QRBD

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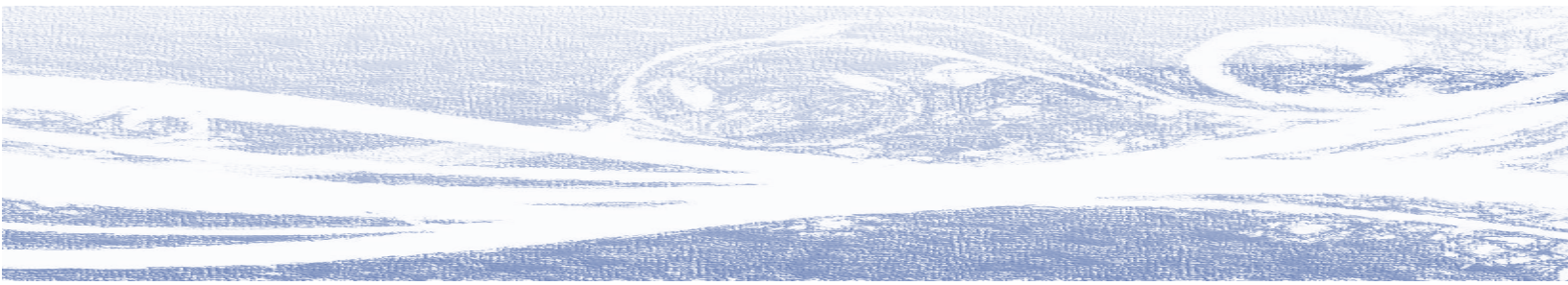

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FROM THE EDITORS

This issue of *Quarterly Review of Business Disciplines* allows us insight into the role of narcissism in discussing diversity, the examination of techniques to mitigate misinformation on social media, understanding gossip in work organizations from an evolutionary perspective, and how employees' perceptions of a leader's interpersonal communication competence correlate with job satisfaction and motivation.

The role of narcissism is authored by Vance Johnson Lewis, Malcolm North, and Steven Schlachter of University of Central Arkansas. Thomas Hayes, New Jersey Institute of Technology, and Richelle L. Oakley, University of North Georgia, examine the techniques to mitigate misinformation on social media. Charlie Yang, Southern Connecticut State University together with co-authors Robert Minjock, Bernard Voss, and Stephen M. Colarelli, Central Michigan University, join forces to examine gossip from an evolutionary perspective. Brookney J. Delgado and Charles A. Lubbers, University of South Dakota, investigate employees' perceptions of leader's interpersonal communication competence.

We invite you to take time out of your busy COVID-19 filled lives to explore the articles as written by the authors and open your minds to new ways of thinking and perceiving the world around us.

Margaret A. Goralski, *Quinnipiac University,* Editor-in Chief
Charles A. Lubbers, *University of South Dakota,* Associate Editor

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The *Quarterly Review of Business Disciplines (QRBD)* is published by the International Academy of Business Disciplines in February, May, August, and November.

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OTHER THAN ME?: THE ROLE OF NARCISSISM IN DISCUSSING DIVERSITY

Vance Johnson Lewis, University of Central Arkansas

Malcolm North, University of Central Arkansas

Steven Schlachter, University of Central Arkansas

ABSTRACT

Much discussion has recently been placed not only on the role of diversity but also narcissism in both organizations and society as a whole. The purpose of this study was to determine the relationship between narcissism and an individual's thoughts, opinions, and attitudes on diversity. Given that narcissism, by definition, causes an inward focus, the study sought to understand how this inward facing trait affects the outward facing issue of diversity. Framed within self-verification theory, we used a mixed methods approach to investigate individual expressions of diversity and their relationship to levels of narcissism. Seventy-two participants completed the Narcissistic Personality Inventory and an essay expressing their views on diversity. Linguistic analysis was conducted to determine if expressions of diversity were predominantly prosocial or proself. Results indicated that narcissism is related to expressions of diversity. Prosocial expressions correlated positively with positive expressions of diversity and correlated negatively with proself expressions. Implications and suggestions for future research are discussed.

Keywords: Diversity, Narcissism, Identity, Personality, Mixed-methods

INTRODUCTION

> There are two kinds of people in the world, those who believe there are two kinds of people in the world and those who don't. (Robert Benchley)

Workplace trends indicate that workplace diversity has been steadily increasing for quite some time (Cox, Lobel, & McLeod, 1991; Williams & O'Reilly, 1998). Given this shift, scholars have attempted to uncover how diversity affects organizational outcomes (McKay & Avery, 2015) along with what factors affect how diversity is defined within the organization (e.g. Katz & Miller, 2016). Just as emphasis on diversity has increased, so too has the focus on the "dark side" of society, particularly in conjunction with narcissism. While a myriad of studies have been offered investigating narcissism's impact on today's organizations, narcissism's role in defining diversity has not been explored. This paper aims to fill this gap by investigating the associations, if any, between narcissism and an individual's thoughts, opinions, and attitudes on diversity in organizations.

REVIEW OF LITERATURE

Narcissism

While the historic foundation of narcissism stems from the Greek mythological character Narcissus, one so in love with himself that he died transfixed by his own image in a pool of water (Brunell et al., 2008), the modern definition of narcissism describes someone who is charming, with high self-esteem and interpersonal skills, confident (perhaps overly), dominant, and extroverted yet is also aggressive, entitled, unempathetic, exploitive, and unable to take criticism (Campbell, Hoffman, Campbell, & Marchiso, 2011). First introduced in the psychological realm in the early 1970s (Arthur, Woodman, Ong, Hardy, & Ntoumanis, 2011), on the clinical level, narcissism is defined as a personality disorder in which one shows a continued pattern of need for admiration and a lack of empathy for others (APA, 2013). Scholars estimate between 1% and 2.2% of the U.S. population exhibits narcissistic characteristics (Sosik, Chun, & Zhu, 2014; Brunell et al., 2008). On the subclinical level, narcissists are described as being excessively confident with a desire for authoritative roles while demonstrating a disregard for others (Campbell & Foster, 2007). While clinical narcissism is defined though psychological diagnosis, subclinical narcissism is seen as a universal trait appearing in most individuals on a continuum as everyone registers some levels of narcissism (Coutu, 2004; Foster & Campbell, 2007; Miller & Campbell, 2010; Wales, Patel, & Lumpkin, 2013), ranging from mild to severe (Foster & Campbell, 2007; de Vries & Miller, 1985).

The study of narcissism has been primarily related to leadership functions (e.g. Brown & Trevino, 2006; de Luque, Washburn, Waldman, & House, 2008), mostly negative (Judge, LePine, & Rich, 2006; de Vries & Miller, 1985), as those in leadership positions are usual found to have at least moderate to high levels of narcissism (Mccoby, 2000; Rosenthal, 2006; Vogel, 2006). While there has been a strong presence of narcissism in works of mythology and fiction (e.g., Lauwers, 2009; Wright, 1980), along with the afore mentioned area of leadership, few studies to the researchers' knowledge have investigated the relationship between narcissism and emotional expressions and fewer still have addressed the relationship between narcissism and expressions of diversity. As research has shown that one's use of words can provide an invaluable means of assessing behavioral, emotional, and cognitive processes (Pennebaker, Mehl, & Niederhoffer, 2003), this study provides understanding of how narcissists express their thoughts and opinions on diversity, with particular significance in relation to the word choices and syntax used to discuss diversity. Specifically, this study performs linguistic analysis on terminology, syntax and phraseology to see if the use of prosocial language (positive social reflections of diversity regarding difference and acceptance in others) or proself language (ego-centered language) dominates in those with higher levels of narcissism.

Diversity

Historically, there has been evidence of traits predicting attitudes towards diversity. Previous investigations of traits included Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950) who through the authoritarian personality (TAP) argued that prejudices and hatred towards out-groups (such as religious and ethnic groups) was driven by internal stimuli (Stone, Lederer, & Christie, 2012). Research has related the authoritarian personality to prejudice (Lutterman & Middleton,

1970; Roberts & Rokeach, 1956), right-wing extremism, and negative attitudes about women and immigrants (Oesterreich, 2005).

Inspired and founded by the roots of TAP, Altemeyer (1981, 1988) refined a new construct, the Right-Wing Authoritarianism (RWA), a belief held by people that causes them to fear out-groups due to the threat they pose to the values the individual holds, which they often believe to be more moral and absolute. They tend to socialize with individuals that have highly similar belief systems and recite rhetoric that tends to be ethnocentric (Altemeyer, 1988). Years later came the development of Social Dominance Orientation (SDO), or the "extent to which one desires that one's in-group dominate and be superior to out-groups" (Pratto, Sidanius, Stallworth, & Malle, 1994, p. 742).

With the rise of the Five Factor Model of personality (e.g., Big Five) (Costa & McCrae, 1992; McCrae & Costa, 1987), a new option for diversity analysis was available. Initial findings suggested a connection between the prosocial constructs of openness to experience and the agreeableness dimensions with prejudice (Ekehammar & Akrami, 2003) – a finding that was repeated in a meta-analysis conducted by Sibley and Duckitt (2008). More precisely, as suggested by Duckitt (2001), the meta-analytic results indicated that Social Dominance Orientation (SDO) and Right-Wing Authoritarianism (RWA) mediated these relationships, consistent with previous large-scale investigations of all three phenomenon (Ekehammar, Akrami, Gylje, & Zakrisson, 2004). While we are not specifically focused on the Big Five, SDO, TAP, or RWA, an overall conclusion of this research is that there is evidence that personality can affect one's views on social and organizational diversity. Given that narcissism is a trait of personality with few prosocial attributes, we questioned whether it may have a relationship to an individual's views on diversity.

How an individual mentally defines diversity may also affect their perception of its value and there is evidence that individual and contextual factors can affect this conclusion. In their comprehensive definition, Bassett-Jones (2005) defined diversity as encompassing a range of differences in ethnicity/nationality, gender, function, ability, language, religion, lifestyle or tenure. Additionally, diversity in the workplace includes more than the demographic elements of the employees; rather, it encompasses differences in culture and intellectual capability. Research has suggested that different forms of diversity may differentially affect organizational outcomes as a function of their job-relatedness (Pelled, 1996).

At its broadest, "a group is diverse if it is composed of individuals who differ on a characteristic on which they base their own social identity" (O'Reilly, Williams, & Barsade, 1998, p. 186). To some, diversity may bring forth images of phenotype identity groups, which are individuals that have physical markers that distinguish them from other groups (e.g., gender, ethnicity), and includes terms such as demographic diversity (Cox, 1994; McGrath, Berdahl, & Arrow, 1995) and ethnic diversity (King et al., 2011). Others may consider culture identity groups which relate to sociocultural differences, such as individuals who share norms and values (Cox, 1994). Some scholars have expressly explored cross-functional diversity, which is the inclusion of team members from different functional areas in an attempt to increase the type of perspectives used in design and reduce issues not foreseen by a group that is siloed from others (Keller, 2001).

Other characteristics, including personality and functional background, have even appeared in the diversity literature (Roberson, 2006). Organizational programs, such as affinity groups or employee resource groups, have expanded to include veterans and single parents (England, 2016). A conclusion might be that one's actual definition of diversity may relate to the literature or context it is used in. Practitioner research, for example, was particularly broad in its definition so as to "limit potential resistance from dominant groups" and included both "classical diversity axes such as race, gender, and disability" with "others such as age, corporate background, education, and personality" (Zanoni & Janssens, 2004, p. 56). Diversity defined in handbooks of organizational behavior, on the other hand, are particularly narrow in their definition and tend to focus more specifically on demographic characteristics only. Research has even suggested that different forms of diversity may differentially affect organizational outcomes as a function of their job-relatedness (Pelled, 1996). Finally, individuals may consider diversity as a synonym or euphemism for other language. Ahmed (2007), in a discussion with practitioners, found that diversity had emerged as a replacement term used in universities since words such as equality and equity had become overused or lost their influence.

Outside the academic and practitioner literature, qualitative investigations have asked individuals to define diversity in their own words. Bell and Hartmann (2007) broached conversations by asking individuals "what does diversity mean to you?" and discovered that respondents fell into two general camps. The first group defined diversity by offering definitions and often engaged in list-making where they dictated what social differences constitute diversity (e.g., racial background, political differences, theological differences, gender, religion, parenting style, etc.). The other group saw diversity as equivalent to a moral imperative – a call to accept everyone regardless of their differences. Regardless of the type of answer provided, the researchers observed that generally everyone was particularly "upbeat" or positive about the term diversity. However, when pressed to provide concrete examples or expand on their views, individuals had difficulty finding the right language to communicate. In addition, even before being prompted, they were often quick to caveat their positivity by talking about the concerns or threats that diversity offered.

In uncovering this language, it was clear that some individuals viewed diversity as a real threat to national unity and a catalyst to misunderstandings, especially if there was "excessive diversity." While this conversation about how diversity is defined may seem tangent to the research question at hand, what it does demonstrate is that taken together, the variation in the definitions of diversity suggests that diversity is not a uniform construct but rather partially defined by one's own belief systems and their context; thus, different personality traits may affect perceptions of diversity and its place in organizations. Finally, how individuals view diversity in organizations may also be influenced by their beliefs about what roles organizations should play in the process. Some scholars have argued that organizations have a moral obligation to ensure that individuals are treated equitably at work (Doherty & Chelladurai, 1999). Other research has attempted to stress the business case for successfully managing diversity in affecting organizational outcomes such as cost and profitability (e.g., Cox & Blake, 1991). In these situations, it is not just about increasing the quantity of diversity in an organization, but rather leveraging the experiences of being a diverse organization to complete organizational work (e.g., Thomas & Ely, 1996). At times, individuals use both arguments (Ahmed, 2007) and are seen as complementary (Leonard, 2018). Strong moral convictions about the societal importance of diversity in organizations may alleviate any concerns

that accompany research that links greater heterogeneity in organizations with group cohesiveness (Keller, 2001) or social divisions (Mannix & Neale, 2005).

When viewed as a collective knowledge, the views on diversity can be summarized into two basic premises. First, diversity is something that is open to interpretation based on the individual characteristics and circumstances of the perceiver. Second, because diversity is a function of individual thought, traits of the individual can affect the perceptions and articulation of diversity. An interesting question arises from the intersection of considering narcissism as an individual trait and diversity as a social construct. Based on this foundation, the following research question was asked:

> *RQ: What is the relationship between narcissism and individual thoughts, opinions, and attitudes towards diversity?*

DEFINITION OF TERMS

Along with the previous discussions of narcissism and diversity, two other terms in this study warrant clarification. Within this study, prosocial behaviors are those which work to protect or promote other individuals, groups, and organizations (Brief & Motowidlo, 1986). Proself behaviors inversely are behaviors in which the individual's well-being is placed above the well-being of others (Joireman & Duell, 2005), which naturally includes the trait of narcissism and acts of egocentrism.

THEORY AND HYPOTHESIS

Though limited, previous research has investigated some aspects of the language of narcissists. Generally regarded as the first research on the topic, Raskin & Shaw (1988), investigated the use of personal pronouns in connection with narcissistic levels. In the experiment, participants were asked to speak for five minutes on any topic they selected, with transcriptions then being analyzed for first person pronoun use, introduced as "I-Talk". The results of the study showed a relationship between narcissism and first-person pronoun use but not between second or third-person voice nor with the personality traits of locus of control, extroversion, and neuroticism. When present, I-Talk is more associated with males than females (Fast & Funder, 2008). While Amernic & Craig (2007) assert that narcissistic language features excessive use of "I" and "My", other researchers have not found this to be true. In their large scale language analysis consisting of 15 different sampling populations, Carey et al. (2015, p. e9) found "a near-zero effect" between narcissism and I-Talk. While investigating the everyday behaviors of narcissists, Holtzman, Vazire, and Mehl (2010) found little evidence to connect narcissism and I-Talk.

The use of language by narcissists has been observed in a few other settings, again with some conflicting results. While studying the relationship between Twitter posts and the Dark Triad of personality (narcissism, Machiavellianism, and psychopathy), Sumner, Byers, Boochever, and Parks (2012) found no significant relationship between narcissism and the use of swear words nor anger language; however, Golbeck (2016), again analyzing Twitter posts, found that those with high narcissism scores were significantly more likely to use swear words and anger language. This same study found an inverse relationship between narcissism and the use of positive emotions

when discussing human interactions. Narcissists have also been shown to use higher levels of sexual language (Holtzman, et al., 2010).

Narcissism is an aspect of personality which is inexorably tied to one's concern for the manner in which others view them. As posited by Swann, Self-Verification Theory "proposes that people prefer others to see them as they see themselves, even if their self-views happen to be negative" (2011, p. 23). Remembering that at their core, narcissists view themselves as superior to others (APA, 2013; Campbell & Foster, 2007), despite perhaps having a fragile sense of self (Kernis, Cornell, Sun, Berry, & Harlow, 1993), narcissists are likely to define others in a manner consistent with maintaining their superior self-view. Because individuals seek to stabilize their opinion of themselves, once the self-viewpoint has been formed, they are likely to seek and embrace situations in which their self-view is reinforced and avoid situations which challenge them (Wiesenfeld, Swann, Brockner, & Bartel, 2007). As narcissists view themselves as superior to others, their views on diversity, which requires the embracement of others, is likely to be expressed in a negative manner.

