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Conformity to Masculine Norms and Intellectual Engagement

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Abstract

Research on the relationship between masculinity and intellectual engagement may be helpful in exploring the current challenges of male students in academic settings. Although the traditional male role in Western societies has often included notions of winning, competitiveness, and achievement, there is a growing research literature that documents male struggles with achievement, particularly in academic, intellectual, and occupational domains (Morris, 2011; Rosin, 2010; Sax, 2008a, b). In this study, the relationships between conformity to masculine norms and intellectual engagement were explored in a sample of diverse men in the United States. It was predicted that men who more strongly conformed to masculine norms would demonstrate lower intellectual engagement. As predicted, conformity to masculine norms was significantly predictive of lower intellectual engagement on three of the five constructs measured (Openness to Experience, Intellectual Complexity, and Love of Learning). Conformity to masculine norms was not a significant predictor of Need for Cognition or Curiosity.

Keywords: Conformity to masculine norms, intellectual engagement



Conformidad con las Normas Masculinas e Implicación Intelectual

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Resumen

La investigación sobre la relación entre masculinidad e implicación intelectual puede ayudar al análisis de los retos actuales de los estudiantes (chicos) en el ámbito académico. Aunque el rol tradicional de los hombres en las sociedades occidentales ha sido a menudo incluir nociones sobre la victoria, la competitividad, y el éxito, hay una creciente literatura que muestra como las luchas de los hombres con éxito, especialmente en el ámbito académico, intelectual y ocupacional (Morris, 2011; Rosin, 2010; Sax, 2008a, b). En este estudio, se analiza la relación entre la conexión entre las normas masculinas y la implicación intelectual a través de una muestra de hombres muy diferentes en Estados Unidos. Se observa que los hombres que están socializados en las normas masculinas desarrollan una implicación intelectual menor. De modo que la conformidad hacia las normas masculinas predice significativamente el bajo nivel intelectual en tres de los cinco aspectos medidos (Abiertos a la experiencia, Complejidad intelectual, y el Amor por el aprendizaje). La conformidad hacia las normas masculinas no es un predictor significativo de la Necesidad de Conocimiento o Curiosidad.

Palabras clave: Conformidad a las normas masculinas, implicación intelectual

Are men who conform to contemporary masculine norms less likely to demonstrate intellectual engagement? If so, does this possible relationship hold relevance for understanding the pervasive underachievement of men and boys in educational settings throughout various societies (Weaver-Hightower, 2003)? In this study, the associations between personality characteristics, intellectual engagement, and conformity to masculine norms were examined in order to explore the possible relationship between contemporary masculinity ideologies and the challenges of male students in educational settings.

Because of the well-documented differences in educational achievement and engagement between male and female students in Western educational settings (DiPrete & Buchmann, 2006), an important research question is which factors possibly contribute to these differences. One individual differences variable that may be relevant is personality. The study of personality-academic achievement relationships has revealed that some personality characteristics, such as conscientiousness, are predictive of academic achievement (Poropat, 2009). There is also the possibility of interactions between personality, academic achievement, and gender. The question of gender differences in personality characteristics has been extensively studied (Feingold, 1994) and Costa, Terracciano, and McCrae (2001) stated that although there are some small gender differences, there is much more within-gender variability compared to between gender differences. If there are large within-gender variations, then research on the possible within-gender variations relevant to personality may be useful. One important within-gender variable is conceptions of masculinity and femininity (Addis & Mahalik, 2003), and how individual men and women conform or challenge socially dominant conceptions of masculinity and femininity may be important for understanding their engagement in academic and intellectual pursuits. In this study, the relationship between conformity to masculine norms and various personality characteristics related to intellectual engagement was explored in a sample of adult men from the United States.

