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GENDER IDENTITY REFLECTION AND RUMINATION SCALE:
DEVELOPMENT AND PSYCHOMETRIC EVALUATION

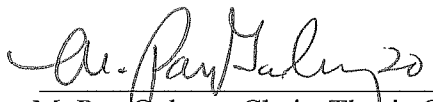
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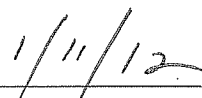
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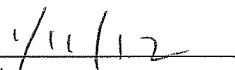
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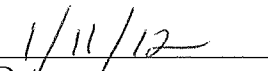

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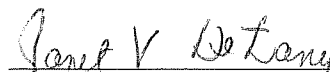

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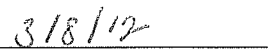

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ABSTRACT

GENDER IDENTITY REFLECTION AND RUMINATION SCALE: DEVELOPMENT AND PSYCHOMETRIC EVALUATION

L. Andrew Bauerband

This research develops the Gender Identity Reflection and Rumination Scale (GRRS), a scale that specifically measures rumination in the context of gender identity. Items of the GRRS were formulated taking into account previous research in rumination, stigma stress, and identity processing relevant to the lesbian, gay, bisexual, transgender (LGBT) community. Two samples were collected to investigate the psychometric properties of the GRRS. Exploratory factor analysis of data from 222 transgender participants resulted in three factors of gender identity rumination, (a) reflection, (b) rumination, (c) preoccupation with others' perceptions. Confirmatory factor analysis of data from 312 transgender participants substantiated the 3-factor model of the GRRS. The 15-item GRRS demonstrated acceptable reliability and followed expected correlation patterns with various validity measures. This research provides a holistic approach for considering rumination in the transgender population.

TABLE OF CONTENTS

LIST OF TABLES -----	V
INTRODUCTION AND LITERATURE REVIEW -----	1
METHODS AND RESULTS -----	13
STUDY 1 -----	14
STUDY 2 -----	19
DISCUSSION -----	26
APPENDICES -----	34
APPENDIX A: TABLES -----	35
APPENDIX B: RECRUITMENT LETTER -----	39
APPENDIX C: INFORMED CONSENT -----	40
APPENDIX D: GENDER IDENTITY REFLECTION AND RUMINATION SCALE -----	41
APPENDIX E: TRANSITION QUESTIONNAIRE -----	42
APPENDIX F: IDENTITY SALIENCE -----	43
APPENDIX G: DEMOGRAPHIC QUESTIONS -----	44
APPENDIX H: TRANSGENDER LABEL QUESTION -----	45
REFERENCES -----	46
CURRICULUM VITAE -----	54

LIST OF TABLES

Table 1: Factor Analysis Loadings for GRRS items from Study 1	35
Table 2: Factor Analysis Loadings for the GRRS from Study 2	36
Table 3: Correlations for GRRS Scale and Validity Measures.....	37
Table 4: Stepwise Multiple Regressions with GRRS	38

CHAPTER ONE:

INTRODUCTION AND LITERATURE REVIEW

The Gender Identity Reflection and Rumination Scale:

Development and Psychometric Evaluation

The purpose of this study was to develop a scale that measures rumination specifically in the context of gender identity. Although self-report scales currently exist that measure general rumination, this scale allows researchers the opportunity to investigate the extent to which a person's ruminative thoughts are focused on their own transgender identity. Currently most research in the area of rumination and stigma stress has focused on sexual minorities, individuals with a sexual identity other than heterosexual. However, there is general overlap in the experience of stigma and awareness of identity among sexual minorities and transgender individuals (Fassinger & Arseneau, 2007). This paper will review the research and theory surrounding rumination and sexual minority experience, with attention to the ways this literature may be uniquely related to transgender experience.

Rumination

Rumination is described as a response to stress or a situation that involves persistent thinking. It is seen as an emotion-focused coping strategy for managing stress (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008). Typically, a person ruminates in an effort to make sense of the stress and situation they are experiencing (Watkins, 2004).

Although individuals who ruminate regard their thoughts as adaptive and believe them to be effective at finding resolution to stress (Nolen-Hoeksema et al. 2008), rumination typically involves focusing on the problem and only thinking about the negative aspects of the problem, without providing any resolution.

The most commonly researched type of rumination is depressive rumination. This rumination is a response to negative mood that involves evaluating one's depressive symptoms, and analyzing these symptoms in an effort to make sense of their feelings. Although rumination appears to be proactive against depression, ruminative coping is associated with various negative outcomes (e.g., cognitive deficits, increased episodes of depression, impulsive behaviors, and negative social regard by friends and peers; see Nolen-Hoeksema, et al. 2008 for review). Recent research has considered depressive rumination as consisting of two components; brooding and reflection, first conceptualized in the Ruminative Responses Scale (RRS; Treynor, Gonzalez, & Nolen-Hoeksema, 2003). Brooding is characterized as dwelling on the negative aspects of a situation and is considered more maladaptive than reflection. Although there is evidence that brooding is related to more impairments than reflection (Daches et al., 2010), researchers continue to include both components in the way rumination is measured.

In general, rumination is considered to be a consistent thought pattern over time and can greatly impair a person's ability to navigate daily life stressors (Lyubomirsky, Tucker, Caldwell, & Berg, 1999). Because rumination has been associated with decreased ability to switch between tasks (Davis & Nolen-Hoeksema, 2000; Watkins & Brown, 2002), and inability to concentrate (Lyubomirsky & Tkach, 2003), a person with

higher scores on rumination measures can have a more difficult time completing tasks at work or school, thus increasing the opportunity for stress. In addition, individuals with high scores on the RRS show attention and memory biases towards negative information (Donaldson, Lam, & Matthews, 2007; Joorman, Dkane, & Gotlib, 2006; Morrison & O'Connor, 2008), potentially contributing to a general negative perception of life events.

Rumination among Sexual Minorities

Hatzenbuehler, McLaughlin and Nolen-Hoeksema (2008) found that sexual minorities engage in ruminative thought more than their heterosexual counterparts, thus placing them at greater risk for the negative effects associated with rumination. Three studies have explored rumination among sexual minorities, all using a variation of the RRS (Hatzenbuehler, Dovidio, Nolen-Hoeksema, Phills 2009a; Hatzenbuehler, et al. 2008; Hatzenbuehler, Nolen-Hoeksema, & Dovidio, 2009b). These studies considered rumination as a response to negative mood associated with self stigmatization (Hatzenbuehler et al. 2009a) and experienced discrimination (Hatzenbuehler et al. 2009b), to explain psychological distress.

Research on rumination among sexual minorities has exclusively used the RRS, which is a measure of depressive rumination. This scale only captures response to depressive symptoms (Hatzenbuehler et al. 2009a; Hatzenbuehler, et al. 2008; Hatzenbuehler et al. 2009b) and ignores other purposes of rumination that may be present within this population. Although this research has found that rumination is more likely among sexual minorities than heterosexuals, the focus of this research has been to investigate depressive rumination as it may account for increased mental health disparities among sexual minorities. This research has not considered other expressions

of rumination nor has it considered the range of ruminative thoughts among sexual minorities. The additional stress and unique experiences of sexual minorities, may suggest that rumination manifests itself in different areas of life for sexual minorities.