When considering this self-verification, it is important to remember that narcissists are extremely critical of others and create enemies where there are none (Glad, 2002; Harwood, 2003; Morf & Rhodewalt, 2001; Wink, 1991), expecting perfection from others (Stoeber, Sherry, & Nealis, 2015), and a willingness to exploit others for their own betterment (Lubit, 2002). They view themselves as more intelligent than others (e.g. Campbell, Bosson, Goheen, Lakey, & Kernis, 2007; Campbell, Rudich and Sedikides, 2002; Gabriel, Critelli, & Ee, 1994) and are willing to speak poorly of others to maintain their self-image (Campbell, Reeder, Sedikides, & Elliot, 2000). Despite the narcissists continual need for social status (Benson, Jordan, & Christie, 2016) and admiration from others (Kohut, 1971), their views might best be shaped by the viewpoint that life is a competition in which there can only be one winner (Raskin, Novacek, & Hogan, 1991). The ego-centric nature of narcissism contrasts with the social concerns of diversity, prompting the following hypotheses:

> *H1: There will be positive associations between narcissism scores and the use of ego-centric language when discussing diversity.*
>
> *H2: There will be negative associations between narcissism scores and the use of pro-social language when discussing diversity.*

METHODOLOGY

Participants

Participants in this exploratory study were 72 students of business communications at a mid-sized university in the southern United States. Participants received course credit for their participation in the exercise. Participants ranged in age from 17 to 42, with a mean age of 22. The gender was split equally (male = 36; female = 36) with 26.4% being African American (females = 12; males = 7), 64.3% being white (female = 22, male = 25) and 8.4% as Hispanic, Latino, Asian or other (female = 2, male = 4).

Data Collection

Participants completed two surveys at two differing points in time. Utilizing Qualtrics, participants were first asked to complete the 40 item Narcissistic Personality Inventory (Raskin & Terry, 1988) along with some basic demographic questions (age, race, gender, college major). Because we wanted to provide context for the diversity related questions that followed, one week later participants were given an original case study authored by the research team which discussed the issue of diversity after which they were asked to respond to two questions related to diversity (see appendix). Participants submitted their essays electronically at which time they responded to the question "Do you think you are a narcissist?". Responses were analyzed using IBM SPSS and LIWC software.

Narcissistic Personality Inventory

Participants were administered an electronic version of The Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988) which presents 40 pairs of statements to which participants indicate to which statement they more agree. Each pair of statements contains one item which corresponds to one of seven sub-scales: three lower-order factors (authority, self-sufficiency, superiority) and four high-order factors (exploitiveness, exhibitionism, entitlement, and vanity). In each pair, the statement representing the narcissistic statement is assigned the number 1 and the other the number 0. A total score, which can range from 0 to 40, is created from totaling the responses. An example of a pairing would be, "I can read people like a book", and, "People are sometimes hard to understand". Scores from the NPI totals and subscales produced continuous data. These were then transformed to produce a categorical variable with three identifying levels: normal level (1-16), low-level (17-23) and high-level narcissism (24-40) to test for associations. The reliability of the NPI was measured with Cronbach's alpha, $\alpha = .858$ (Table 1).

Linguistic Inquiry and Word Count Software

The most recent edition of the Linguistic Inquiry and Word Count (LIWC) (Pennebaker, Boyd, Jordan, & Blackburn, 2015) was used to analyze the essay responses. The standard LIWC 2015 dictionary set was used to examine the essay responses from 72 participants regarding their thoughts, opinions and attitudes towards diversity. The standard dictionary contains more than 100 categories of words and syntax to analyze motives, expressions, and emotions in an objective measure (Tausczik & Pennebaker, 2010). While the full dictionary set was used, of particular interest were expressions that conceptually associated with ego-centric use ("I", "me", and "my" personal pronoun use) and terms that may associate with narcissism (e.g., achievement, power, risk) and expressions of prosocial language (affect, affiliation, social).

RESULTS

To study if associations existed among the demographic variables, narcissism and expressions of diversity, the researchers ran several Pearson product moment correlations. Initial Pearson correlations between the 40-item NPI questionnaire and the texts analyzed with the full dictionary set of the LIWC revealed two broad associative trends. Language that could be associated with the prosocial construct of diversity had negative correlations with narcissism, while language

consistent with proself characteristics were positively correlated (Table 1). These small to medium correlations indicated that a general trend consistent with our hypothesis existed; however, more analysis was needed to understand the nature, difference and effect of the associations in the sample. Correlations for the seven factors of narcissism and total scores of the NPI indicated that the sample showed dominate levels of entitlement (r = .741), authority (r = .714), and exhibitionism (r = .693) over the higher-order narcissistic qualities of exploitation (r = .593), and vanity (r = .575) (Table 2). While this supports previous research that found high correlations between entitlement and college samples (i.e. Ciani, Summers, & Easter, 2008), few significant correlations were found among the categorical variables, narcissism and expressions of diversity. To explore these correlations, we analyzed the data with chi-square and eta-square tests of association.

Table 1. Exploratory correlations between the NPI-40 questionnaire and texts analyzed with the full dictionary set of the LIWC

	NPI items
Prosocial Variables	
Affect	-.444*
Affiliation	-.282*
Social	-.235*
Individual Proself Variables	
Power	.293*
Achievement	.266*
Drive	.278*
Risk	.315*

Note. N=72 NPI =Narcissistic Personality Inventory 40-questionnaire items. *p<.05, **p <.001

Table 2. Mean, standard deviations, and correlations for narcissism subscales and total scores.

	M	*SD*	*r* NPI-40
Subscale of NPI-40			
Authority	5.13	2.20	.714**
Self-Sufficiency	2.72	1.57	.587**
Exhibitionism	1.90	1.69	.693**
Superiority	2.23	1.40	.621**
Exploitive	2.05	1.46	.593**
Vanity	1.25	1.03	.575**
Entitlement	2.04	1.63	.741**
Self-Appraisal	1.81	.398	-.250*
Cronbach's Alpha NPI			.858

Note. N=72, *p<.05, **p <.001

We first analyzed the presence of associations among levels of narcissism and participants' self-appraisal of narcissism. While 18% self-reported as narcissists, performance on the NPI indicated a different story with over 38% of respondents showing levels a narcissism above normal levels with 26.4% indicating low-level narcissism and 12.5% indicating high-level narcissism.

Consistent with the current literature on narcissism (e.g. Bushman & Baumeister, 1999; Young & Pinskey, 2006), males showed greater proportion than females in the high-level narcissism group (males = 7; females = 2); however, this trend was slightly reversed in the low-level group (males = 8, females = 11) and normal level group of narcissism (males = 21, females = 23). While this is interesting, a chi-squared test of independence showed this was not a statistically significant difference between gender and narcissism levels (x^2 = 3.342, p =.188). To measure association between categorical and the continuous measures, we tested the strength of associations and size effect using eta-squared. Eta associations (η) and eta-squared (η^2) effect sizes between narcissism and prosocial expressions indicate that affect (η=.290, η^2=.08), social (η =.230, η^2=.05), and affiliation (η =.185, η^2 = .03) revealed small to medium effects explaining less than 10% of the variance in these variables. Eta associations (η) and eta-squared (η^2) effect sizes between narcissism and proself or ego-centric expressions of power (η =.201, η^2=.04), risk (η =.337, η^2=.11), and achievement (η =.265, η^2=.07) had small associations explaining up to 11% of the variance. Eta associations (η) and eta-squared (η^2) effect sizes between gender and the individual dimensions of narcissism were authority (η =.404, η^2 = .16), and exhibitionism (η =.398, η^2 = .15) for medium effect, self-sufficiency (η =.217, η^2 =.047), entitlement (η =.267, η^2 = .07), exploitation (η =.266, η^2 = 0.7), superiority (η =.304, η^2 = .09), and vanity (η =.242, η^2 = .058) for small effect (Table 3).

Table 3. Associations and Effect sizes for Categorical variables

	η	η^2
Narcissism subscales & Gender		
Authority	.404	.16
Self-Sufficiency	.217	.04
Exhibitionism	.398	.15
Superiority	.304	.09
Exploitive	.266	.07
Vanity	.242	.05
Entitlement	.267	.07
Narcissism levels & LIWC		
Prosocial		
Affect	.290	.08
Social	.230	.05
Affiliation	.185	.03
Proself		
Power	.201	.04
Achievement	.201	.04
Risk	.265	.07

Eta Squared tests of association *η and effect size* η^2

In comparing gender differences in narcissism by a simple *t* test, males consistently presented with higher levels across all factors except for vanity (males 1.11 ± .99; females 1.39 ± 1.0) with a mean difference of .27, $t(70)$ =1.145, p= .256. We conducted an independent-samples *t* test to compare self-appraisal of oneself as a narcissist was significant among the seven factors of narcissism.

Males self-reported higher levels of exhibitionism (2.61 ± 1.70) compared to females (1.53 ± 1.44) which was statistically significant $t(65) = .951$, $p = .023$, $d = .48$ for a medium effect size.
These findings generally support our hypothesis that associations between narcissism and expressions of diversity exist. As expected, language used to describe diversity positively correlated with prosocial expressions and negatively with proself. The largest correlations occurred with low-order narcissism traits where the nature, effect and size of associations revealed that males present with narcissistic traits more than females with exhibitionism explaining a sizeable 48% of the narcissistic trait in males.

DISCUSSION AND FUTURE RESEARCH

The purpose of this descriptive and exploratory study was to first establish if a relationship between narcissism and individual thoughts, opinions, and attitudes towards diversity existed. Though limited, previous research led the researchers to believe that some type of relationship would exist and thus the ego-centric nature of narcissism would affect any such relationships. Results indicated that indeed a relationship did exist with further analysis confirming a positive relationship between narcissism and the use of proself language and a negative relationship between narcissism and the use of prosocial language.

The positive associations with narcissism levels and proself variables within the diversity discussions warrants further investigation. While the areas of "power" and "achievement" may not be particularly unexpected, the emergence of "risk" within the diversity articulation is not only surprising but perhaps an alarming manifestation of self-verification (Table 1). Remembering the connections between narcissism and leadership (Mccoby, 2000; Rosenthal, 2006; Vogel, 2006), the emergence of significant patterns of prosocial variables in relation to diversity could be indicative of an incompatibility of narcissism with the embracement of diversity. While the role of diversity within the organization has been positively linked directly or indirectly to group performance (Pitts, 2009), organizational commitment (Findler, Wind, & Barak, 2007), technical quality (Keller, 2001), and job satisfaction (Findler et al., 2007; Pitts, 2009), there could be a potential link between narcissism and negative effects of diversity such as decreased cohesiveness (Keller, 2001), higher team turnover (Jackson et al., 1991), and lower levels of psychological attachment to the organization (Tsui, Egan, & O'Reilly, 1992). Future research should most certainly use narcissistic views toward diversity as a tool in better understanding organizational diversity as a whole and how best to encourage embracing diversity within an organization.

As previous research has been conflicted on the role of narcissism in the use of I-Talk, little expectation was held in relation to narcissistic level and use of personal pronouns in the current study. Still, even without the use of I-Talk, a positive correlation with proself language and narcissism was found. This finding is indicative perhaps of a more covert manifestation of narcissism and the self-verification process. Remembering that once narcissists form their self-image, they embrace situations in which they can reinforce those self-concepts (Wiesenfeld et al, 2007), it is more advantageous to discuss other individuals in a manner which is derogatory thus creating the self-image rather than making continual self-references to define the diversity situation. Alternately said: *this is not about me…I am fine; it is about you*.

Though not particularly central to the current study, the disparity between one's self-declaration of narcissism and the outcomes of their NPI assessment is most interesting. First, given the relatively low number who felt they are narcissistic, although it was asked in a yes/no manner, is indicative that the clinical definition of narcissism is more commonly used on a daily basis than the subclinical continuum. Second, one of the commonly held beliefs is that for psychometric testing to be valid, the participant must not be informed of the testing measure lest they attempt to employ impression management techniques. An interesting follow-up to the findings of this study might be: 1) administer the NPI, 2) ask participants to declare if they feel they are narcissistic, and 3) re-administer the NPI informing the participants that their narcissism level is being tested. Though this serves as just one example, further investigation into one's self-perception of narcissism and their psychometrically proven narcissism is warranted.

Finally, given the college student population used for this study, it was not particularly surprising that exhibitionism was found to have a high level of self-reported narcissism, more so in males but still present in females. This finding is very much in keeping with investigations into traditional college students regarding narcissism (i.e. Ryan & Xenos, 2011). Of much surprise, however, was the high level of authority which was exhibited. With regard to college age students, it would be of interest to learn more about the basis on which authoritative viewpoints are formed.

The results of this study supported both the research question and hypotheses; however, the study itself may have been limited by the population and setting. Using college students, the variability of age and life experience may have been limited. Also limiting might have been the manner in which the data itself was collected. Though the questions asked did afford the participants some latitude in their discussion approach, it is possible that the case study itself might have overly directed the participants toward a certain type of answer. A replication of this study would be well served to use a random sampling method as well as a more open-ended method, not unlike the method used by Raskin and Shaw (1988) which simply asks "How do you define diversity?".

Using the findings of this study, the research team plans to conduct a second study which takes the word patterns found through the qualitative aspects of this study to conduct a quantitative study. Again, using random sampling, participants will be administered the NPI short form (Ames, Rose, & Anderson, 2006) and asked to rank order the dictionary word found in this study to define diversity. Through this method, more direct correlations between narcissism and diversity words can be drawn and the potential for external variability can be controlled.

CONCLUSION

Today's society continues to experience both higher attention to and embracement of diversity as well as continues to find higher and higher levels of narcissism from those who are expected to embrace diversity. Our study found that narcissism plays a significant role in the manner in which individuals define diversity. Given the findings of this study, further research into how diversity is defined not just by narcissism but a myriad of other personality traits is warranted within diversity studies and organizational behavior.

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APPENDIX

Case study

Please consider the following case study which explores some recent events involving diversity. Consider how you would react if you worked for one or all of the companies mentioned. Ask yourself if you agree or disagree and think about how your own experiences and education have shaped your worldview. Following the case study are three questions to which you are asked to respond. For questions #1 and #2, please offer discussions of 150 to 200 words each which explores your thoughts prompted by the question. THERE ARE NO RIGHT OR WRONG ANSWERS so please feel the freedom to answer the statements as YOU feel appropriate.

Google, Diversity, and You

The idea of diversity within organizations is certainly not a new concept; however, how the idea of diversity is manifested within organizations still proves to be complicated and controversial. In August of 2017, James Damore, an engineer with Google, offered a 10-page internal memo in which he argued that certain biological differences play a role in the shortage of women in both leadership positions as well as technologically based positions and that Google's efforts for diversity are "highly politicized." Other prominent companies such as Uber and Facebook have also recently faced criticism for how they address diversity within their organization. Google (with Damore specifically), Uber, and Facebook have all terminated employees, both in leadership and supporting roles, for not "embracing" diversity.

According to the article "Corporate Diversity Programs in 2017: What's Working and What's Not" published by global consulting firm Aperian Global, most companies have some type of diversity statement, produce researched diversity reports, and offer some type of incentives for diversity and equal opportunity in hiring practices. With this debate about the approaches to the issue of equal opportunity has thus evolved a question: "is research and definition of the problem a strong first step, or should organizations be more focused on taking direct action?"

One company that seems to have addressed the issue of diversity successfully is global health care product manufacturer Johnson & Johnson. After a perfect rating from *Diversity, Inc.*, Johnson & Johnson developed their online Diversity University which provides diversity-related resources, cultural awareness training tools, and classes that introduce the concepts, personal benefits, and business advantages of diversity. As offered by Dr. Martin Fitchet, Global Head of Research and Development, "Diversity is an essential part of the answer to the challenge of innovation. We have to be open to different ways of thinking about what qualities we want to be diverse: diversity of identity, diversity of age, diversity of outlook." To date, 43% of management positions at Johnson & Johnson are held by females.

Not all companies have been as success full as Johnson and Johnson in addressing diversity and some still feel the efforts are unnecessary. As offered by Aperian Global, using material from the *Journal of Personality and Social Psychology*, the number of workers who represent specific groups is indicative of the company's actual commitment to and understanding of diversity. While many companies implement diversity training programs, research has shown that doing so can actually cause feelings of alienation from groups who are not the focus of the training. "Many companies focus on specific diversity initiatives, such as expanding racial diversity in the workplace or bringing women into leadership and tech positions. However, true inclusivity must

also address the needs of LBGT workers, the effects of ageism, and other relevant issues" such as the perspectives of global employees and younger generation workers.

Questions:

Q1: Based on your thoughts, what role do you think diversity should play within an organization?
Q2: From an organizational standpoint, what effect do you think having a mandatory diversity program truly has on the individuals within the organization?

RELATED ARTICLES VS. SOCIAL ENGAGEMENT: EXAMINING TECHNIQUES TO MITIGATE MISINFORMATION ON SOCIAL MEDIA

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ABSTRACT

There is a great deal of interest in research that focuses on finding ways to control the spread of misinformation on social media networks. Prior research examined a social media network (SMN) feature called "related articles," which provide context directly under SMN posts with potentially misinformed content about controversial topics. Other research examined how SMN users were influenced by social interactions that occurred on a particular post. In this study, we examined how both features worked independently, and together, to reduce the spread of misinformation. Through an experimental survey administered to 112 respondents, we measured the effectiveness of these SMN features in correcting misperceptions of SMN users. Results indicated that related articles proved to be the best approach to mitigate misinformation, even when displayed in combination with social engagement features. We conclude the paper with a discussion of results and concluding remarks on the impact of our study to academia and practice.

Keywords : Social media networks, misinformation, mitigation techniques, related articles, social engagement, cybersecurity

INTRODUCTION

Mounting evidence indicates that social media networks (SMNs) have the potential to be weaponized for individual and societal harm. For example, the United States Intelligence Community (USIC), which is comprised of multiple federal agencies including the CIA, FBI, and NSA, released a joint statement with the Department of Homeland Security that implicated the Russian government in using SMN outlets like Twitter and Facebook to influence the 2016 presidential election with "information warfare" (Clark, 2018). Another incident is where the United Nations issued a citation to Facebook because the SMN was used to incite violence against the Rohingya minority group in Myanmar (Miles, 2018). These incidents surrounding the weaponization of social media echo patterns in history that show that the rapid expansion of public's ability to express itself can cause the fall of empires, wars, and even genocides (Goolsby, 2013; Hempel, 2016; Roose & Mozur, 2018).