The question of within-gender variance in personality characteristics related to intellectual engagement may have relevance for contemporary discussions of the difficulties males face in academic settings (Marris & Sigler 2012; Sax, 2008). Various personality-related constructs such as

need for cognition and openness to experience describe basic orientations towards intellectual engagement, intellectual pursuits, and engagement with the world of ideas. Although previous research has indicated that gender differences, if present, are relatively small (Costa et al., 2001; Feingold, 1994), the question of how conceptions of masculinity – in particular conformity to masculine norms - relate to these intellectually-oriented personality constructs has not been pursued.

Research on the question of masculinity and intellectual engagement may be helpful in exploring the current challenges of men in academic settings. Although the traditional male role in Western societies has often included notions of winning, competitiveness, and achievement, there is a growing research literature that documents male struggles with achievement, particularly in academic, intellectual, and occupational domains (Morris, 2011; Rosin, 2010; Sax, 2008a, b). Male students achieve lower grades than female students throughout their education, they read fewer books and don't develop as well in the areas of writing and language, they graduate at lower rates from high school, they experience more difficulties in college, study less efficiently and for fewer hours, and outside of a few male-dominated fields they are pursuing graduate education at lower rates. Some writers in the popular press in the United States have even declared the “end of men,” asserting that the modern world has developed in such a way that women are more suited for educational, occupational, and personal success (Rosin, 2010).

Masculinity and Lack of Intellectual Engagement

Mahalik et al. (2003) theorized that how individual men conform to gender role expectations is important for understanding masculinity. The meaning of masculinity is communicated through various expectations and standards for male behavior, and individual men vary in their tendency to conform to these various gender role expectations. Mahalik et al. developed the Conformity to Masculine Norms Inventory to measure how closely men conformed to the dominant masculine norms in contemporary American society. The norms identified in the measure include Winning, Emotional Control, Risk-Taking, Violence, Dominance, Playboy, Self-Reliance, Primacy of Work, Power over Women, Disdain for Homosexuals, and

Pursuit of Status. High scores on each of these factors indicate a greater tendency to conform to these dominant masculine norms. These norms provide a portrait of contemporary conceptions of masculinity in American culture. For example, men are generally socialized to exert control over their emotions (Emotional Control), and men who do this are considered to be more masculine.

Although none of the norms identified by Mahalik et al. (2003) dealt specifically with intellectual engagement, other research has suggested that in contemporary American culture engagement in academic and intellectual tasks is largely incompatible with masculinity. For example, in a qualitative study, Morris (2008) found that boys who were academically inclined were at risk of ridicule by other students for their interest in intellectual and artistic activities, with some students questioning their masculinity or sexuality. In a recent study of college undergraduates, Kahn, Brett, and Holmes (2011) found that students who conformed to certain masculine norms such as playboy and violence (from the Conformity to Masculine Norms Inventory) were less likely to be intrinsically motivated towards academic success in college. They suggested that certain aspects of masculinity such as conformity to the playboy and violence norm were incompatible with the types of intellectual and personal dispositions important for success in a liberal arts environment, such as vulnerability (recognizing the need for more knowledge, curiosity) and openness (willingness to engage new ideas, openness to critique).

The findings of Morris (2008) and Kahn, Brett, and Holmes (2011) provide some initial evidence for a link between masculinity and lack of academic engagement in both a high school and a college setting. In both studies, those students who displayed more traditional conceptions of masculinity were less academically engaged and in the case of the high school setting (Morris) faced the possibility of ridicule from their peers if they demonstrated concern and motivation towards academics. Although these results highlight the possible relationship between masculinity and academic disengagement, a question that has not been addressed so far in the research literature is how aspects of masculinity relate to more enduring intellectual dispositions. Is masculinity related to basic orientations towards intellectual activities rather than merely success in an academic setting? Are boys and men socialized in such a way that they develop a tendency to

avoid activities important to the development of intellectual abilities? A first step in exploring these ideas is examining the potential relationship between conceptions of masculinity and various measures of intellectual engagement.