Stigma Stress

Researching rumination among sexual minorities requires understanding the distinctive stress of being a sexual minority. Sexual minorities have a devalued social identity in comparison to mainstream identities (Katz, Joiner, & Kwon, 2002). As a result of their minority status, lesbian, gay, and bisexual (LGB) individuals face stigma-related stressors that heterosexual individuals do not (Herek, 2009). According to Meyer (2003), this additional stigma stress requires further problem solving beyond the experiences of all people. It is a continuous stress based on social and cultural environments and is beyond an individual's own personal stressors. Sexual minorities experience two types of stigma stress that differ based on the objective and subjective nature of stress. Distal stressors are those experienced outside of an individual's personal appraisals (e.g., overt harassment, employment discrimination), while proximal stressors would be defined as the stressors that an individual perceives (e.g., stigma awareness, vigilance towards others' knowledge of stigmatized identity). Due to its persistent nature, stigma stress can be characterized as a chronic stressor that sexual minorities face (Crocker, Major, & Steele, 1998), placing them at higher risk of developing a ruminative coping style (Nolen-Hoeksema, Larson, & Grayson, 1999).

Although Meyer (2003) does not extend his minority stress model to understand rumination specifically, a potential relationship with rumination may exist. Because proximal stress is subjective to an individual and is related to a person's self identity the

level of proximal stress a person experiences may be related to how often a person ruminates about their stigmatized identity. Likewise, the prominence or focus that a person places on their identity (identity salience) may relate to the extent a person experiences identity relevant stressors (Marcussen, Ritter, & Safron, 2004). Morrison and O'Connor (2008) found that among individuals who ruminate about negative feelings, there is an attentional bias towards negative events and information. It follows, then, that when sexual minorities ruminate about their identity, there may be an increase in attention to discrimination and expectation for rejection as it relates to having an LGB identity.

Future rumination research with sexual minorities needs to incorporate the experience of stigma stress (Hatzenbuehler, 2009), as it could contribute to an LGB individual's development of ruminative coping. Because LGB individuals experience stigma stress, general rumination may also be a more consistent style of thinking among sexual minorities than it is for people with a heterosexual identity. Research should investigate general rumination among sexual minorities as it may be related to experience beyond developmental psychopathology. In addition, being aware of the content of ruminative thoughts may offer researchers the opportunity to explore the specific focus, especially when evaluating response to multiple stressors (e.g., other minority statuses, financial stress, interpersonal stress) in a person's life.

Sexual Minority Identity Processing

As all individuals experience changes or transitions in their life, they must process what these changes mean to their identity. Although LGB specific identity processing has never been researched, there is a specific experience among sexual minorities, in

which they must come to terms with having an LGB identity (Cass, 1984; Rosario, Schrimshaw, Hunter, & Braun, 2006). Consequently, past research on rumination among sexual minorities has failed to take into account LGB identity processing, however, rumination has a recognized role in general identity processing (Luyckx et al., 2008; Luyckx et al., 2007). General identity processing requires self-focused attention, and although both reflection and rumination are described as self-focused attention, reflection is viewed as evaluating meaning and purpose in past experiences, and is related to increased self-awareness (Trapnell & Campbell, 1999). Despite the distinction between the maladaptive/adaptive components of self-focused reflection and rumination, there is a strong relationship between the two types of thinking, first conceptualized in the Reflection-Rumination Questionnaire (RRQ; Trapnell & Campbell, 1999), a scale developed to measure dispositional rumination and reflection styles unrelated to depressive rumination. Individuals who engage in ruminative coping experience increased struggle when processing their identity (Luyckx et al., 2007). If a person were ruminating in an effort to process their identity, they may become consumed with intrusive thoughts, and be less likely to effectively reflect on their identity or avoid processing their identity altogether (Berzonsky, 2008). For most sexual minorities, the awareness of stigma regarding having an LGB identity is already present prior to their own identity realization (Cain, 1991). The level at which a person is able to accept this new stigma may depend on the person's prior experience with related and unrelated social stressors (e.g., peer rejection, overt discrimination towards gender nonconforming behaviors).

The connections between reflection, rumination, and avoidance may contribute to the importance of exploring rumination in the context of identity processing among sexual minorities. More specifically, increased understanding of these connections may be pertinent when considering whether a person is more inclined to ruminate in response to stigma stress during different stages of development, or whether LGB identity development is impacted by rumination. Current measures of general and depressive rumination may not be sensitive enough to capture the relationship between rumination and an LGB individual's identity processing and coping strategies.

Sexual Orientation and Gender Identity

Rumination in the context of sexual minority experience is clearly unique, and should be considered distinctive from depressive rumination. A review of sexual minority research points to the need for a new framework when researching rumination within this population. Likewise, overlap in the experiences of sexual minorities and transgender persons suggest a similar framework is necessary for understanding gender identity rumination. Past research has found that minority stress may be similar among LGB and transgender individuals (Kelleher, 2009). Specifically, extensive research has found that targeting behaviors for explicit discrimination for LGB individuals is often associated with gender nonconforming behaviors (Lasser & Tharinger, 2003; Skidmore, Linsenmeier & Bailey, 2006), and these behaviors may appear similar among transgender individuals. The source of stigma may also be similar, as both identities challenge the normative experience and understanding of gender and appropriate gender relationships (Schilt, 2009). In addition, an added level of identity processing is required among both sexual and gender minorities (Piper & Mannino, 2008). Because rumination is a response

to stress and these identities share a similar experience of stigma stress, manifestation of rumination may also be similar.

However, essential differences exist. Even though LGB and transgender individuals are generally conceptualized as a unified group (LGBT), transgender persons often experience increased stigmatization (Fassinger & Arseneau, 2007; Weiss, 2004). Transgender persons are more impacted by society's merging of sex and gender (i.e. defining gender by a person's genitalia: Fassinger & Arseneau, 2007), often times encountering obstacles during basic activities (e.g. using a public bathroom, getting routine physical exams; Hines, 2007). The transgender community has a history of being overshadowed by the LGB community (Hill & Willoughby, 2005) and pathologized (Lev, 2004) resulting in isolation and invisibility (Fassinger & Arseneau, 2007). This heightened stigma may increase the extent of distal related stressors for transgender people.

Furthermore, transgender identity processing requires different stages than sexual minority processing. LGB individuals explore their sexual orientation and negotiate how they want to integrate this identity into their life (Rosario et al. 2006). In contrast, many transgender individuals explore their gender identity but then have to process additional steps, making decisions on how they will express and respond to this identity (e.g. changing legal documents, seeking medical interventions; Clifford & Orford, 2007; Piper & Mannino, 2008; Schrock, Holden, & Reid, 2004). Unlike LGB identity development, transgender identity development generally necessitates disclosure of transgender status within professional settings (Bauer et al. 2009; Fassinger & Arseneau, 2007). This is especially significant as there is less protective legislation for transgender persons than

sexual minorities (especially regarding employment protection: Fassinger & Gallor, 2006), increasing opportunity for discrimination and saliency of the “coming out” experience. These critical differences in experience between sexual minorities and transgender persons may result in different content and patterns of rumination between groups.

