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No, I'm really, *really* bad at math: Competition for self-verification

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Abstract

In their theory of self-verification, Swann and Read's (1981) postulate that people like feedback that is consistent with their self-concept. Researchers have yet to examine what happens when two individuals are both seeking feedback from each other to verify their self-concept on the same domain. When individuals are competing against someone to verify a similarly held self-concept, they should try to seek more polarized feedback, especially when the domain is highly important. In two experiments, participants expected to receive computer feedback on their responses to identity-related questions, either based on their own responses or on how they compared to the other participants. In Experiment 1, participants who were competing on a domain of high importance sought more positive feedback, and sought more neutral feedback on a domain of low importance. Experiment 2, in which participants evaluated domains of negative self-concept, failed to yield any significant results. The evidence of extreme feedback-seeking on positive, important domains when competing for identity has important implications for detrimental identity-confirming processes in clinical populations that may inhibit recovery. Overall, this highlights the importance of considering the self-verification processes of both partners in an interaction.

No, I'm really, *really* bad at math: Competition for self-verification

Of all of the cognitions that individuals construct in order to render the surrounding environment more comprehensible, beliefs about the self are among the most important. Individuals form self-concepts by aggregating past experiences and feedback from others into a series of feelings and beliefs about the nature of their self, which is then used to help navigate future interactions (Swann and Read, 1981, Swann, Stein-Seroussi, and Giesler, 1992). The creation of a stable, consistent self-concept renders the social environment more predictable, and allows one to forecast and control the responses of others more accurately (Swann, Stein-Seroussi, and Giesler, 1992). Due to the utility of the perception of social control afforded by a stable self-concept, individuals are often motivated to verify the beliefs that they have about themselves, even if the beliefs are negative (Swann and Read, 1981). This motive to verify and confirm one's self concept often supersedes the desire for self-enhancement and strivings to promote oneself in a positive light.

Self-verification theory posits that individuals desire others to perceive them as they perceive themselves, and that they prefer feedback that confirms their self-conceptions (Swann, in press). Self-verification provides an alternative to self-enhancement theory, which states that people are always driven to present themselves in a positive light and receive positive feedback (Sedikides and Gregg, 2008). In contrast to self-enhancement theory, self-verification theory holds that individuals will prefer negative feedback to positive feedback if the negative feedback is consistent with their self-concept. The desire to confirm one's self-concept is due to both "epistemic" and "pragmatic" concerns, namely to achieve psychological coherence and to make social

interactions proceed more smoothly (Swann, Rentfrow, and Guinn, 2002). The preference for self-verifying feedback is present during many stages of social interactions, and is evident in both the selective construction of social environments as well as biased information processing for verifying feedback (Swann and Read, 1981; Swann, 1997; Swann, Rentfrow, and Guinn, 2002).

In one classic series of studies, Swann and Read (1981) demonstrated that individuals are more likely to attend to self-verifying information, elicit self-confirmatory feedback from interaction partners, and preferentially recall information that matches their self-concept. When presented with slides of positive and negative statements that a partner had ostensibly made about them, participants who perceived themselves as likeable spent a significantly longer time looking at the favorable rather than unfavorable statements. On the contrary, participants who perceived themselves as dislikeable spent significantly longer time reading the unfavorable statements, demonstrating selective attention for self-verifying feedback.

In their second study, Swann and Read's (1981) illustrated that "self-likeable" participants elicited more favorable reactions and compliments from their interaction partner compared to participants who believed that they were dislikable. This was especially pronounced if the participant was led to believe that their interaction partner evaluated them in a way that was contrary to their own self-concept. Individuals thus presented themselves in a manner that evoked responses that matched the way that they felt about themselves, especially if they believed that their partner's perceptions of them might not match their own.

To further illustrate the mechanisms of self-verification, Swann and Read (1981) performed an experiment in which participants recalled feedback that a supposed partner had given them. All participants received feedback that consisted of both negative and positive evaluations from their partner. Participants with negative self-views recalled significantly more negative statements, and participants with positive self-views recalled significantly more positive statements, especially when they were expecting their partner's feedback to match their self-concept. The self-verification motive influenced which material participants attended to, demonstrating an attentional bias to identity-confirming feedback. Together, all of these findings demonstrate a self-confirmatory motive that spans multiple cognitive processes and many facets of social interactions, showing the robustness of the fundamental motive to self-verify.

Evidence for self-verification extends beyond the laboratory to real life relationships, where the process influences the quality of important social connections. In a study examining dyads of first year college roommates who were randomly assigned to live together, students whose roommate verified their self-beliefs were much more likely to desire to continue living with the same roommate than if their roommate disconfirmed their self-beliefs (Swann and Pelham, 2002). Students with negative self-concepts, especially if their self-concept was highly important to them and held with great certainty, expressed greater desire to change roommates if their current roommate evaluated them positively. Individuals with negative self-concepts preferred to cultivate relationships with peers who evaluated them negatively, and desired construct an environment around them that verified their negative self-beliefs.

The quality of marital relationships is also heavily influenced by self-verification processes. Katz, Beach, and Anderson (1996) demonstrated that self-verifying feedback from a spouse resulted in greater marital satisfaction than just positive feedback. While positive support from a spouse was associated with increased intimacy, less thoughts of divorce, and greater satisfaction, this was only the case when self-esteem support from the partner did not surpass the individual's self-esteem. Additionally, Burke and Stets (1999) found that self-verification feedback provided by spouses was associated with greater commitment and trust in the marriage. Such findings establish that self-verification processes have real and tangible consequences for the most central relationships that exist in people's lives, and are an essential factor in determining the quality of such fundamental relationships.

The consequences of self-verification processes for both relationships and self-esteem may be especially pronounced when self-beliefs are both negative and held with confidence, as is often the case in depression (Giesler, Josephs, and Swann, 1996). Many researchers (e.g. Pettit and Joiner, 2001; Swann, Wenzlaff, Krull, and Pelham 1992; Joiner, Katz, and Lew, 1997) have investigated how self-verification processes function in and contribute to clinical depression. As individuals with depression generally hold negative self-views, their efforts to verify their self-concepts frequently result in negative feedback and rejection from others (Giesler, Josephs, and Swann, 1996). By strategically soliciting negative feedback, depressed individuals construct an environment that confirms their sense of worthlessness. This process sustains and exacerbates depressive symptoms, creating a self-perpetuating cycle of negative self-cognitions and negative feedback.

Joiner, Katz, Tafarodi and Lew (1997) documented the prevalence of detrimental self-verifying processes in youths in an inpatient psychiatric setting. The sample consisted of 72 children hospitalized for various psychiatric conditions, of which depression was often a symptom but not necessarily the primary reason for admission. Joiner et al. collected data on participant anxiety levels, depressive symptomology, and clinical diagnoses. They also utilized the Feedback Seeking Questionnaire (FSQ) to assess the positive and negative feedback-seeking tendencies of each individual. The FSQ measures the degree of negative and positive feedback-seeking by asking participants to indicate two questions from a list of six that they would like another person to answer about them, some of which are designed to yield critical responses and others which are framed to result in positive feedback. Each target participant was then evaluated by at least other three peers from the hospital ward, who reported how much they liked the individual in question and how much they enjoyed interacting with them. Greater depressive symptomology, as measured by the Children's Depression Inventory (CDI) and the Positive and Negative Affect Schedule (PANAS), was associated with an increased interest in receiving negative feedback. In turn, negative feedback-seeking was associated with negative evaluations by peers and peer rejection in relationships longer than one week. In the case of depressed children, the feedback sought to verify their self concept led others to view them in a negative light, affirming their negative worth.

Depressed individuals not only seek out negative evaluations from individuals whom they happen to come into contact with, but also strategically surround themselves with individuals who do perceive them negatively. Swann, Wenzlaff, Krull and Pelham (1992) gave participants a choice of interacting with a partner who had given them

negative feedback or one who had given them positive feedback. Individuals classified as depressed by Beck Depression Inventory (BDI) were significantly more likely to prefer a partner whom they believed had evaluated them negatively to a partner who had given them a more positive evaluation. In a subsequent study, Swann et al. gave participants an opportunity to select questions for a partner to answer about them during an evaluation. They found that individuals with negative self-concepts and depressive symptoms were more likely to choose questions framed in ways that would elicit negative feedback.

Though most research has focused on self-verification and depression, self-verification processes may have important implications for other areas of psychopathology and maladaptive behavior, such as drug abuse. Self-concept and personal identity are important factors that contribute the decision to begin substance use, and also affect the success of the recovery process (Kellogg 1992, Anderson, 1994). Perceived loss of control in the ability to define one's current identity is associated with the descent into substance abuse as a means to cultivate a stable identity (Anderson, 1994) Ego identity dissatisfaction, which is defined as a discontent with one's current sense of self that that motivates an identity change, also leads to substance abuse.