Measures of Intellectual Engagement

In this study, five personality-related variables related to intellectual engagement were selected. These variables are Need for Cognition, Openness to Experience, Intellectual Complexity, Curiosity, and Love of Learning. Combined, these variables measure tendencies to seek out new knowledge and experiences, pursue intellectual interests, and engage in continuous learning throughout the life span. Individuals who score higher on these constructs tend to enjoy and seek out new learning experiences, a characteristic that should be adaptive for educational success and continued lifelong learning.

Need for Cognition (NFC) refers to “a stable individual difference in people’s tendency to engage in and enjoy effortful cognitive activity (Caccioppo et al., 1996, p. 198).” Although previous research has failed to find consistent gender differences in NFC, Osberg (1987) found that masculinity was positively correlated with NFC ($r = .38$) in a sample of 237 college undergraduates; femininity and androgyny were not significantly related. Masculinity was measured using the Personal Attributes Scale (Spence, Helmreich, & Stapp, 1974). Although Osberg found a correlation between masculinity and NFC, the measurement of masculinity-related constructs has progressed over the years. With the progress in measurement, what remains unexplored is which dimensions of masculinity are related to NFC.

In addition to NFC, four other personality constructs related to intellectual engagement were explored in the current study. Openness to Experience is one of the Big Five Personality Factors (McRae & John, 2001) and is encompassed by such descriptions as imaginative, cultured, curious, original, broad-minded, intelligent, and artistically sensitive (Barrick & Mount, 1991). Intellectual Complexity is similar to the Complexity scale on the Jackson Personality Inventory, which refers to the tendency to investigate difficult problems, prefer abstract as opposed to

concrete solutions to difficult issues, and to avoid simplistic solutions (Paunonen & Jackson, 1996). The constructs of Curiosity and Love of Learning were derived from the Values in Action Inventory of Strengths, developed by Peterson and Seligman (2004). These constructs are included as subcomponents of the Wisdom and Knowledge strength. No studies on the relationship between Intellectual Complexity, Curiosity, and Love of Learning were found in the literature.

Summary and Research Hypotheses

Although the previous reviewed studies (Jackson & Dempster, 2009; Morris, 2008, 2011) have highlighted dimensions of masculinity that may be problematic for educational engagement and achievement, the majority of these studies are qualitative studies. Although Kahn, Brett and Holmes (2011) studied a related construct (academic motivation), no quantitative studies were found in the literature that examined if and how dimensions of masculinity may be related to constructs descriptive of intellectual engagement. The focus on whether particular dimensions of masculinity are related to educational and intellectual engagement is important as masculinity is hardly a monolithic construct. There are multiple ways in which masculinity can be performed, and an important question that remains unanswered is which aspects of masculinity appear to be most relevant for understanding intellectual and academic engagement.

In this study, the relationship between conformity to masculine norms and five personality constructs related to intellectual engagement (love of learning, need for cognition, openness to experience, intellectual complexity, and curiosity) were explored using a broad-based sample of men of various ages in the United States. The purpose of the study was to explore if conformity to masculine norms was related to academic/intellectual personality constructs, and if so, to explore the strength of these relationships. Do men who conform to certain masculine norms also report certain academic/intellectual tendencies and behaviors that may be hindering their academic and intellectual engagement? It was hypothesized that:

1. Men who conformed more strongly to masculine norms will demonstrate lower Need for Cognition.

2. Men who conformed more strongly to masculine norms will demonstrate lower Openness to Experience.
3. Men who conformed more strongly to masculine norms will demonstrate lower Intellectual Complexity.
4. Men who conformed more strongly to masculine norms will demonstrate lower Curiosity.
5. Men who conformed more strongly to masculine norms will demonstrate lower Love of Learning.

