

Gullibility and the Fundamental Social Motives

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### **Abstract**

Social motives have been found to be associated with basic personality traits (e.g., agreeableness). Conceptualizing gullibility as a maladaptively high level of agreeableness, the present study examined whether gullibility was associated with the fundamental social motives (e.g., self-protection, disease avoidance, group affiliation) when controlling for basic personality dimensions (e.g., extraversion, conscientiousness). The sample consisted of 542 undergraduate students at Oakland University. The results revealed that gullibility was positively associated with the fundamental social motives pertaining to group belonging and avoiding exclusion (e.g., group affiliation, break up concerns, exclusion concerns) and negatively associated with disease avoidance. The discussion will focus on the implications of these findings for the understanding of gullibility and how these results may expand our understanding of the links between gullibility and motivation.

### Gullibility and the Fundamental Social Motives

Agreeableness has long been studied as one of the positive traits in the traditional Five-Factor Model of personality (e.g. Digman, 1990), but can individuals be agreeable to a fault? I contend, along with other researchers (e.g., Gore, Presnall., Lynam, Miller, & Widiger, 2012; Petterson et al. 2014), that gullibility appears to be a maladaptive personality trait that exists at the far end of the agreeability spectrum, opposite of disagreeability. I will use Rotter's (1980) definition of gullibility as believing something when most people in the same situation and social group would perceive that belief to be naive or foolish. Gullibility is not a prototypical pathological personality trait, but I will argue that it should be considered along with other pathological personality traits such as antagonism and detachment. Gullibility has only received limited empirical attention, but the existing research supports the notion that gullible individuals are maladaptive (Yamagishi, Kikuchi, & Kosugi, 1999). The maladaptive aspects of the Big Five personality traits are typically considered in a unipolar-fashion such that antagonism – which is characterized by a low level of agreeableness is considered maladaptive – is viewed as the maladaptive form of agreeableness (Digman, 1990). As a result, personality traits reflecting especially high levels of agreeableness – such as gullibility – have been largely ignored in the literature until recently (Petterson et al., 2014). Studying gullibility as a maladaptive trait all its own is an important advancement for the literature, because relatively little is known about gullibility.

The fundamental social motives framework is a system that has been formed by various experiences and challenges that is used to strengthen, shape, and select behavior to manage both recurrent social threats and opportunities for humans (Neel, Kenrick, White, & Neuberg, 2016). These fundamental social motives are derived from Maslow's (1943) hierarchy of needs

(Kenrick et al., 2010). These fundamental social motives include both social desires and self-seeking interests such as: self-protection, disease avoidance, affiliation (group, exclusion concerns, independence), status seeking, mate seeking, mate retention (general, breakup concerns), and kin care (for family, for children; Neel et al., 2016). This framework has been helpful in predicting other cognitive components such as behavior, prejudice, stereotyping, economic decision making, and aggression (Neel et al., 2016). It is important to note that social motives can change across the lifespan (e.g., a child is not likely to be very concerned about kin care). These fundamental social motives have been shown to be strongly related to aspects of personality (e.g., Neel et al., 2016; Zeigler-Hill & Hobbs, 2017), but fundamental social motives are distinct from personality traits.

### **The Present Study**

The present study addresses the current gap in the literature concerning the connections between personality traits and motivation. These cognitive components rarely interconnect due to the differing interests of researchers in their respective fields; however, personality and motivation are interrelated. More specifically, it has been argued that personality traits are how individuals go about satisfying their social motivations (e.g., Zeigler-Hill & Hobbs, 2017). The present study will address the links between gullibility and the fundamental social motives of individuals. Given that there is little research concerning the links between personality and motivation, it is not particularly surprising that there is virtually no research that has examined the links between gullibility and the fundamental social motives. The only somewhat related literature studied how the fundamental social motives bias interactions with other individuals (Maner et al., 2005). The present study hopes to build on the previous research in this area by providing the additional explanatory variable of the personality trait of gullibility. A greater

understanding of the connections between gullibility and the fundamental social motives may improve the conceptualization of both constructs.