A motive for self-consistency, though not self-verification per se, has also been linked to the onset of cigarette smoking in adolescence (Aloise-Young, Hennigan and Graham, 1996). In a longitudinal study of youths, teenagers who were nonsmokers at the start of the study were much more likely to have begun smoking by the beginning of the next school year if their own self-image was similar to how they perceived the stereotypical smoker. Adolescents did not start smoking out of a motive to self-enhance (i.e. begin smoking because they perceived smokers to be "cooler" than their current self),

but instead were more likely to start smoking as a means of self-identification when they perceived their own image as already similar to that the stereotypical smoker. Identity-verification processes, as well as these self-presentational concerns, may both be influential in the decision to start smoking.

After an individual has developed an identity as a drug user, self-verifying motive to maintain the identity may make recovery difficult. The 12-Step program of recovery, in which meeting attendees ritually define themselves in terms of their addiction, testifies that identity is an essential component of both addiction and recovery (Kellogg, 1993). The addict identity becomes ingrained into the sense of self, and for recovery to occur the drug abuser must be willing to compartmentalize and discard that component of identity.

In order for drug abusers to relinquish their identification to the substance-using culture, they must change their identity through one of several processes (Kellogg, 1993). In identity reversion, a drug addict surrenders the identity as a "user" by reclaiming the identity held prior to the descent into drugs. Identity extension refers to the process by which the abuser attaches to an identity that they held concurrently with their addict identity, allowing them to slowly let go of the destructive identity while maintaining the other aspect of the self. Finally, identity emergence refers to the creation of a new identity not previously held, forging a new sense of self unrelated to the past, addicted self. Without one of these processes through which the addict identity is replaced with a more adaptive self-definition, substance-dependent individuals may continually feel the need to verify their identity as an addict. As long as the addict identity is held, unhealthy behaviors will continually be exhibited in order to recieve feedback that verifies the identity.

Clinical observations from therapists working with substance abusers confirm the importance of identity and self-verification processes in drug addicts, especially in regards to positive feedback provided during treatment. Of the countless varieties of rehabilitation programs, nearly all utilize positive feedback and reinforcement to encourage progress and steps made towards recovery (Linehan, 1997). However, the congruency of the positive feedback with the client's identity and/or goals is often not considered. Positive feedback on a domain in which the client views herself negatively may be meaningless, or even detrimental. If patients still cling to their identity as a helpless drug addict and therapists offer excessive feedback that they are making great strides towards recovery and sobriety, patients may feel that their identity is being threatened. This may result in patients increasing their abusive behaviors to reaffirm their identity, or in patients increasing the negative feedback sought from fellow drug addicts on the legitimacy the addict identity. Due to the importance of the "drug culture" and addict social networks, identity verification from peers (i.e. fellow users) may be especially important (Kellogg, 1993).

Like drug addicts, individuals with eating disorders also strongly internalize their disordered behavior as a part of their identity. Some theorists posit that eating disorders stem from basic identity impairments (Stein and Corte , 2007). Stein and Corte (2007) demonstrated that individuals with anorexia and bulimia have fewer positive self-concepts, more negative self-beliefs, and greater interrelatedness between self-conceptions than healthy controls. Individuals who go on develop anorexia are more often in a state of "identity crisis" before disease onset than individuals who do not, which may explain why the anorexic identity becomes central to their sense of self (Tan,

Hope and Stewart, 2003). Therapists who work with clinical populations frequently observe the phenomenon 'egosyntonicity' in anorexics, the process of the anorexic identity becoming incorporated as a fundamental facet of the self. In patient interviews, anorexics report that they conceptualize the disease as an integral part of their self and who they are. With the advent of pro-anorexia and pro-bulimia websites, an eating disorder is also increasingly becoming a social identity, for individuals with these disorders seek social support and peer approval from the virtual community (Rich, 2006). The fundamental nature of the eating disorder label as a personal and social identity may make it of the utmost importance for an anorexic or bulimic to receive feedback from others that verifies that they are indeed disordered.

Although to date few researchers have examined self-verification processes in anorexic or bulimic populations, the solicitation negative self-verifying feedback does seem to play important role. Joiner (1997) examined how bulimic symptomology related to feedback-seeking processes in a sample of college females who were followed over a five week period. Seventy-nine women completed the Bulimia and Body Dissatisfaction subscales of the Eating Disorders Inventory (EDI) to measure disordered behaviors and cognitions, as well as the Feedback Seeking Questionnaire (FSQ).. Higher EDI Bulimia and Body Dissatisfaction scores were both associated with increased negative feedback seeking in all domains (i.e. social, physical attractiveness, intellectual, artistic/musical). High negative feedback seeking at the initial time of assessment was associated with higher Bulimia and Body Dissatisfaction scores five weeks later, suggesting that the solicitation of negative feedback may contribute to eating disordered thoughts and behaviors. Additionally, the relationship between bulimic symptoms and negative

feedback-seeking was mediated by body dissatisfaction—negative feedback seeking increased body dissatisfaction, which in turn increased bulimic symptoms. As is the case with depression, individuals with bulimic symptoms seem to seek negative feedback that confirms their convictions of worthlessness, maintaining and potentially exacerbating their disorder in a self-perpetuating cycle.

While the solicitation of negative feedback from another individual exacerbates depression, drug addiction, and eating disorders, no research to date has examined the nature of the individual offering the feedback. When examining clinical populations, an important factor to consider is that in the context of group treatment, the other individuals providing feedback may be as disordered as the individuals seeking it. Due to its cost effectiveness and relatively efficacy, rehabilitation programs frequently entail the treatment of groups of individuals with the same condition (Moreno, 1994). The ubiquity of group treatment programs makes it especially important to consider how the identity of the individuals providing the feedback may influence the self-verification processes that contribute to disordered identities.

In the context of group treatment programs for anorexia, interesting phenomena result as a consequence of patients with eating disorders trying to assert their identity in an environment shared with other anorexics. Conton and Pistrang (2004) interviewed anorexics in an inpatient treatment facility, and documented that patients frequently felt as if they are viewed and treated as "just another anorexic" among the others at the facility, and that interactions with other patients on the ward led to their becoming *more* rather than less entrenched in their disorder. They found that there were frequent competitions between patients to be the sickest and "best anorexic," and that patients

frequently compared themselves to others in order to gauge how "successful" of an anorexic they were. Within group psychotherapy for anorexia, increases in eating disordered behavior often results from inter-patient rivalry, envy of others who are perceived to be thinner, and competition to be the "illest" (Piazza, Carni, Kelly, and Plante, 1983; Colton and Pistrang, 2004; Polivy, 1981). All of these processes have the potential to increase the anorexic identity despite therapy. Halse, Honey, and Boughtwood (2008) documented case studies of anorexics and bulimics, and found that patients reported that the group environment inhibited their recovery, resulting in an increase in food hiding and covert exercising. Though an anorexic initially perceives herself as disordered, when she finds herself in an environment with others who are thinner than her, she may report no longer feeling ill enough and may increase in competitions and comparisons with peers.

This interesting effect of group dynamics among individuals with eating disorders can be examined in the light of self-verification theory and feedback-seeking behaviors. In relation to her peers in her usual environment, an anorexic may easily perceive herself as extremely ill and disordered. Seeking feedback from others that she is too thin, that she has a terrible psychiatric illness, and that she merits her diagnosis may not be too difficult, as healthy peers can readily provide feedback to confirm this. When surrounded by other anorexics, however, the solicitaion of self-verifying feedback may be more complicated and the desired feedback may be less easily elicited. When individuals with eating disorders are surrounded by similarly afflicted patients, they may no longer be able to receive feedback that confirms that they are indeed an extreme case. When comparing themselves to other anorexics as opposed to healthy peers, they may suddenly find

themselves as the norm rather than the extreme. In addition, the anorexic individuals providing the self-verifying are seeking the same feedback—that they too are a particularly extreme anorexic. The two individuals in the interaction are both seeking the same identity-confirming feedback, and are competing to verify their identity as an extremely sick anorexic.

In an interaction where two individuals are striving to verify an extreme identity on the same domain, what may ensue is that the target individual may attempt to seek feedback that is more extreme and more polarized than she would have sought initially. When anorexics seek self-verifying feedback from other anorexics, they increase their disordered behaviors and strive to appear even more anorexic. The presentation of the anorexic identity becomes more extreme, and anorexics act in more disordered ways so as to elicit feedback that is more extreme.

The solicitation of polarized feedback when competing against another to confirm one's identity may occur not just among disordered, anorexic populations, but also in everyday interactions between healthy individuals. Such a scenario may occur when two individuals are interacting with one another, and both are attempting to solicit the same feedback from the other—that they are extreme on the facet of identity under discussion. Rather than receiving feedback that confirms her self-concept that she is an outlier on the dimension in question, her interaction partner's desire to elicit extreme feedback poses as a challenge to her own perception of herself as extreme. As a result, the individual may present herself in an even more extreme manner, and seek more polarized feedback than she would have if she were not competing with another individual to be extreme. Examples of such scenarios from everyday life are easy to conjure: an individual, talking

to a friend, divulges that she bad at math and seeks feedback confirming this aspect of her self-concept. Rather than providing this feedback, however, the friend professes that she too is bad at math. In order to maintain her stable self-concept that she is extremely bad at math, the individual polarizes her self-presentation and the strength of feedback desired, and goes on to say that she is *really, really* bad at math.