Method

Participants

Participants were recruited through the online crowd-sourcing platform Amazon Mechanical Turk, available at <https://www.mturk.com/mturk/welcome>. Buhrmester, Kwang, and Gosling (2011) outlined the considerable advantages of using Amazon Mechanical Turk for recruitment of subjects for psychological studies. Turk is a website where people from all over the world can sign up to complete various tasks for money, including completing research studies. Buhrmester, Kwang and Gosling reported that recruiting from Turk led to more diverse samples than typical internet samples or convenience samples of undergraduates on college campuses. They suggested that the data obtained was at least as reliable as those obtained through traditional methods. For this study, Turk was considered a desirable recruiting option due to the desire for a diverse sample of men from various ages, cultural backgrounds, and gender role beliefs.

In total, 568 participants volunteered for the study through Amazon Turk. Because workers from all over the world participate in Amazon Turk, a number of screening measures were used to focus the sample on men from the United States. First, in order to address the possibility that participants might rush through the survey as quickly as possible without reading items in order to collect payment, a validity check was included. One item was included halfway through the survey to ensure participants were paying attention (the item requested that participants please check “agree”). Only participants who correctly answered the question were included in the final data analysis. After 129 participants were eliminated

using this validity check, 439 remained. Second, 19 participants identified as female, so they were eliminated ($n = 420$). Third, participants were asked for their country of birth, of which 79 reported being born in the United States.

The final sample for this study (men born in the US) consisted of 79 men with a mean age of 28.8 ($SD = 10.11$). Reported ethnicity was Black or African-American 3.8% ($n = 3$), Asian or Asian-American 27.8% ($n = 22$), Caucasian 34.2% ($n = 27$), Latino 1.3% ($n = 1$), Bi-Racial 3.8% ($n = 3$), Native American 24.1% ($n = 19$), and 5.1% ($n = 4$) did not report. Highest level of education was reported as not a high school graduate: 1.3% ($n = 1$), High School: 21.5% ($n = 17$), Associate's degree: 13.9% ($n = 11$), Bachelor's degree: 43.0% ($n = 34$), Master's or Professional degree such as MS, MBA, etc: 17.7% ($n = 14$), and Doctoral Degree: 2.5% ($n = 2$).

Instruments

Conformity to Masculine Norms Inventory – 46 (Parent & Moradi, 2010). The Conformity to Masculine Norms Inventory – 46 (CMNI) is a shortened version of the 94-item Conformity to Masculine Norms Inventory by Mahalik et al. (2003). The CMNI-94 was developed to measure the level of conformity to a variety of traditional masculine norms in American society. As noted by Parent and Moradi (2010), Mahalik et al. (2003) described gender roles as the dominant beliefs and norms regarding gender-related behavior that exist in a given society. Although these roles are predominantly enacted by the dominant male social groups in the society (in the United States Caucasian, middle- and upper-class heterosexuals), they would potentially influence all males in the society because they are the standards and expectations that are reinforced as normative.

Parent and Moradi (2009) developed the CMNI-46 in order to produce a shortened version for research purposes. The CMNI-46 retains most of the original subscales of the CMNI-94 and adequate to excellent internal consistency reliability to demonstrated in their original sample of 229 men (Parent & Moradi, 2009). Two subscales, *Dominance and Pursuit of Status*, were not included in the CMNI-46. Subscale titles, internal consistency reliability (Cronbach's alpha) from Parent and Moradi, a brief description, and sample items are listed below for each subscale: *Emotional Control*

(.86), emotional restriction and suppression, “I tend to keep my feelings to myself”; *Winning* (.83), drive to win, “In general, I will do anything to win”; *Playboy* (.84), desire for multiple or noncommitted sexual relationships and emotional distance from sex partners; *Violence* (.86), proclivity for physical confrontations, “Sometimes violent action is necessary”; *Self-Reliance* (.84), aversion to asking for assistance, “I hate asking for help”; *Risk-Taking* (.84), penchant for high-risk behavior, “I frequently put myself in high-risk situations”; *Power over Women* (.78), perceived control over women at both personal and social levels, “In general, I control the women in my life”; *Primacy of Work* (.77), viewing work as a major focus of life, “My work is the most important part of my life”. One subscale, *Disdain for Homosexuals*, was renamed by Parent and Moradi as *Heterosexual Self-Presentation* (.91), Aversion to the prospect of being gay, or being thought of as gay, “I would be furious if someone thought I was gay.” In addition to the individual subscale, an alpha for the Total scale (all items) was reported as .88.