The urgency of this study stems from the potential danger of US citizens becoming disenchanted from democratic norms such as voting or deciding whether to support a candidate for public office based off false information sources (Fuchs, Kenney, Perina, & VanDoorn, 2017). Advanced democracies like the United States are not immune from the kind of violence that SMN sparked in Myanmar either. In 2017, a similar incident happened in Charleston, Virginia in which SMN was used by hate groups to arrange rallies where dozens of people ended up being injured and one

woman was killed (Francie, 2017). To effectively mitigate conflicts that may arise from the wide adoption of SMN, major SMN platforms like Twitter and Facebook should implement tools that reduce the spread of misinformation. Hostile governments have disseminated misinformation on SMN to meddle in the affairs of other governments across the world, resulting in widespread societal division. The fabric of democracy itself may depend, if not to a large extent, on SMN companies accomplishing this task (Bennett & Livingston, 2018).

One solution that has promise is to simultaneously "swamp" SMN users with factual sources of information while being exposed to misinformation (Alemanno, 2018; Bode & Vraga, 2015). Studies have shown that providing more contextual information surrounding a controversial topic can mitigate misinformation and have a positive influence on the perceptions of respondents. We have also found studies that suggest that the presence of social interactions in the form of endorsements on SMNs can influence the preferences of SMN users when it comes to selecting news sources (Messing & Westwood, 2014). However, these prior studies do not examine the influence of input from other SMN users to correct misperceptions on the same platform when competing against the influence of the related articles feature. This study addresses this gap by examining SMN user behavior regarding misinformation in the presence of interacting with other SMN users, specifically examining the related articles feature, which shows information related to a controversial topic, and the social engagements that occur on a particular post.
This research aims to answer:

> *"How are social media network user perceptions of controversial information impacted by related articles and social engagements?"*

To address this question, we integrated Social Information Processing (SIP) Theory and Social Cognitive Theory (SCT) to test and understand the process of changing the perceptions and behaviors of SMN. Using an experimental survey, we tested the efficacy of two mitigation techniques aimed at reducing misinformation: related articles and social engagements.
The remainder of this paper is organized as follows. First, we briefly discuss existing research related to mitigating misinformation on social media. Second, we integrate SIP and SCT Theory to guide our examination of mitigation techniques and develop hypotheses. Third, we discuss the experimental survey methodology, including data collection and data analysis. Lastly, we discuss the results and conclude with the implications of our study for academia and practice.

THEORETICAL BACKGROUND

Alemanno (2018) detailed various approaches that could be implemented by government and social media companies to mitigate misinformation. He deduced that the most expedient measure would be for social media companies to provide context for factually dubious content on their platforms by offering related articles directly beneath the disputed content. Bode and Vraga (2015) examined this technique by attaching "related articles" to news articles outside the SMN platform whenever a controversial topic was posted. The study found that misperceptions were changed by exposure to corrective information within social media, i.e., corrective articles (related stories). However, their study strictly focused on the efficacy of using the "related articles" feature alone to correct misinformation. In this research, we tested the efficacy of the related articles feature to

correct misinformation within the context of SMN connections providing input on the controversial topic.

Messing and Westwood (2015) examined whether endorsements on social media websites increased the probability of SMN users selecting content. They found that SMN users were encouraged to consume more heterogenous Internet news sources when operating within a socialized environment. More specifically, the socialization of Internet news occurred when social media endorsements of content by 3rd party organizations, or by average SMN users were present. In this study, we adapted the concepts of social media endorsements and partnered it with the related articles approach to develop a more comprehensive approach to mitigating the spread of misinformation. Additionally, our study is guided by the concepts from two theories: Social Cognitive Theory, and Social Information Processing Theory.

Social Information Processing Theory

Social Information Processing (SIP) theory has been used extensively within information systems (IS) research to examine the role of computer-mediated communication (CMC) (i.e., interpersonal communication via electronic mediums) in shaping human behavior (Walther, 1992, 1996). For example, Gallivan et al. (2005) examined how employees adopt new information technology (IT) in both an individual and social context. The researchers found that individual factors surrounding an employee's adoption of IT were dwarfed by the social factors of SIP, specifically that "an employee's IT usage will be related to the level of his coworker's average IT use" (Gallivan et al., 2005). In this study, we used SIP to investigate how SMN users select content within the social context of a social media network.

There are three core elements in SIP: the sender, the receiver, and feedback. The sender refers to the person who presents themselves in an optimized manner to others via CMC (Walther, 1996). In our study, the sender is viewed as the news organization or an average user that posts a news story via CMC in the form of a social media network. In SIP, the receiver refers to the CMC message receiver who exaggerates their impression of the sender (Walther, 1996). In our study, the receiver is the SMN user that is exposed to a news story on a SMN. Lastly, in SIP, feedback refers to how the sense of intimacy that builds over time between the sender and receiver is amplified through a process called behavioral confirmation (Walther, 1996). In this study, feedback was used as the response of an SMN user (i.e., the receiver) to news stories posted on a SMN by 3rd party organizations or other SMN users (i.e., the sender).

Social Cognitive Theory

Social Cognitive Theory (SCT) has been used to examine how people learn new behaviors through the threefold influence of personal factors (i.e., cognitive, emotional, and biological), behavioral patterns, and environmental factors (Bandura, 2001). One of its main concepts is that people can learn new behaviors by observation in addition to direct experience (Bandura, 2001). The simplicity of this theory was demonstrated in a famous study known as "The Bobo Doll Experiment" (Bandura et al., 1963). Two separate groups of children were tasked with observing the behaviors of adults with a Bobo Doll. Based on their observations, the children learned to either physically attack or leave the Bobo Doll alone (Bandura, Ross, & Ross, 1963). This study

highlights the importance of social endorsements when individuals are learning new behaviors. Specifically, in the experiment, the adult made a social endorsement of hitting the Bobo Doll, and because of that social endorsement, the children replicated that same behavior. On social media networks, SMN users can be encouraged to select certain news content based on the presence of social endorsements by 3rd party organizations or by the SMN user's connections.

Another application of SCT involves examining how people with spinal cord injuries can enhance their amount of physical activity (Wilroy & Turner, 2016). Wilroy and Turner found that people with a strong foundation of social support were more likely to partake in physical exercise (Wilroy & Turner, 2016). This is due to the fact that observational learning, participants viewing others exercising and benefitting from it, had the effect of making the participants more likely to partake in the habit of exercise themselves (Martin Ginis et al., 2011). In this study, we examined how the role of social influence on SMNs can affect the perceptions of SMN users who are exposed to misinformed content.

RESEARCH MODEL

We developed a research model that examines the correlation between interactions on social media networks (SMN), and the presence of related articles under shared SMN content to mitigate the spread of misinformation. Our model includes three sets of variables that are all related to the dependent variable, which is feedback from SMN users exposed to the SMN posts. These include (1) the sender (news organization that shares content in the form of news stories); (2) social endorsements ("likes" from average users and organizations); and (3) the presence of related articles under social media posts to provide context to the news stories shared. We will now summarize the logic for each hypothesis in the model.

Our first hypothesis is based on the control group in this study, which will not receive any treatments (i.e., variable changes). Since treatments are generally considered more successful if subjects respond more favorably to variable changes than the control group, we assume:

> *H0 (control): SMN user attitudes on controversial topics do not change when shown misinformed content with no related articles or endorsements.*

The rest of our hypotheses address two groups of participants: those who hold no initial misconceptions about the controversial topics used in our survey, and those who have initial misperceptions about the same controversial topics used in our survey. The hypotheses for both groups of participants are based around three research questions:

> (RQ1) Do SMN user attitudes on a controversial topic change in the presence of social endorsements?
>
> (RQ2) Do SMN user attitudes on a controversial topic change in the presence of the related articles feature?
>
> (RQ3) Do SMN user attitudes on a controversial topic change in the presence of the related articles feature and social endorsements?

Our literature review mentions how the presence of social endorsements can encourage SMN users to read content outside their usual choice of sources, thus opening them up to new ideas. As such, we hypothesize:

> *H1: In the presence of Social Endorsements, there will be a change in the attitudes of SMN users with no initial misperceptions.*

For RQ2, we examined how the presence of related articles can change the attitudes of SMN users with no initial misperceptions on the controversial topics used in our survey. Our focused literature review (Alemanno, 2018; Bode and Vraga, 2015; Messing and Westwood, 2015) found that related articles that dis-confirmed misinformed SMN content could correct misperceptions of SMN users who viewed the content, but the correcting effect of the dis-confirming related articles was non-existent for people who did not already hold misperceptions about the controversial topic. Consequently, we hypothesize:

> *H2: In the presence of the related articles feature, there will be a change in the attitudes of SMN users with no initial misperceptions.*

For RQ3, we combined the related articles feature and social endorsements to see what effect it would have on changing the attitudes of SMN users with no initial misperceptions who are exposed to SMN content. Following the results in our literature review which show that the related articles feature does not change the attitudes of SMN Users who have no initial misperceptions towards misinformed controversial content, and that social endorsements encourage SMN users to view information outside their usual content sources, we make the following assumptions:

> *H3: In the presence of the related articles feature and social endorsements, there will be a change in the attitudes of SMN users with no initial misperceptions.*

RESEARCH METHODS

Our study will use an experimental survey to measure the efficacy of the related articles feature and social endorsements in correcting misperceptions about controversial topics on social media. There are two controversial topics covered in our study: climate change and vaccines. There were six treatments, three treatments for climate change and three treatments for vaccines, and one control group. Whereas the treatment groups received combinations of related articles and/or social endorsements, the control group received no treatments. The treatments and control group were tested using a simulated social media post.

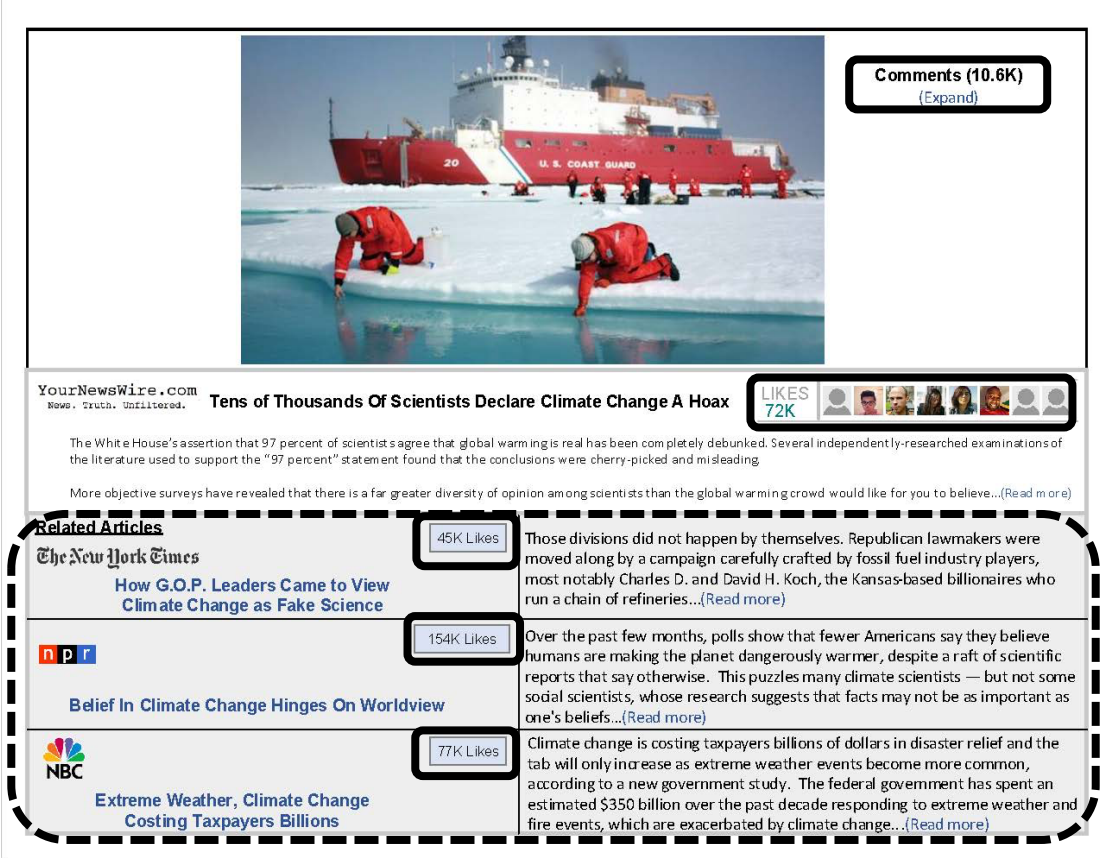

Figure 1. Simulated Social Media Post - Climate Change*NOTE: The black outlines are not shown in the actual survey.*

The related articles that disconfirm the misinformed SMN content on controversial topics will be derived from a popular bias-measuring news source chart (Langlois, 2016). We also used a random number generator to simulate social endorsements in the form of likes and comments for each article. Endorsements are represented by a number above 1000-10,000 (Bode & Vraga, 2015).

The experimental survey had three phases: pre-test, experimental survey, and post-test. A pre-test was given to measure the respondent's attitudes on the controversial topics chosen for the study. The experimental survey contained treatments for the participants with the related articles feature and/or social endorsements. A post-test was given to measure any changes in the respondent's attitudes about the controversial topics. The survey questions are provided in the Appendix. Using the Qualtrics survey tool and its randomization features, all respondents were assigned to one of six treatment groups or the control group.

Figure 1 highlights the design layout examples for the control and treatment groups using the climate change topic as an example. The dashed black line highlights the related articles section of the social media posts where news articles that provide varying perspective on the controversial topic are provided. The solid black lines highlight the social endorsement sections of the social media posts in the form of "likes" and comments by other SMN users.

DATA ANALYSIS

We collected 112 complete responses from 145 respondents (80% response rate) using a survey administered through Qualtrics. The survey was deployed for three months from September to December 2019 at the University of North Georgia, public Reddit survey pages, and the researchers' personal Facebook pages and communities. After collecting the data, incomplete responses were removed from the data analysis. Table 1 shows the demographic results.

Table 1. Demographics

Sample Characteristics (n = 112)			
Characteristic		**Frequency**	**Percent**
Age:	18–19	11	10%
	20-24	69	62%
	25-29	14	13%
	30-34	7	6%
	35-39	5	4%
	40+	6	5%
Race	White	64	57%
	Black or African American	7	6%
	American Indian or Alaska Native	0	0%
	Asian	8	7%
	Native Hawaiian or Pacific Islander	1	1%
	Hispanic	22	20%
	Other	10	9%
Education	High school diploma or less	1	14%
	GED or alternative credential	0	0%
	Some college	33	29%
	Associates degree	43	38%
	Bachelor's degree	12	11%
	Master's degree	7	6%
	Professional degree (e.g., MD, JD)	0	0%
	Doctoral Degree (e.g., PhD, EdD)	2	2%
Income	Less than 20K	35	31%
	20-29K	13	12%
	30-39K	15	13%
	40-59K	16	14%
Income	60-69K	7	6%
	70-89K	11	10%
	More than 90K+	15	13%

The majority of the 112 respondents who completed the demographics section of our survey were college students in their twenties and made less than $30K per year, which may affect the generalizability of our study. We will discuss the implications of the demographics further in our discussion section. The data analysis for our research was done with a pair-wise t-test analysis using SPSS version 24 statistical software. Table 2 shows that all pre-test and post-test questions except one question about vaccines are statistically significant. We explore these results in-depth in the following paragraphs.

In Table 2, Pair 1, the misinformed social media posts about climate change negatively impacted (i.e., lessened) the respondent's belief that climate change is happening by 2.145 points (95% confidence interval: -1.697, -2.594). This result indicates that the presentation of the misinformed social media post reduced (i.e., decreased away from "strongly agree") respondent's responses by a full 2 points on average from 4.31 to 2.16 (shown in Table 3). In other words, the misinformed social media posts reduced respondents' beliefs that climate change is occurring.

In Table 2, Pair 2, the misinformed social media posts about climate change negatively impacted (i.e., lessened) the respondent's belief that climate change is a hoax by 1.982 points (-1.484, -2.479). This result indicates that the presentation of the misinformed social media posts reduced respondent's responses (i.e., decreased away from "strongly agree") by a full 2 points on average from 4.18 to 2.20 (shown in Table 3). In other words, the misinformed social media posts reduced respondents' beliefs that climate change is a hoax.

In Table 2, Pair 3, the misinformed social media posts about climate change negatively impacted (i.e., lessened) the respondent's belief that climate change will harm my community by 1.8 points (-1.357, -2.243). This result indicates that the presentation of the misinformed social media posts reduced (i.e., decreased away from "strongly agree") respondent's responses by a full 2 points on average from 3.98 to 2.18 (shown in Table 3). In other words, the misinformed social media posts reduced respondents' beliefs that climate change is harming their community.

