructed eliminating the non-significant links between attachment avoidance and HAS and attachment anxiety and HOS. This second model suggested an acceptable fit to the data, $\chi^2 (df = 3) = 6.38, p = .09, CFI = .98, RMSEA = .08$ (90% CI .00, .16) (see Figure 2). Thus, H7b and H7c were supported, but not H7a and H7d. In the best fitting model, gelotophobia mediated the relationship between attachment avoidance and HOS, and it mediated the relationship between attachment anxiety and HAS.

Discussion

The present investigation utilized the security theory of humor (Miczo, 2004) to examine interrelationships between gelotophobia, attachment (in)security and two forms of humor production. Both attachment dimensions were associated with greater self-reported gelotophobia. Additionally, attachment anxiety was positively associated with humor aggressiveness and exhibited a weak relationship with humor orientation that fell just short of conventional significance levels; attachment avoidance was negatively related to humor orientation. The fear of being laughed at was related to less use of prosocial humor and more use of aggressive humor. Finally, there was tentative evidence that gelotophobia mediated specific relationships between attachment and humor production. This investigation was guided by two objectives and results have implications for each.

The security theory of humor

One goal of the study was to provide a further test of the core proposition of the security theory of humor (Miczo, 2004) that feelings of (in)security influence the production of humorous messages. The results broadly provide support for that link, insofar as insecurity was related to less use of prosocial humor and more use of aggressive humor. However, the results were not always as clear and robust as might be hoped. The predicted relationship between anxiety and positive humor (as measured by the HOS) was weaker than expected, falling just short of conventional significance levels. The direction of the relationship was in line with past research using both the HSQ (Cann et al. 2008; Martin et al., 2003) and the HOS (Miczo, 2004; Miczo, Averbeck, & Mariani, 2009, Miczo & Welter, 2006; Miczo, Welter, & Norton, 2011). Taken together, these various findings provide consistent evidence that anxious individuals report using less of the kind of humor that builds relationships and brings people together. An important next step is to investigate the mechanisms and pathways through which this connection holds true.

The predicted relationship between attachment anxiety and verbally aggressive humor was predicated on the notion anxiety interferes with processes thought to underlie humor creation. That is, anxious individuals have a contingent sense of self-worth that renders them hypersensitive to the state of their relational bonds, have a self-focus that makes it difficult for them to adopt a humorous perspective (especially regarding their relational lives), and, according to Fiske, Morling, and

Stevens (1996), they may attempt to exert internal control by controlling others. However, prior research utilizing the theory has not found a relationship between attachment anxiety and aggressive humor (Miczo, Averbeck, & Mariani, 2009). Similarly, Cann et al. (2008) failed to find a significant correlation between attachment anxiety and the aggressive humor subscale of the HSQ, and Martin et al. (2003) did not find a significant relationship between the state-trait anxiety inventory and the aggressive humor subscale of the HSQ. Thus, the significant positive relationship between anxiety and aggressive humor in the present study should be treated with caution until it can be confirmed with further research. Future research should more carefully examine the relationship between anxiety and aggressive humor, perhaps by focusing on specific types of aggressive humor and/or by attending more carefully to subtle variations in the measurement of anxiety. There may be some circumstances under which anxious individuals lash out, using ridicule and harsh teasing to demean and put down partners. They may also use aggressive humor to serve norm enforcement or correction functions, perhaps as a way of controlling partners (Fiske, Morling, & Stevens, 1996), or they may use it as a defense mechanism to protect themselves when their insecurities are aroused or when reassurance-seeking efforts are thwarted.