In the current study, internal consistency reliability coefficients (Cronbach’s alpha) were: *Winning* (.64), *Emotional Control* (.77), *Risk-Taking* (.76), *Violence* (.71), *Power over Women* (.74), *Playboy* (.82), *Self-Reliance* (.60), *Primacy of Work* (.79), *Heterosexual Self-Presentation* (.73). Cronbach’s alpha for the Total scale was .71.

Scales from International Personality Item Pool (Goldberger et al., 2006). Four scales (Need for Cognition, Openness to Experience, Intellectual Complexity, Curiosity, and Love of Learning) from the IPIP (available at <http://ipip.ori.org/>) were used in this study. Each scale consisted of a variety of phrases describing people’s behavior with five response options ranging from 1 = very inaccurate to 5 = very accurate. As described by Goldberger et al. (2006), the IPIP is a collection of over 2000 public-domain personality items that compose approximately 300 scales of personality traits. These scales include constructs available in many of the most-used personality inventories, such as the NEO-PI-R (Costa & McCrae, 1992) and the California Personality Inventory (Gough & Bradley, 1996).

Psychometric information regarding each of the four scales was obtained from the website of the International Personality Item Pool (ipip.ori.org). On the website, internal consistency reliability (Cronbach’s alpha) is

reported for each of the scales. The Need for Cognition scale (10 items; $\alpha = .84$) included items such as “Like to solve complex problems” and “Love to think up new ways of doing things.” The Openness to Experience scale (10 items; $\alpha = .82$) included items such as “Believe in the importance of art” and “Enjoy hearing new ideas.” The Intellectual Complexity scale (10 items; $\alpha = .82$) included items such as “Enjoy examining myself and my life” and “Have a rich vocabulary.” The Curiosity scale (10 items; $\alpha = .78$) included items such as “Find the world an interesting place” and “Am never bored.” The Love of Learning Scale (10 items; $\alpha = .77$) included items such as “Go out of my way to attend education events” and “Am thrilled when I learn something new.” In the current study, Cronbach’s alphas for Need for Cognition, Openness to Experience, Intellectual Complexity, Curiosity, and Love of Learning were .77, .70, .74, .67, and .68, respectively.

Procedure

An invitation to take the web-based survey was posted on Amazon Turk. Participants were offered 15 cents to complete the survey. If participants accepted the task, they clicked on a link to the survey posted on the SurveyMonkey web software program. Upon completion, participants were given a code at the end of the survey to enter into the Turk website in order to receive payment.

Results

In order to test each of the five hypotheses, separate simple regressions were conducted with each of the intellectually-oriented personality constructs as the dependent variable and the CMNI Total score as the independent variable. This allowed for a test of whether conformity to masculine norms as a whole significantly predicted Need for Cognition, Openness to Experience, Intellectual Complexity, Curiosity, and Love of Learning. Also, in order to examine the relationship between each of the individual CMNI scales and the intellectual engagement personality constructs, Pearson Product-Moment correlation coefficients were conducted. Although many correlations were conducted, due to the exploratory nature of the study and the lack of previous research, alpha for

significance was set at $p < .05$.

Hypothesis 1: Men who conform more strongly to masculine norms will demonstrate lower Need for Cognition. This hypothesis was not supported; CMNI Total was not a significant predictor of NFC, $F(1, 62) = 1.09, p = .300$. Of the nine scales on the CMNI-46, none significantly correlated with need for cognition (See Table 1).

Hypothesis 2: Men who conform more strongly to masculine norms will demonstrate lower openness to experience. As predicted, CMNI Total was a significant predictor of openness to experience, accounting for 11% of the variance, $F(1, 63) = 7.83, p = .007, R^2 = .11$. The R^2 of .11 is considered to be a large effect size (Kinnear & Gray, 2004). Men who conformed more strongly to masculine norms reported lower openness to experience ($r = -.33$ for CNMI Total). Of the nine scales on the CMNI-46, the subscales Power over Woman and Self-Reliance were negatively correlated with openness to experience (See Table 1).