Researchers have yet to investigate interactions that involving competition for self-verification of one's identity, and the current study endeavors to expand past research on self-verification theory by adding this dimension. Current literature on the solicitation of self-verifying feedback in interactions only examines one side of the relational dyad, and focuses solely on the processes of the individual seeking the feedback. The other individual in the interaction is present only to the extent that she is responding to the other individual and providing them with feedback. This approach fails to acknowledge the interactive, two-way nature of such exchanges, for self-verification processes are operating in both partners. The individuals providing the feedback to the target individual are also seeking feedback that confirms their own identity, and all parties involved are both seekers and providers of identity-relevant feedback. The fact that the other individual is also motivated to seek verifying feedback may have important consequences for the nature of the feedback that is desired and provided, especially if both individuals are verifying their self-concept on the same dimension of identity.

The goal of the current study is to examine the effect of interpersonal competition on self-presentation and self-verification processes. If individuals expect to be ranked against others on a given dimension and they are provided with feedback that their initial identity ratings are similar to their peers, they should rate themselves more extremely on

the dimension in question when given the chance to re-rate themselves. When competing to verify their identity, if individuals initially have positive self-concepts, they should rate themselves even more positively in order to receive feedback that they are extreme on that dimension. If individuals have negative self-concepts, however, they should rate themselves more negatively in order to continue to receive feedback that they are extremely negative on the dimension. If individuals are not competing for identity-verify feedback and they have a chance to reassert their identity, they should not change their self-ratings or seek more extreme feedback. This polarization of feedback should occur when the domain that the individual is competing on is highly important to their sense of self.

Method

Participants

Sixty-one participants were recruited through a psychology department website to participate in a study on self-perception of personal identity. The sample consisted of 25 male and 36 female undergraduate students between the ages of 18 and 21 at Colby College. For their participation, all participants received partial course credit for an introductory psychology class. Fourteen participants were in the competing-most important condition, 17 participants were in the competing-least important condition, 15 participants were in the not competing-most important condition, and 14 participants were in the not competing-least important condition. One participant failed to complete the study due to an equipment error, and their data was excluded from subsequent analyses.

Materials

All participants received a standard adult consent form (see Appendix A) and a modified version of the Self-Attributes Questionnaire (SAQ, Pelham and Swann, 1989, see Appendix B). The ten-item version of the SAQ examined attitudes on ten traits of identity, including intellectual ability, social skills/competence, artistic/music ability, athletic ability, physical attractiveness, leadership quality, common sense, emotional stability, sense of humor, and discipline. Participants rated themselves on each attribute relative to other people their age using a ten point scale that ranged from 1 (bottom 5%) to 10 (top 5%). On a nine point Likert scale, participants also indicated how certain they were of their standing on each domain, how important each domain was to their sense of self, and how their current self compared to their "ideal self" on each trait.

Participants also received the Attribute Follow up Questionnaire (AFQ, see Appendix C). The AFQ consisted of nine questions, all of which were answered in regard to one of the domains previously rated on the SAQ. Using a ten point Likert scale, participants were asked about their attitudes on the one domain indicated on the top of the page by the experimenter. Four of the items were direct repetitions from the SAQ, including the self percentile rating, actual-ideal self rating, certainty, and domain importance. The five new items also utilized a ten point Likert scale. The new items included "How do you think your peers would rate you on this domain?" "How would you ideally like others to rate you on this domain?," "How would you rate your ideal self on this domain?," "How distressed would you be if others perceived you differently than you wished to be perceived on this domain?," "How distressed would you be if you had to interact with someone who scored higher than you on this domain?," and "How

distressed would you be if you had to interact with someone who scored lower than you on this domain?"

Procedure

Participants were tested in groups of three, and scheduling was arranged so that participants completed their session alongside two other participants. Participants arrived at the same time or shortly after one another, and were each led from the main hallway of the laboratory into separate rooms. If participants did not observe the other participants arriving for the experiment, the participant was notified that there were two others there completing the study alongside them. Using a random number generator, participants were assigned to one of four conditions: the competing-most important condition, the competing-least important condition, the not competing-most important condition, and the not competing-least important condition. After being escorted into a separate room the door was closed in order to maintain privacy and the experimenter asked participants to be seated at a table.

The experimenter informed participants individually that the purpose of the current investigation was to examine personal identity, and that the session would involve the completion of two questionnaires. Following this brief introduction, participants were asked to read and sign a standard written consent form (Appendix A) if they chose to continue with the study. The experimenter subsequently collected the consent form, and proceeded to elaborate on the content of the study.

The experimenter explained to participants that she was interested in studying personal identity, as well as how people perceive themselves on various traits. The experimenter emphasized that as the questions were on personal identity there were no

right or wrong answers, and that all that mattered was answering honestly. Due to the

potentially sensitive nature of the content of the questionnaires, the experimenter

reiterated that all of their answers to the questionnaires would be confidential, and that

participants would not be identified by name on any of the documents. Participants were

asked if they had any questions or concerns regarding the study so far, and following any

necessary clarifications the experimenter proceeded to describe the first questionnaire.

Participants were informed that the first questionnaire would ask them to rate

themselves on a wide variety of personal identity domains, answering questions such as

how they compared to other people. They were told that there would be a follow-up

questionnaire based on their initial responses, and that after the completion of both

surveys they would have a chance to get feedback on their responses from a computer

program that had been developed for the current study. Participants in the two not

competing conditions were then told that their responses would be entered into a

computer that was in the adjacent room, and the computer program would give them

feedback based on their own responses. Participants in the competing conditions were

also told that after they completed their questionnaires, their responses would be entered

into the computer in the adjacent room. These participants were informed that the

computer program consisted of an algorithm that, using their responses, would rank them

against the other two participants in the session. The computer program would give them

feedback based on how they compared to the other participants. In all conditions, the

nature of the computer program and feedback was unspecified and purposely left vague,

though no participants asked for further elaboration. The confidentiality of the responses

was reiterated as the experimenter handed participants the SAQ (Appendix B), after which the experimenter exited the room and closed the door.

After five minutes had elapsed, the experimenter reentered the room to collect the finished questionnaire. The experimenter informed participants she had to go collect the questionnaires from the two other participants but would be back shortly, closing the door on the way out. The experimenter then reviewed the participants' responses to SAQ items 21 through 30, which asked the participant to rate the importance of the ten domains. For participants in the two most important conditions, the experimenter selected the domain that the participant had rated as most important to their sense of self, and circled the domain on the top of the AFQ (Appendix C). For participants in the two least important conditions, the experimenter did the same for the domain that the participant had rated as least important. If participants rated more than one domain as equally the most or least important to their sense of self, the experimenter randomly selected one of the domains to circle on the AFQ.

After a minute had passed, the experimenter reentered the room and informed participants that they would now be filling a second questionnaire to follow up their initial responses. The experimenter explained that the computer program analyzed a broad overview of responses on a wide variety of domains, and then focused in on one domain in particular. The experimenter told participants that the second questionnaire would ask them more in-depth questions about one specific domain that they had previously rated on the last questionnaire. For the participants in the most important conditions, the experimenter explained that the domain they would be focusing on in the second questionnaire would be the domain that they had previously rated as most

important. For the participants in the least important conditions, the experimenter

explained that the domain they would be focusing on in the second questionnaire would

be the domain that they had previously rated as least important.

Following the importance manipulation, the experimenter elaborated the purpose

of the second questionnaire. Participants in the two not competing conditions were told

that their responses were similar to the average college student, and that the second

questionnaire would give the computer program more information so that it could give

them more detailed feedback. Participants in the two competing conditions were told that

their responses on the initial questionnaire were very similar to the answers of the other

participants in the session, so the second questionnaire would give the computer program

more detailed information so that it could rank them more accurately. The experimenter

instructed all participants to fill out the questionnaire in regards to the one domain that

she had boldly circled for them on top of the page. The experimenter handed participants

the AFQ questionnaire and left the room while they completed it. After five minutes, the

experimenter returned to the room and collected the AFQ. Participants were then probed

for any suspicion of deception, and asked what they believed the purpose of the

investigation was. Finally, all participants were thoroughly debriefed and thanked for

their participation.

<div align="center">Results</div>

In order to determine how competition and domain importance influenced self

presentation, a 2x2 ANOVA was performed with competition (competing, not

competing) and importance (most important, least important) as between subject factors.

The dependent variable was the third item on the AFQ, which asked participants to rate

themselves on how their identity to compared to others their own age by evaluating what percent of their peers they were more proficient than (i.e. in the lower thirty percent or upper thirty percent). No gender-based differences for this and all subsequent analyses were significant. There was a significant main effect for importance, $F(1, 56)=44.88$, p<.01, with individuals in the most important conditions rating themselves more positively ($M=7.83$, $SD=1.31$) than individuals in the least important conditions ($M=5.42$, $SD=1.50$). There was not a significant main effect of competition, $F(1, 56)=0.07$, p=.80.