The negative relationship between attachment avoidance and positive humor has been reported in prior research (Cann et al., 2008; Kazarian & Martin, 2004), supporting the supposition that using less playful, adaptive humor is one way to keep partners at a relational distance. The expected positive relationship between avoidance and aggressive humor (based on results found by Miczo, Averbeck, & Mariani, 2009) was not supported; though the correlation was positive, it was low in magnitude. In this study, the attachment measure was modified somewhat to refer to “close relationships” and “relational partners” rather than romantic relationships and partners. That change in focus might explain the results. For example, it may be that an avoidant may use more aggressive humor with a romantic partner because the intimate nature of that relationship arouses feeling of vulnerability that scare the person; with other interaction partners, where that fear is lessened, using aggressive humor may be less imperative, and distance can be regulated by simply relying on less positive humor. Conversely, anxious individuals may use less prosocial humor with romantic partners because their preoccupation with that bond interferes with the opportunity to notice or take delight in life’s incongruities. However, with non-romantic partners, their use of verbally aggressive

humor may stem from a desire to control others by using humor to enforce norms.

These suggestions highlight a further issue that requires attention; that is, greater specification of the nuances of humor production. For example, various versions of superiority theory (La Fave, Haddad, & Maesen, 1996) argue that people use negative humor to put others down and/or to elevate the self. However, verbally aggressive humor motivated by a desire to bring others in line following a norm violation does not have to stem from a feeling of inferiority/superiority. It may simply result from the perception of a boundary transgression that needs to be addressed (cf. Kuipers, 2006). Even if a basic insecurity underlies both motives, it is clear that they manifest themselves in different goal configurations (e.g., make myself feel better vs. bring you back into line). This speaks to a third issue, which involves more attention paid to the proximal predictors of humor usage. Even though there is evidence that those high in humor orientation do not engage in high levels of humor planning (Booth-Butterfield & Booth-Butterfield, 1991; Miczo, Welter, & Norton, 2011), it would be premature to abandon the GPA (goals-plans-action, Dillard, 1990) model as an approach to understanding humor production. After all, the humor orientation construct was premised on a cognitive processing model that suggests high humorists process information differently than low humorists. Given evidence of low correlations between measure of positive and negative humor (Martin, 2006), it would be fruitful to explore potential cognitive differences underlying both types of humor.

Gelotophobia

Another question addressed in this investigation is the role that attachment plays in the development of gelotophobia. Edwards, Martin, and Dozois (2010) proposed a sequence wherein gelotophobia develops in response to harsh, emotionally cold parental discipline styles. Proyer, Estoppey, and Ruch (2012) found support for this proposition in adult recollections of parenting styles. However, such a style can be used either consistently or inconsistently and this difference should, in line with attachment theory, be highly relevant. Further, discipline is only one aspect of parenting, and parents might use laughter or teasing in other parent-child interactions. A parent might, for example, gently mock or tease a child for seeking proximity with a parent from stimuli perceived by the parent as non-threatening. Additionally, the parent's own preferences for humor usage may be directed at the

child even in more relaxed, recreational environments. Once an insecure attachment style begins to develop, the child will likely “overreact” to all instances of laughter.

These results confirm that gelotophobia is related to more general forms of insecurity and not just the specific experience of being shamed and/or laughed at as children. Certainly, one limitation of this study was that it was not longitudinal; similarly, participants were not directly asked about their recollections of their attachment experiences with primary caregivers in childhood. Rather, the conceptual heritage of attachment theory (Bowlby, 1982) was drawn upon, a heritage stating that early experiences with caregivers affect the development of relatively stable orientations along the attachment dimensions of anxiety over abandonment and avoidance of intimacy. Though gelotophobia was associated with both attachment anxiety and avoidance, the correlation with anxiety was significantly stronger than the correlation with avoidance.¹ This supports the argument that gelotophobia is related to social anxiety disorder, even though the constructs are distinct. Future research might fruitfully examine these relationships using a typological attachment approach (e.g., using Bartholomew’s (1990) four-category model). Longitudinal research is also needed to examine the relationship between caregivers’ humor use and the development of particular attachment styles. Finally, other factors from the Ruch, Hofmann, Platt and Proyer (2014) model should be incorporated along with attachment measures. Family communication patterns, as well as early interactions with peers and other authority figures may have interactive effects with attachment experiences to magnify or buffer experiences of gelotophobia.