Table 2. Paired Sample Test, Paired Differences

				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Climate Change Attitude Question 1 (Pre- & Post Test)	-2.145	1.660	.224	-2.594	-1.697	-9.584	54	.000
Climate Change Attitude Question 2 (Pre- & Post Test)	-1.982	1.841	.248	-2.479	-1.484	-7.984	54	.000
Climate Change Attitude Question 3 (Pre- & Post Test)	-1.800	1.638	.221	-2.243	-1.357	-8.152	54	.000
Vaccine Attitude Question 1 (Pre- & Post Test)	-2.276	1.472	.193	-2.663	-1.889	-11.771	57	.000
Vaccine Attitude Question 2 (Pre- & Post Test)	.431	1.299	.171	.089	.773	2.527	57	.014
Vaccine Attitude Question 3 (Pre- & Post Test)	-1.707	1.533	.201	-2.110	-1.304	-8.478	57	.000

Table 3. Climate Change Pre-Test & Post-Test Descriptive Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Climate Change Attitude Question 1 (Pre-Test)	2.16	55	1.183	.159
	Climate Change Attitude Question 1 (Post-Test)	4.31	55	1.169	.158
Pair 2	Climate Change Attitude Question 2 (Pre-Test)	2.20	55	1.268	.171
	Climate Change Attitude Question 2 (Post-Test)	4.18	55	1.321	.178
Pair 3	Climate Change Attitude Question 3 (Pre-Test)	2.18	55	1.278	.172
	Climate Change Attitude Question 3 (Post-Test)	3.98	55	1.178	.159

Since the results were significant for the climate change questions, we can now review the results for each of the different types of misinformed social media posts to better understand the negative effects that resulted from the respondents viewing the misinformed social media posts.

Table 4. Climate Change, Rate Misinformed Social Media Post Descriptive Statistics

				Mean			
	N	Min.	Max	Stat.	Std. Error	Std. Dev.	Variance
CC_RSM_1	58	1	5	2.74	.160	1.222	1.493
CC_RSM_2	58	1	5	2.66	.153	1.163	1.353
CC_RSM_3	58	1	5	3.09	.158	1.204	1.449
CC_RSM_4	58	1	4	2.17	.130	.994	.987
CC_RSM_5	58	1	5	2.17	.137	1.045	1.093
CC_RSM_6	58	1	5	2.22	.148	1.125	1.265

Table 4 shows that by displaying the misinformed social media post without related news articles or social engagements (i.e., likes, comments), respondents rated the social media post as being interesting (3.09). However, there were lower-rated responses for finding the social media post provided new information (2.74), was useful (2.66), trustworthy (2.17), credible (2.17), or accurate (2.22).

Table 5. Climate Change, Rate Influence of Social Engagements Descriptive Statistics

				Mean			
	N	Min.	Max	Stat.	Std. Error	Std. Dev.	Variance
CC_RISE_1	15	1	3	1.60	.214	.828	.686
CC_RISE_2	15	1	3	1.47	.192	.743	.552
CC_RISE_3	15	1	3	1.67	.211	.816	.667

Table 5 shows the results from after we altered the misinformed social media post to exaggerate the social engagement values (i.e., likes, comments). This resulted in lower-rated responses for the impact of likes on both topics of the misinformed social media posts in general (i.e., climate-change, vaccines) (1.60), and the impact of social media likes on the climate change post only (1.47). The lower-rated responses on views about climate-change persisted even after increasing the number of likes (1.67).

Table 6. Climate Change, Rate Related Articles Descriptive Statistics

				Mean			
	N	Min.	Max	Stat.	Std. Error	Std. Dev.	Variance
CC_RRA_1	9	1	4	3.00	.441	1.323	1.750
CC_RRA_2	9	1	4	3.00	.441	1.323	1.750
CC_RRA_3	9	1	5	3.22	.465	1.394	1.944
CC_RRA_4	9	1	5	2.78	.465	1.394	1.944
CC_RRA_5	9	1	5	3.11	.423	1.269	1.611
CC_RRA_6	9	1	4	3.00	.373	1.118	1.250

Table 6 shows the results that occurred after we altered the misinformed social media post to include the "related articles" feature via providing news article previews and links related to climate change directly under the post, which resulted in higher-rated responses for the articles providing new information (3.00), being useful (3.00), being interesting (3.22), being trustworthy (2.78), being credible (3.11), and being accurate (3.00). These results are noticeably different from the misinformed social media post that had neither related articles nor social engagements, and the misinformed social media post that had social engagements only.

Table 7. Climate Change, Rate Influence of Social Engagements and Related Articles Descriptive Statistics

				Mean			
	N	Min.	Max	Stat.	Std. Error	Std. Dev.	Variance
CC_RISERA_1	25	1	5	2.68	.250	1.249	1.560
CC_RISERA_2	25	1	5	2.76	.274	1.234	1.523
CC_RISERA_3	25	1	5	3.16	.243	1.214	1.473
CC_RISERA_4	25	1	4	2.36	.237	1.186	1.407
CC_RISERA_5	25	1	4	2.29	.229	1.122	1.259
CC_RISERA_6	24	1	5	2.33	.253	1.239	1.536
CC_RISERA_7	24	1	4	2.88	.243	1.191	1.418
CC_RISERA_8	24	1	6	2.96	.285	1.398	1.955

CC_RISERA_9	24	1	5	2.96	.244	1.197	1.433
CC_RISERA_10	24	1	4	2.42	.255	1.248	1.558
CC_RISERA_11	24	1	5	2.50	.262	1.285	1.652
CC_RISERA_12	24	1	4	2.33	.238	1.167	1.362
CC_RISERA_13	24	1	4	1.75	.219	1.073	1.152
CC_RISERA_14	24	1	3	1.50	.181	.885	.783
CC_RISERA_15	24	1	4	1.33	.167	.816	.667

Next, in Table 7, we combined the treatments (social engagement, and related articles) to examine if multiple treatments, as opposed to one treatment, are effective in countering misinformation. When assessing the social media post itself, respondents found it to be interesting (3.16), which is a higher rating than those who said the post provided new information (2.68), was useful (2.76), trustworthy (2.36), credible (2.29), or accurate (2.33). The related articles were found to be useful (2.96) and interesting (2.96), which was a higher rating than those who said the misinformed social media post provided new information (2.88), was trustworthy (2.42), credible (2.50), or accurate (2.33). Furthermore, as in the previous results, the rating of social engagements (i.e., likes, comments) were low (1.75), as well as the presence of likes for the climate-change post (1.50), or for an increase in likes being more impactful (1.33).

Table 8. Vaccine Pre-Test & Post-Test Results Descriptive Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Vaccine Attitude Question 1 (Pre-Test)	2.29	58	1.298	.170
	Vaccine Attitude Question 1 (Post-Test)	4.57	58	.920	.121
Pair 2	Vaccine Attitude Question 2 (Pre-Test)	1.9	58	1.135	.149
	Vaccine Attitude Question 2 (Post-Test)	1.47	58	.959	.126
Pair 3	Vaccine Attitude Question 3 (Pre-Test)	2.53	58	1.429	.188
	Vaccine Attitude Question 3 (Post-Test)	4.24	58	.997	.131

In Table 3, the pre-test and post-test data for questions about vaccines is displayed. The misinformed social media posts about vaccines negatively impacted (i.e., lessened) the respondent's belief that vaccines are important by 2.276 points (-1.889, -2.663). This result indicates that the presentation of the misinformed social media posts reduced respondent's

responses by a full 2 points from on average 4.57 to 2.29 (shown in Table 8). The second set of responses will not be assessed since they did not result in significant differences (p=0.14).

Social media posts about vaccines negatively impacted (i.e., lessened) the respondent's belief that vaccinations harm my community by 1.707 points (-1.304, -2.110). This result indicates that the presentation of the misinformed social media posts reduced respondent's responses by a little less than 1.7 points from on average 4.24 to 2.53 (shown in Table 8).

Since the results are significant, we can now review the results for each of the different types of social media posts to better understand these negative effects.

Table 9. Vaccines, Rate Misinformed Social Media Post Descriptive Statistics

				Mean			
	N	Min.	Max	Stat.	Std. Error	Std. Dev.	Variance
VA_RSM_1	64	1	5	2.38	.161	1.291	1.667
VA_RSM_2	64	1	5	2.45	.168	1.344	1.807
VA_RSM_3	64	1	5	2.78	.175	1.397	1.951
VA_RSM_4	64	1	5	2.20	.153	1.224	1.498
VA_RSM_5	64	1	5	2.30	.165	1.318	1.736
VA_RSM_6	64	1	5	2.34	.155	1.237	1.531
VA_RSM_7	64	1	5	2.84	.171	1.371	1.880

Table 9 shows that by just displaying the misinformed social media post on vaccines without related articles or social engagements (i.e., likes, comments), respondents found the social media post relevant (2.84). However, there were lower-rated responses for finding the social media post provided new information (2.38), was useful (2.45), interesting (2.78), trustworthy (2.20), credible (2.30), or accurate (2.34).

Table 10. Vaccines, Rate Influence of Social Engagement Descriptive Statistics

				Mean			
	N	Min.	Max	Stat.	Std. Error	Std. Dev.	Variance
VA_RISE_1	29	1	5	1.79	.235	1.264	1.599
VA_RISE_2	29	1	5	1.66	.212	1.143	1.305
VA_RISE_3	29	1	5	1.52	.202	1.090	1.187

Table 10 shows the results of altering the misinformed social media post to exaggerate the amount social engagement values (i.e., likes, comments), which resulted in lower-rated responses for the impact of likes on belief about vaccines (1.79) on social media in general, the impact of social media likes on the actual misinformed social media post about vaccines used in the survey (1.66), or whether an increase in the number of likes on the misinformed social media post would impact the respondent's view on vaccines (1.52).

Table 11. Vaccines, Rate Related Articles Descriptive Statistics

				Mean			
	N	Min.	Max	Stat.	Std. Error	Std. Dev.	Variance
VA_RRA_1	7	1	5	2.71	.644	1.704	2.905
VA_RRA_2	7	1	4	2.57	.571	1.512	2.286
VA_RRA_3	7	1	4	3.14	.404	1.069	1.143
VA_RRA_4	7	1	4	2.57	.571	1.512	2.286
VA_RRA_5	7	1	4	2.29	.522	1.380	1.905
VA_RRA_6	7	1	5	2.86	.595	1.574	2.476

Next, in Table 11, we altered the misinformed social media post to include the related articles feature (i.e., news previews and links related to vaccines from news sources), which resulted in a higher-rated response for the related articles being interesting (3.14). The other results are noteworthy: Articles were rated as providing new information (2.71), being useful (2.57), trustworthy (2.57), credible (2.29), and accurate (2.86). These results are noticeably rated higher than the altered misinformed social media post that only included social engagements.

Table 12. Vaccines, Rate Influence of Social Engagements & Related Articles Descriptive Statistics

				Mean			
	N	Min.	Max	Stat.	Std. Error	Std. Dev.	Variance
VA_RISERA_1	20	1	5	2.45	.285	1.276	1.629
VA_RISERA_2	20	1	4	2.35	.284	1.268	1.608
VA_RISERA_3	20	1	4	2.45	.312	1.395	1.945
VA_RISERA_4	20	1	4	2.10	.240	1.071	1.147

VA_RISERA_5	19	1	4	2.53	.280	1.219	1.485
VA_RISERA_6	19	1	4	2.32	.276	1.204	1.450
VA_RISERA_7	19	1	4	2.68	.276	1.204	1.450
VA_RISERA_8	19	1	4	2.47	.280	1.219	1.485
VA_RISERA_9	16	1	4	2.94	.309	1.237	1.529
VA_RISERA_10	16	1	4	2.88	.272	1.088	1.183
VA_RISERA_11	16	1	5	2.81	.319	1.276	1.629
VA_RISERA_12	16	1	5	2.88	.315	1.258	1.583
VA_RISERA_13	16	1	5	2.69	.326	1.302	1.696
VA_RISERA_14	16	1	4	1.75	.281	1.125	1.267
VA_RISERA_15	16	1	4	1.75	.281	1.125	1.267
VA_RISERA_16	16	1	4	1.88	.301	1.204	1.450

Lastly, Table 12 shows the results of combining both treatments (i.e., social engagements, and related articles) to examine if multiple treatments are more effective in countering misinformation than just one treatment. When assessing the misinformed social media post itself, respondents found it to be relevant (2.68), which was more than those who rated it as providing new information (2.45), to be useful (2.35), trustworthy (2.10), credible (2.53), or accurate (2.32). The related articles were rated to be useful (2.94), which was more than those who rated the related articles as providing new information (2.47), to be interesting (2.88), trustworthy (2.81), credible (2.88), or accurate (2.69). Following the trend of the previous results to this study, the presence of social engagements (i.e., likes, comments) had a low rating for affecting personal beliefs about vaccines (1.75), in addition to the presence of likes and comments from the actual survey affecting beliefs about vaccines (1.75). Furthermore, the low-rated responses were consistent when respondents were asked whether an increase in social engagements would be more impactful in influencing personal beliefs on vaccines (1.88).

DISCUSSION AND CONCLUSION

As with all research, there were limitations of this study. Many of the respondents were college students aged under 30, which could have possibly impacted results since the college students may have been more knowledgeable about vaccines and climate-change in general. A larger and more diverse sample size would help to determine if this is really the case.

Our analysis found that perceptions towards the controversial topics of climate-change and vaccines are more influenced by the presence of related articles directly under misinformed social

media posts than the presence of social engagements in the form of likes and comments. This finding is supported by the real-world actions to add labels and warnings to conversations about disputed issues taken by Twitter in February 2020, and updated in March 2020 (Roth & Pickles, 2020). As such, the results of this research have implications for academia and for practice.

For academia, there are implications for theory development in social cognitive theory and social information processing theory. In contrast with existing literature on social cognitive theory, this study does not appear to support SCT's propositions that people can learn new beliefs simply from observing others. Additionally, the importance of the role or intimacy between the message sender and receiver (SIP) may be overvalued in prior studies. Based on extant research, SMN users who saw the social endorsements in the form of likes and comments should have resulted in an impact on their beliefs on climate-change and vaccines. However, this impact was not present in our data. Given the current issues of trust in reliable news media sources (Pew Research Center, 2020), it is not surprising that individuals are less likely to be swayed in their views and beliefs by 3rd party organization message senders in a SMN environment. Respondents tended to change their perceptions about these topics after seeing the misinformed social media post with related articles, as opposed to the presence of social endorsements.

For practice, there are implications for social media companies and educational institutions. Although the difference in response between social engagements and the related articles feature was small, it is noticeable enough to warrant further investigation by social media companies that are interested in curating content that is posted on their platforms. More specifically, social media companies should find ways to identify misinformation in posts to minimize or reduce the spread of those posts as the continued presence of misinformation could result in decreased interest in participation in social media. Furthermore, educational institutions can use this study to show students the importance of relying on validated news sources since the algorithms and human agents that social media companies use to curate their platforms may not be accurate all of the time.

In conclusion, this study aimed to test whether the use of social engagements and related articles to influence the perceptions of SMN users exposed to misinformation on social media work better separately or in tandem. Our study highlights that the "related articles" feature continues to have proven efficacy, similar to previous studies, and the "social endorsements" feature is not as impactful when influencing SMN user perceptions on controversial topics. The results from this study are important to all those who aim to develop effective ways of managing misinformation on social media platforms.

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APPENDIX - Survey Questions

For this survey the phrase **climate change** refers to "a change in global or regional climate patterns, in particular a change apparent from the mid to late 20th century onwards and attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels."

Considering your beliefs about **climate change**, please indicate whether you agree with the following statements:

Climate Change Attitude

Variable	Question
CCA1	Posts with links to climate-change websites appear in my social media newsfeed.
CCA2	Posts with videos on climate-change appear in my social media newsfeed.
CCA3	Posts of statements referring to climate change appear in my social media newsfeed.
CCA4	I believe climate-change is happening.
CCA5	I do not think climate-change is a hoax.
CCA6	I believe climate-change will harm people in my community.

For this survey, the phrase **vaccine** refers to "a substance used to stimulate the production of antibodies and provide immunity against one or several diseases, prepared from the causative agent of a disease, its products, or a synthetic substitute, treated to act as an antigen without inducing the disease."

Considering your beliefs about **vaccine**, please indicate whether you agree with the following statements:

Vaccine Attitude

Variable	Question
VA1	Posts with videos on the impact of vaccines appear in my social media newsfeed.
VA2	Posts of statements referring to vaccines appear in my social media newsfeed.
VA3	I believe vaccines are important.
VA4	I do not think vaccines are necessary.
VA5	I am concerned that lack of vaccination will harm people in my community.

After reading the social media post, please indicate whether you agree with the following statements:

Climate Change Attitude (Pre-Test/ Post-Test)

Variable	Question
CCA1	The social media post would impact my belief that "I believe climate-change is happening."
CCA2	The social media post would impact my belief that "I do not think climate-change is a hoax."
CCA3	The social media post would impact my belief that "I believe climate-change will harm people in my community."

Vaccine Attitude (Pre-Test/ Post-Test)

Variable	Question
VA1	The social media post impacts my belief that "I believe vaccines are important".
VA2	The social media post impacts my belief that "I do not think vaccines are necessary."
VA3	The social media post impacts my belief that "I believe the lack of vaccination will harm people in my community".