Gender Identity Rumination

Bearing in mind the specific content of transgender thoughts is essential when conceptualizing gender identity rumination. In a study validating sexual minority measures related to discrimination and identity management for the use with transgender populations, Brewster, Velez, Deblaere, & Moradi (2011) indicated that the content of transgender thoughts were similar to thoughts of LGB persons, but were specifically focused on gender identity and expression. Three measures were modified to incorporate gender identity, resulting in new valid and reliable measure that captures perceived experiences and identity management behaviors among transgender persons. The similar structure between the LGB and transgender validated versions suggest overlap in experience and perception of stigma between groups. Conceptualizing the possible differences in rumination between sexual minorities and transgender persons requires a consideration of the distinctive content. Most specifically, it is essential to be aware of the added concerns and thoughts that arise for transgender persons.

For all individuals there is a history of expectations by society to present and act according to gender assigned at birth. However, transgender persons have a unique experience of recognizing these performances and experiencing gender roles not aligning with their internal selves (Clifford & Orford, 2007). This realization may entail

restructuring a lifetime of internalized beliefs about the conceptualization of men and women (Hines, 2007; Brown & Rounsley, 1996). Upon identity realization, transgender persons may spend time reorganizing their identity, altering how they socialize with others, and learning to integrate their selves into a different perspective (Fraser, 2009; Brown & Rounsley, 1996). Consistent with research and clinician observations of transgender experience, this process would lead to increased vigilance towards one's personal gender behaviors and presentation, especially as it is interpreted by others (Skidmore, Linsenmeier & Bailey, 2006; Lasser & Tharinger, 2003; Brown & Rounsley, 1996).

There is clearly a need for a content specific rumination measure that captures the processing of a stigmatized identity. However, despite overlap in experience between sexual minorities and transgender persons, it is evident that experiences are distinctive enough to conceptualize rumination between groups independently. The heightened stigma, unique identity management, and added negotiation of society's conceptualization of gender, suggest ruminative thoughts may manifest differently for individuals with transgender experience. Effectively considering rumination in this population requires a measure that captures the unique experience and content behind transgender persons' thoughts about their gender identity.

Statement of the Problem

The present research is the first to investigate rumination among transgender persons. The purpose of these studies was to develop the Gender Identity Reflection and Rumination Scale (GRRS) in order to capture the variability in ruminative thoughts among transgender people regarding their gender identity. The GRRS was conceptualized

from research utilizing different concepts of rumination including depressive rumination (Treynor et al. 2003) and self-focused attention (Trapnell & Campbell, 1999). Scale items were developed while keeping in mind these various rumination measures. Due to the consistent finding that rumination comprises multiple components, we expected the GRRS to be a multidimensional scale, capturing different aspects of gender identity rumination. The objective of Study 1 was to explore the factor structure of the scale and reduce the scale into a functional measure. Study 2 was conducted in order to confirm the factor structure of the GRRS and evaluate the construct validity of the proposed scale. Four scales were used to evaluate the validity of the GRRS: the Ruminative Styles Questionnaire (RRS; Treynor, et al. 2003), the Rumination-Reflection Questionnaire (RRQ; Trapnell & Campbell, 1999), identity salience (specific to being transgender), and a measure of perceived stigma (STI; Meyer, Schwartz & Frost, 2008).

Because gender identity rumination is conceptualized as being similar to depressive and general rumination, we hypothesized the GRRS would be positively related to scores of the RRQ and the RRS. In addition, Hatzenbuehler (2009) demonstrated a relationship between stigma and rumination for sexual minorities, therefore we expected to find a positive relationship between gender identity rumination and perceived stigma. Due to past literature demonstrating cognitive and attentional bias towards the content of a person's ruminative thoughts (Donaldson et al. 2007; Joorman et al. 2006; Morrison & O'Connor, 2008), we would expect an attentional focus on gender identity to be positively related to gender identity rumination. To capture this concept we hypothesized the GRRS would be correlated with transgender identity salience. Furthermore, the development of the GRRS is expected to capture rumination specifically

related to being transgender. In order to test whether the GRRS captures identity specific rumination beyond the amount that measures of depressive and general rumination capture transgender specific experience, we expect that identity specific measures (STI and salience) will be more strongly correlated to the GRRS than the RRQ and the RRS.

CHAPTER 2:

METHODS AND RESULTS

Data collection was conducted using an anonymous online survey. Participants were recruited using social and support groups for transgender and LGBT individuals via emails and message boards. These groups included various local support groups across the country and national groups with specific interests (e.g., transgender Christians, transgender activists). The groups were asked to post a message that told participants we were investigating thoughts about gender identity, and offered a link to the survey. Participants were also recruited via other participants in the study, by participants sending study information to additional transgender resources. Participants began the survey with an informed consent that asked them to confirm they identified as transgender and were at least 18 years old. Once they agreed to participate, they continued to the survey, where they completed the measures for Study 1 or Study 2. After participants completed all measures they were given the opportunity to provide anonymous feedback or email the researcher directly.

Study 1 and Study 2 were collected using the same survey link, such that recruitment was presented as one study. This method prevented participants from volunteering twice and maintained consistent recruitment sources between samples.

STUDY 1

Purpose

The purpose of Study 1 was to examine the psychometric properties of the original 46-item version of the GRRS and to reduce the items included in the GRRS to a more manageable scale. Participant free responses were also considered.

Participants

The sample consisted of 222 United States residents. Current gender identities of participants were: 120 females (54.1%), 58 males (26.1%), and 44 individuals with a nonconforming identity (19.8%). Participants identified as gay/lesbian (21.2%), bisexual (24.8%), heterosexual (22.1%), pansexual, asexual, and queer (32%). The sample was mostly white/Caucasian (87%), with only 13% of participants identifying as a racial minority. Approximately 45% had a four year degree, 8.6% had an Associate's degree, 22.5% had some college education, 5.9% had a professional degree, 10.9% had a high school diploma, 1.5% had some high school education, and roughly 6.3% of participants indicated a unique education history from the options listed. Participants ranged in age from 18 to 83 ($M = 27.2$, $SD = 15.6$ $Mdn = 30.5$), and represented 33 states in all regions of the United States.

Measure

Gender Identity Reflection and Rumination Scale (GRRS). The GRRS is the scale being designed to measure rumination and reflection about gender identity. For this sample, the scale included 46 items. Initially the 46 items were modeled after other

rumination measures: the RRQ (Trapnell & Campbell, 1999), the RRS (Treynor et al. 2003), and the Dimensions of Identity Development Scale (Luyckx et. al, 2008). Items were shifted to incorporate a substantive gender identity element (e.g., “Analyze your personality to try to understand why you are depressed” influenced the item “Analyze how my gender identity shapes who I am”). In addition to reviewing previous scales, the researchers considered the literature on sexual orientation and gender identity experience and minority stress to formulate additional items that may capture thoughts specific to transgender persons.

Participants were asked to read each statement and rate how often they engage in similar thoughts. Response options were on a 4-point Likert-type scale (1= *almost never*, 2= *sometimes*, 3=*often*, 4=*almost always*), modeled after the RRS response options. Reliability for all 46 items was $\alpha = .96$. Once the participants completed the 46 items they were presented with the opportunity to discuss how the items made them feel, and whether they wanted to share additional thoughts that might not have been captured in the 46 items.