Gelotophobia and humor production

The final question addressed in this investigation was the role of gelotophobia in influencing the production of humor in particular, different types of humor. These results provide evidence that gelotophobes are, as reported by Ruch, Beerman, and Proyer (2009), more “mean-spirited” in their use of humor, reporting less positive, prosocial humor and more negatively, verbally aggressive humor. Why are these results different from Ruch, Beermann, and Proyer (2009), who found no relationship between gelotophobia and aggressive humor? One explanation may be the use of the aggressive humor subscale of the Humor Styles Questionnaire (HSQ), which mixes items for both humor appreciation and humor production. Gelotophobes may not appreciate aggressive humor

(Samson & Meyer, 2010), even though they use such humor themselves. Or, they may not want others to use it because it may be directed at them. Perhaps they feel unable to stop themselves from using it, suggesting an overlearned response stemming from being on the receiving end of similar responses from caregivers during early developmental periods. Finally, these results support the conclusion that gelotophobes are active rather than passive katagelasticists, as proposed by Renner and Heydasch (2010). That is, they are capable of using aggressive humor, even though they don't enjoy seeing it used against others, or having it used against themselves.

Results from the structural equation model provide evidence that gelotophobia mediated two specific relationships between attachment insecurity and humor production. That is, gelotophobia provided a mechanism for the relationship between attachment anxiety and aggressive humor, as well as the relationship between attachment avoidance and prosocial humor. These results must be considered tentative given that the initial model had to be trimmed to produce an acceptable fit. However, the findings suggest the possibility of different nuances to the experience of gelotophobia. For example, individuals experiencing more attachment anxiety may respond to the laughter of other with self-doubt, and this may influence them to use aggressive humor to elevate the self and/or put others down, or perhaps simply to lash out. On the other hand, those prone to attachment avoidance may respond to being laughed at by distancing themselves from the interaction, resulting in less use of positive humor overall. An investigation that included other forms of communication as well as humor would provide fuller picture of the interpersonal world of the gelotophobe.

Limitations

The use of self-report for all variables is one limitation of this investigation. Humor, attachment, and gelotophobia are all inherently social and interactional phenomena. An ideal study might use a stressor to activate the attachment system, place participants in a situation where others are actually laughing at them, and then ask them to produce humor in a social setting. Such a study is not completely unimaginable. Successful research has been conducted in priming attachment styles (Schoemann et al. 2012); hypothetical scenarios and recorded laughter (Platt 2008) have been used in studying gelotophobia; and, situations have been created to promote interactional humor (Rockwell & Theriot, 2001). Future research ought to utilize some combination of these techniques to validate

and complement self-report data.

A second limitation concerns the use of a college sample. The issue here is not necessarily one of age but of disposition. Given the importance of interpersonal skills in today's workplace, and the ability to take a joke as one characteristic of those skills, individuals who lack this capacity may shy away from occupations with heavy demands on their sociability. This may include professions and careers that are the goal of many communication majors (e.g., public relations). Some of this self-selection may occur prior to college, and it most likely continues in the selection of a major. Thus, a sample of communication students may exhibit lower levels of gelotophobia even relative to samples of the same age. In addition, more research needs to be conducted on age-related changes in gelotophobia.

Conclusions

Although humor is contextual, it is not produced randomly or in a vacuum. People differ in their abilities to perceive opportunities for humor and their willingness to enact humorous messages. The security theory of humor holds promise for understanding the antecedents of humor production. Insecurity is an important variable in distinguishing differences in the encoding of humor. The results of this study suggest that one of the reasons for this is because insecurity engenders the fear and suspicion that laughter is directed at the self. Certainly, there are other factors that impact the development of gelotophobia (e.g., culture, Davies 2009; Proyer, Ruch, & Chen, 2012). However, given the pervasiveness of both humor production and reception in social interaction, and the premium placed upon these as valued social skills, relationship research holds great promise in revealing how gelotophobia disrupts the ability to form satisfying connections with others.