Rate Influence of Social Media Post (Post-Test)	
Variable	Question
RSM1	The social media post provided new information on climate-change/ vaccines.
RSM2	The social media post is useful in relation to climate-change/ vaccines.
RSM3	The social media post is interesting in relation to climate-change/ vaccines.
RSM4	The social media post is trustworthy in relation to climate-change/ vaccines.
RSM5	The social media post is credible in relation to climate-change/ vaccines.
RSM6	The social media post is accurate in relation to climate-change/ vaccines.
Rate Influence of Social Endorsements (Post-Test)	
Variable	Question
RISE1	The presence of "likes" on social media posts affect my beliefs on climate-change/ vaccines.
RISE2	The presence of "likes" on this social media post affected my beliefs about climate-change/ vaccines.
RISE3	If this social media post had more "likes", I would be more likely to agree with its view on climate-change/ vaccines.
Rate Related Articles (Post-Test)	
Variable	Question
RRA1	I found the related articles **provided new information** on climate-change/ vaccines.
RRA2	I found the related articles to be **useful** in relation to climate-change/ vaccines.
RRA3	I found the related articles to be **interesting** in relation to climate-change/ vaccines.
RRA4	I found the related articles to be **trustworthy** in relation to climate-change/ vaccines.
RRA5	I found the related articles to be **credible** in relation to climate-change/ vaccines.
RRA6	I found the related articles to be **accurate** in relation to climate-change/ vaccines.
Demographics	
Variable	Question
D1	Please select the appropriate age range for your age.
D2	Information about income is very important to understand. Please indicate the answer that includes your entire household income in (previous year) before taxes.
D3	What is the highest level of school you have completed or the highest degree you have received?
D4	Choose one or more races or ethnicities that you consider yourself to be:

UNDERSTANDING GOSSIP IN WORK ORGANIZATIONS: FROM AN EVOLUTIONARY PERSPECTIVE

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ABSTRACT

Until recently gossip has been often portrayed as a trivial and even destructive behavior in work organizations. The purpose of this paper is to provide a more nuanced and balanced understanding of gossip as an adaptive socio-cultural learning practice in the workplace. From a multilevel evolutionary perspective, we emphasize that indirect reciprocity, a mechanism for the evolution of cooperation, underscores the emergence and the selective retention of gossip in the workplace. As evolutionary processes work at both individual and group levels, we also highlight that gossip has played the important roles of controlling free riders and sanctioning defectors by managing their reputations and indirectly enforcing cooperative group norms. Based on our evolutionary functional analysis, we present several propositions for future empirical studies, and discuss practical implications for managing gossip in contemporary work organizations.

Keywords: gossip, informal organizational communication, multilevel evolutionary theory

> Talk is at the heart of all organizations. (Boden, 1994, p. 1)

Gossip as an evaluative talk about an absent third person is ubiquitous in our social lives. We spend two thirds of our conversation time gossiping (Dunbar, Duncan, & Marriott, 1997; Emler, 1994) and gossip often defines a social group (Gluckman, 1963; Tomasello, 2014). It has been proposed that a basic function of language is gossip and it has long been a part of our human nature (Barash, 2012; Dunbar, 1998). It has been also suggested that gossip is crucial for healthy social functioning (Wert & Salovey, 2004). Intriguingly, however, gossip has received little attention among management and organization scholars until quite recently (Brady, Brown, & Liang, 2017). The lack of attention to gossip may be due to its negative reputation as secretive, superficial and even malicious talk (Emler, 1994).

In fact, almost all of the major religious traditions have reinforced the negative stereotypes of gossip and strongly prohibited gossip in our social lives through moral prohibitions such as "An evil man sows strife; gossip separates the best of friends" (Proverbs 16:28 The Living Bible), "And spy not nor let some of you backbite others" (Qur'an 49:12), and "Avoid idle chatter and abstain from it" (Bhikkhu Bodhi, 2008, p. 52). There exist even widespread assumptions that gossip is ultimately destructive, and an organization with a considerable amount of gossip tends to be poorly

managed, internally divisive, and never achieves its full potential (Pallotta, 2010). Simply put, gossip has been often treated as a deviant and destructive workplace behavior.

From an evolutionary perspective, however, gossip is fundamental to our communication and social life. It has been suggested that gossip emerged in our evolutionary history as verbal grooming, which is an extended form of social grooming exhibited by other primates (Dunbar, 1998). Like many common human behavioral repertoires – such courting members of the opposite sex, altruism towards kin, deference towards authority figures – gossip was selectively retained due to its contribution to our survival and reproductive fitness. Fitness in this context refers to "a measure of the relative breeding success of an individual or genotype in a given population at a given time" (Oxford Dictionary of Biology, 2008, p. 251). In other words, gossip as a hardwired behavioral trait has an evolutionary base (Giardini & Wittek, 2019).

In terms of its multiple functions, gossip helps us, and helped our distant ancestors, forge social bonds with friends and allies, and avoid cheaters in our social networks, which ultimately increase our chance of survival and reproductive success (Dunbar, 2004; Goodman & Ben-Ze'ev, 1994; Kniffin & Wilson, 2005). Furthermore, gossip is one of the key evolved mechanisms of human cooperation through indirect reciprocity: "if I scratch your back, my good example will encourage others to do the same and, with luck, someone else will scratch mine" (Nowak & Highfield, 2011, p. 54). Gossip as social currency often leads to building and managing good reputation and complex social interactions (Nowak & Sigmund, 2005). In this respect, gossip is not frivolous, and it does not deserve the negative connotation it is typically accorded (Barash, 2012). Gossiping well, McAndrew (2019) argued, may be considered an important social skill rather than a tragic character flaw given that its multiple adaptive functions may stem from the pivotal role gossip has played in human evolution (Giardini & Wittek, 2019).

Hence gossip as a social phenomenon needs to be understood in a more nuanced and neutral manner to appreciate its adaptive functions in the workplace. In this paper we claim that gossip is fundamentally a bonding ritual, embedded in the social networks within organizations, and the origins of gossip are firmly rooted in our evolved psychological adaptations. Furthermore, we propose that gossip is essentially an adaptive socio-cultural learning practice which enables organizational members to make sense of social events and social dynamics in the workplace. We first discuss the evolutionary origins of gossip and then we describe adaptive functions of gossip at both individual and group levels. Finally, we discuss both theoretical and practical implications for managing gossip in the workplace.

UNDERSTANDING GOSSIP FROM AN EVOLUTIONARY APPROACH

> Gossip and reputation are natural selection's gift to humanity. (Boehm, 2019, p. 269)

According to evolutionary psychology, which is the scientific understanding of the human mind and human behavior from a Darwinian evolutionary perspective, the human mind is a product of evolution by natural and sexual selection (Barkow, Cosmides, & Tooby, 1992; Buss, 2011). Over the millions of years of hominid evolution, any neural network that helped our hominid ancestors deal with adaptive problems that were fundamental to their survival and reproductive fitness was selectively retained in our brain (Edelman, 1987). Hence, the human mind is an evolved toolbox

sculpted by natural and sexual selection, consisting of cognitive modules that enabled our ancestors to solve problems successfully in their environment (Barkow et al., 1992; Buss, 2011). For example, our ancestors most likely used a variety of social strategies to attract suitable mates, to make social alliances, and to maintain power and status in the social hierarchy like modern humans do (Kenrick & Griskevicius, 2013).

In this paper we define gossip as the informal or casual talk between at least two people about absent third parties, typically involving socially evaluative information. Gossip is often shared through informal channels of communication (e.g., talk around the water cooler) and consists of information that is explicitly or implicitly evaluative (that is, casts a person in a positive or negative light), with implications for a person's social reputation. Thus, there must be at least three individuals for the exchange of gossip to take place: the gossiper, the listener, and the target person. The gossiper is the individual who transmits the socially relevant, sensitive, or secretive information. The listener is the individual who receives the information from the gossiper. The target person is the individual that the socially evaluative reputational information concerns. In addition, gossip can be either positive or negative and it can also be true or false. A gossiper can provide a listener with valuable social information if gossip turns out to be true, but the gossiper may also become vulnerable if the listener is not trustworthy and, especially when the content of gossip is negative and false.

ADAPTIVE FUNCTIONS OF WORKPLACE GOSSIP: A MULTILEVEL FRAMEWORK

Adaptive Functions of Gossip at the Individual Level

Bonding and forming social alliances. The high degree of sociality in our species suggests that our brains evolved to socially connect with others (Lieberman, 2013), and the emergence of gossip is firmly embedded in the evolution of our social mind (Dunbar, 1998). Gossip is often used interchangeably for other forms of informal communication such as rumor (DeFonzo & Bordia, 2007; Waddington, 2012). An important function of gossip is to bond friendship and social alliances (Brady et al., 2017). Rumor typically occurs in ambiguous or uncertain circumstances and its main function is to make collective sense of the threatening situation (Waddington, 2012). It has also been found that building relationships is one of the key reasons why virtual employees tend to engage in gossip (Blithe, 2014).

In fact, sharing gossip is an efficient way to foster intimacy and develop friendship. As gossip often involves sensitive information about others, it requires a certain amount of interpersonal trust. We are less likely to share personal and sensitive information with someone who is not reliable and trustworthy. Actually, individuals are more likely to share negative gossip with people with whom they have many friends in common (Grosser, Lopez-Kidwell, & Labianca, 2010). The connection between people sharing gossip is so strong that fMRI images of people sharing gossip show activity in the same brain regions (Stephens, Silbert, & Hasson, 2010). It is thus very likely that people prefer gossip to official channels of communication especially when they have a strong need for sharing sensitive and secretive information, for instance, regarding the politics of their organizations (Blithe, 2014). Hence we propose that

> *Proposition 1a:* When the level of perceived trust between a gossiper and a listener is high, the gossiper will be more likely to share negative gossip about a target person with the listener.
>
> *Proposition 1b:* When the level of perceived trust between a gossiper and a listener is low, the gossiper will deliberately share only neutral or non-malignant gossip about a target person with the listener.

Sharing reputational information: Gossip is often defined as "critical talk about third parties" (Gilmore, 1978, p. 92) focused on "the process of informally communicating value-laden information about members of a social setting" (Noon & Delbridge, 1993, p. 25). Thus, gossip is far more than "idle talk" with no specific intentions or external goals (Ben-Ze'ev, 1994). It can be, and often is, strategically deployed to enhance or derogate status in a social context (Rosnow & Fine, 1976).

Gossip also facilitates the sensemaking process, especially in a new social environment. Sensemaking refers to the cognitive process of building internal representations of external worlds and construing the causal relations among people and objects to construct a functional map of social relationships (McAdams, 1993). Sensemaking often starts with chaos (Weick, Sutcliffe, & Obstfeld, 2005) followed by developing ideas, putting things into frameworks, and constructing meaning and mutual understanding (Waddington, 2012). It knits together several themes and patterns of social phenomena and reputational information of others into meaningful accounts that have coherence and sequence (Riessman, 1993). Hence the essence of sensemaking process is language and talk: everyday talk – including gossip – and repetition are the primary mediums through which people make sense of their social world (Boden, 1994; Dailey & Browning, 2014). From an evolutionary perspective, gossip also permits the creation of internal representations of others who are like to impact our fitness (Barkow, 1992). Therefore, the information of most concern includes the target persons' general health (or history of illness), their physical appearance (which signals youthfulness and fertility), history of their short-term or long-term relationships, their social status in the hierarchy of power, their general reputations of competence and dependability, and their relationships with kin, non-kin friends, and social acquaintances. In other words, people tend to transmit the information through gossip that would have the greatest consequences for their survival and reproductive success (Piazza & Bering, 2008). Hence it is very likely that

> *Proposition 2*: People will be most attuned to gossip about a third party of the same sex who is close to them in age.

Sex differences in gossip behavior: Workplace gossip is pivotal in terms of its capacity to help us navigate and even predict the behavior of other people in a social network (McAndrew, 2008). In fact, indirect reciprocity underscores the emergence of gossip as a linguistic device of collecting social reputations about hard-to-observe third parties (Nowak & Sigmund, 2005). As those individuals with good reputations tend to get more help from others (Nowak, 2013), gossip allows us to socially discriminate cooperators from defectors, especially in non-recurring social exchange relationships. Therefore, gossip makes it possible to take into account the experience of other people and to acquire social information about third parties – both defectors and cooperators –

without the need for direct observation of them (Sommerfeld, Krambeck, Semmann, & Milinski, 2007).

Interestingly, however, it has been reported that men and women tend to exhibit different patterns of gossiping behavior. For instance, men, more so than women, typically use conversation as a tool for self-promotion and status enhancement (Dunbar, 2010; Tannen, 1994; Watson, 2012). This is probably due to the fact that men, in general, display their wealth and status when seeking mates. It has also been reported that women tend to exhibit a greater tendency to gossip in comparison to men (Davis et al., 2018), and are more likely to use gossip in an aggressive, competitive manner in order to damage the reputation of potential rivals (McAndrew 2014; Vaillancourt, 2013). Furthermore, younger women are more likely to gossip about rivals than are older women as the competition for mates is more intense during the reproductive phase of a woman's life (Massar, Buunk, & Rempt, 2012).

It is often the case that women tend to talk more about physical beauty and attractiveness in comparison with other women (Watson, 2012). This is the basis of how women compete among one another for men, and thus an important topic of gossip (Engeln, 2017). In other words, men are predicted to use gossip to promote themselves in regards to wealth and resource display more often while women are predicted to use gossip to promote themselves regarding subjects such as youth, physical appearance, and fidelity, which are very relevant to the evolutionary challenges recurrently faced by ancestral women. Therefore, it is likely that, in general,

> *Proposition 3a*: Male targets of gossip will be more talked about in terms of their achievements, general competence, and their social status compared to female counterparts.
>
> *Proposition 3b*: Female targets of gossip will be more talked about in terms of their relative physical appearance and attractiveness compared to male counterparts.

Managing status through social comparison. The information gleaned through gossip can also be used to make social comparisons. Social comparison is defined as "any process in which individuals relate their own characteristics to those of others" (Buunk & Gibbons, 2000, p. 491). Wert and Salovey (2004) identified four types of comparisons: comparison with similar others, downward social comparisons, upward social comparisons, and ingroup/outgroup comparisons. When one is interested in comparison for the purpose of validating opinions or estimating abilities, one tends to choose comparison persons who are similar to themselves. However, when someone wants to feel better, he can gossip about someone who is "worse off" in order to self-enhance. Conversely, by gossiping about someone who is better off might motivate one to partake in self-improvement.

Gossip also influences the power one individual has over another. Kurland and Pelled (2000) hypothesized that gossiping can affect the gossiper's reward, coercive, expert, and referent power over the listener, and that these relationships would be moderated by several factors including the sign of the gossip (i.e., positive or negative), the message credibility, work-relatedness of the gossip, the relationship quality of the gossiper and listener, and the organizational culture in which the message is transferred. For instance, an individual who is motivated by a desire for self-enhancement could use the influential nature of gossip to stigmatize a rival or influence listeners

by gossiping negatively about the rival in hope that it would damage the rival's reputation (i.e., defamation through indirect assault). Given that "those with less organizational power are more likely to recognize and perceive more ostracism by higher ups" (Robinson, O'Reilly, & Wang, 2013, p. 220), it is very plausible that people with less power tend to engage in gossip more frequently. Furthermore, as our interest in gossip evolved as a strategic tool to acquire fitness-enhancing information that can affect our social standing relative to others, negative information about those lower than us in social status would not be as useful as negative information about high status people or our rivals (McAndrew, 2019). Thus we propose that, in general,

> *Proposition 4*: People tend to gossip more about individuals of higher or equal status than about those of lower status in the hierarchy of power in organizations.

Venting emotions through gossip. Gossip can be an effective means for expressing and managing emotions in organizations. People have often reported that they come to feel better after "letting off steam" through gossip (Waddington, 2012). Previous studies have also shown that individual difference variables influence the frequency of gossip. For instance, high anxiety was found to predict a greater likelihood to gossip (Anthony, 1973; Jaeger, Anthony, & Rosnow, 1980; Jaeger, Skleder, Rind, & Rosnow, 1994; Walker & Blaine 1991). According to Altuntas, Altun, and Akyil (2014) who studies gossip among nurses in Turkish hospitals, anger, stress, and anxiety tend to be related to gossip behavior and approximately one third of the nurses in the sample indicated a reduction in the level of stress after having engaged in gossip.
Individuals high on the need for social approval also tend to gossip more frequently than those low on need for social approval (Keefer, 1993). In addition, the socially aloof and stigmatized, as well as their affiliates, are more likely to be the objects of negative gossip while those who exemplify socially championed values are likely to be the objects of positive gossip (Kulik, Bainbridge, & Cregan, 2008).

Furthermore, emotional arousal increases our tendency to share information with others. When we are physiologically aroused, we are more likely to share information with those around us. For instance, negative emotions such as anxiety and fear are positively related with arousal (Berger, 2011). It has also been reported that employees are more likely to seek information through gossip when communication with management is perceived to be limited, and when they are vulnerable due to increasing environmental uncertainty (Brownell, 1990). Therefore, we propose that:

> *Proposition 5a*: High arousal emotions (e.g., excitement and anger) will lead to more gossip than low arousal emotions (e.g., contentment and depression).

In addition, humans have evolved to be more attuned to negative cues from uncertain environments mainly because negative information often signals unexpected danger or threats (Neuberg, Kenrick, & Schaller, 2011). From an evolutionary perspective, it is more rational to commit a Type I error (i.e., false positive) than to not raise a false alarm under uncertain environmental contingencies. Thus, in general, workplace gossip will consist of negative blame more frequently than positive praise because negative gossip is often resulted from deviant incidents from expected behavioral rules and norms in organizations (Beersma & Van Kleef, 2012; Kniffin & Wilson, 2005). In fact, faces paired with negative gossip tend to stay longer in our visual consciousness (Anderson, Siegal, Bliss-Moreau, & Barrett, 2011). Apparently, our brains automatically spotlight people embroiled

in scandal, which provides a strong neurobiological underpinning of gossip. Therefore, we propose that:

> *Proposition 5b*: Negatively high arousal emotions (e.g., frustration, anxiety, and resentment) are expected to lead to more gossip than positively high arousal emotions (e.g., awe and amusement).

Adaptive Functions of Gossip at the Group Level

Evolutionary models of social behavior, including gossip, are likely to include the logic of multilevel – both individual and group – selection (Eldakar & Wilson, 2011). Under the condition of group selection, "the social group becomes a high-level organism and the members of the group acquire an organ-like status" (Wilson, Van Vugt, & O'Gorman, 2008, p. 7). For the efficient group selection to happen, groups need mechanisms to prevent individuals from moving too freely between them and other groups: for instance, cooperative social norms or loyalty to a group will help maintain group cohesiveness (Nowak & Highfield, 2011). We argue that gossip is another evolved mechanism for controlling free riders and sanctioning defectors by reinforcing altruistic group norms at the group-level. Simply put, a group can be a unit of selection, particularly when between-group selection overrides within-group selection (Wilson, 2012).