Results

Exploratory Factor Analysis. According to Costello and Osborne’s review (2005) of exploratory factor analysis practices, sample size is generally a debatable topic, but compromises regarding sample size suggest a 5:1 ratio of participant to scale items. With 46 items, the suggested sample size would be roughly 230 participants. Considering the unique identity, and difficulty in recruitment of transgender participants, a sample of 222 participants was obtained. Data was found to be acceptable for factor

analysis as signified by a Kaiser-Meyer-Olkin value of .92 and significant Bartlett's test of sphericity: $\chi^2 = (1035, N = 222) = 5183.50, p < .001$.

We performed an exploratory factor analysis using principal axis factoring (PAF; promax rotation), resulting in nine factors with eigenvalues over 1. However, after a scree plot test we determined a three-factor solution was appropriate. More specifically, the scree plot suggested the scale might fit in a 2-, 3-, or 4- factor solution. After examining factor loadings and conceptualizations for the respective solutions, we determined that the GRRS was exhibiting three unique factors. Thus, we determined the GRRS was best represented using a 3-factor solution. The factors represented in the solution were rumination, reflection, and preoccupation with others' perceptions. A PAF, with forced three-factor extraction was conducted. The three factors accounted for 48.5% of the variance in the data. Reflection accounted for 38.0% of the variance (*eigenvalue* = 17.46), followed by rumination with 6.4% (*eigenvalue* = 2.94), and preoccupation with others' perceptions with 4.16% (*eigenvalue* = 1.91).

Once a 3-factor solution was determined, we reduced the items in the GRRS. We began by reviewing participant responses to each item. On average items were marked "prefer not to answer" 1 or 2 times, 9 items were removed that were marked as such 3 or more times (e.g., "Think that life would be easier if I identified with my assigned sex"). Items that seemed confusing (e.g., "Hold onto thoughts about my gender identity long after my initial resolution"), could be interpreted in multiple ways (e.g., "Think about what life would be like if I was born with different body parts"), or seemed to be measuring something other than rumination (e.g., "Worry that no one will treat me as the

genuine gender I am”) were thrown out. Last, we reviewed items in each factor to determine which items aligned best with the factor conceptualization.

The GRRS was reduced from 46 items to 15 items, with 5 items in each factor. All reflection, rumination, and preoccupation with others’ perception items loaded at .48, .62, .32 or higher respectively, with a loading difference of .10 or higher between factors. PAF performed on the reduced scale demonstrated that 55.9% of the variance was accounted for by the factors. Rumination accounted for 35.3% (*eigenvalue*=5.29), preoccupation with others’ perceptions accounted for 10.4% (*eigenvalue*=1.57), and reflection accounted for 9.9% (*eigenvalue*=1.48). The reliability for the final GRRS was α =.87. Factor loadings can be found in Table 1.

Participant Responses. About 50% of the participants who completed the survey gave feedback about how the GRRS items made them feel, and if they had additional thoughts to add. There was a range of responses from participants, including appreciation for a study relevant to their thoughts to speculation about the purpose of the study. A mixture of feelings was reported, but only a few participants offered thoughts about their gender identity that were not included. One theme stood out as a possible relevant consideration when interpreting the GRRS; many participants felt that the GRRS items were not relevant to them “anymore”, suggesting their responding was different since they were more comfortable with their identity. A few participants suggested that their responses to these questions were directly related to where they were in coming to terms with their identity.

At the end of the survey participants also presented feedback regarding demographic questions. Specifically, participants did not feel there were enough options presented to be able to appropriately describe their transgender identity.

Discussion

Participant responses to the GRRS were analyzed, and the GRRS captured three unique aspects of gender identity rumination: reflection, rumination, and preoccupation with others' perceptions. The next step in developing the GRRS was to confirm the factors and test the external reliability against additional measures, using a new sample of transgender participants. However, participants mentioned confusion when responding to items as the extent to which they had thoughts had changed over time, participant instructions were modified to clarify that responses should be specific to current thoughts.

Additionally, review of participant responses led to changes in the survey for Study 2. Considering the information presented by participants in Study 1, we determined it was important to measure the stage of identity development and transition (if applicable) to investigate the relationship with gender identity rumination. We added a few self-rating measures of stage in transition/gender presentation congruence, and the Transgender Congruence Scale (TCS). Additionally, to be able to better capture the participant sample responding to the survey we added a new demographic question regarding transgender labels, with more options as well as the flexibility to select all that apply.

STUDY 2

Purpose

The purpose of Study 2 was to establish the psychometric properties of the newly revised 15-item GRRS scale, and begin establishing reliability for the GRRS. This study was also used to evaluate the external validity of the GRRS.

Furthermore, we added an additional validity measure to the survey to incorporate participant suggestions. Participants disclosed that the extent that they focused on their gender identity decreased as they adjusted to their identity. Therefore, we hypothesized that GRRS scores would be negatively related to measures of gender congruence.

Participants

The sample consisted of 312 United States residents. Current gender identities of participants were: 86 females (27.6%), 102 males (32.7%), 88 individuals with a nonconforming identity (28.2%), and 36 (11.6%) participants who chose not to disclose their primary gender identity, but later selected gender identities and/or labels to describe their experience of gender. Participants identified as gay/lesbian (13.2%), bisexual (22.1%), heterosexual (17.1%), pansexual, asexual, and queer (48.6%). The sample was mostly white/Caucasian (87.9%), with 10.7% identifying as a racial minority, and 2.9% not answering. Approximately 48.1% had a four-year degree, 5.1% had an Associate's degree, 28.4% had some college education, 2.9% had a professional degree, 9.5% had a high school diploma, 1% had some high school education, and roughly 5% of participants

indicated a unique education history from the options listed. Participants ranged in age from 18 to 72 ($M=35$, $SD=14.89$, $Mdn=29$), and represented 42 states.

When participants selected primary gender identity, they were also given a list of other possible gender identities and labels (e.g. transgender, transgenderist, genderqueer, FTM, male), and asked to select all identities they felt applied to them. The most frequently selected identity was transgender ($N=184$, 59.0%), followed by *trans ($N=142$, 45.5%), queer ($N=124$, 39.7%), transsexual ($N=102$, 32.7%), genderqueer ($N=102$, 32.7%), FTM ($N=87$, 27.9%), MTF ($N=86$, 27.6%), with 19 other identities all selected by at least 2 participants. On average, participants selected 4.9 identities after selecting their primary gender identity with (range of 0-19). Roughly 25% of participants selected between 0-2, 50% of participants selected between 3-7, and the top 25% of participants selected between 8-19.

Measures

Gender Identity Reflection and Rumination Scale (GRRS). The reduced GRRS scale from Study 1 was used. The scale consisted of 15 items, discussing how often individuals think about their gender identity (e.g., “Analyze how my experience of my gender identity shapes who I am”). In order to clarify the instructions and acknowledge that thoughts about gender identity may change over time instructions were changed from simply requesting participants to rate the statements to “People think about their gender identity in various ways. Consider ways you have recently thought about your gender identity. Please read the statements below and rate how often you have thought similar things.” This oriented participants to answer according to recent thoughts.