There was also a significant competing by importance interaction, $F(1, 56)=5.58$, $p=.02$ (see Figure 1). This interaction remained significant even after ability rating was added as a covariate, $F(1, 54)=4.37$, $p=.04$. Tests for simple effects revealed that there was a significant effect of importance in the not competing conditions, $F(1, 26)=9.91$, $p=.04$. When individuals were not competing for identity, they rated themselves more positively when they were evaluating a domain of low importance ($M=5.93$, $SD=0.37$) than when they were evaluating a domain of high importance ($M=7.47$, $SD=0.35$). Additionally, there was a significant effect of importance in the competing conditions, $F(1, 26)=39.41$, $p<.01$. When individuals were competing for identity, they rated themselves more positively when examining a domain of high importance ($M=8.21$, $SD=0.37$) as compared to a domain of low importance ($M=5.00$, $SD=0.33$). This supported the hypothesis that individuals would polarize their self-rating under conditions of competition and high importance, but also revealed the unexpected finding of depolarizing self-rating under conditions of competition and low importance.

To examine changes in how participants thought that their peers would rate them, a 2x2 between-subjects ANOVA was performed with competition (competing, not

competing) and importance (most important, least important) as fixed factors. The dependent measure was the first item of the AFQ, on which, participants evaluated how they thought their peers would rate their ability on the given identity on a ten-point scale. There was a significant main effect for importance, $F(1, 56)=36.67$, $p<0.01$, with individuals in the most important conditions believing that their peers would rate them more positively ($M=7.93$, $SD=1.41$) than individuals in the two least important conditions ($M=5.77$, $SD=1.33$). There was not a statistically significant main effect of competition, $F(1, 56)=0.03$, $p=.86$.

There was a marginally significant competition by importance interaction, $F(1, 56)=3.00$, $p=0.09$, which further analysis revealed to be in the same direction as previous interaction (see Figure 2). Tests for simple effects demonstrated an effect of importance in the not competing conditions, $F(1, 26)=11.06$, $p<.01$. When the individuals were not competing, they thought that their peers would rate them more extremely in the positive direction on a domain of high importance ($M=7.67$, $SD=0.35$) as compared to a domain of low importance ($M=6.14$, $SD=0.36$) There was also a significant simple effect of importance in the competing conditions, $F(1, 26)=26.78$, $p<.01$. When individuals were competing, they thought that their peers would rate them more positively when the domain was of high importance ($M=8.21$, $SD=0.36$) as compared to a domain of low importance ($M=5.47$, $SD=0.36$). These analyses provided additional support for the hypothesis that under conditions of competition, individuals would polarize their self-presentation and identity-verifying feedback desired from peers when the domain was highly important to their identity. It was not, however, expected that individuals

competing against others would decrease the way that they thought their peers would rate them when the domain was of low importance.

To examine changes in how participants ideally wished their peers to perceive their identity, a 2x2 between-subjects ANOVA was performed with competition (competing, not competing) and importance (most important, least important) as fixed factors. The dependent measure was the AFQ item on which participants indicated how ideally their peers would perceive their ability on the given domain. There was a significant main effect for importance, $F(1, 56)=53.19$, $p<.01$. Individuals who were evaluating a domain of high importance wanted their peers to ideally perceive them more positively ($M=9.06$, $SD=0.21$) as compared to those who were evaluating domain of low importance ($M=6.97$, $SD=0.20$). There was a marginally significant main effect of competition, $F(1, 56)= 3.29$, $p=.08$. Individuals who were not competing against others wanted their peers to ideally perceive them more positively ($M=8.23$, $SD=0.21$) than individuals who were competing ($M=7.76$, $SD=0.20$). There was not a significant competing by importance interaction, $F(1, 56)= 0.75$, $p<.39$.

To examine changes in how participants ideally wished their identity to be, a 2x2 between-subjects ANOVA was performed with competition (competing, not competing) and importance (most important, least important) as fixed factors. The dependent measure was a rating on a ten-point scale of how participants would ideally stand on a given domain in relation to their peers. There was a significant main effect for importance, $F(1, 56)=27.49$, $p<.01$. Individuals who were rating a domain of high importance wanted their ideal self to be more positive ($M=9.03$, $SD=0.22$) than individuals who were evaluating a domain of low importance ($M=7.44$, $SD=0.21$). There

was not a significant main effect of competing, nor a significant competing by importance interaction, all $F<1$. This same pattern of results was also found for ratings of how certain individuals were on their standing on the given domain, as well as for ratings of how important the domain was to their sense of self. For both dependent measures there was a significant main effect of importance, $F(1, 56)=5.87$, $p=.02$ and $F(1, 56)=97.95$, $p<.01$ respectively, but neither a significant main effect of competition nor competing by importance interaction, all $F<1$. Individuals who were evaluating a highly important identity were more certain of their self rating on the domain ($M=7.38$, $SD=0.33$) than individual evaluating a least important domain ($M=6.27$, $SD=0.32$). Individuals who were evaluating a highly important identity rated the domain as more important to their sense of self ($M=8.59$, $SD=0.32$) than individual evaluating a least important domain ($M=4.21$, $SD=0.31$), confirming that the importance manipulation was successful. For questions of how distressed an individual would be due to interacting with someone who was more or less proficient that them on the identity at hand, no analyses were significant, all $F<1$.

Discussion

The results from Experiment 1 support the hypothesis that when individuals compete against others to verify a similar identity on a domain of high importance, they seek more extreme identity-verifying feedback, both in regards to how they present themselves and how they believe their peers perceive them. When the domain is not important to their identity, however, individuals seek less extreme identity-verifying feedback—they rate themselves less extremely and think that their peers will perceive them less extremely. As participants in Experiment 1 had very positive self concepts on

the domains that they evaluated and rated on the second questionnaire and rated

themselves on average in the upper thirtieth percent of ability (M=6.88, SD=2.03), most

participants sought more extreme feedback by presenting themselves in a more positive

light and polarizing their identity in a positive direction. Presenting the self in a more

positive manner is one way in which individuals can elicit more positive feedback from

the environment to verify that they are even more extreme on a given dimension. Thus

when competing against others to verify a positive self concept on a domain of high

importance, individuals do seek more extreme feedback. In the case of an unimportant

domain, however, individuals present themselves and believe that others will perceive

them in a less extreme, more neutral manner when competing for self-verifying feedback.

Experiment 2

While in Experiment 1 individuals did polarize their self-concept when competing

against others to verify their identity on a domain of high importance, all participants had

very positive self-concepts. Presenting oneself more extremely in order to continue to

verify one's self-concept as "extreme" translated into rating oneself more positively.

Critics may argue that this demonstrates support for self-enhancement rather self-

verification theory, for individuals are only striving to present themselves in a positive

light and enhance their self-image (Swann, 1990). In Experiment 1, it is likely that the set

of domains utilized on the SAQ, accompanied by the process of tailoring the importance

variable, just did not allow for sufficient opportunity to demonstrate what occurs when

the self-concept in question is negative. For Experiment 2, the design of Experiment 1

was subtly altered in order to create a scenario in which all participants rated themselves

on a domain in which they have a negative self-concept. There will be clear evidence for

self-verification theory over self-enhancement theory if individuals competing against others to assert their identity on a negative yet highly important domain subsequently present themselves more negatively.

The method of Experiment 1 was also altered in order address the potential issue that individuals in the two competing conditions were told that they would be ranked against their peers before they filled out the initial questionnaire. The competition manipulation may already have influence participant responses when they filled out the first questionnaire, and the strength of the polarization of self-presentation on the second questionnaire may have been underestimated. To address this in Experiment 2, the experimenter manipulated the competition variable only right before the administration of the second questionnaire in order to maintain consistency across all conditions.

<div align="center">Method</div>

Participants

A total of sixty participants enrolled in an introductory psychology course participated in the study. Participants were recruited via a departmental website and received partial course credit for their involvement. The sample consisted of 53 females and 7 males between the ages of 18 and 22 (M=19.33, SD=1.16) enrolled at Colby College. Fifteen participants were in the competing-more important condition, 15 participants were in the competing-less important condition, 15 participants were in the not competing-more important condition, and 15 participants were in the not competing-less important condition. Due to prior knowledge of the research hypotheses, the data from one participant in the competing-most important condition was excluded.

Materials

As in Experiment 1, all participants received a standard adult consent form (see Appendix A) and the Self-Attributes Questionnaire, Revised (SAQ-R, see Appendix D), which featured further modifications to Pelham and Swann's (1989) original SAQ. The SAQ-R maintained the original questions of the SAQ of Experiment 1, but featured a new set of ten domains. The group of domains on the SAQ-R was constructed in order to contain a diverse enough range of abilities that average college students would rate themselves in the lower fiftieth percent of ability in relation to their peers on at least one domain.

To create the set of domains on the SAQ-R, ten additional participants completed a pretest in order to establish domains on which college-aged students with positive overall self-concepts would rate themselves negatively on. For the pretest, participants answered the four SAQ questions on a new selection of 15 domains, rating themselves in terms of ability, domain importance, certainty, and actual-ideal discrepancy. The fifteen initial domains on the pretest were creative writing, public speaking, drawing, negotiating skills, singing, understanding the opposite sex, playing an instrument, chemistry, physics, poetry writing, dating and relationships, fluency in another language, math, test taking skills, and dancing. From the fifteen initial domains, ten domains were selected for the SAQ-R on which at least twenty percent of participants rated themselves as below the fiftieth percent in ability on but regarded as more than "moderately important" to their identity. The domains featured on the SAQ-R were more skill-based than those in the SAQ, and included public speaking, drawing, persuasion and negotiation skills, singing, playing an instrument, chemistry, physics, poetry writing, dating and relationships, and

dancing. All participants also received the same AFQ as Experiment 1, only with the new ten domains from the SAQ-R listed on the top of the page (see Appendix E).