Sanctioning deviant behaviors to maintain group norms. It is thus likely that gossip has been selectively retained as a functional behavioral trait due to its adaptive functions at the group level, particularly when between-group competition overrides the within- group individual competition (Wilson et al., 2008; Wilson, Wilczynski, Wells, & Weiser, 2000). For instance, if Group A utilizes gossip to identify a defector who fails to meet the implicit norms of mutual cooperation while Group B does not depend on gossip as a social control mechanism to detect a free-rider, then it is very plausible that Group A outcompetes Group B. In this scenario, Group A will have a selective advantage over Group B due to the beneficial contribution of gossip. Under similar conditions, gossip could have evolved as a social controlling device that serves the interests of a group – which outweigh the self-interests of individual group members (McAndrew & Milenkovic, 2002; Wilson et al., 2000). Therefore, individuals may imitate the gossiping behavior of their ingroup members in order to avoid the chance of becoming ostracized and to share the distinctive features of the group.

Gossip also plays a pivotal role of maintaining group values and norms by spreading judgmental information about the perpetrator who violates them (Dunber, 2004; Gluckman, 1963; Noon & Delbridge, 1993). Through gossip, group members learn acceptable behavioral norms more quickly and efficiently. In this way, gossip is "a vital coordinating mechanism for group members by distributing key information" (O'Gorman, Sheldon, & Wilson, 2008, p. 22). It also provides a policing mechanism which allows group members to punish free riders and keep powerful individuals in check (Keltner, Van Kleef, Chen, & Kraus, 2008). The threat of being gossiped about deters undesirable behaviors by these individuals, because if word got out, it would cause serious harm to their reputations. Thus we propose that:

> *Proposition 6*: Gossip will be more frequently transmitted during transition periods when new expectations and norms are being negotiated in work groups.

Prosocial gossip shared among ingroup members. Gossip can transmit positive values and prosocial motives such as informing or warning other innocent group members (Beersma & Van Kleef, 2012; Rosnow, 1977). Prosocial gossip in this context refers to "the sharing of negative evaluative information about a target in a way that protects others from antisocial or exploitative behavior" (Feinberg, Willer, Stellar, & Keltner, 2012, p.1015). Surprisingly, people would even go so far as to pay money to gossip when they could not affect the selfish person's outcome (Feinberg et al., 2012). In this respect, gossip can be understood as a form of "altruistic punishment," particularly when strong negative emotions are aroused toward defectors (Fehr & Gächter, 2002). Piazza and Bering (2008), for example, found that the threat of gossip promoted generous behavior when an individual was given the opportunity to enhance their reputation (at the expense of others) because those who violate group norms run the risk of being stigmatized through gossip. Wu, Balliet, and Van Lage (2015) also reported that gossip tends to promote generosity "when one shares future interdependence with the gossip recipient(s)" (p. 928). In analyses of three case studies in different contexts, Kniffin and Wilson (2010) found that group-level rewards can facilitate group-beneficial gossip. Therefore, negative gossip can also be prosocial when it warns others about those individuals with hostile intentions and bad reputations. Hence, we propose:

> *Proposition 7*: Pro-social altruistic gossip tends to be shared more frequently among members of closely-knit ingroups than those of loosely-knit outgroups.

DISCUSSION

From an evolutionary perspective, we have underscored that gossip is an evolved psychological adaption that has helped our ancestors to explore their social terrain and make sense of their social environments, including the dominance hierarchy and power dynamics. We consider workplace gossip to be functional, as it provides an indirect way to imitate social strategies exhibited by successful group members, thus helping nascent members to collect reputational information about other group members through vicarious social learning. In this way, gossip is a natural way of learning of a social world indirectly to get ready for action in dynamic social networks and thus provides an important mechanism for socio-cultural learning in organizations (Baumeister, Zhang, & Vohs, 2004).

The ubiquity of gossip can be attributed to the fact that it satisfies many basic human needs. Gossip satisfies the need for friendship and for belonging by fostering intimacy, the need for sense-making by reducing the ambiguity of the social environment, and the need for control by providing power to individuals. Hence, the informative nature of gossip allows all individuals involved to more rapidly develop a sufficient and accurate understanding of self, others, and their social environments. Gossip has also shown to be adaptive at serving the group-interests such as communicating and enforcing group norms, assisting cultural and organizational learning, and maintaining close networks of friends and social alliances, all contributing to enhanced ingroup cohesion.

Although we have highlighted positive functions of gossip in the workplace, this does not suggest that gossip *necessarily* makes a group or a community more cohesive or functional. Instead, as we argued, gossip provides a mechanism that prevents the dominance and exploitation of a powerful

figure in the group or free riders who easily abuse the goodwill and costly contributions of other members of the collective. This is why gossip can be a powerful and adaptive mechanism of social control and regulation, particularly in small group settings (Hafen, 2004).

Until quite recently, gossip has been still a contested subject with tainted reputation in the field of management and organization studies (Brady et al., 2017). Gossip is often perceived to be the unmanaged – or unmanageable – dark side of an organization (Gabriel, 1995) and it has been treated like "toxic gas" (Waddington, 2012). The presumption that even a low level of toxicity is harmful to individual and organizational health is widespread. It is undeniable that there exists harmful and toxic gossip in organizations which threatens the viability of work groups (Beersma, Van Kleef, & Dijkstra, 2019). And gossip may be inaccurate and may have originated from malicious intentions or pure jealousy. Paradoxically, however, the metaphor of gossip as a toxin reveals a positive function of gossip. If rampant gossip reflects a high level of toxicity in organizations, then it may indicate dysfunctional organizational climate and malfunctioning organizing processes and practices. In this respect, gossip is a barometer of organizational health because it functions as an early warning system because excessive gossip "may be a surface manifestation of underlying organizational problems" (Waddington, 2012, p. 124).

There are still questions that we hope future studies would shed more light on. For instance, what factors facilitate prosocial altruistic gossip in organizations? Does the gender composition of a group affect its proclivity to gossip? What workplace characteristics foster toxic gossip? Under what conditions does gossip intensify our almost built-in predisposition for ingroup and outgroup classification? And under what conditions does gossip become organizational tacit knowledge? In other words, could gossip be leveraged in the organization's favor as a means of transmitting vital information? Furthermore, there should be some investigation on the role that gossip might play in the process of sensemaking at work. For instance, given that we tend to make social meaning out of interpersonal exchanges and interpretive rumination of those social interactions, gossip may be used as raw materials for constructing meaning in organizations (Bentz & Shapiro, 1998; Noon & Delbridge, 1993).

From an evolutionary psychological perspective, one of the key practical implications is that it is almost impossible to control or eliminate gossip completely in the workplace (Labianca, 2010; Nicholson, 1997, 2000). As Boden (1994, p. 4) succinctly summarized, "most organizations run in the 'informal mode' *all* the time" (emphasis in original). Gossip is part of human nature, firmly embedded in our adapted emotional reactions against social isolation and perceived unfairness and injustice. Practically speaking, therefore, it may be unrealistic or even undesirable for organizations to stop employees from gossiping. The apparent irrelevance of gossip as idle talk may have unexpected positive consequences such as "maintaining connections among parts of the organizations that require few regular connections" (March & Savon, 1988, p. 432).

Furthermore, given that fear of social ostracism is firmly rooted in our evolutionary history of living in small foraging groups (Dunbar, 2004; Lenski, 2005), it is not surprising that we negotiate our social relationships by making sense of our social world by constantly utilizing our inherited "mind-reading" capacity—that is, our capacity to infer the intentions and emotions of others (Baron-Cohen, 1995). Our social environments are not pre-given or fixed; instead, our social environments are enacted upon by us with specific intentions and goals in mind. In this regard,

gossip as an informal medium of organizational communication also provides a socio-cultural learning mechanism for a collective reconstruction of reality (March & Savon, 1988) in which existing explanations are modified and new interpretations are elaborated.

One of the key managerial challenges is therefore "to detect, discern, and differentiate good, bad, and toxic gossip" (Waddington, 2012, p. 130). One helpful approach to this challenge is to regard gossip as potentially valuable and useful "soft" information for collective awareness of underlying organizational problems. It would help shift attention away from thinking of gossip as a problem to be ignored or silenced to treating it as raw materials that could be transformed into organizational tacit knowledge. Therefore, practitioners are advised to develop a more nuanced view of gossip because people use gossip for noble purposes (i.e., prosocial and group serving) under specific conditions (Beersma & Van Kleef, 2012). We believe that this approach would be more realistic and professional than adopting a blanket 'do not gossip' policy in contemporary work organizations.

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HOW EMPLOYEE PERCEPTIONS OF LEADER'S INTERPERSONAL COMMUNICATION COMPETENCE CORRELATES WITH JOB SATISFACTION AND MOTIVATION

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ABSTRACT

This research explores the connection between employees' perceptions of leadership communication – specifically, their leader's interpersonal communication competence – and employee motivation and job satisfaction. Utilizing the interpersonal leadership model developed by Lamm, Carter and Lamm (2016), the literature review explores supporting research that first develops a connection between leadership and interpersonal communication. Spitzberg's (1983) theory of interpersonal communication demonstrates why perceived communication is important and how it correlates with motivation and job satisfaction. The Perceived Leadership Communication Questionnaire (PLCQ), the Multidimensional Work Motivation Scale (MWMS), and the Job In General (JIG) scale were used to look for correlations between perceived leader communication, job satisfaction and motivation. Elements of the three scales were combined with demographic questions into a questionnaire distributed electronically to non-faculty, university employees. The various types of positions within a university provide the opportunity to relate the results to more organizations. The results indicated that the 223 respondents had high levels of job satisfaction and work motivation. Additionally, they perceived very strong interpersonal communication competence from their leaders. The results offered support for some of the four hypotheses tested. A moderately strong, statistically significant relationship was found between the respondents' general job satisfaction (JIG) and their assessment of a leader's communication (PLCQ). Statistically significant, but weaker, negative correlations were found between the measure of amotivation, (MWMS-AM) and both job satisfaction (JIG) and perception of leader communication (PLCQ). These results suggest that leaders should consider the role that perceived communication has on the employee's job satisfaction and work motivation.

Keywords: PLCQ, MWMS, JIG, Leader Communication, Job Satisfaction, Work Motivation

INTRODUCTION

Employee motivation is a concept that is unknown to many employers. Commonly, an organization uses trial and error and relies on guesswork to develop methods to motivate employees. Frequently, these methods work short-term, but the question remains as to how to truly and effectively motivate an employee. This task is typically delegated to the leader of a department or an organization, depending on the size. However, some question how much effect a leader has on motivating employees.

Zwiize-Koning and De Jong (2007) recognized that communicative power affects employees' levels of communication satisfaction, job satisfaction, and motivation to work for the organization.

This supports a connection between leadership communication, motivation and job satisfaction. Researchers Abdullah and Hui (2014) recognized a link between performance and job satisfaction which led to further studies about the relationship between communication satisfaction and job satisfaction (as cited in Dinger, 2018, p. 61). With job satisfaction having such a proven connection to performance, understanding any effects on employee job satisfaction is invaluable to an organization. Understanding if leaders can have a role in affecting employee motivation and job satisfaction could help organizations focus their training efforts.

Research supports the idea that interpersonal connection increases motivation (Trepanier, et al., 2012). Organizational leaders have the opportunity to develop that connection with their employees through communication in their day-to-day interactions. Dinger (2018) indicates that many scholars suggest prerequisites for effective leadership include both interpersonal skills and the ability to communicate effectively. However, the employee's perceptions of the leader's interpersonal communication competence (Spitzberg, 1983) should be considered when looking for the connection with motivation. The consideration of perspective is important because someone in an organizational leadership position can believe they possess the qualities of interpersonal communication, but they do not necessarily possess interpersonal communication competence as "[c]ompetence is an impression resulting from the behaviors of the relational interactants, the context within which they are enacted and the characteristics of the individuals involved" (Spitzberg, 1983, p. 326).

Because of the nature of competence, the employees' perceptions of the leader's interpersonal communication competence is what ultimately has an effect on motivation and likely even job satisfaction no matter the setting. The literature review in the next section examines the model of interpersonal leadership (Lamm, et al., 2016) to understand how employees' perceptions of interpersonal communication competence (Spitzberg, 1983) is necessary for effective leadership. The model will illustrate the necessity of interpersonal communication in leadership for the leadership to be effective.

The idea of interpersonal connection between employees and leaders having an effect on employee motivation is supported by the self-determination theory (Gagne et al., 2015). A review of the self-determination theory supports the Multidimensional Work Motivation Scale (Gagne et al., 2015) that will later be used to measure motivation of employees. The Perceived Leadership Communication Questionnaire (Schneider, et al., 2015) will also be used to determine the employees' perceptions of organizational leaders' communication. Then job satisfaction will be measured using the highly recognized Job in General scale (Ironson, et al., 1998) to understand how the employees view their personal job satisfaction.

Perceptions that people possess are significant and can affect the way they view every situation making it an intriguing concept in research. In addition to recognizing and understanding perceptions, understanding a connection between communication, employee motivation, and job satisfaction can be a valuable reference when looking to invest in the leaders of an organization. Witherspoon (1996) believes that leadership only exists through communication as the leaders can have a significant impact on culture, decisions, and change (as cited in Dinger, 2018).

The concept of interpersonal leadership communication and perceptions of employees is universal among various types of organizations. A university setting, for example, is comprised of many departments such as facility maintenance, enrollment, human resources, student services, and many more. According to Winefield, et al. (2008), universities have become more like private corporations in terms of operations and producing a profit within the last couple decades. When looking to explore the correlations of leadership communication perceptions and employee motivation and job satisfaction, it would be a logical choice to observe an organization such as a university to collect information from various types of employees and leaders and to allow the results to be applicable for more individual organizations.

Ultimately, the intent of this research is to determine if a connection exists between employees' perceptions of leaders' interpersonal communication competence and the job satisfaction and motivation of the employees. To begin this research, it is important to first review the appropriate literature.

REVIEW OF LITERATURE

"Leadership communication is at the heart of daily organizational life" (Schneider, et al., 2015, p. 175). Communication is fundamental to leadership and motivation just as Kaya (1999, p.107) suggests, "Any organizational action or management process cannot be performed without communication because the communication is the lifeblood of human relations and motivation" (as cited in Egriboyen, 2017). This research will investigate if a connection exists between the perceptions employees have of their leader's communication efforts and employee motivation and job satisfaction.

Interpersonal Leadership Model

There are numerous theories offering many different opinions about what constitutes "leadership." There are arguments for leadership being a result of traits, behaviors, situations and values (Fairholm and Fairholm, 2009). Among these many theories, the idea of transformational leadership is one of the more popular concepts in research for effective leadership. Trepanier, Fernet and Austin (2012) argue that transformational leadership is essential to understand effective workplace management and that it is characterized by four dimensions: charisma, inspirational motivation, intellectual stimulation, and individualized consideration (Bass, 1985, 1998 as cited in Trepanier et al., 2012). There are clear connections between effective leadership, communication and motivation in this concept.

"Securing communication is crucial in all leadership relations involving managers who are leaders of other persons" (Nordby, 2014, p. 76). Communication can take many forms, however, many scholars agree that when it is lacking, effective leadership is unlikely. "Effective communication has been shown to impact all aspects of an organization. Effective communication is an established element of successful leadership" (Dinger, 2019, p. 55). Lamm, Carter and Lamm (2016) suggest that without the ability to effectively communicate, leadership will not be possible.

Lamm, et al. (2016) developed a model known as Interpersonal Leadership, which encompasses many of the theories that are currently utilized to understand effective leadership. In their research,

they discovered certain entry conditions, core functions, and sub-themes that work together to determine effective leadership. “The items proposed within each area are a direct result of themes identified within the literature analyzed through an interpersonal lens” (Lamm, et al., 2016, p. 192). This model by Lamm, et al. (2016) is provided in figure 1.

As illustrated, personal attributes and communication competence are considered entry conditions – meaning that in order to do anything else that works towards effective leadership, a leader must first possess certain personal attributes such as authenticity, integrity, self-discipline, and trustworthiness. If those qualities are demonstrated by the leader, then followers show more respect and admiration to that leader. Lamm et al. (2016) also cites Bass and Avolio (1990) in the tie back to transformational leadership in that the idealized influencing factor calls for the need for leaders to act in a way that will make the followers want to imitate. “Employees tend to perceive a better relationship with the organization when they perceive their managers as authentic, ethical, balanced, fair, transparent, and consistent in what they say and do” (Men & Stacks, 2012, p. 161).