Rumination. The RRS (Treynor et al. 2003) and RRQ (Trapnell & Campbell, 1999) were used to measure general ruminative coping. The RRS was designed to measure a person's level of ruminative coping in response to feeling depressed. The scale consists of 10 items with two subscales. Within the scale, five items measure brooding (e.g. "Think 'Why do I have problems other people don't have?'"") and five items measure reflection (e.g. "Go away by yourself and think about why you feel this way"). Participants were asked to read each statement and rate how often they do these activities by answering the statements on a 4-point Likert-type scale (1=*almost never* to 4= *almost always*). Item totals are summed, for a score range of 10-40. The entire 10-item scale has not been used with a sexual or gender minority sample, however the five item brooding subscale was used in research with sexual minorities (Hatzenbuehler, Dovidio et al. 2009: $\alpha = .85$; Hatzenbuehler, Nolen-Hoeksema et al. 2009: $\alpha = .84$).

The RRQ is a tool used to measure self-focused attention. The scale includes 24 items consisting of twelve items for each subscale: rumination (e.g. "My attention is often focused on aspects of myself I wish I'd stop thinking about.") and reflection (e.g. "I love exploring my 'inner' self."). The scale uses a 5-point Likert-type scale (1= *strongly disagree* to 5 = *strongly agree*). Item totals are summed for a score range of 24-120. This measure has never been used with a specific sexual or gender minority sample.

Transgender Identity Specific Measures. Identity specific scales were included to capture experiences exclusive to being transgender. Measures of identity salience, perceived stigma, and gender presentation congruence were included to further conceptualize the GRRS.

Identity Salience. A measure of identity salience was adapted from Marcussen, Ritter, and Safron's (2004) 5-item scale to measure identity salience regarding being a student. The original purpose of the scale was to measure general identity salience and identity importance in order to determine the relationship between salience and related stress. For this study, the measure was modified, replacing "being a student" with "being transgender" on all items (e.g. "Being a student is something I rarely think about" was changed to "Being transgender is something I rarely think about"). Response options range from 1 (*strongly agree*) to 4 (*strongly disagree*), with possible scores ranging from 5-20 where higher scores indicate more transgender identity salience.

Perceived stigma. Perceived stigma was measured using the STI (Meyer, Schwartz, & Frost, 2008) a measure previously used to evaluate participants' perceptions of stigma regarding a minority status. Participants were instructed to answer 6 items in regards to how they feel a person with a similar 'gender identity' (previously used with a sexual minority sample, this identity was changed for the current study) would be treated. (e.g., "Most employers will not hire a person like you"), using a 4-point Likert-type scale 1 (*agree strongly*) to 4 (*disagree strongly*) where higher scored indicate greater perceived stigma.

Gender Presentation Congruence. Comfort and stage in identity status was measured with the Transgender Congruence Scale (TCS; Kozee, 2008) and two self-rating items of gender congruence. The TCS is a 25-item Likert-type scale 1 (*strongly disagree*) to 5 (*strongly agree*) that measures to what extent a person feels their gender identity, social status, and gender expression match one another. The initial scale development used an LGBT sample, and conceptualized three subscales; appearance

congruence (e.g., “My outward appearance represents my gender identity.”), body comfort (e.g., “My body allows me to engage in sexual behaviors that express my sexuality”) and gender identity pride (e.g., “I have accepted my gender identity”). In the initial development study, congruence scores were negatively related to measures of anxiety and depression, and positively related to an inventory of steps taken in transition. Item responses are averaged for a possible score range between 1-5.

Due to the limited validation available on the TCS, additional questions were asked to confirm the face validity before using in analyses. Participants were asked 2 questions with the instructions: “For the purpose of this study, transitioning is defined as a person’s own definition of transforming their bodies and/or appearance to match their gender identity. Please answer the questions below regarding transition if you feel comfortable”. The questions were: “Do you plan to transition? If yes, on a scale from 1-7, where do you feel you are in your transition?” 1 (*Just started*) to 7 (*I am where I want to be*) and “To what extent does your gender presentation match how you feel?” 1 (*Not at all*) to 7 (*Complete match*). The gender congruence questions were found to be strongly correlated to the TCS ($r=.80$), thus for validity analyses only the TCS was used.

Procedure

Due to participants’ suspicion and potential bias in responding, measures were placed in a specific order. Participants began the survey completing the 15-item GRRS. Because participants reported thinking about transition after completing the GRRS items in the first study, we placed the TCS and two gender congruence questions following the GRRS. After the TCS, participants answered the RRQ, Identity Salience, and STI. Due to its negative focus, the RRS was the last measure. Upon completion of RRS,

participants answered demographic questions and were given the opportunity to offer anonymous feedback or email the researcher.

Results

Confirmatory Factor Analysis. We performed a confirmatory factor analysis using principal axis factoring (promax rotation), with a forced 3-factor extraction on the GRRS items. The three factors accounted for 59.4% of the variance, with rumination accounting for 40.6% (*eigenvalue*=6.09), reflection accounting for 10.8% (*eigenvalue*=1.62) and preoccupation with perceptions of others accounting for 8.0% (*eigenvalue*=1.19). Replicating the findings from Study 1, each of the 15 items loaded on the expected factor. All reflection, rumination, and perceptions of others items loaded at .52, .67, and .49 or higher (see Table 2 for factor loadings and means).

Reliability and Validity. Internal consistency reliability for the GRRS was assessed using Chronbach's alpha, $\alpha = .94$. The GRRS subscales demonstrated satisfactory reliability (reflection: $\alpha = .76$; brooding: $\alpha = .83$; perceptions of others: $\alpha = .83$).

We calculated bivariate correlations to assess convergent validity of the GRRS scores. Evidence for convergent validity was suggested in medium and large effect sizes between the GRRS scale and GRRS subscales, with corresponding RRQ and RRS subscales (see Table 3). As expected, there was a medium and large effect size between measures of the GRRS and measures of perceived stigma and transgender congruence, with a small effect size between the GRRS and identity salience. Additionally, comparisons of the transgender specific measures and the RRQ, RRS, and GRRS,

demonstrate a stronger relationship between the GRRS than the other rumination measures.

When comparing correlations between the GRRS and subscales, with the RRQ and RRS subscales, we observed there was a stronger distinction between respective subscales of the GRRS and the RRQ compared to the GRRS and the RRS. Specifically, the GRRS reflection measure had a stronger distinction between the rumination and reflection subscales (.10 difference) of the RRQ than the RRS (.04 difference). Moreover, the brooding and preoccupation with others' perceptions subscales were not significantly correlated to the RRQ reflection subscale, but highly correlated with the rumination subscale. Based on these relationships it was clear that the GRRS was more consistent with the RRQ than the RRS.

Exploration of GRRS predictors. To investigate how the identity specific measures make a unique contribution to the GRRS above and beyond general rumination, we conducted stepwise regressions with the RRS and the RRQ. Due to the previous sexual minority literature using the RRS (e.g. Hatzenbuehler, 2009) and the RRQ portraying a stronger relationship between subscales, regressions were computed with both rumination scales. Both regression models demonstrated significant change in R^2 ($p < .001$) upon the addition of the identity specific measures. In addition, all identity measures provided significant contribution to the models, such that no measures were eliminated from the model. Results from the regression models can be found in Table 4.

CHAPTER THREE:

DISCUSSION

The current studies offer a foundation for rumination research with transgender persons through the development of the Gender Identity Reflection and Rumination Scale (GRRS). Conceptualized from the experience of being transgender, the GRRS measures the extent to which a person thinks about their gender identity. These studies provide evidence for the structure, internal reliability, and validity of the GRRS as a specific research measure for use with transgender participants. The GRRS is the first instrument developed to investigate identity specific rumination, thus improving the tools available to transgender researchers.