References

- Alexander, R. D. (1986). Ostracism and indirect reciprocity: The reproductive significance of humor. *Ethology and Sociobiology*, 7, 253-270.
- Archakis, A. & Villy T. (2005). Analyzing conversational data in GTVH terms: A new approach to the issue of identity construction via humor. *Humor*, 18, 41-68.
- Attardo, S. (2001). *Humorous texts: A semantic and pragmatic analysis*. Berlin: Mouton de Gruyter.
- Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Israeli Journal for Humor Research, December 2017, Vol. 6 Issue No. 2*

- Personal Relationships*, 7, 147-178. doi: 10.1177/0265407590072001
- Booth-Butterfield, S., & Booth-Butterfield, M. (1991). Individual differences in the communication of humorous messages. *Southern Communication Journal*, 56, 205-218.
- Bowlby, J. (1973). *Attachment and loss: Vol. 2 Separation*. New York: Basic Books.
- Bowlby, J. (1982). *Attachment and loss: Vol. 1 Attachment* (2nd ed). New York: Basic Books.
- Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46-76). New York: Guilford.
- Cann, A., Norman, M. A., Welbourne, J. L., & Calhoun, L. G. (2008). Attachment styles, conflict styles and humour styles: Interrelationships and associations with relationship satisfaction. *European Journal of Personality*, 22, 131-146. doi: 10.1002/per.666
- Cann, A., Zapata, C. L., & Davis, H. B. (2008). Positive and negative styles of humor in communication: Evidence for the importance of considering both styles. *Communication Quarterly*, 57, 452-468. doi: 10.1080/01463370903313398
- Carrell, A. (2008). Historical views of humor. In V. Raskin (Ed.), *The primer of humor research* (pp. 303-332). Berlin: Mouton de Gruyter.
- Carretero-Dios, H., Ruch, W., Agudelo, D., Platt, T., & Proyer, R. T. (2010). Fear of being laughed at and social anxiety: A preliminary psychometric study. *Psychological Test and Assessment Modeling*, 52, 108-124.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.
- Davies, C. (2009). Humor theory and the fear of being laughed at. *Humor*, 22, 49-62. doi: 10.1515/HUMR.2009.003
- Edwards, K. R., Martin, R. A., & Dozois, D. J. A. (2010). The fear of being laughed at, social anxiety, and memories of being teased during childhood. *Psychological Test and Assessment Modeling*, 52, 94-107.
- Fiske, S. T., Morling, B., & Stevens, L. E. (1996). Controlling self and others: A theory of anxiety, mental control, and social control. *Personality and Social Psychology Bulletin*, 22, 115-123. doi: 10.1177/0146167206222001

- Fraley, R. C., Davis, K. E., & Shaver, P. R. (1998). Dismissing-avoidance and the defensive organization of emotion, cognition, and behavior. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 249-279). New York: Guilford.
- Fry, W. F., Jr. (1963). *Sweet madness: A study of humor*. Palo Alto, CA: Pacific Books.
- Goffman, E. (1974/1986). *Frame analysis: An essay on the organization of experience*. Boston: Northeastern University Press.
- Goodchilds, J. D. (1972). On being witty: Causes, correlates, and consequences. In J. H. Goldstein & P. E. McGhee (Eds.), *The psychology of humor: Theoretical perspectives and empirical issues* (pp. 173-193). New York: Academic Press.
- Green, J. D., & Campbell, W. K. (2000). Attachment and exploration in adults: Chronic and contextual accessibility. *Personality and Social Psychology Bulletin*, 26, 452-461.
- Grossmann, K. E., Grossmann, K., & Zimmermann, P. (1999). A wider view of attachment and exploration: Stability and change during the years of immaturity. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 760-786). New York: Guilford.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511-524.
- Infante, D. A., & Wigley, C. J., III. (1986). Verbal aggressiveness: An interpersonal model and measure. *Communication Monographs*, 53, 61-69.
- Kazarian, S. S., & Martin, R. A. (2004). Humour styles, personality, and well-being among Lebanese university students. *European Journal of Personality*, 18, 209-219. doi: 10.1002/per.505
- Kuipers, G. (2006). *Good humor, bad taste: A sociology of the joke*. Berlin: Mouton de Gruyter.
- La Fave, L., Haddad, J., & Maesen, W. A. (1996). Superiority, enhanced self-esteem, and perceived incongruity humour theory. In A. Chapman and H. C. Foot (Eds.), *Humor and laughter: Theory, research, and applications* (pp. 63-91). New Brunswick, NJ: Transaction.
- Lefcourt, H. M. (2001). *Humor: The psychology of living buoyantly*. New York: Kluwer.
- Martin, R. A. (2006). *The psychology of humor: An integrative approach*. Burlington, MA: Elsevier Academic Press.
- Martin, R. A., Puhlik-Doris, P., Larsen, G., Gray, J., & Weir, K. (2003). Individual differences in the
- Israeli Journal for Humor Research, December 2017, Vol. 6 Issue No. 2*