Hypothesis 3: Men who conform more strongly to masculine norms will demonstrate lower intellectual complexity. As predicted, CMNI Total was a significant predictor of intellectual complexity, accounting for 9% of the variance, $F(1, 64) = 6.10, p = .026, R^2 = .09$. The effect size (R^2) would be considered medium (Kinnear & Gray, 2004). Conformity to masculine norms was negatively correlated with intellectual complexity ($r = .30$), indicating that those who more strongly conformed to masculine norms demonstrated lower intellectual complexity. Similar to with openness to experience, the subscales Power over Woman and Self-Reliance were negatively correlated with intellectual complexity. In addition, Emotional Control was also negatively correlated with Intellectual Complexity.

Hypothesis 4: Men who conform more strongly to masculine norms will demonstrate lower curiosity. Contrary to prediction CMNI Total score was not a significant predictor of curiosity, $F(1, 62) = .58, p = .449$. However, two subscales (Emotional Control and Self-Reliance) were negatively correlated (See Table 1). Also, contrary to prediction, the subscale Primacy of Work was positively correlated with curiosity.

Hypothesis 5: Men who conform more strongly to masculine norms will demonstrate lower love of learning. As predicted, CMNI Total was a significant predictor of love of learning, accounting for 11% of the variance, $F(1, 62) = 7.52, p = .008, R^2 = .11$. The effect size (R^2) would be

considered large (Kinnear & Gray, 2004). Men who conformed more strongly to masculine norms reported lower love of learning ($r = -.33$ with CMNI Total). Also, three of nine CMNI subscales were significantly negatively correlated. The subscales Emotional Control ($r = -.24$), Power over Women ($r = -.33$), and Heterosexual Self-Presentation ($r = -.25$) were negatively correlated with love of learning

Table 1

Correlations between Conformity to Masculine Norms and Intellectual Construct.

	Need for Cognition	Openness to Experience	Intellectual Complexity	Curiosity	Love of Learning
Winning	.07	-.02	-.04	.05	.03
Emotional Control	-.18	-.21	-.27*	-.30*	-.24*
Risk-Taking	.11	-.23	-.08	.15	.11
Violence	-.22	-.23	-.15	-.16	-.21
Power over Women	-.10	-.32**	-.33**	-.11	-.33**
Playboy	.00	-.10	-.07	.16	-.06
Self-Reliance	-.19	-.28*	-.27*	-.29*	-.18
Primacy of Work	.19	.17	.15	.32**	.19
Heterosexual Self-Presentation	.10	-.15	-.05	-.05	-.25*
CMNI Total	-.13	-.33**	-.30*	-.10	-.33**

Note: * < .05, ** < .01

Discussion

In this study, conformity to masculine norms was correlated with a number of personality characteristics associated with intellectual engagement. Although a number of qualitative studies have documented the pressures on male students to disregard academic and intellectual pursuits in the school setting (Jackson & Dempster, 2009; Morris, 2008), the current study provides quantitative evidence of a link between conformity to masculine norms and intellectual engagement among a diverse sample of men in the United States.

Conformity to Masculine Norms

In this study it was predicted that greater conformity to masculine norms would be negatively correlated with intellectual engagement. This prediction was partially confirmed. Conformity to masculine norms (CMNI) was significantly correlated in the expected direction with three of the five intellectual engagement constructs, including Openness to Experience, Intellectual Complexity, and Love of Learning. Openness to Experience was negatively correlated with the total conformity to masculine norms score as well as the Power over Women and Self-Reliance subscales. Intellectual Complexity was negatively correlated with Total Conformity as well as with Emotional Control, Power over Women, and Self-Reliance, and Love of Learning was negatively correlated with Emotional Control, Power over Women, and Heterosexual Presentation. In addition, a fourth intellectual engagement construct – Curiosity - although not correlated with the total Conformity score, was negatively correlated with Emotional Control, and Self-Reliance. Of all of the CMNI subscales, only one was positively correlated with any of the intellectual engagement constructs. The subscale Primacy of Work was positively correlated with Curiosity.