Factor analyses on the GRRS indicated three unique components of gender identity rumination: reflection, rumination, and preoccupation with others' perceptions. *Reflection* appears to be engaging and pleasant pondering of one's gender identity, *rumination* can be defined as unmanageable negative thoughts about one's gender identity, and *preoccupation with others* was determined to be a person's level of deliberation on others' reading of one's gender identity. These factors demonstrate the distinctive types of thought that may manifest with a transgender person, especially during times when gender identity is most salient.

This research provides initial evidence for the reliability and validity of the GRRS. The positive correlations between the GRRS and the general rumination

questionnaires provide evidence that the items included in the GRRS are measuring similar style thoughts. The fact that GRRS scores generated consistently stronger correlations with the identity specific measures than the general and depressive rumination scores further validates the GRRS as a scale that measures rumination unique to transgender experience. Considered altogether, these validity and reliability indicators provide initial support for the use of GRRS as an instrument for measuring gender identity rumination.

Comparisons of the relationships between the GRRS subscales and the RRS and RRQ suggested the GRRS was more comparable to the RRQ than the RRS. Reviewing the items that remained on the GRRS further supported the relationship with the RRQ. Specifically, the five items on the reflection subscale of the GRRS most resembled items from the reflection subscale of the RRQ (e.g., GRRS: “Evaluate how things about my personality reflect my gender identity”; RRQ: “I love to meditate on the nature and meaning of things”). There seemed to be no difference in the GRRS rumination items from those of the brooding and rumination scales of the RRS and RRQ. The fact that the GRRS has similar structure to the RRQ may indicate the GRRS captures ruminative thoughts more broadly than the RRS. Particularly, while the RRS was designed to measure thoughts about depression and sad mood (Treynor et al. 2003) and consequently has a specific focus towards negative thoughts, the GRRS noticeably takes into account positive thoughts as well (e.g., “Think about how I experience gender in a unique way”).

The purpose of developing the GRRS was to provide a measure of rumination that would be sensitive to the experiences of being transgender. The stepwise regression models revealed that transgender related variables provided additional strength in

predicting gender identity rumination, beyond that of depressive or general rumination alone. Although exploratory, the regression models contribute to the conceptualization of gender identity rumination as an important concept to research when considering the experiences and coping strategies of managing a transgender identity. The models support the need for an exclusive framework of identity specific rumination for transgender persons. Accordingly, we present the GRRS as an instrument for researching gender identity rumination in more depth.

Rumination vs. Reflection

Analogous with previous rumination measures (e.g. RRS: Treynor et al. 2003; RRQ: Trapnell & Campbell, 1999), the GRRS yielded positive and negative components (reflection and rumination), of gender identity rumination. Beyond stronger relationships with corresponding subscales of general rumination measures, a unique trend was observed with the relationships between GRRS rumination and reflection with the identity specific measures. A significantly stronger relationship was observed between GRRS rumination and perceived stigma in comparison to GRRS reflection. This relationship is consistent with Hatzenbuehler et al.'s (2009b) finding of the relationship between stigma experiences and rumination. The particular measure used to capture stigma specifically considered perceptions of stigma, thus the relationship most specifically points to the idea that rumination may be playing a role in the experience and sensitivity towards stigma related stress (most specifically proximal stress). Additionally there was a strong negative relationship between GRRS rumination and transgender congruence. Although this relationship does not provide any conclusive evidence between the relationship between rumination and transgender identity processing or

development, this may suggest transgender persons are more vulnerable to negative thoughts about their gender identity after initial acknowledgment of their gender experience. As research has already demonstrated a significant role of rumination in identity processing (Luyckx et al., 2007), investigation into ruminative thoughts among individuals in early stages of development may offer understanding of this relationship as it specifically relates to transgender persons.

The current findings also indicated a strong distinction of GRRS reflection and identity salience in comparison to all other measures of rumination. The particular identity salience measure we used was designed to capture not only identity salience but also importance of identity (Marcussen et al. 2004), possibly capturing a sense of value in one's identity. This further offers indication for distinctive differences in gender identity rumination and reflection. Specifically, the positive relationship between identity salience and reflection may support that higher reflection measures are related to a more positive regard for one's transgender identity. Given that embracing one's transgender identity is related to positive self-regard and resiliency among transgender persons (e.g., Riggle, Rostosky, McCants, & Pascale-Hague, 2011; Singh, Hays & Watson, 2011), the GRRS reflection subscale may be related to more positive outcomes for transgender persons. Further research should investigate the potential relationship between gender identity reflection, resiliency and identity affirmation among transgender persons.

Preoccupation with Others' Perceptions

The GRRS captured a unique component of rumination for transgender people, preoccupation with others' perceptions. This concept provides important conceptualization for future gender identity rumination research. An interesting

observation about this subscale is its strong relationship between both the GRRS reflection and rumination subscales. This is clearly measuring a construct unique from reflection and rumination, but more strongly related to rumination and brooding than reflection (see Table 3). Also representing the strongest relationship with perceived stigma among the GRRS subscales, preoccupation with others' perceptions captures a unique aspect of gender identity reflection and rumination. This subscale may be the first measure to capture the specific hypervigilance that a transgender person experiences regarding their gender behaviors and presentation (Hines, 2007; Brown & Rounsley, 1996), specifically demonstrating the strong relationship between the content of a person's ruminative thoughts and increased perception of stress.

For many transgender people, the importance of transitioning and changing gender presentation results from the desire to be gendered according to their gender identity (Kozee, 2008). It follows then, that some transgender persons spend a lot of time thinking about how their behaviors and presentation are being interpreted by people around them, and that these thoughts are distinct from both reflection and rumination. Specifically considering scores of the preoccupation with others' perceptions subscale may offer researchers an opportunity to differentiate between an individual's focus on their internal experience and an individual's focus on how others are identifying them. Future research should consider the potential relationship between these thoughts and the extent of distal stress experienced by transgender persons.

Limitations and Future Directions

Although the GRRS appears to be psychometrically sound with respect to the transgender samples used in these studies. This research used an online United States

sample of transgender participants. Only transgender persons who participate in online community lists and support had the opportunity to participate in this research. This is especially important to consider when researching transgender populations, as it is common for transgender persons to remove themselves from LGBT and transgender communities and support once done transitioning (Lev, 2007). Our scale may be more relevant toward the responding of transgender persons who are early in transition, have a salient transgender identity, or who have chosen not to transition. It is possible that the psychometric properties of the GRRS may be different for transgender persons who do not identify with the above-mentioned categories. These studies were able to capture a wide range of participants in respect to age, United States region, and education. However, both studies have a relatively low percentage of racial and ethnic minorities. Considering the concept of the GRRS, this may be an important factor that requires more attention. Specifically, individuals with additional minority statuses beyond being transgender may respond to stigma stress and focus on their gender identity differently. Future research with different transgender populations should investigate the psychometric properties to enhance the generalizability of the GRRS.