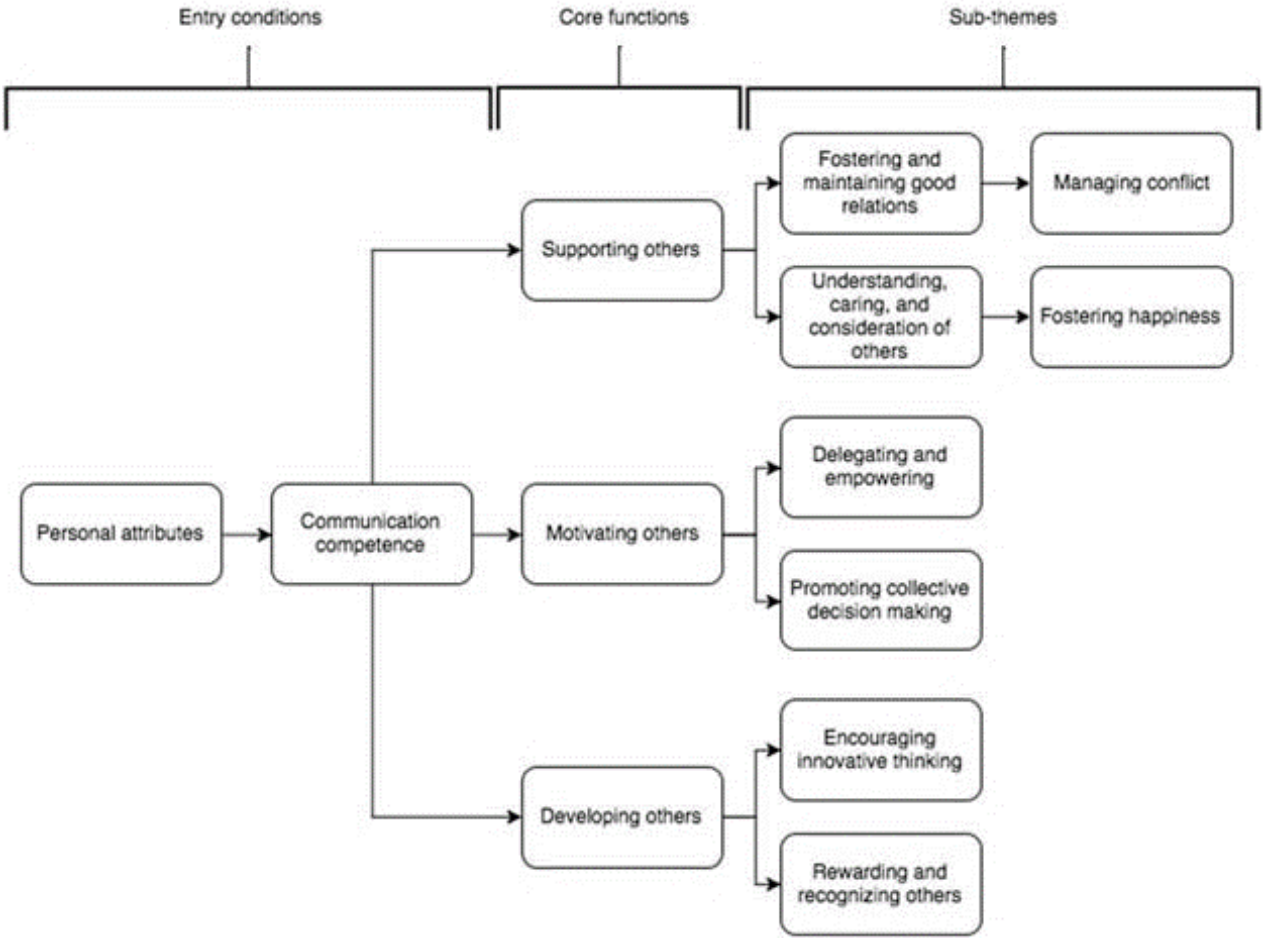

Figure 1. Interpersonal Leadership Model (Lamm, et al., 2016).

Once a leader possesses the necessary personal attributes, the next prerequisite required before being able to effectively execute the core functions is the need for communication competence. Lamm et al. (2016) highlight the research which supports that communication is a strong indicator

of interpersonal leadership developing successfully. Based on earlier discussion, it is safe to say that a significant number of scholars agree that effective communication is essential to leadership. "Communication may be the process most central to the success or failure of an organization" (Orpen, 1997, p. 519). It is important to understand effective and appropriate communication to possess communication competence.

The concept of communication competence consists of the ability to complete the communication goal at hand without violating the "rules" of a given situation (Kingsley Westerman, Reno, & Heuett, 2018). The next components of the model elucidate the need for the communication to be interpersonal in nature.

If the two entry conditions – *personal attributes and communication competence* – are satisfied, the secondary level of interpersonal leadership recognized as core functions can be implemented (Lamm et al., 2016). These core functions focus on the other, which in our case would be the employees. These include supporting others, motivating others, and developing others. There is high importance for interpersonal communication when examining these functions. As Nordby (2014) points out, shared understanding, insight and rational agreement which is all done through interpersonal communication, is shown to increase motivation and performance of employees in an organization. Along this same idea, Lamm et al. (2016) find that when the leaders and followers feel fulfilled and connected, there is an association with inspiring and influencing others. Fulfillment can often stem from developing and feeling invested into by one's leader, and connection can often stem from the relationships that are developed through the support provided by the leader. Also fitting into this connection, Nordby (2014) notes that personal motivation can be affected by lack of intimacy.

It's clear that the three core functions stem from interpersonal communication and work to develop leadership at a deeper level. To successfully support, motivate, and develop another person, interpersonal communication is necessary because both parties need to contribute to the interaction as it is happening (Nedzinskaitė-Mačiūnienė & Merkytė, 2019). In this, it is crucial for the leader to demonstrate authenticity as described by Avolio and Gardner (2005). "[A]uthentic leadership can make a fundamental difference in organizations by helping people find meaning and connection at work through greater self-awareness; by restoring and building optimism, confidence and hope; by promoting transparent relationships and decision making that builds trust and commitment among followers; and by fostering inclusive structures and positive ethical climates" (Avolio & Gardner, 2005, p. 331).

The style of authentic leadership allows for more transparent communication from both the leader and the follower. The transparency and openness allow for high quality interpersonal communication. Relating to Lamm's model of interpersonal leadership, authentic leadership involves displaying internalized regulatory processes, balanced processing of information, relational transparency, and authentic behavior which are all necessary for communication competence (Avolio & Gardner, 2005). Looking at the next level of supporting, motivating in the model of interpersonal leadership, the idea of authentic leadership supports those concepts as well. In authentic leadership, followers tend to continuously develop the same characteristics of the authentic leaders (Avolio & Gardner, 2005). In order to achieve continuous growth, interpersonal communication must take place.

In the research done by Lamm et al. (2016), there are also sub-themes that emerge at the end of the Interpersonal Leadership model. Stemming from each core function are specific sub-themes relating to that function. For example, the function of supporting others branches out to themes of fostering and maintaining good relations which lead into managing conflict. The three are all connected. Understanding, caring and having a true consideration of others is another theme emerging from the supporting of others. Through this theme, leaders should be able to effectively nurture happiness within the employees. Developing others is included as another core function in the interpersonal leadership model, and that stems into encouraging innovative thinking as well as regarding and recognizing others (Lamm et al., 2016).

The final, but equally important core function in the Interpersonal Leadership model is recognized as motivating others, which is a primary connection that is observed in this overall research. Two sub-themes that emerge from motivating others are delegating and empowering as well as promoting collective decision making, all leading to connective and effective leadership (Lamm et al., 2016). Nordby (2014) recognizes engagement to be a foundation for individual involvement and motivation for achieving organizational goals. Even at the core function of motivating others, communication competence is required. Without it, the function cannot be effective.

Dursun Eğriboyun (2017) references consistent research confirming a strong relationship between effective communication and motivation. One point to consider, however, is how communication is deemed effective. Spitzberg (1983) suggests that competence is a matter of perception. Therefore, it is likely that the receiver (employee) in an interaction determines effectiveness of the sender's (leader) communication in the same way that the receiver determines the sender's competence. To better understand this concept, it is necessary to consider Spitzberg's (1983) theory of interpersonal communication competence theory.

Interpersonal Communication Competence Theory

"The better we understand the functions served by communication, and the motivations associated with these functions, the better we will be able to instruct people in recognizing such behavior and adapting accordingly" (Spitzberg, 1983, p. 327). It has been established that interpersonal communication is essential to effective leadership. Nedzinskaitė-Mačiūnienė and Merkyte (2019) suggest that communication competence is a key factor for effective output and well-being of employees. It is important to understand Spitzberg's (1983) theory of interpersonal communication competence on a deeper level to truly understand how it's connected to leadership, motivation, and job satisfaction.

A key term included in this theory is competence. As stated before, Spitzberg (1983) suggests that interpersonal communication competence is all a matter of perception. He explains that competence is not an inherent characteristic that is possessed by someone for another to observe, but rather, it is an impression resulting from the behaviors of the people involved in the interaction, the context of the situation and the characteristics of those involved (Spitzberg, 1983). Verderber and Verderber (2016) concur with Spitzberg and explain that no matter the setting or the communication event occurring, it is of high importance to be perceived as competent by others. Men and Stacks (2012) explain that several authors suggest that a leader's communication

competence, along with communication styles and channels, can influence employees' attitudinal and behavioral outcomes.

The interpersonal communication competence theory that Spitzberg (1983) formulates suggests that the concepts of motivation, knowledge and skill are all related and essential to one another under the frame of communication competence. "How well we communicate depends, first, on how knowledgeable we are about what behaviors are appropriate in similar conversational situations; second, on how skilled we are at actually using these appropriate behaviors during the conversation; and third, on how motivated we are to ensure the conversation is a successful one" (Verderber and Verderber, 2016, para. 3). Nedzinskaitė-Mačiūnienė and Merkyte (2019) offer additional support as they highlight other research that describes interpersonal communication as knowledge about what is effective and appropriate communication, the skills to demonstrate it, and motivation to engage in the interaction.

Interpersonal communication has shown to be connected to motivation in simpler ways as well. For example, Orpen (1997) suggests that communication can affect employee motivation positively or negatively depending on how it is received. Zwijze-Koning and De Jong (2007) found that when decisions are made solely by management, there were strong communicative powers that affected motivation levels. It was suggested that because of the way decisions were made, the employees felt like they were not valued and felt unimportant. This type of method of decision-making blocks a strong, personal relationship from being formed between leaders and their employees.

Interpersonal communication leads to more personal relationships which, in turn, supports motivation which inspires job satisfaction. Trepanier, et al. (2012) highlight the research that suggests high quality relationships are connected to trust and motivation. For a relationship to develop, interpersonal communication must occur. Nordby (2014) explains that proper dialogue needs to occur in a way that encourages a common understanding and allows both parties to understand each other in a holistic, comprehensive way. Listening is also key in interpersonal communication for leaders to effectively seek and process information (Lamm, et al., 2016). Ultimately, a need for personal relationships within an organization is necessary as they are the umbrellas that cover qualities such as trust, respect, and mutual support necessary for effective leadership (Trepanier et al., 2012).

Interpersonal communication has been established as an important component in effective leadership with the provided research. When looking for a connection to motivation and job satisfaction, it's also important to understand the association of the two dependent variables. How are job satisfaction and motivation related? Can they be affected by the employee's perceptions of the leader's communication competence? The research below provides an explanation for a supported connection.

Motivation and Job Satisfaction

In much of the research cited so far, a strong connection to motivation is described within interpersonal communication efforts. A supporting theory of motivation that connects it to interpersonal leadership is the Self-Determination Theory (SDT). "According to SDT, individuals

are more likely to experience a wide range of positive psychological outcomes when they are autonomously motivated and feel competent" (Trepanier, et al., 2012, p. 272). Autonomous motivation suggests that the motivation comes from within one's self and their own values. Transformational leadership shares many components with autonomy motivation (Wang & Gagné, 2013 as cited in Gagne, et al., 2015). Interpersonal leadership connects to autonomous motivation through Lamm, Carter and Lamm's (2016) core functions by developing interpersonal relationships with employees.

Research also supports a connection between job satisfaction and leadership communication. Madlock (2008) found that a positive predictor of an employee's job satisfaction is their leader's communication competence (as cited in Men & Stacks, 2012). Erben, Schneider, and Maier (2019) also conducted research that supported a positive association between job satisfaction and organizational commitment, organizational citizenship, and loyalty while finding a negative association with absenteeism, tardiness, and employee turnover (p. 508). Job satisfaction has been widely studied by researchers throughout the years, and while it is important on its own, much of the research suggests it goes hand in hand with motivation.

Understanding the connection between job satisfaction and employee motivation inspired the idea to explore how both areas may be connected similarly or dissimilarly to perceptions of leadership communication.

The research is clear that a connection exists between interpersonal communication, motivation, and job satisfaction. An understanding of the role perception has in competence provides a key connection. The perception of interpersonal communication competence can affect the way an interaction occurs and how relationships are developed. The research suggests that motivation is connected to the type of relationship that is developed which in turn can likely effect job satisfaction. The instruments used to measure this connection also provide support within the theories that inspired them.

Measures

The research presented earlier supports the idea that there is a connection that exists between leadership, communication, (more specifically, interpersonal leadership and interpersonal communication competence) motivation, and job satisfaction. To examine if this connection relates to employee motivation and job satisfaction being affected by their perceptions of their leader's interpersonal communication competence, it's necessary to select appropriate measures. To do this, there needed to be a perception component, a strong perceived communication component, an appropriate motivation measure as well as a reputable job satisfaction measure. With these criteria, there were three scales that were found to be most applicable – the Perceived Leadership Communication Questionnaire (PLCQ), the Multidimensional Work Motivation Scale (MWMS), and the Job In General (JIG) scale.

Perceived Leadership Communication Questionnaire. The Perceived Leadership Communication Questionnaire (PLCQ) is actually a two-part scale that is designed to compare the responses of leaders and followers (employees) using a twelve-question survey (Schneider, et al.,

2015). The two-part scale measures a "self-rating" (PLCQ-SR) as well as an "other-rating" (PLCQ-OR).

For the purposes of this research which has a focus only on one-way perception of the leader by the employee, it is only necessary to utilize the "other-rating" part of the survey.
The PLCQ-OR (specifically the "other-rating" portion) has shown evidence of internal consistency, construct validity, and criterion validity through results of initial studies (Schneider, et al., 2015). The six comprehensive questions address sensitivity to needs, devotion of time, communication with supervisor, understanding goal achievement, open communication, and problem solving. Each item is rated on a five-point response scale ranging from 0 (completely disagree) to 4 (completely agree) (Schneider, et al., 2015). This instrument focusses on the communication aspects of leadership behavior which inherently supports the connection between leadership and communication that has been suggested thus far.

Up to now, the PLCQ has typically been used only in measuring correlations with job satisfaction (Erben, Schneider, & Maier, 2019). It is not yet a commonly used measure as it is still relatively new, but in the research utilizing it so far, it has been found to be reliable and valid. It relates considerably to the research in this study making it an appropriate measure to employ. It will also provide an opportunity to explore the instrument with employee motivation rather than solely job satisfaction.

Multidimensional Work Motivation scale. The Multidimensional Work Motivation Scale (MWMS) is another measure that is relatively new to the research world. However, it has already shown evidence of validity in nine countries and in seven different languages using data from 3,435 workers (Gagne, et al., 2015). Factorial analyses indicated that the 19-item scale has the same factor structure across the seven languages (Gagne, et al., 2015). There are many scales available to measure motivation, however, many of them are controversial in there validity. The MWMS seemed to be most supported measure as well as the most appropriate measure for the context of this research.

MWMS developed from the previously reviewed self-determination theory (SDT). SDT offers a cross-culturally valid framework that illustrates employees who feel autonomous, competent, and related to others will likely have authentic engagement (Meyer & Gagné, 2008 as cited in Gagne, et al., 2015). Central concepts to the SDT include autonomous motivation and perceived competence (Trepanier, et al., 2012). Perceived competence aligns along the theory of interpersonal communication competence supporting the appropriateness of this measure. Also, as was discussed in the earlier communication and leadership research, interpersonal communication can have substantial impacts on how people feel about themselves.

Most SDT-based measures of motivation, including MWMS, ask the respondents why they do an activity by asking them to rate statements that reflect various types of behavioral principles (Gagne, et al., 2015). They continued to focus the instrument by narrowing the scope to provide the most effective measure of work motivation. The development of the scale is best explained in this passage from the original study:

> SDT proposes a multidimensional view on motivation and specifies how these different types of motivation can be promoted or discouraged. Three major categories of motivation are discerned. First, amotivation is defined as the absence of motivation towards an activity. Second, intrinsic motivation is defined as doing an activity for its own sake, that is, because it is interesting and enjoyable in itself. Third, extrinsic motivation refers to engaging in the activity for instrumental reasons, such as receiving rewards and approval, avoiding punishments or criticism, boosting one's self-esteem, or reaching a personally valued goal. Given this diversity of instrumental reasons, SDT specifies different subtypes of extrinsic motivation, which vary in their internalization. (Gagne et al., 2015)

"SDT offers a multidimensional conceptualization of motivation, allowing for the assessment of both the level and quality of motivation" (Gagne, et al., 2015, p. 179). For the purpose of this study, it is appropriate to focus on the extrinsic, social motivations as well as amotivation. In this case, it would be more appropriate to consider external, social motivations. Gagne, et al. (2015) highlights that research on positive feedback has found that it relates positively to intrinsic motivation (p. 181). Positive feedback is more apparent in social interactions between an employee and supervisor. If this has been discovered by an employee, they may seek that social motivation to feel motivated in other ways.

Amotivation is another measure to focus in on as it is possible people are simply not motivated at all. According to Gagne, et al. (2015), transformational leadership would be expected to be negatively related to amotivation. That information means that high levels of motivation are positively related to transformational leadership. This information naturally leads to the expectation that amotivation will negatively correlate with employees' perceptions of their leaders' communication competencies. It was important to include amotivation in the study for clarification.

Job In General scale. After establishing job satisfaction to be an important element to measure within this research, the next essential step was to pick the most appropriate tool to measure it. Because job satisfaction has been widely studied, there are many different measures available. The goal in this specific research is to obtain a general impression of the employees' overall job satisfaction. With this in mind, a measure that had been tested for reliability and validity was preferred as well as a measure that is still being utilized in recent research.