### **Summary and Predictions**

The goal for this study was to examine the associations that gullibility has with the various fundamental social motives in order to extend what is known about the connections between personality traits and motivation. Previous research has examined the associations between pathological personality traits and the fundamental social motives and their ability to predict specific behaviors (Zeigler-Hill & Hobbs, 2017). Another study examined the relationship between the fundamental social motives of self-protection and mate seeking/retention and how they can bias interpersonal perception and behavior (Maner et al., 2005). Both of the aforementioned studies are beneficial in providing a foundation for the current study and the consideration of fundamental social motives; however, no previous research has considered the connections that gullibility might have with the fundamental social motives. I wanted to examine the possibility that gullibility may be associated with the interpersonal aspects of the fundamental social motives, largely due to overly agreeable individuals desiring to build and maintain their connections with others.

The purpose of the present study was to examine the associations that gullibility has with the fundamental social motives. I predicted that individuals who reported being more gullible would also report higher levels of social motives concerning affiliation with others and lower levels of social motives reflecting independence. I hypothesized that gullibility would have a positive association with affiliation, exclusion concerns, mate seeking, and mate retention motives as well as a negative relationship with independence, even when controlling for basic personality dimensions. My rationale for these predictions was that gullible individuals are

dependent on others so they would be highly motivated to build and maintain connections with others in their social environments. These predictions were consistent with the results of previous studies showing that agreeableness is associated with affiliative motives (e.g., Olson & Weber, 2004).

## Method

### Participants and Procedure

Participants were 542 undergraduate students (444 women, 98 men) at Oakland University in the Midwestern region of the United States who were enrolled in psychology courses and participated in return for partial fulfillment of a research participation requirement. Participants were asked to complete measures of gullibility and fundamental social motives – along with other measures that are not relevant to the present study (e.g., grit) – via a secure website. The mean age of participants was 19.78 years ( $SD = 4.31$ ), and the racial/ethnic composition of the sample was 77% White, 11% Black, 4% Asian, 3% Hispanic, and 5% other.

### Measures

**Gullibility.** Gullibility was captured using the 10-item gullibility subscale of the Five-Factor Dependency Inventory (Gore et al., 2012). This measure consists of items such as “I tend to believe what others tell me” and “It takes a lot for me to trust someone.” Participants were asked to indicate their level of agreement with each statement using scales that ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). The internal consistency for this measure was  $\alpha = .86$ .

**Basic Personality Dimensions.** Personality traits were assessed using the HEXACO-60 Personality Inventory developed by Ashton and Lee (2009). This inventory was selected by the researchers as a briefer version of the original HEXAO-PI (Lee & Ashton, 2004; Lee & Ashton, 2008). The HEXACO-60 is a 60-item instrument that assesses the following traits: *honesty-*

*humility* (10 items; e.g., “I wouldn’t use flattery to get a raise or a promotion at work, even if I thought I would succeed” [ $\alpha = .70$ ]), *emotionality* (10 items; neuroticism in the Big Five; e.g., “I would feel afraid if I had to travel in bad weather conditions” [ $\alpha = .81$ ]), *extraversion* (10 items; e.g., “When I’m in a group of people, I’m often the one who speaks on behalf of the group” [ $\alpha = .78$ ]), *agreeableness* (10 items; e.g., “My attitude toward people who have treated me badly is ‘forgive and forget’” [ $\alpha = .75$ ]), *conscientiousness* (10 items; e.g., “I plan ahead and organize things, to avoid scrambling at the last minute” [ $\alpha = .80$ ]), and *openness to experience* (10 items; e.g., “I’m interested in learning about the history and politics of other countries” [ $\alpha = .77$ ]). Participants were asked to indicate their level of agreement with each statement using scales that ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Correlations of the HEXACO-60 with instruments capturing the Big Five personality traits have often been above .50 (Ashton & Lee, 2009).