This study specifically recruited participants who identified as gender variant or transgender, so some potential participants may have been excluded. Many individuals who identify with the transgender experience have moved away from specific labeling terminology. To some extent this was captured in responses to the section of our survey that asked participants to check all labels that they identify with. For example on average participants selected 4-5 terms they identified with, but these were not the same for each person. Although we recruited transgender and gender variant participants only 49%

selected transgender and only 27% selected gender variant. Still, it is important to be aware that the language used by transgender persons is consistently changing. Different individuals may have participated if the study recruited “persons with transgender experience”; however it is important to note this scale was designed for use with all persons who have an experience of gender beyond the normative. The scale items include the words “gender”, “gender identity” and “gender expression” that were meant to allow responding based on individual identities. Future research should explore whether GRRS score are impacted by participants’ different interpretations of the terms used in the scale items as these may vary across gender identity and experience. This is especially important as past research has found that gender, itself, may be playing into differences in rumination (Nolen-Hoeksema & Jackson, 2001).

Another limitation of this research was the measures used to investigate the validity of the GRRS. Although the RRQ and RRS were general rumination measures, both measures have never been used with a transgender specific sample prior to this study. In addition, the measure of identity salience and perceived stigma were modified from their original version in order to be used with a transgender sample. The Transgender Congruence Scale has been previously used with transgender samples, but the scale itself was developed without previously validated transgender measures (Kozee, 2008). Although demonstrating strong internal reliability, these measures are not the most ideal for use in validating a new measure. As transgender research is a growing area, the need for additional measures developed for use with transgender populations is necessary to research and understand this population. The GRRS offers an instrument for

quantitatively measuring transgender thoughts, and may serve as a useful tool for researchers investigating additional instruments with transgender samples.

The development of the GRRS provides a valuable research tool to investigate a new framework for considering rumination among transgender persons. This measure offers a more holistic approach to researching thoughts relevant to the experience of being transgender. Specifically moving beyond depressive rumination, the GRRS captures both positive and negative aspects of gender identity rumination. Furthermore, the development of the GRRS presents evidence of a unique component of rumination for transgender persons, beyond rumination and reflection. Thus, the present research captures distinctive model of gender identity reflection and rumination that captures preoccupation with others' thoughts and reflects the unique experiences of being transgender. This model may prove to be an important direction for research with other experiences, such as sexual and racial minorities.

APPENDICES

Appendix A: Tables

Table 1: Factor Analysis Loadings for GRRS items from Study 1

Items by factor	Factors				
	1	2	3	<i>M</i>	<i>SD</i>
Factor 1: Reflection about Gender Identity					
Look at my gender identity in philosophical ways	.74	-.11	-.13	2.28	.97
Think about how I experience gender in a unique way	.68	-.13	.08	2.40	.94
Meditate on the role my gender identity plays in my purpose in life	.63	.06	.09	2.02	.96
Analyze how my experience of gender identity shapes who I am	.63	.04	.01	2.70	.85
Evaluate how things about my personality reflect my gender identity	.48	.25	.02	2.50	.95
Factor 2: Rumination about Gender Identity					
Think “I will never be able to present my gender the way I want”	.00	.86	-.16	2.32	1.10
Think “I will never be comfortable with my gender expression”	-.13	.72	.12	1.84	.99
Wish I could stop thinking about my gender identity	-.01	.68	-.01	1.85	.96
Think about things I can’t do because of my gender identity	.01	.61	.15	2.21	1.01
Waste time thinking about my gender identity	.00	.62	-.02	2.06	1.06
Factor 3: Preoccupation with other’s Perceptions					
Try to figure out what others think about my gender identity	-.10	-.08	.93	2.12	.95
Analyze what people may be thinking about my gender identity	-.01	-.06	.83	2.21	.93
Play back in my mind how my gender may have been interpreted...	.13	.14	.44	2.33	.95
Think “I can’t stop thinking about ways I was treated..	.16	.11	.39	2.22	1.13
Think that my gender identity will keep me from getting a job	.01	.10	.32	2.38	1.06

Table 2: Factor Analysis Loadings for the GRRS from Study 2

Items by factor	Factors			<i>M</i>	<i>SD</i>
	1	2	3		
Factor 1: Reflection about Gender Identity					
Look at my gender identity in philosophical ways	.52	.20	.32	2.89	.86
Think about how I experience gender in a unique way	.68	.37	.39	2.83	.87
Meditate on the role my gender identity plays in my purpose in life	.65	.40	.39	2.59	1.03
Analyze how my experience of gender identity shapes who I am	.74	.34	.46	2.89	.86
Evaluate how things about my personality reflect my gender identity	.63	.41	.41	2.79	.93
Factor 2: Rumination about Gender Identity					
Think “I will never be able to present my gender the way I want”	.37	.77	.42	2.55	1.15
Think “I will never be comfortable with my gender expression”	.44	.78	.36	2.22	.95
Wish I could stop thinking about my gender identity	.33	.67	.52	2.32	1.10
Think about things I can’t do because of my gender identity	.34	.68	.50	2.56	1.07
Waste time thinking about my gender identity	.40	.67	.58	2.23	1.09
Factor 3: Preoccupation with other’s Perceptions					
Try to figure out what others think about my gender identity	.48	.47	.80	2.52	1.01
Analyze what people may be thinking about my gender identity	.49	.49	.82	2.72	.94
Play back in my mind how my gender may have been interpreted in a past situation	.49	.49	.80	2.47	1.00
Think “I can’t stop thinking about ways I was treated because of my gender	.40	.60	.61	1.84	.96
Think that my gender identity will keep me from getting a job	.30	.47	.49	2.28	1.06

Table 3: Correlations for GRRS Scale and Validity Measures

	1	2	3	4	5	6	7	8	9	10	11	12	13	<i>M</i>	<i>SD</i>	<i>α</i>
1 GRRS	-	.76**	.84**	.86**	.52**	.50**	.42**	.50**	.54**	.18**	-.50**	.23**	.40**	37.53	9.19	.94
2 Reflection		-	.42**	.51**	.35**	.29**	.34**	.43**	.27**	.38**	-.17**	.29**	.15*	13.75	3.27	.76
3 Rumination			-	.59**	.41**	.43**	.30**	.37**	.52**	.00	-.66**	.12	.37**	11.90	4.09	.83
4 Perceptions				-	.50**	.50**	.41**	.44**	.52**	.10	-.36**	.18*	.43**	11.89	3.81	.83
5 RRS					-	.90**	.90**	.67**	.67**	.30**	-.30**	.08	.34**	23.38	6.85	.88
6 Brooding						-	.62**	.57**	.69**	.13	-.31**	.05	.39**	11.29	3.89	.83
7 Reflection							-	.62**	.52**	.42**	-.23**	.09	.22**	12.09	3.76	.82
8 RRQ								-	.81**	.70**	-.26**	.14	.25**	88.11	15.03	.91
9 Rumination									-	.14	-.42**	.08	.34**	42.84	10.89	.94
10 Reflection										-	.07	-.14	-.01	45.27	8.98	.92
11 Congruence											-	.12	.36**	2.85	.87	.94
12 Salience												-	.12	10.34	2.91	.74
13 Stigma													-	9.20	4.31	.92

Note. GRRS = Gender Identity Reflection and Rumination Scale, RRS = Ruminative Responses Scale,