One measure frequently used is the Job Descriptive Index (Smith, et al., 1969). Recently, the JDI has not been receiving as strong reviews as opposed to some other measurements. However, one section of the JDI, the Job In General (JIG) scale (Ironson, et al., 1988), has been used and validated in more recent research. In a study done by Van Saane, et al., (2003) exploring 29 various job satisfaction measurement instruments, they found that the Job In General scale was one of seven that met the quality criteria for reliability and validity. "Surprisingly, the JDI (Smith in [13]) did not meet the quality criteria, although it is the most frequently used job satisfaction instrument in organizational science [13,52]" (Van Saane, et al., 2003, p. 195). Ironson, et al. (1988) strongly supported the notion of the JIG having the capabilities of predicting variables such as intent to leave, life satisfaction, trust in management and identification with the work organization even more so than the JDI.

JDI and JIG have been known to be used internationally in various settings and to be applicable to all types of jobs within an organization in addition to being translated into multiple languages (Suzan, 2016). The JIG has been used more frequently in recent years, especially to measure general job satisfaction. Ironson, et al. (1988) explained that general scales are designed to estimate the respondent's general, overall feelings regarding their job which can then be used to predict important factors such as employee turnover, absenteeism, and organizational effectiveness. For this research, we only wanted to observe the general job satisfaction of employees to explore a connection to perceived leadership communication rather than diagnosing a specific issue within an organization making the JIG scale a great match.

The JIG was developed to include characteristics such as multiple items to provide an estimate of internal consistency, ease of reading and response, minimal overlap of content with measures of different variables, and demonstrate convergent validity (Ironson, et al., 1988). Because of the ease of reading and response, it does not take long for working professionals to complete the survey, providing users of the scale with a generally higher response rate. This was also another reason this scale was selected. To develop this simple, yet informative scale, they first assembled a collection of 42 global and evaluative adjectives and short phrases with a long-term frame of reference relating to general feelings about a person's job (Ironson, et al., 1988). These various adjectives and phrases were based off of the extensive review of literature done by Ironson and his team (1988), and the list was eventually narrowed down to 18 appropriate expressions with "yes," "no," or "?" for response choices.

RESEARCH QUESTION

Flauto (1999, as cited in Dinger, 2018) suggests that the ability to communicate effectively is a prerequisite for effective leadership. We would argue that effective leadership is directly connected to the employees having positive levels of motivation as well as positive levels of job satisfaction. It is likely that the employee's perception of their leader's ability to communicate well and interact with them at an interpersonal level is directly connected to the employee's motivation and job satisfaction.

Based on the review of literature presented, the following research question and hypotheses are proposed.

RQ. How does perceived leadership communication correlate with employee job satisfaction and motivation?

H1. When perceived leadership communication is viewed as favorable by employees, the employees have higher job satisfaction.

H2. When perceived leadership communication is viewed as favorable by employees, the employees have higher levels of motivation.

H3. Higher levels of job satisfaction correlate with higher levels of employee motivation.

H4. Employee amotivation measures will be negatively correlated with extrinsic, social motivation measures.

METHOD

To answer the research question and test the hypotheses, it's necessary to gather the appropriate information. The information being sought involves employee perception of their leader's communication efforts as well as the employee's motivation and job satisfaction. With this information, we would look to see if the perceptions the employees have of their leader's communication efforts correlates with their motivation to work as well as their job satisfaction.
A survey questionnaire combining the questions from the Perceived Leadership Communication Questionnaire (PLCQ-OR), the Multidimensional Work Motivation Scale (MWMS), and the Job In General (JIG) scale were used to collect responses. Only the "other response" questions of the PLCQ were used due to the nature of the questions rather than adding the "self-response" questions for the employees to answer. Also, only the amotivation and external, social motivation questions will be used from the MWMS because of their applicability to the research questions posed earlier. Besides the two exceptions, the survey questions were used in the original format. The final questionnaire contained 38 questions which included a demographics section. To respect the time of the participants, the survey was intentionally kept short and easy to complete with the goal of a higher response rate.

To gather a large number of responses, the best option locally was to survey employees from University X. It was decided that staff would be the focus rather than faculty since the results would be more applicable to general organizations outside of higher-education organizations. A local option was best due to resources available as well as the name recognition that the researchers already had to staff on campus.

Keeping the survey responses anonymous was an important consideration to allow the respondents to feel more secure, thus providing honest answers. To ensure anonymity, names would not be included on or with the electronic survey. Identifying questions such as income, specific age, specific years of service, and the unique department were intentionally left out of the demographics section to also support anonymity.

It was originally intended for surveys to be distributed in person at large staff meetings and electronically to provide opportunities for various types of employees to respond. Since many positions do not involve daily, long-term computer work, the electronic version may not have been as convenient. However, the effects of COVID-19 eliminated the in-person survey option. The software program, Qualtrics was used to create and distribute the electronic survey.

To collect the appropriate email addresses to distribute the survey, we contacted vice presidents of the departments on campus for their listservs. After working with Human Resources and the IT department, we were able to receive a full list of the university's staff email address. These email addresses were added to a group in Qualtrics to distribute, and settings were made to ensure anonymity and decrease the risk of multiple responses. The responses were limited to only those who received the email through Qualtrics as it was done through invitation only. If a responder

tried to take the survey more than once, the survey would end immediately and display a default message.

Participants were also given the opportunity to enter a drawing for a $25 Amazon.com gift card after submitting the survey. There were four names drawn to receive a gift card. To keep survey responses anonymous, email addresses were collected separately using another Qualtrics survey. A link was provided to access that survey with the message of thanks after the survey was submitted.

RESULTS

After the responses were collected, they were coded and entered into SPSS to determine any correlations and relationships to test the hypotheses presented above. The researchers used the coding methods in the original instruments being used for the survey. Pearson correlation tests were run to test for correlations among MWMS, PLCQ, and JIG results.

Respondent profile

There were 223 responses received through the Qualtrics survey from staff employees of the University, after allowing about one month for the participants to submit their self-reported answers to the online survey. Two reminders were sent out in that time encouraging respondents to participate in the study. The survey was sent to 874 staff employees via their work email accounts meaning that the response rate was 26%.

Responses came from a variety of ages ranging from 18 to over 65 years. Of these respondents, 150 (67.26%) most closely identified with the female gender while 69 (30.94%) indicated their gender as male. The remaining responses were either nonbinary (0.45%) or chose not to answer (1.35%). The respondents were also asked to disclose their highest level of education. Many had some level of college education. Only 12 (5.38%) respondents indicated their highest level of education to be a high school diploma or GED. Twenty (8.97%) indicated they completed some college, and 19 (8.52%) said they had earned an Associate's Degree. Seventy-Seven (34.53%) participants indicated a Bachelor's Degree was their highest level of education, and the remaining 95 (42.6%) respondents said they had earned a Master's Degree or above.

The variety of responses continued with years of service to the university. Among the 223 responses, 46 (20.72%) participants had less than 3 years of experience at the institution. Another 62 (27.92%) had worked for the university 3-5 years, 42 (18.92%) answered 6-10 years, 45 (20.27%) said 11-19 years, and 16 (7.21%) participants answered with 20-29 years. Only nine (4.05%) responses indicated 30-39 years of service while the remaining two (0.90%) participants served the institution 40 years or more. The overwhelming majority of respondents indicated they were full-time employees of the institution with only seven (3.14%) indicating they were part-time employees. A strong majority of participants (185, 84.09%) indicated that they worked in primarily an office position while the rest indicated they worked in either a primarily manual labor position (6.82) or a mix of the two (9.09%). The survey respondents represented a good variety of staff employees. Ideally, there would have been more representation of the manual labor positions, but

only collecting responses online presented a disadvantage in that area. However, the variety of ages and years of service was a good mix of representation.

Results for leader communication, work motivation and job satisfaction scales

The remainder of the results section will focus on the results of the three measures previously discussed: The Perceived Leadership Communication Questionnaire (PLCQ), The Multidimensional Work Motivation Scale (MWMS), and the Job In General (JIG) scale.

Perceived Leadership Communication Questionnaire (PLCQ). The PLCQ asked participants to rate their leader's/supervisor's communication efforts within the workplace by indicating their level of agreement with the six statements presented on table 1. Overall, it appeared that the majority of respondents have positive perceptions of their leader's communication efforts. The average overall score of the questions was a 4.03 out of 5. A score of 5 indicated that the responder completely agreed with the positive statement of their leader's/supervisor's communication efforts. The lowest mean score (3.71) was in response to the statement "My supervisor seems to like devoting his/her time to me" while the highest average score (4.22) was with the statement "My supervisor and I can speak openly with each other."

Table 1. Mean scores for PLCQ items

PLCQ Items	Mean	St. Dev	N
My supervisor seems to like devoting his/her time to me.	3.71	1.200	223
I am content with the way my communication with my supervisor is going.	3.94	1.275	223
My supervisor and I share an understanding of how we would like to achieve our goals.	4.04	1.157	221
Especially when problems arise, my supervisor and I talk to each other even more intensively in order to solve the problems.	4.10	1.230	221
My supervisor is sensitive to the needs of others.	4.17	1.174	223
My supervisor and I can speak openly with each other.	4.22	1.168	222

Multidimensional Work Motivation scale (MWMS). The MWMS provided a closer look at the motivation of the employees. Participants were asked why they do or would put efforts into their current job by indicating their level of agreement to six different questions. The responses would tell us in what way the respondent is most motivated as discussed previously with a focus on amotivation and social external regulation. Two MWMS subscales (AM-Amotivation and ExtSoc-Extrinsic, Social) collected responses related to work motivation in the current investigation. For both MWMS subscales, the stem in the questionnaire was "Why do you or would you put efforts into your current job?" and used the following response scale: 1 = not at all, 2 = very little, 3 = a little, 4 = moderately, 5 = strongly, 6 = very strongly, and 7 = completely.

Table 2 presents the mean scores for the three measures of amotivation. The extremely low mean scores fall very near the minimum score of 1 on the 1-7 scale. Thus, the mean scores indicate an extremely low level of amotivation in the survey respondents.

Table 2. Mean scores for MWMS-Amotivation items

MWMS-AM Items	Mean	St. Dev	N
I don't, because I really feel that I'm wasting my time at work.	1.48	.986	217
I do little because I don't think this work is worth putting efforts into.	1.30	.821	216
I don't know why I'm doing this job, it's pointless work.	1.21	.676	216

Table 3 presents the mean scores for the three items related to extrinsic or social regulation. While the mean scores for these three items are slightly higher than the amotivation items, the mean scores of 2.81, 2.85 and 3.44 are all below the scale's median of 4. The responses indicate that the respondents believed that these extrinsic variables were slightly related to their work motivation, but they still do not represent a substantial motivator.

Table 3. Mean scores for MWMS-Extrinsic Regulation-Social items

MWMS-ExtSoc Items	Mean	St. Dev	N
To get others' approval	2.81	1.719	215
Because others will respect me more	3.44	1.847	216
To avoid being criticized by others	2.85	1.760	216

Job in General scale (JIG). Finally, the participants were asked about how they viewed their job in general by being presented with a descriptive word while being asked to think of their job in general. They were instructed to select "yes," "no," or "?" to determine their agreement that word described the way they viewed their job in general. Overall, the responses were strongly in agreement with the positive words and not in agreement with the negative words, as shown in table 4.

Table 4. Response Frequencies for Job in General (JIG) Satisfaction Scale Items

Positive JIG Items	Yes	No	?
Acceptable	199	8	7
Good	195	13	6
Pleasant	190	17	8
Worthwhile	185	8	21
Enjoyable	175	19	19
Better than Most	163	32	18
Makes Me Content	156	33	25
Great	136	46	33
Excellent	125	56	32
Superior	95	79	39

Negative JIG Items	Yes	No	?
Rotten	5	207	1
Waste of Time	2	200	12
Bad	9	195	11
Worse than Most	9	195	9
Poor	12	193	7
Undesirable	13	192	9
Inadequate	16	187	10
Disagreeable	10	183	19

The results on table 4 illustrate that the vast majority of participants viewed their job as generally positive. The top descriptive word agreed to by participants was "acceptable" with 93% agreeing that the term described their job in general. The next two terms with the highest level of agreement were "Good" and "Pleasant." "Rotten" was the term most commonly determined to **not** be a word the participants would use to describe their job in general with 97.18% of responses indicating that the term was not descriptive of their job.

Hypotheses Tested

The research question investigated in this research addressed how perceived leadership communication might correlate with employee job satisfaction and motivation. Earlier, four hypotheses were proposed for this question. The results for all four hypotheses are presented in Table 5 and are discussed below.

Table 5. Correlation results for perceived leader communication, motivation and satisfaction

		MWMS_AM	MWMS_ExtSoc	JIG
PLCQ	Pearson r	**-.243****	.033	**.581****
	Sig (2-tail)	.000	.635	.000
	N	214	213	206
MWMS_AM	Pearson r		**.176****	**-.340****
	Sig (2-tail)		.010	.000
	N		214	207
MWMS_ExtSoc	Pearson r			-.015
	Sig (2-tail)			.829
	N			206

*** Correlation is significant at the 0.01 level (2-tailed).*

H1. When perceived leadership communication is viewed as favorable by employees, the employees have higher job satisfaction.

A Pearson correlation was used to test for a correlation between the Job in General (JIG) satisfaction measure composite results and the Perceived Leader Communication Questionnaire (PLCQ) composite results. As noted on table 5, the findings significantly correlated at the 0.01 level. The correlation coefficient of .581 indicates a positive, moderately strong relationship (Salkind, 2017), demonstrating that higher levels of perceived leader communication correlated with higher levels of general job satisfaction.

H2. When perceived leadership communication is viewed as favorable by employees, the employees have higher levels of motivation.

To find the potential correlations between motivation and how employees view their leader's communication efforts, it was decided that amotivation and external, social motivation needed to be tested separately. A Pearson correlation test was used to look for a correlation between the Perceived Leader Communication Questionnaire (PLCQ) composite results and two measures of employee motivation that are subscales of the Multidimensional Work Motivation Scale (MWMS) – Amotivation and Extrinsic, social regulators. As noted on table 5, the findings for motivation scales were mixed. The Pearson coefficient of -.243 for the amotivation subscale was statistically significant, but represents only a weak, negative correlation. The direction of the correlation (negative) is consistent with the measures, since higher perceived leader communication would be hypothesized to correlate with lower levels of amotivation. While statistically significant, the

results explain only about 6% of the variance. However, the results do offer limited support for hypothesis 2.

The correlation coefficient for the extrinsic, social regulators subscale of the MWMS with the PLCQ was .033, demonstrating no relationship, and it is not statistically significant. These results indicate that external motivation factors had no relationship with how the employees' perceived their leaders' communication efforts, thus offering no support for hypothesis 2.

H3. Higher levels of job satisfaction correlate with higher levels of employee motivation.

Additional Pearson correlation tests were used to ascertain if there is a relationship between the two MWMS subscale results and the composite JIG results. In the correlations of satisfaction (JIG) with amotivation, a moderate, negative correlation of -.340 was found, and it was significant at the 0.01 level. This means that high motivation correlated with positive job satisfaction because, as noted earlier, amotivation is essentially the absence of motivation. These results do offer support for hypothesis 3.

When testing a correlation between the second MWMS subscale (extrinsic, social regulators) and job satisfaction, the results showed no correlation and no significance, offering no support for hypothesis 3. Thus, the extrinsic, social subscale was not significant or correlated with the measures for job satisfaction (JIG) or perceived leader communication (PLCQ).

H4. Employee amotivation measures will be negatively correlated with extrinsic, social motivation measures.

Because amotivation is essentially lacking motivation, it was hypothesized that there would be a negative correlation between the two measures of work motivation, so that higher levels in one measure would be related to lower levels in the other. As noted on table 5, the Pearson r value of .176 was achieved in this correlation test. The result does not support the hypothesis. Not only is the correlation coefficient evidence of, at best, a weak relationship, the relationship is positive. These results may indicate internal validity issues between the two MWMS subscales. Additionally, since the responses to the PLCQ were so strongly positive, there may not have been a sufficient range in the responses to demonstrate a stronger correlation.

DISCUSSION

The measures of perceptions of leader communication, job satisfaction and motivation resulted in surprisingly consistent and positive results from the respondents in the current investigation. The overall mean score on the six measures of perceived leader communication (PLCQ) found on table 1 was a 4.03 on a 5-point scale, so the perceptions of leader communication were positive. Additionally, the mean scores for the three measures of amotivation were very low, nearly at the minimum possible value (1) on the 7-point scale. Finally, the response frequencies provided on table 4 showed that the respondents strongly identified the positive adjectives as being descriptive of their job and the negative adjectives as not being descriptive.

One interesting trend among the correlation results presented in table 5 was the difference in significant correlations between the two subscales of the MWMS – amotivation and extrinsic/social regulators. As noted in table 5, the amotivation scale had statistically significant correlation coefficients with both the measure of general job satisfaction (JIG) and the measure of perceived leader communication (PLCQ). Both of these correlations were negative, so stronger perceptions of leader communication and job satisfaction were found in those with low levels of amotivation. Gagne, et al. (2015) found that amotivation is negatively related to transformational leadership, thus it is not surprising that amotivation is negatively associated with perceptions of leader communication and job satisfaction.

Contrary to the results for the amotivation subscale, the extrinsic/social regulator subscale did not have statistically significant results for either job satisfaction or perceived leader communication. The explanation for the lack of significant correlations with the external regulators may be rooted in the Self Determination Theory discussed earlier. Trepanier et al. (2012) argued that when people are autonomously motivated, where the motivation comes from within an individual and their value set, that they are likely to experience many "positive psychological outcomes" (272). Indeed it appears that the external, social regulators are not correlated with satisfaction or perceptions of a leader's communication.

The results of the current investigation demonstrate significant correlations between the perception of leader communications with job satisfaction and motivation. These results, and the lack of a correlations of external regulators for motivation on job satisfaction or leader communication, should give pause to organizational leaders and encourage them to promote leader communication, while not relying on extrinsic regulators (e.g., sales contests, sales goals, etc.) to motivate employees.

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