- uses of humor and their relation to psychological well-being: Development of the Humor Styles Questionnaire. *Journal of Research in Personality*, 37, 48-75.
- Meyer, J. C. (2000). Humor as a double-edged sword: Four functions of humor in communication. *Communication Theory*, 10, 310-331.
- Miczo, N. (2004). Humor ability, unwillingness to communicate, loneliness, and perceived stress: Testing a security theory. *Communication Studies*, 55, 209-226. doi: 10.1080/10510970409388615
- Miczo, N., Averbek, J. M., & Mariani, T. (2009). Affiliative and aggressive humor, attachment dimensions, and interaction goals. *Communication Studies*, 60, 443-459. doi: 10.1080/10510970903260301
- Miczo, N., & Welter, R. E. (2006). Aggressive and affiliative humor: Relationships to aspects of intercultural communication. *Journal of Intercultural Communication Research*, 35, 61-77. doi: 10.1080/17475740600739305
- Miczo, N., Welter, R. E., & Norton, H. E. (2011, April). *Communication anxiety and cognitive competence as predictors of affiliative and aggressive humor*. Paper presented to the Interpersonal and Small Group Communication Interest Group, Central States Communication Association, Milwaukee, WI.
- Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. New York: Guilford.
- Mikulincer, M., & Shaver, P. R. (2009). An attachment and behavioral systems perspective on social support. *Journal of Social and Personal Relationships*, 26, 7-19. doi: 10.1177/0265407509105518
- Morreall, J. (1983). *Taking laughter seriously*. Albany, NY: State University of New York.
- Nelson, J. K. (2012). *What made Freud laugh: An attachment perspective on laughter*. New York: Routledge.
- Platt, T. (2008). Emotional responses to ridicule and teasing: Should gelotophobes react differently? *Humor*, 21, 105-128. doi: 10.1515/HUMOR.2008.005
- Platt, T., Ruch, W., Hofmann, J., & Proyer, R. T. (2012). Extreme fear of being laughed at: Components of gelotophobia. *Israeli Journal of Humor Research*, 1, 86-106.