RRQ=Rumination-Reflection Questionnaire

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

Table 4: Stepwise Multiple Regressions with GRRS

Predictor Variable	<i>B</i>	<i>SE B</i>	β	<i>T</i>	<i>R</i> ²	Adj. <i>R</i> ²	<i>R</i> ² Δ	<i>F</i>	<i>F</i> Δ
Regression with RRQ predictor									
Step 1									
RRQ	.31	.03	.50	10.15**					
					.25	.25	-	103.06**	-
Step 2									
RRQ	.22	.03	.35	8.12**					
Congruence	-3.63	.49	-.33	-7.45**					
Salience	-.38	.14	-.12	2.76*					
Stigma	.37	.08	-.18	3.48**					
					.44	.43	.19	59.49**	34.00**
Regression with RRS predictor									
Step1									
RRS	.69	.07	.52	10.60**					
					.27	.26	-	112.42**	-
Step 2									
RRS	.50	.06	.37	8.10**					
Congruence	-3.52	.49	-.33	-7.16**					
Salience	.47	.14	.15	3.39*					
Stigma	.22	.08	.13	2.79*					
					.44	.43	.17	59.41**	30.90**

Note. GRRS= Gender Identity Reflection and Rumination Scale

RRQ = Rumination-Reflection Questionnaire, RRS= Ruminative Responses Scale

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

Appendix B: Recruitment Letter

Hi Everyone,

I am a graduate student in experimental psychology at Towson University. I am conducting research on thoughts about gender identity for my Master's thesis, and currently recruiting people to take an online survey. To participate you must be 18 years or older and identify as transgender (this includes anyone who considers themselves on the transgender spectrum).

Study information:

A transgender person's thoughts about their gender identity may help researchers understand ways in which a transgender person conceptualizes and processes their identity. This study seeks to develop a way for researchers to reliably interpret differences in how a person views their gender identity. The online survey takes about 15-20 minutes to complete and asks you to rate how often you think about certain things. This study has been approved by Towson University's Institution Review Board for the protection of human participants.

Please follow the link below to complete the survey and feel free to pass this link along to any friends who you think may be interested!

<https://www.surveymonkey.com/s/GenderIdentitySurvey>

Thanks,
Andy

Appendix C: Informed Consent

My name is Andy Bauerband, and I am a graduate student at Towson University. I am conducting research on transgender people's thoughts on their gender identity. If you choose to participate in this research, you will be asked to complete a brief survey, which should take approximately 20 minutes. During the survey, you will be asked to rate how strongly you agree with statements about yourself and others regarding thoughts specific to your gender identity, as well as thoughts about your feelings and experience of others.

There are minimal risks associated with your participation, especially if you are uncomfortable thinking and answering questions about your gender identity. Your participation is entirely voluntary. You are not obligated to respond to any questions that you are uncomfortable answering, and you may withdraw from the study at any time without incurring any penalties.

Completion of this survey signifies your voluntary consent to participate in this research and that you are at least 18 years of age. You may discontinue your participation in this study at any time by clicking "Exit this survey" in the upper-right-hand corner of the screen.

The Towson University Institutional Review Board has approved this study. If you have any questions regarding this research or its purposes, please contact Andy Bauerband at lbauer1@students.towson.edu. You may also contact my faculty advisor, Dr. Paz Galupo, at pgalupo@towson.edu. If you have any questions pertaining to your rights as a participant, please contact Dr. Debi Gartland, Chairperson of the Institutional Review Board for the Protection of Human Participants, at (410) 704-2236.

Thank you for your time.

Sincerely,

L Andrew Bauerband
Towson University

Appendix D: Gender Identity Reflection and Rumination Scale

Thank you for agreeing to participate in this study. On this page you will be asked to rate how often you have thoughts about your gender identity. Some of these items may be frustrating to read, or may not capture exactly how you feel regarding your gender identity.

Please respond to these statements to the best of your ability. At the end of this study you will be able to offer feedback and respond to any questions on the survey. If at any time during this survey you feel uncomfortable answering a question or are unsure of how to answer, you can select "no answer".

People think about their gender identity in various ways. Consider the ways you have **recently** thought about your gender identity. Please read the statements below and rate how often you have thought similar things.

1 – Almost Never 2- Sometimes 3- Often 4- Almost Always No Answer

1. Meditate on the role my gender identity plays in my purpose in life
2. Think I will never be comfortable with my gender expression
3. Think about how I experience gender in a unique way
4. Analyze how my experience of my gender identity shapes who I am
5. Evaluate how things about my personality reflect my gender identity
6. Think about things I can't do because of my gender identity
7. Think I will never be able to present my gender the way I want
8. Think that my gender identity will keep me from getting a job
9. Analyze what people may be thinking about my gender identity
10. Play back in my mind how my gender may have been interpreted in a past situation
11. Try to figure out what others think about my gender identity
12. Wish I could stop thinking about my gender identity
13. Waste time thinking about my gender identity
14. Look at my gender identity in philosophical ways
15. Think "I can't stop thinking about ways I was treated because of my gender identity"

Appendix E: Transition Questionnaire

For the purpose of this study, transitioning is defined as a person's own definition of transforming their bodies and/or appearance to match their gender identity. Please answer the questions below regarding transition if you feel comfortable.

Did you or do you plan to transition?

Yes

I am not sure

No, I am unable to

No, I do not want to

No Answer

If yes, on a scale of 1-7, where do you feel you are in your transition?

1
Just
Started

2

3

4

5

6

7
I am
where I
want to
be

No
Answer

To what extent does your gender presentation match how you feel?

1
Not at
all

2

3

4

5

6

7
Complete
match

No
Answer

Appendix F: Identity Saliience

Please read the statements below and select to what extent you agree.

1 – Strongly Agree 2- Agree 3-Disagree 4-Strongly Disagree No Answer

1. Being transgender is something I rarely think about (r)
2. For others to know me as I really am, it is important for them to know that I am transgender
3. I really don't have clear feelings about being transgender (r)
4. For me, being transgender is an important part of who I am
5. For me, being transgender means more to me than just being a citizen in this society

Appendix G: Demographic Questions

The next three pages ask questions regarding information about you (e.g. gender, age). The information is used to understand the diversity of individuals who take this survey.

*All questions are optional; you can select “no answer” if you do not want to respond.

Gender assigned at birth:

Please select your primary gender identity:

Please select your sexual orientation:

Socio-Economic Status:

Race/Ethnicity:

Current Age:

Do you live in the United States?

If no, please list where you live

If yes, please select location

What is your highest level of education you have received?

Appendix H: Transgender Label Question

Transgender/Gender variant individuals identify in various ways. Below is a list of possible transgender specific labels that people use. Please select all identities/labels that you use to identify yourself.

Transsexual	Transgender
Transgenderist	Gender nonconforming
Male	Female
Gender variant	Trans*
Crossdresser	Drag king
Cisgender	Genderqueer
Drag queen	Queer
Gender fluid	Female-to-Male (FTM)
Androgynist	Intersex
Male-to-Female (MTF)	Feminine male
Masculine female	Tranny
Transmasculine	Transfeminine
Trigender	Pangender

Other (please specify):

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Manuscripts Submitted

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Conference Posters

Bauerband, L. A., & Galupo, M. P. (2011, November). Gender differences in
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- 2009-2010 Research Assistant, Florida State University
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Sex Differences, Undergraduate Course

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