Procedure

The exact same procedure was utilized as in Experiment 1, with the exception of the following modifications. Unlike Experiment 1, participants in the competing conditions were told that they would be ranked against other participants after they completed the first questionnaire (the SAQ-R, Appendix D) rather than before it. Only right before they completed the AFQ (Appendix E) did the experimenter tell participants in the two competing conditions told that they would be evaluated based on how they compared to their fellow participants.

A different procedure was also utilized in individually tailoring the AFQ domain for each participant. In all conditions, the experimenter narrowed down the selection of domains to ones on which participants had rated themselves as below the fiftieth percent of ability on as compared to their peers. For participants in the two more important conditions, the experimenter selected the domain that participants had rated as most important to their sense of identity out of the remaining "negative self-concept" domains. For participants in the less important conditions, the experimenter selected the domain that participants rated as least important to their sense of identity out of the remaining negative-self concept domain. In all conditions, participants rated two or more negative self-concept domains as equally most or least important to their identity, the experimenter randomly selected one of the domains.

One final procedural change was made, in that the terminology "more important" and "less important" domain was employed rather than "most important" and "least

important," respectively, when referring to the domain selected for the second questionnaire (the AFQ). This was done to avoid confusion on the part of participants if after the selection process, the individually tailored domain was not actually the domain they had rated as most or least important. It was anticipated that for many participants, the most important domain would be one on which they had a positive self-concept, which would have been excluded by default.

Results

In order to determine how competition and domain importance influenced self presentation as measured by self percentile ranking, a 2x2 ANOVA was performed with competition (competing, not competing) and importance (more important, less important) as between subject factors. The dependent variable was the third item on the AFQ, which asked participants to rate themselves on how their identity to compared to others their own age by evaluating what percent of their peers they were more proficient than (i.e. in the lower thirty percent or upper thirty percent). No gender-based differences for this and all subsequent analyses were significant. There was a significant main effect for importance, $F(1, 52)=9.85$, p<.01, with individuals in the more important conditions rating themselves more positively ($M=4.39$, $SD=0.29$) than individuals in the less important conditions ($M=3.11$, $SD=0.29$). There was not a significant main effect of competition, $F(1, 52)=0.49$, p=.49, nor a significant competing by importance interaction, $F(1, 52)=0.03$, p=.86 (means reported in Table 1). This did not support the hypothesis that when individuals are evaluating a highly important domain on which they have a negative self-concept, they will rate themselves more negatively when they are competing against others compared to individuals who are not competing.

To examine changes in how participants thought that their peers would rate them, a 2x2 between-subjects ANOVA was performed with competition (competing, not competing) and importance (more important, less important) as fixed factors. The dependent measure was the first item of the AFQ, on which on a ten-point scale, participants evaluated how they thought their peers would rate their ability on the given identity. There was a significant main effect for importance, $F(1, 52)=36.67$, $p<0.01$, with individuals in the more important conditions believing that their peers would rate them more positively ($M=4.69$, $SD=1.47$) than individuals in the two less important conditions ($M=3.37$, $SD=1.54$). There was neither a statistically significant main effect of competition, $F(1, 52)=0.29$, $p=.59$, nor a significant competing by importance interaction, $F(1, 52)<0.01$, $p=.97$ (means reported in Table 1). This did not support the hypothesis that when competing against others to verify a highly important yet negative identity, individuals will attempt will attempt to seek more negative feedback and present themselves in a more negative manner.

Analyses revealed the same pattern of results for participants' ideal self-rating, how they wished others to ideally perceive them, and the domain importance. Two by two, between-subjects ANOVAs demonstrated a main effect for importance in the same direction for all three variables, all $F(1,52)>22.04$, $p<.01$.Compared to a domain of low importance, individuals examining a domain of high importance desired their ideal self to be more positive ($M=7.68$, $SD=0.28$), wanted others to ideally perceive them more positively ($M=7.36$, $SD=0.30$), and viewed the domain as more important to their self concept ($M=5.04$, $SD=0.35$) as compared to individuals examining a domain of low

importance (*M*=6.00, 5.43, 2.79; *SD*=0.28, 0.30, 0.35). No other main effects or interactions were significant, all *F*<1.

Taken together, the combined analyses revealed that when examining a negatively-rated domain of high importance compared to low importance, individuals had higher self-ratings, thought that their peers would rate them more favorably, and aspired to a more positive ideal self. These results did not support the hypothesis that competition would have the effect of making individuals rate themselves more poorly on an important, negative identity.

Discussion

Contrary to the initial hypothesis, individuals who were competing with others to assert their negative identity on a highly important domain that did not present themselves more negatively as compared to individuals who were not competing. In contrast to Experiment 1, where individuals with positive self concepts on important domains rated themselves more positively when competing, in Experiment 2 individuals with a negative self-concept did not rate themselves more negatively when vying against others to verify their self-concept.

Upon first glance, it may appear that these results align with self-enhancement theory rather than self-verification theory. Individuals did not strive to present a facet of their identity in a more extreme manner when the domain was negative, and polarized the way that they presented themselves only when the self-concept in question was positive. There are, however, alternative explanations for why the results of Experiment 2 did not mirror the same pattern of results found in Experiment 1, failing to provide support for self-verification theory. The procedural modifications made to Experiment 1 may have

altered the efficacy of the manipulations, and the individually tailored negative domains may not have been as effective as in Experiment 1.

One of the more significant changes made from Experiment 1 was the alteration of the domains on the SAQ-R and AFQ. While the domains from the Experiment 1 SAQ and AFQ are better conceptualized as facets of identity (i.e. intellectual ability, emotional stability) the domains used in the Experiment 2 SAQ-R and AFQ are more aptly described as skills or abilities (physics, poetry writing). Though this modification was necessary in order to investigate areas in which college students with high self-esteem hold negative self-concepts, the latter set of abilities are less fundamental aspects of the self. Individuals may hold less developed views about the self on the skills of the SAQ-R as compared to the identity facets on the SAQ. Had individuals with depression (or others with sufficiently negative self-concepts) completed the SAQ and Experiment 1 AFQ, then they may have polarized their negative identity when competing against others on a highly important domain. The use of more superficial skills as opposed to fundamental identity facets as well as the overall positive self concepts of the convenience sample may account for the failure to observe negativity strivings during competitions on a highly important, negative domain.

The procedural modification of informing participants in the competing conditions that they were being ranked later on in the experiment may also be a reason for the lack of support for negative identity polarization during competition. By informing participants that they were competing in the middle rather than at the beginning of the experimental session, the fact that they were really competing against the two others may have been less salient, as they were informed of the other participants

in the session at the onset of the experiment. After sitting isolated in a room for a period of time, the "threat" of other "rivals" may have been less imminent, making the competition manipulation less powerful.

Finally, the new method of selecting a facet of negative identity and individually tailoring the domain on the second questionnaire may not have been as effective as in Experiment 1. A negative self-concept on a given domain was operationally defined as a self-rating in the lower fiftieth percent of ability as compared to one's peers. This criterion may not have been stringent enough to really tap a domain on which people had a significantly negative self-concept, and the self-concepts of participants may have been more neutral than negative. If individuals hold the conviction that they are neither especially proficient nor especially inept in a given area, it is realistic to think that they would not alter their self-evaluation to a more negative appraisal when competing against others. And while significant efforts were made to effectively tailor the importance variable, there were still many participants in the competing-most important condition whose remaining domain of highest importance (after eliminating domains of positive self-concept) was below "moderately important." Thus the manipulation of most interest, the competing-more important condition, may not have been sufficiently extreme for effect of competition on self-verification to appear.

<div align="center">General Discussion</div>

Taken together, the current research demonstrates considerable support for the influence of competition on self-presentation and self-verification processes. In line with the initial hypothesis, individuals who compete against others on a domain of high importance on which they hold a positive self-concept present themselves in a more

positive manner. By presenting themselves more extremely, they seek feedback to verify that their identity is more extreme on the dimension at hand.

This is the first research to consider the solicitation of self-verifying feedback as a dynamic, interactive process, and to acknowledge that both parties in an interaction are striving to verify their self-concept. It is important to consider the two-sided nature of feedback solicitation, for the feedback seeker and potential feedback provider both have independent identity-verifying motives that influence one another.

No previous research has demonstrated the effects of competition on self-verification processes, though the current findings make sense within the context of previous research. In line with past literature, self-verification processes in the current study were most pronounced under circumstances of high importance (Swann, 1990). When the facet of identity at hand is fundamental to one's sense of self, the motive for self-consistency may be greater, and as such individuals are more inclined to assert the extreme nature of an essential, highly important identity. In addition, as self-verification processes utilize considerable cognitive resources, individuals may be less willing to exert the extra effort to self-verify when the domain is not vitally important to their self-concept.