Taken as a whole, these results highlight possible connections between conformity to masculine norms in the United States and lack of intellectual engagement. As predicted, men who endorsed greater conformity to masculine norms demonstrated lower intellectual engagement. The consistent correlations between conformity to masculine norms and lack of intellectual engagement may highlight the potential costs of conformity for men. Similar to the costs of conformity to masculine norms for physical and mental health (Addis & Mahalik, 2003), conformity to certain masculine norms may be associated with a devaluing of intellectual dispositions such as openness to experience, intellectual complexity, and love of learning. The current study is a correlational study, so we cannot say which variable caused the other, or if there was in fact another that may be related to both conformity to masculine norms and the intellectual variables. But these findings do provide evidence that conformity to masculine norms is related to lack of intellectual engagement.

Similar to the findings of Kahn et al. (2011), there were certain norms that were more strongly related to the various intellectual engagement constructs. Overall, as predicted, conformity to masculine norms (as measured by the CNMI Total score) was significantly negatively correlated with Openness to Experience (-.33), Intellectual Complexity (-.30), and Love of Learning (-.33). However, certain norms were more important than others. For example, the norms of Emotional Control, Power over Women, and Self-Reliance were negatively correlated with three of the five intellectual engagement constructs (See Table 2). Future research is needed to determine whether the relationship between conformity to masculine norms and intellectual engagement is primarily rooted in these three dimensions of conformity, or if other dimensions also connect to lack of intellectual engagement.

Although almost all of the correlations between conformity to masculine norms and intellectual engagement were negative, one scale - Primacy of Work - deviated from this pattern and was related positively to intellectual engagement. Primacy of Work was positively correlated with Curiosity (.32), indicating that men who conformed to the norm of valuing work were more likely to demonstrate curiosity. This positive correlation may indicate that some masculine norms may in fact be adaptive for intellectual engagement and possibly educational achievement. Future research exploring both the negative and possible positive dimensions of various types of conformity to masculine norms would be helpful. As Mahalik (2003) noted, not all masculine norms are negative, and some in fact could be adaptive in some situations.

Limitations and Future Directions

A number of limitations should be considered when evaluating the results of this study. First, although the sampling process using Amazon Turk could be considered a strength of the study (e.g. broad age range, more diverse than typical convenience samples of college undergraduates), it could also be viewed as a limitation considering the potential characteristics of the participants. The sample was highly educated, with approximately 63% of the respondents reported a bachelor's degree or higher. Second, the instruments used to measure intellectual constructs, although valid and

reliable, were shorter than some of the other, more extensive personality measures available. Future research using more in-depth measures of personality would help further illuminate the possible connections between masculinity and personality.

Although this study does not directly address the issue of gender differences in academic achievement, the results do point to possible links between various masculine norms and anti-intellectual attitudes that may eventually affect academic achievement. Developing a better understanding of how conformity to masculine norms might impact intellectual engagement seems promising for unwrapping the possible impact of masculinity ideologies on academic experiences. Von Stumm, Hell, and Chamorro-Premuzic (2011) argued that “intellectual curiosity” (or “the Hungry Mind”) is the third pillar of academic performance, with intelligence and effort as the first two. The constructs measured in the current study are largely similar to the broader construct of “intellectual curiosity” and therefore help illuminate the possible achievement difficulties confronting men with low intellectual engagement. The current results – from a diverse sample of adult men – provide a preliminary marker for identifying possible relationships between aspects of masculinity conformity and intellectual engagement. Future studies of students in various academic settings would be useful for testing the generalizability of these results.

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