**Fundamental Social Motives.** Fundamental social motives were assessed with the Fundamental Social Motives Inventory (Neel et al., 2016). The Fundamental Social Motives Inventory is a 66-item instrument designed to assess the following motives: *self-protection* (6 items; e.g., “I think a lot about how to stay away from dangerous people” [ $\alpha = .88$ ]), *disease avoidance* (6 items; e.g., “I avoid places and people that might carry diseases” [ $\alpha = .85$ ]), *group affiliation* (6 items; e.g., “Being part of a group is important to me” [ $\alpha = .78$ ]), *exclusion concerns* (6 items; e.g., “I worry about being rejected” [ $\alpha = .87$ ]), *independence* (6 items; e.g., “Having time alone is extremely important to me” [ $\alpha = .82$ ]), *status seeking* (6 items; e.g., “It’s important to me that others respect my rank or position” [ $\alpha = .71$ ]), *mate seeking* (6 items; e.g., “I spend a lot of time thinking about ways to meet possible dating partners” [ $\alpha = .87$ ]), *mate*

*retention* (6 items; e.g., “It is important to me that my partner is sexually loyal to me” [ $\alpha = .77$ ]), *breakup concerns* (6 items; e.g., “I often think about whether my partner will leave me” [ $\alpha = .92$ ]), *kin care for family* (6 items; e.g., “Caring for family members is important to me” [ $\alpha = .87$ ]), and *kin care for children* (6 items; e.g., “Providing for my children is important to me” [ $\alpha = .87$ ]). Participants were asked to rate their level of agreement with each statement using scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

### Results

Descriptive statistics and zero-order correlations are presented in Table 1. Preliminary analyses examined sex differences for gullibility, the basic personality dimensions, and the fundamental social motives are presented in Table 2. Compared to men, women reported higher levels of gullibility ( $t[540] = -2.94, p = .003$ ), honesty-humility ( $t[540] = -2.78, p = .006$ ), extraversion ( $t[540] = -9.35, p < .001$ ), conscientiousness ( $t[540] = -4.80, p < .001$ ), self-protection ( $t[540] = -5.21, p < .001$ ), disease avoidance ( $t[540] = -2.50, p = .02$ ), exclusion concerns ( $t[540] = -3.24, p = .001$ ), mate retention ( $t[540] = -5.45, p < .001$ ), kin care for family ( $t[540] = -3.00, p = .003$ ), and kin care for children ( $t[540] = -3.68, p < .001$ ) as well as lower levels of mate seeking ( $t[540] = 2.91, p = .004$ ). No other sex differences reached conventional levels of statistical significance. Preliminary analyses included sex as a potential moderator of the associations that gullibility had with fundamental social motives, but sex did not moderate the results reported in the following section so these sex differences will not be discussed further.

Path analysis (Hoyle & Smith, 1994) was used to isolate and examine the unique association that gullibility had with each of the fundamental social motives. Path analysis was

Table 1  
*Intercorrelations and Descriptive Statistics*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Gullibility	—																	
2. Honesty-Humility	-.05	—																
3. Emotionality	.27***	.12**	—															
4. Extraversion	.02	.04	-.11*	—														
5. Agreeableness	.22***	.34***	-.03	.19***	—													
6. Conscientiousness	-.15***	.35***	.25***	.25***	.10*	—												
7. Openness	-.11*	.12**	-.13**	.02	.14***	.04	—											
8. Self-Protection	.04	-.01	.49***	.10*	-.10*	.24***	-.11**	—										
9. Disease Avoidance	-.07	-.09*	.30***	.06	-.13**	.20***	-.16***	.49***	—									
10. Group Affiliation	.20***	.09*	.22***	.45***	.22***	.19***	.01	.24***	.00	—								
11. Exclusion Concerns	.29***	-.18***	.49***	-.18***	-.12**	-.01	-.08	.36***	.16***	.35***	—							
12. Independence	-.16**	.01	-.07	-.22***	-.12**	.08	.16**	.10*	-.02	-.27***	-.08	—						
13. Status Seeking	.06	-.34***	.13**	.22***	-.19***	.14***	-.04	.33***	.20***	.28***	.35***	.05	—					
14. Mate Seeking	.06	-.18***	-.07	-.05	.03	-.18***	-.05	-.04	-.03	.11*	.20***	-.10*	.10*	—				
15. Mate Retention	.01	.18***	.36***	.17***	.00	.38***	-.02	.33***	.16***	.23***	.20***	-.04	.13**	-.23***	—			
16. Breakup Concerns	.21***	-.20***	.25***	-.33***	-.15***	-.15***	-.04	.13**	.06	-.04	.47***	.03	.14***	.17***	.05	—		
17. Kin Care for Family	.02	.23***	.28***	.29***	.11*	.38***	-.11**	.37***	.16***	.37***	.16***	-.02	.12**	-.12**	.56***	-.13**	—	
18. Kin Care for Children	.02	.01	.13**	.18***	-.02	.16***	.00	.33***	.10*	.26***	.14**	.10*	.16***	.05	.31***	.06	.37***	—
<i>Mean</i>	2.83	3.49	3.51	3.22	3.18	3.65	3.10	5.02	4.24	4.74	4.47	4.30	4.31	3.52	5.90	3.65	5.94	5.01
<i>Standard Deviation</i>	0.81	0.61	0.69	0.64	0.61	0.64	0.71	1.27	1.33	1.09	1.36	1.22	1.02	1.63	0.98	1.62	1.17	1.44