The striving for more extremely positive identity-verifying feedback also fits in with observations of identity-verification processes in clinical populations. When individuals with anorexia nervosa come in to contact with other similarly afflicted individuals, they often engage in identity competitions (Conton and Pistrang, 2004). These comparisons result in attempts of anorexics to present themselves in more disordered ways so as to continue to receive feedback that verifies that they are an

extreme anorexic, even when compared against other anorexics. Likewise, substance abusers who cling to their identity as an addict increase drug usage to reaffirm their extreme identity when clinicians or concerned others try to emphasize their recovery (Linehan, 1997). While the average, healthy individual may consider an identity of anorexic or addict to be a negative facet of identity, these labels, especially in the case of anorexia nervosa, are often conceptualized in a positive light by individuals who bear them. Anorexics frequently take pride in their identity as an anorexic, and view their excessive weight-loss as a sign of success and achievement (Skarderud, 2007). This is perhaps most manifest in the advent of "pro-ana" websites that celebrate anorexia nervosa and support it as a social identity, with online users going as far as to deride other users who they perceive to be "posers" or not "anorexic enough" (Giles, 2006).

If these highly important, disordered identities are conceived of as positive aspects of the self, then under circumstances of competition, individuals should try to solicit more extremely positive feedback to verify the extreme nature of their identity. In the eyes of the anorexic or addict, more positive feedback would be the affirmation that they are extremely sick and abnormal. Solicitation of more positive self-verifying feedback would then take the form of increasingly disordered behaviors, for example the increased weight-loss or cocaine use seen in clinical samples.

An interesting though unexpected finding of Experiment 1 was that when individuals compete to verify their identity on a positive identity of low importance, they present themselves less extremely as compared to when they are not competing. Though there was no *a priori* hypothesis as to what would occur when individuals were competing on a domain of low importance, the observed phenomenon of presenting

oneself as closer to "average" rather than extreme makes sense from the perspective of trying to make social interactions go smoothly. When competing against another individual to assert one's identity, there is the possibility for conflict to arise (Eggins, Haslam and Reynolds, 2002). Personal identities are often implicated in negotiations and disagreements, and can be matters of heated contention. Conflict frequently provokes unpleasant feelings during interpersonal interactions, and conflict avoidance is an often-used conflict resolution strategy, as well as a mechanism to make social-interactions go smoothly (Leung, 1988).

Individuals are much less likely to pursue conflict if the stakes of the conflict are small, and more likely to actively pursue further argument when the issue at hand is highly important (Leung, 1988). As shown in the current study, when the stakes of the conflict are large—namely, a highly important facet of identity—individuals are more likely to risk a potential conflict with their interaction partner by further asserting their extremism on the identity domain. However, when the matter at hand is a less important and the point of contention is a facet of identity that they are not invested in, individuals may actually go out of their way to avoid conflict by presenting themselves even less extremely, so as to let the other person "win" the search for self-verifying feedback. Individuals may strategically "pick their battles": pursuing competitions for self-verifying feedback when the domain is highly important but conceding, so to speak, by seeking more neutral feedback when the domain is unimportant in order to avoid unnecessary conflict in interpersonal interactions.

This study of the influence of competition on identity processes and self-verification has important real-world implications, especially in regards to disordered,

pathological populations. Clinicians should be aware of and sensitive to the exacerbating effects that competition has on disordered identities as patients try to seek self-concept verifying feedback. This is especially pertinent in group treatment settings, where rather than providing support, the presence of similarly disordered individuals may inhibit recovery. Though group treatment for psychiatric disorders is equally effective and more economical than individual therapy, this potentially detrimental aspect of group settings should be further investigated to make such therapies even more effective (Moreno, 1994). Further research should investigate how competition for self-verification manifests in group treatment settings, and what steps can be taken to effectively eliminate any potentially adverse influences competition may have to the recovery process.

The competition-induced changes in identity also have important implications for more routine interpersonal interactions and the identity processes of healthy, non-disordered individuals. In the current research, competition altered self-presentation and feedback solicitation on ordinary domains of identity such as intellectual ability, artistic skills, and physical attractiveness. On nearly all of twenty commonplace domains utilized on the SAQ and SAQ-R, ordinary college students demonstrated changes in identity presentation and self-concept due to an ostensible competition. Competition and interpersonal processes should be taken into consideration as significant variables in future studies of identity presentation and self-concept verification.

The current research, in addition to contributing novel findings to the extensive body of literature on self-verification theory, brings forth many interesting questions and opens many new avenues of potential investigation. Though the current set of experiments examined self-verification processes in a convenience sample of healthy

college students, it will be important to investigate the effects of competition on identity processes in clinical populations. As the current research is theoretically based upon clinical reports from eating disordered and substance-abusing individuals, it is essential to examine how this research translates to disordered populations. It will be interesting to examine how competition influences self-verification strivings on the "disordered" (i.e. anorexic or addict) identity, as well as on unrelated aspects of self-concept such as the ones examined in the current research (i.e. artistic ability).

Researching the influences of competition on self-verification amongst depressed individuals may also yield fruitful results. One potential reason that the negative polarization of identity was not observed in Experiment 2 was that the self-concepts of the sample were too positive—perhaps when examining a sample with severely negative self-concepts, research will demonstrate that individuals do seek more extremely negative feedback when competing against others on a domain of high importance.

Future studies may also be helpful in examining the intriguing result of Experiment 1, in which individuals rated themselves less positively on domains of low importance while competing. Further investigation may explore this phenomenon, and perhaps elucidate more concretely the reason for the observed results.

Finally, it will be important to move this line of research from hypothetical, abstract "competitions" to actual participant interactions. For this initial set of experiments, actual exchanges between participants were avoided in order to afford more experimental control. It is highly plausible that in situations that involve real interactions, the effects of competition will be increased due to the higher salience of the rivalry and the increased immediacy of the "opponent." Now that evidence for the effects of

competition has been established, it will be important to investigate the phenomenon outside of a contrived laboratory setting and examine how it plays out in scenarios that closer resemble real-world conversations. After being debriefed about the hypotheses of the study and how individuals may compete for more extreme feedback through assertions of, "No, but I'm really *really* bad at math," countless participants enthusiastically responded in the vein of "I do that all the time talking with my friends!" Future research should more concretely bring this pervasive, real world occurrence from the realm of assertions of poor math ability to an established aspect of self-verification theory.

References

Aloise-Young, P. A., Hennigan, K. M., & Graham, J. W. (1996). Role of the self-image

and smoker stereotype in smoking onset during early adolescence: A longitudinal

study. *Health Psychology, 15,* 494-497.

Anderson, T. L. (1994). Drug abuse and identity: Linking micro and macro factors.

Sociological Quarterly, 35, 159-174.

Burke, P. J., & Stets, J. E. (1999). Trust and commitment through self-verification. *Social

Psychology Quarterly, 62*, 347-366.

Colton, A., Pistrang, N. (2004). Adolescents' experiences of inpatient treatment for

anorexia nervosa. *European Eating Disorders Review, 12*, 307-316.

Eggins, R. A., Haslam, S. A., & Reynolds, K. J. (2002). Social identity and negotiation:

Subgroup representation and superordinate consensus. *Personality and Social

Psychology Bulletin, 28,* 887-899.

Giles, D. (2006). Construction of identities in cyberspace: The case of eating disorders.

 British Journal of Social Psychology, 45, 463-477.

Giesler, R. B., Josephs, R. A. & Swann, W. B., Jr. (1996). Self-verification in clinical

depression. *Journal of Abnormal Psychology, 105*, 358-368.

Halse, C., Honey, A., & Boughtwood, D. (2008). *Inside anorexia: The experiences of

girls and their families*. London: Jessica Kingsley Publishers.

Joiner, T. E. Jr. (1999). Self-verification and bulimic symptoms: Do bulimic women

play a role in perpetuating their own dissatisfaction and symptoms? *Int J Eat

Disord, 26*, 145-151.

Joiner, T. E., Jr., Katz, J., & Lew, A. S. (1997). Self-verification and depression among

youth psychiatric inpatients. *Journal of Abnormal Psychology, 106*, 608-618.

Katz, J., Beach, S. R. H., & Anderson, P. (1996). Self-enhancement versus self-verification: Does spousal support always help*? Cognitive Therapy and Research, 20,* 335-360.

Kellogg, S. (1993). Identity and recovery. *Psychotherapy*, 30, 235-244.

Leung, K. (1988). Some determinants of conflict avoidance. *Journal of Cross-Cultural Psychology, 19*, 125-136.

Lineham, M. M. (1997). Self verification and drug abusers: Implications for treatment. *Psychological Science, 8,* 181-183.

Pelham, B. W., & Swann, W. B. (1989). From self-conceptions to self-worth: The sources and structure of self-esteem. *Journal of Personality and Social Psychology, 57,* 672-680.

Pettit, J.W., & Joiner, T. (2001). Negative feedback-seeking leads to depressive symptom increases under conditions of stress. *Journal of Psychopathology & Behavioral Assessment, 23,* 69-74.