- Proyer, R. T., Estoppey, S., & Ruch, W. (2012). An initial study of how families deal with ridicule and being laughed at: Parenting styles and parent-child relations with respect to gelotophobia, gelotophilia, and katagelasticism. *Journal of Adult Development, 19*, 228-237. doi: 10.1007/s10804-012-9150-6
- Proyer, R. T., & Ruch, W. (2009a). How virtuous are gelotophobes? Self- and peer-reported character strengths among those who fear being laughed at. *Humor, 22*, 145-163. doi: 10.1515/HUMR.2009.007
- Proyer, R. T., & Ruch, W. (2009b). Intelligence and gelotophobia: The relations of self-estimated and psychometrically measured intelligence to the fear of being laughed at. *Humor, 22*, 165-181. doi: 10.1515/HUMR.2009.008
- Proyer, R. T., Ruch, W., & Chen, G.-H. (2012). Gelotophobia: Life satisfaction and happiness across cultures. *Humor, 25*, 23-40. doi: 10.1515/humor-2012-0002
- Radomska, A., & Tomczak, J. (2010). Gelotophobia, self-presentation styles, and psychological gender. *Psychological Test and Assessment Modeling, 52*, 191-201.
- Raskin, V. (1985). *Semantic mechanisms of humor*. Dordrecht, Holland: D. Reidel Publishing Company.
- Renner, K.-H., & Heydasch, T. (2010). Performing humor: On the relations between self-presentation styles, gelotophobia, gelotophilia, and katagelasticism. *Psychological Test and Assessment Modeling, 52*, 171-190.
- Rockwell, P., & Theriot, E. M. (2001). Culture, gender, and gender mix in encoders of sarcasm: A self-assessment analysis. *Communication Research Reports, 18*, 44-52.
- Ruch, W., & Proyer, R. T. (2008a). The fear of being laughed at: Individual and group differences in gelotophobia. *Humor, 21*, 47-67. doi: 10.1515/HUMOR.2008.002

- Ruch, W., & Proyer, R. T. (2008b). Who is gelotophobic? Assessment criteria for the fear of being laughed at. *Swiss Journal of Psychology*, *67*, 19-27. doi: 10.1024/1421-0185.67.1.19
- Ruch, W., & Proyer, R. T. (2009). Extending the study of gelotophobia: On gelotophiles and katagelasticians. *Humor*, *22*, 183-212. doi: 10.1515/HUMR.2009.009
- Ruch, W., Altfreder, O., & Proyer, R. T. (2009). How do gelotophobes interpret laughter in ambiguous situations? An experimental validation of the concept. *Humor*, *22*, 63-89. doi: 10.1515/HUMR.2009.004
- Ruch, W., Beermann, U., & Proyer, R. T. (2009). Investigating the humor of gelotophobes: Does feeling ridiculous equal being humorless? *Humor*, *22*, 111-143. doi: 10.1515/HUMR.2009.006
- Ruch, W., Hofmann, J., Platt, T., & Proyer, R. (2014). The state-of-the-art in gelotophobia research: A review and some theoretical extensions. *Humor*, *27*, 23-45. doi: 10.1515/humor-2013-0046
- Samson, A. C., & Meyer, Y. (2010). Perception of aggressive humor in relation to gelotophobia, gelotophilia, and katagelasticism. *Psychological Test and Assessment Modeling*, *52*, 217-230.
- Schoemann, A. M., Gillath, O., Sesko, A. K. (2012). Regrets, I've had a few: Effects of dispositional and manipulated attachment on regret. *Journal of Social and Personal Relationships*, *29*, 795-819. doi: 10.1177/0265408512443612
- Segrin, C. (2001). *Interpersonal processes in psychological problems*. New York: Guilford.
- Titze, M. (2009). Gelotophobia: The fear of being laughed at. *Humor*, *22*, 27-48. doi: 10.1515/HUMR.2009.002
- Wanzer, M. B., & Booth-Butterfield, M. (2012). Introduction to the measurement of humorous communication. In R. L. DiCioccio (Ed.), *Humor communication: Theory, impact, and outcomes* (pp. 51-71). Dubuque, IA: Kendall Hunt.
- Ziv, A. (1984). *Personality and Sense of H humor*. New York: Springer Publishing Company.

Footnotes

1. Using the correlations reported in Table 1 (.61 for anxiety and gelotophobia and .42 for avoidance and gelotophobia), Cohen and Cohen's (1983) formula for testing the difference

between dependent r s was utilized (formula 2.8.8, p. 57), and the resulting t value was significant, $t(189) = 2.56, p < .05$.