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Table 2  
*Sex Differences for Gullibility, Basic Personality Dimensions, and Fundamental Social Motives*

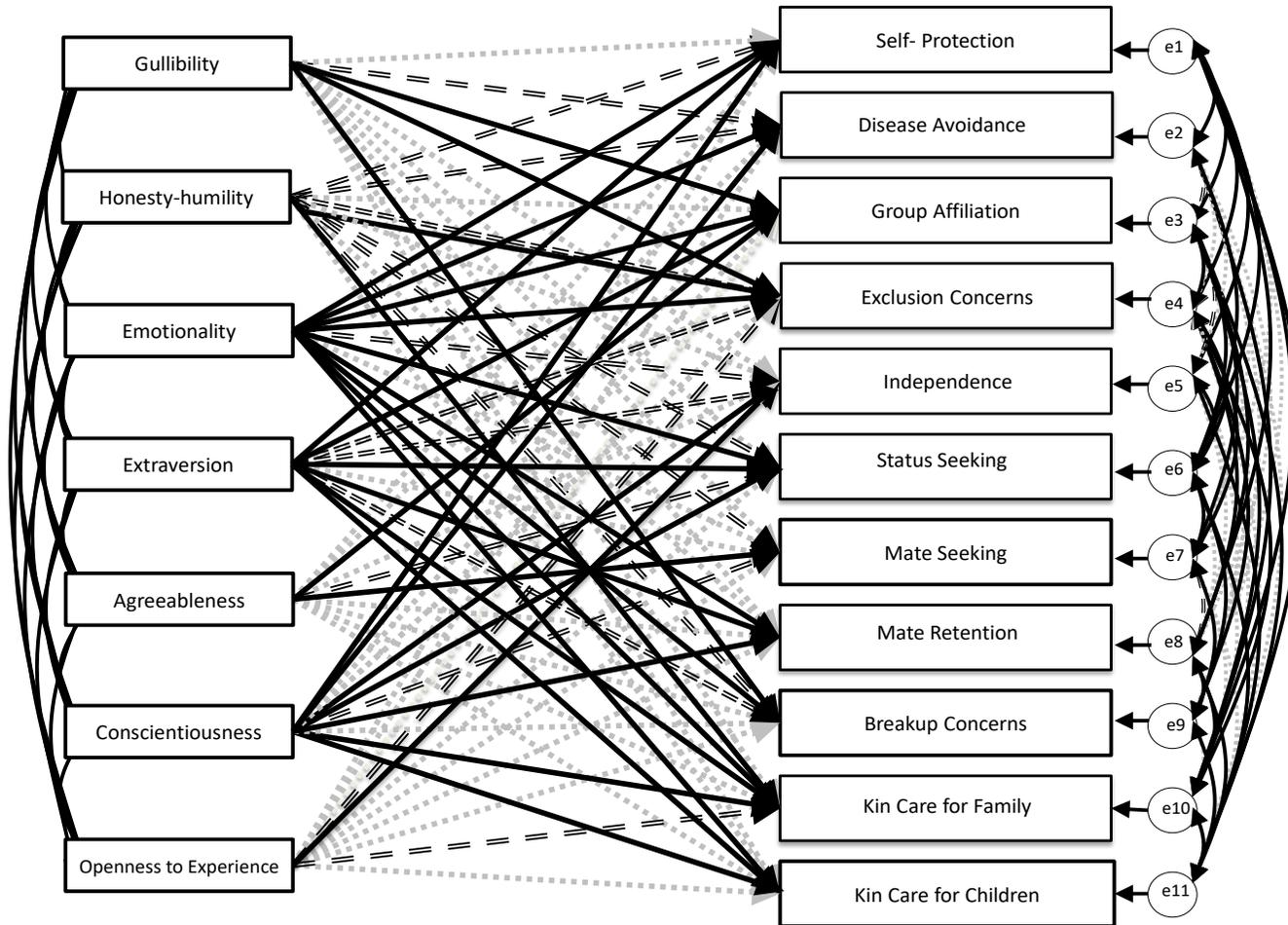
	Men		Women		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Gullibility	2.61	0.62	2.87	0.84	-2.94**
Honesty-Humility	3.33	0.63	3.52	0.60	-2.78**
Emotionality	2.96	0.58	3.63	0.66	-9.35***
Extraversion	3.24	0.54	3.22	0.66	0.27
Agreeableness	3.20	0.57	3.17	0.62	0.46
Conscientiousness	3.37	0.57	3.71	0.64	-4.80***
Openness	3.17	0.64	3.09	0.72	1.03
Self-Protection	4.43	1.20	5.15	1.24	-5.21***
Disease Avoidance	3.94	1.28	4.31	1.34	-2.50*
Group Affiliation	4.63	0.96	4.76	1.11	-1.06
Exclusion Concerns	4.07	1.31	4.56	1.35	-3.24***
Independence	4.14	1.09	4.34	1.25	-1.46
Status Seeking	4.25	0.90	4.33	1.05	-0.64
Mate Seeking	3.95	1.43	3.42	1.66	2.91**
Mate Retention	5.42	1.06	6.00	0.93	-5.45***
Breakup Concerns	3.48	1.45	3.69	1.66	-1.15
Kin Care for Family	5.63	1.22	6.01	1.14	-3.00**
Kin Care for Children	4.53	1.31	5.11	1.45	-3.68***