Piazza, E., Carni, J. D., Kelly, J., & Plante, S. K. (1983). Group psychotherapy for anorexia nervosa. *Journal of the American Academy of Child Psychiatry, 22,* 276-278.

Polivy, J. (1981). Group therapy for anorexia nervosa. Journal of Psychiatric Research and Evaluation.

Rich, E. (2006). Anorexic dis(connection): Managing anorexia as an illness and an identity. *Sociology of Health and Illness, 28*, 284-305.

Sedikides, C. & Gregg, A. P. (2008). Self-enhancement theory: Food for thought.

Perspectives on Psychological Science, 3, 102-116.

Skarderud, F. (2007). Shame and pride in anorexia nervosa: A qualitative study. European *Eating Disorder Review, 15,* 81-87.

Stein, K. F., & Corte, C. (2007). Identity impariment and the eating disorders: Content and organization of the self-concept in women with anorexia nervosa and bulimia nervosa. *European Eating Disorders Review, 15,* 58-69.

Swann, W. B., Jr. (1990). To be adored or to be known : The interplay of self-enhancement and self-verification. In R. M. Sorrentino & E. T. Higgins (Eds.) *Foundations of Social Behavior, (Vol. 2, pp. 408-448).* New York: Guilford.

Swann, W. B., Jr. (1997). The trouble with change: Self-verification and allegiance to the self. *Psychological Science, 8*, 177-180.

Swann, W. B., Jr. (in press). Self-verification theory. In P. Van Lang, A. Kruglanski, & E.T. Higgins (Eds.) *Handbook of Theories of Social Psychology*, Sage: London.

Swann, W. B., Jr., De La Ronde, C. & Hixon, J. G. (1994). Authenticity and positivity strivings in marriage and courtship. *Journal of Personality and Social Psychology, 66*, 857-869.

Swann, W. B., Jr. & Pelham, B. W. (2002). Who wants out when the going gets good? Psychological investment and preference for self-verifying college roommates. *Journal of Self and Identity, 1*, 219-233

Swann, W. B., & Read, S. J. (1981). Self-verification processes: How we sustain our self-conceptions. *Journal of Experimental Social Psychology, 17*, 351-372.

Swann, W.B., Jr., Rentfrow, P. J., & Guinn, J. (2002). Self-verification: The search for coherence. In M. Leary and J. Tagney, *Handbook of self and identity*: Guilford,

New York.

Swann, W. B., Jr., Stein-Seroussi, A., & Giesler, B. (1992). Why people self-verify.

Journal of Personality and Social Psychology, 62, 392-401.

Swann, W. B., Jr., Wenzlaff, R. M., Krull, D. S., & Pelham, B. W. (1992). The allure of

negative feedback: Self-verification strivings among depressed persons. *Journal*

of Abnormal Psychology, 101, 293-306

Tan, O. A. J., Hope, T., & Stewart, A. (2003). Anorexia nervosa and personal identity:

The accounts of patients and their parents. *International Journal of Law and*

Psychiatry, 26, 533-548.

Table 1

Mean percentile ranking and perceived peer rating as a function of importance and competition in Experiment 2.

	Perceived peer rating	
	Competing	Not Competing
Less important	3.27	3.47
More important	4.57	4.80
	Percentile ranking	
	Competing	Not Competing
Less important	3.13	3.27
More important	4.21	4.53

Note. All responses have been converted to a one to ten scale.
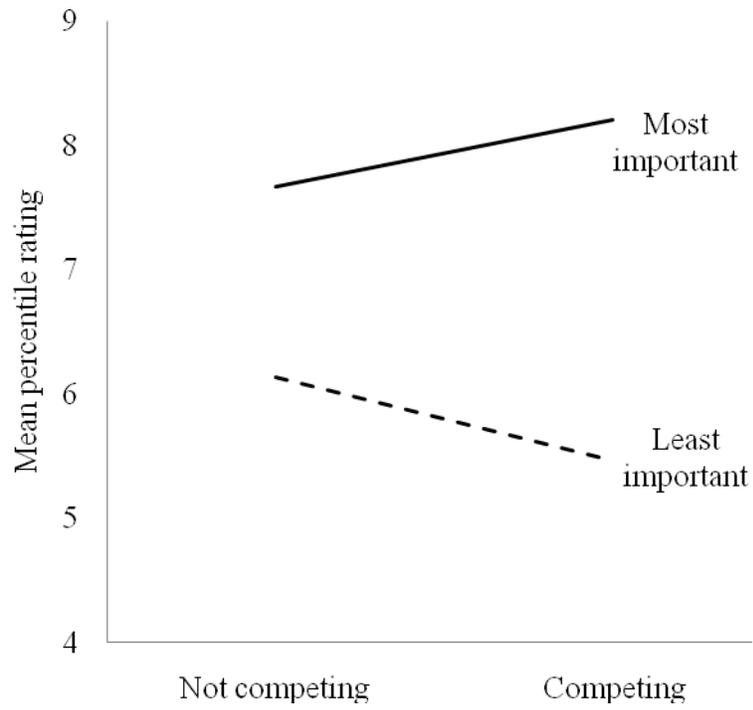
Figure 1. Mean percentile ranking in Experiment 1 as a function of competition and domain importance.
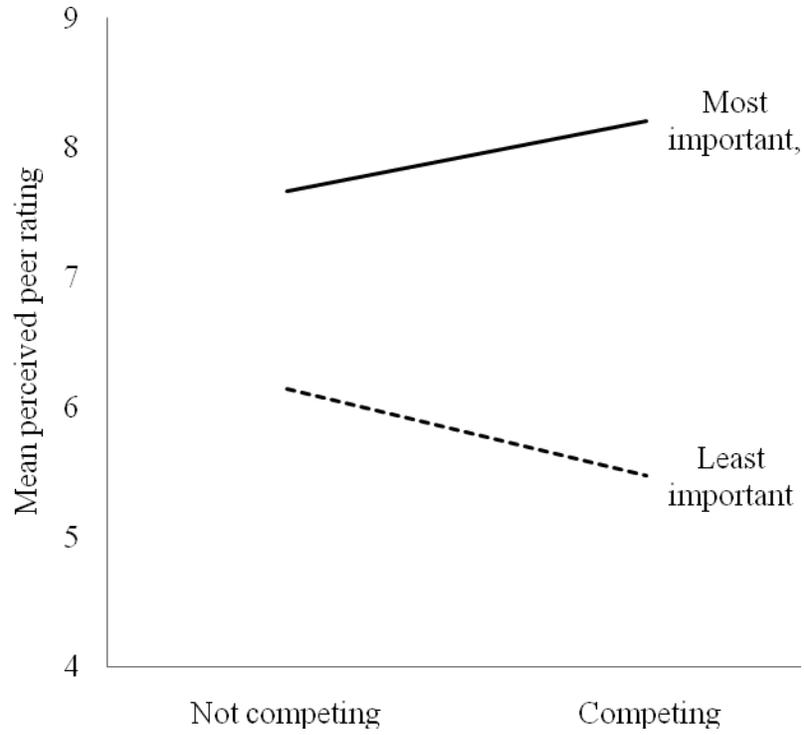
Figure 2. Mean rating of perception of ability by peers as a function of competition and domain importance.

Appendix A

STANDARD ADULT CONSENT FORM

Colby College Department of Psychology

TITLE OF STUDY: Perceptions of Personal Identity

INVESTIGATOR: Alex Wesnousky

The following informed consent is required by Colby College for any person involved in a College-sponsored research study. This study has been approved by the College's Institutional Review Panel for Human Subjects. No unusual risks or benefits are anticipated as a result of participation in this research.

I hereby give my consent to be the subject of your research. You have given me:

A.   A general explanation of the procedures to be followed in the project.

B.   Answers to inquiries I have made about those procedures.

I understand that:

A.   My participation is voluntary, and I may withdraw my consent and discontinue participation in the project at any time. My refusal to participate will not result in any penalty.

B.   The reasons for and nature of the specific procedures employed, those aspects of my behavior that have been recorded for measurement purposes, and what the investigators hope to learn from this study will all be fully explained to me at the end of the experimental session.

C.   I may choose to withhold use of any data provided by my participation if, after explanation of the purpose of the study, I object to the use to which these data will be put.

_____
Signature

_____
Date

Appendix B

The Self-Attributes Questionnaire

This questionnaire has to do with your attitudes about some of your activities and abilities. For the first fifteen items below, you should rate yourself relative to other people your own age using the following scale:

A	B	C	D	E	F	G	H	I	J
Bottom 5%	lower 10%	lower 20%	lower 30%	lower 50%	upper 50%	upper 30%	upper 20%	upper 10%	upper 5%

An example of the way the scale works is as follows: if one of the traits that follows were "height", a person who is just below average height would choose "e" for this question, whereas a person who is taller than 80% (but not taller than 90%) of people his or her age would mark "H", indicating that he or she is in the top 20% on this dimension.