Table 1

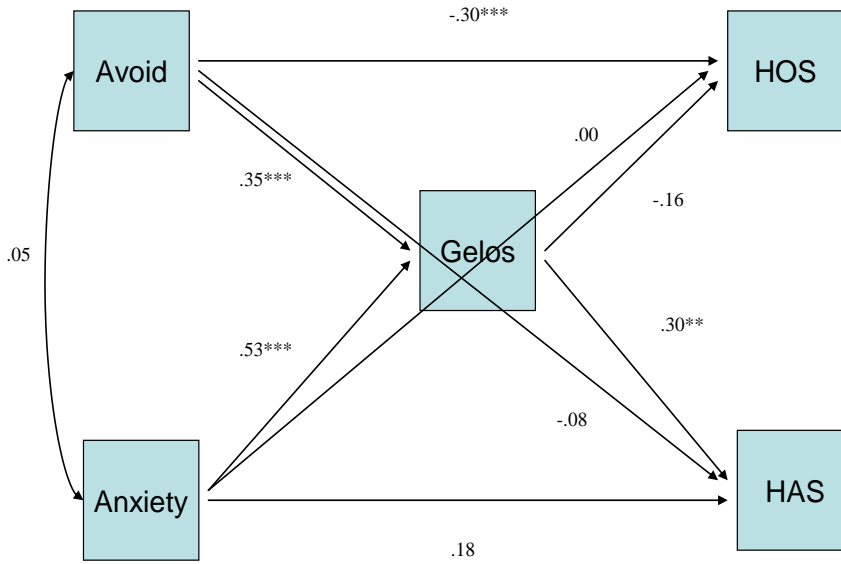
Correlations between attachment insecurity, gelotophobia, and humor production

| | 1. | 2. | 3. | 4. | 5. |
|-----------------|-------|--------|--------|-----|----|
| 1. Anxiety | -- | | | | |
| 2. Avoidance | .13 | -- | | | |
| 3. Gelotophobia | .61** | .42** | -- | | |
| 4. HOS | -.14+ | -.38** | -.29** | -- | |
| 5. HAS | .31** | .06 | .33** | .07 | -- |

Note. HOS = Humor Orientation Scale; HAS = Humor Aggressiveness Scale.

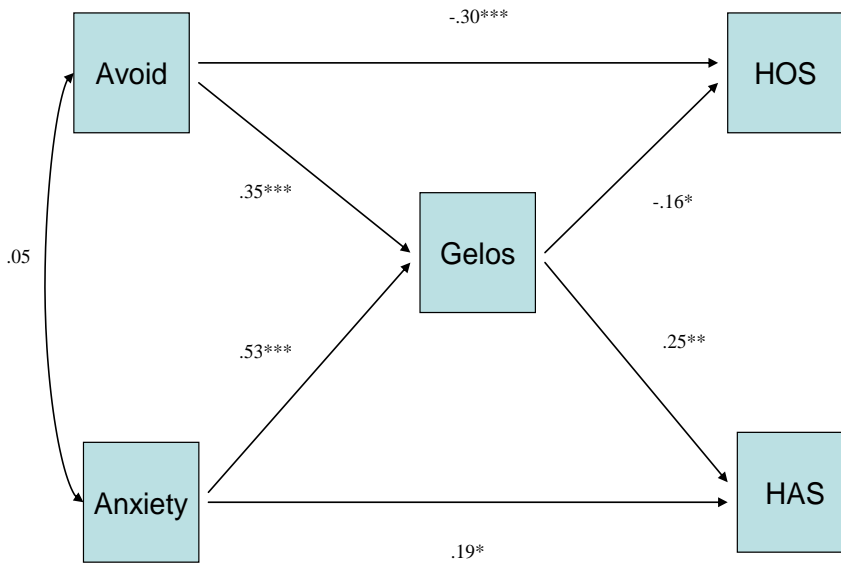
+ $p = .06$. * $p < .05$. ** $p < .01$.

Figure 1: Full Mediation Model



* $p < .05$, ** $p < .01$, *** $p < .001$

Figure 2: Partial Mediation Model



* $p < .05$, ** $p < .01$, *** $p < .001$