1. Intellectual ability _____

2. Social skills/social competence _____

3. Artistic and/or musical ability _____

4. Athletic ability _____

5. Physical attractiveness _____

6. Leadership ability _____

7. Common sense _____

8. Emotional stability _____

9. Sense of humor _____

10. Discipline _____

Now rate how personally important each of these domains is to you (you may choose any letter):

A	B	C	D	E	F	G	H	I	J
Not at all important to me				moderately important to me					extremely important to me

1. Intellectual ability _____

2. Social skills/social competence _____

3. Artistic and/or musical ability _____

4. Athletic ability _____

5. Physical attractiveness _____

6. Leadership ability _____

7. Common sense _____

8. Emotional stability _____

9. Sense of humor _____

10. Discipline _____

Now rate how certain you are of your standing on each of the above traits (you may choose any letter):

A	B	C	D	E	F	G	H	I	J
Not at all certain				moderately certain					extremely certain

1. Intellectual ability ____

2. Social skills/social competence ____

3. Artistic and/or musical ability ____

4. Athletic ability ____

5. Physical attractiveness ____

6. Leadership ability ____

7. Common sense ____

8. Emotional stability ____

9. Sense of humor ____

10. Discipline ____

Now rate yourself relative to your "ideal self"—the person you would be if you were exactly the way you would like to be (you may choose any letter):

A	B	C	D	E	F	G	H	I	J
Very short of my ideal self				somewhat like and somewhat unlike my ideal self					very much like my ideal self

1. Intellectual ability ____

2. Social skills/social competence ____

3. Artistic and/or musical ability ____

4. Athletic ability ____

5. Physical attractiveness ____

6. Leadership ability ____

7. Common sense ____

8. Emotional stability ____

9. Sense of humor ____

10. Discipline ____

Appendix C

When answering these questions, please do so in regards to the domain that the experimenter has circled for you.

intellectual ability   social skills/competence
artistic/musical ability   athletic ability
physical attractiveness   leadership quality
common sense   emotional stability
sense of humor   discipline

For the first four items below, you should rate yourself relative to other people your own age by using the following scale:

A	B	C	D	E	F	G	H	I	J
Bottom	lower	lower	lower	lower	upper	upper	upper	upper	upper
5%	10%	20%	30%	50%	50%	30%	20%	10%	5%

An example of the way the scale works is as follows: if one of the traits that follows were "height", a person who is just below average height would choose "e" for this question, whereas a person who is taller than 80% (but not taller than 90%) of people his or her age would mark "H", indicating that he or she is in the top 20% on this dimension.

How do you think your peers would rate you on this domain?

A	B	C	D	E	F	G	H	I	J
Bottom	lower	lower	lower	lower	upper	upper	upper	upper	upper
5%	10%	20%	30%	50%	50%	30%	20%	10%	5%

How would you ideally like others to rate you on this domain?

A	B	C	D	E	F	G	H	I	J
Bottom	lower	lower	lower	lower	upper	upper	upper	upper	upper
5%	10%	20%	30%	50%	50%	30%	20%	10%	5%

How do you rate yourself on this domain?

A	B	C	D	E	F	G	H	I	J
Bottom	lower	lower	lower	lower	upper	upper	upper	upper	upper
5%	10%	20%	30%	50%	50%	30%	20%	10%	5%

How would you rate your ideal self on this domain?

A	B	C	D	E	F	G	H	I	J
Bottom	lower	lower	lower	lower	upper	upper	upper	upper	upper
5%	10%	20%	30%	50%	50%	30%	20%	10%	5%

Domain that you are answering these questions in about:_____

How certain are you on your standing on this trait?

    A   B   C   D   E   F   G   H   I   J

Not at all   moderately   extremely
certain   certain   certain

How important is this domain to your sense of self?

    A   B   C   D   E   F   G   H   I   J

Not at all   moderately   extremely
important   important   important
to me   to me   to me

How distressed would you be if others perceived you differently than you wished to be perceived on this domain?

    A   B   C   D   E   F   G   H   I   J

Not at all   moderately   extremely
distressed   distressed   distressed

How distressed would you be if you had to interact with someone who scored higher than you on this domain?

    A   B   C   D   E   F   G   H   I   J

Not at all   moderately   extremely
distressed   distressed   distressed

How distressed would you be if you had to interact with someone who scored lower than you on this domain?

    A   B   C   D   E   F   G   H   I   J

Not at all   moderately   extremely
distressed   distressed   distressed

Appendix D
The Self-Attributes Questionnaire

This questionnaire has to do with your attitudes about some of your activities and abilities. For the first fifteen items below, you should rate yourself relative to other people your own age using the following scale:

A	B	C	D	E	F	G	H	I	J
Bottom 5%	lower 10%	lower 20%	lower 30%	lower 50%	upper 50%	upper 30%	upper 20%	upper 10%	upper 5%

An example of the way the scale works is as follows: if one of the traits that follows were "height", a person who is just below average height would choose "e" for this question, whereas a person who is taller than 80% (but not taller than 90%) of people his or her age would mark "H", indicating that he or she is in the top 20% on this dimension.

1. Public speaking _____
2. Drawing _____
3. Persuasion and negotiating skills _____
4. Singing _____
5. Playing an instrument _____
6. Chemistry _____
7. Physics _____
8. Poetry writing _____
9. Dating and relationships _____
10. Dancing _____

Now rate how personally important each of these domains is to you (you may choose any letter):

A	B	C	D	E	F	G	H	I	J
Not at all important to me				moderately important to me				extremely important to me	

1. Public speaking _____
2. Drawing _____
3. Persuasion and negotiating skills _____
4. Singing _____
5. Playing an instrument _____
6. Chemistry _____
7. Physics _____
8. Poetry writing _____
9. Dating and relationships _____
10. Dancing _____

Now rate how certain you are of your standing on each of the above traits (you may choose any letter):

A	B	C	D	E	F	G	H	I	J
Not at all certain				moderately certain					extremely certain

1. Public speaking ____

2. Drawing ____

3. Persuasion and negotiating skills ____

4. Singing ____

5. Playing an instrument ____

6. Chemistry ____

7. Physics ____

8. Poetry writing ____

9. Dating and relationships ____

10. Dancing ____

Now rate yourself relative to your "ideal self"—the person you would be if you were exactly the way you would like to be (you may choose any letter):

A	B	C	D	E	F	G	H	I	J
Very short of my ideal self				somewhat like and somewhat unlike my ideal self					very much like my ideal self

1. Public speaking ____

2. Drawing ____

3. Persuasion and negotiating skills ____

4. Singing ____

5. Playing an instrument ____

6. Chemistry ____

7. Physics ____

8. Poetry writing ____

9. Dating and relationships ____

10. Dancing ____

Appendix E

When answering these questions, please do so in regards to the domain that the experimenter has circled for you.

Public Speaking	Chemistry
Drawing	Physics
Persuasion/negotiating skills	Poetry writing
Singing	Dating and relationships
Playing an instrument	Dancing

For the first four items below, you should rate yourself relative to other people your own age by using the following scale:

A	B	C	D	E	F	G	H	I	J
Bottom	lower	lower	lower	lower	upper	upper	upper	upper	upper
5%	10%	20%	30%	50%	50%	30%	20%	10%	5%

An example of the way the scale works is as follows: if one of the traits that follows were "height", a person who is just below average height would choose "e" for this question, whereas a person who is taller than 80% (but not taller than 90%) of people his or her age would mark "H", indicating that he or she is in the top 20% on this dimension.

How do you think your peers would rate you on this domain?

A	B	C	D	E	F	G	H	I	J
Bottom	lower	lower	lower	lower	upper	upper	upper	upper	upper
5%	10%	20%	30%	50%	50%	30%	20%	10%	5%

How would you ideally like others to rate you on this domain?

A	B	C	D	E	F	G	H	I	J
Bottom	lower	lower	lower	lower	upper	upper	upper	upper	upper
5%	10%	20%	30%	50%	50%	30%	20%	10%	5%

How do you rate yourself on this domain?

A	B	C	D	E	F	G	H	I	J
Bottom	lower	lower	lower	lower	upper	upper	upper	upper	upper
5%	10%	20%	30%	50%	50%	30%	20%	10%	5%

How would you rate your ideal self on this domain?

A	B	C	D	E	F	G	H	I	J
Bottom	lower	lower	lower	lower	upper	upper	upper	upper	upper
5%	10%	20%	30%	50%	50%	30%	20%	10%	5%

Domain that you are answering these questions in about:_____

How certain are you on your standing on this trait?

A	B	C	D	E	F	G	H	I	J

Not at all   moderately   extremely
certain   certain   certain

How important is this domain to your sense of self?

A	B	C	D	E	F	G	H	I	J

Not at all   moderately   extremely
important   important   important
to me   to me   to me

How distressed would you be if others perceived you differently than you wished to be perceived on this domain?

A	B	C	D	E	F	G	H	I	J

Not at all   moderately   extremely
distressed   distressed   distressed

How distressed would you be if you had to interact with someone who scored higher than you on this domain?

A	B	C	D	E	F	G	H	I	J

Not at all   moderately   extremely
distressed   distressed   distressed

How distressed would you be if you had to interact with someone who scored lower than you on this domain?

A	B	C	D	E	F	G	H	I	J

Not at all   moderately   extremely
distressed   distressed   distressed