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

used instead of a series of multiple regression analyses in order to account for the shared variance of the outcome variables and reduce the possibility of committing a Type 1 error (Schumaker & Lomax, 2004). SPSS (IBM, 2013) was used to accomplish the path analysis. The results of the path analysis are displayed in Figure 1 and the statistics are reported in the following results sections.

### **Self-Protection**

Self-protection had a marginally significant negative association with gullibility ( $\beta = -.08$ ,  $SE = .04$ ,  $t = -1.9$ ,  $p = .06$ ) and a significant negative association with honesty-humility ( $\beta = -.10$ ,  $SE = .04$ ,  $t = -3.4$ ,  $p = .02$ ). Self-protection also had a significant positive association



**Figure 1.** Path model indicating the associations that gullibility and the basic personality dimensions had with fundamental social motives. *Note:* Rectangles indicate measured variables and circles indicate disturbance terms. The significant positive associations are indicated by solid black arrows. The significant negative associations are indicated by dashed black arrows. The correlations are included for the relationships between the predictors (i.e., gullibility and basic personality dimensions) as well as among the outcome variables (i.e., fundamental social motives) and are indicated by curved bidirectional arrows. The grey lines represent nonsignificant associations.

with emotionality ( $\beta = .50$ ,  $SE = .04$ ,  $t = 12.17$ ,  $p < .001$ ), extraversion ( $\beta = .14$ ,  $SE = .04$ ,  $t = 3.60$ ,  $p < .001$ ), and conscientiousness ( $\beta = .11$ ,  $SE = .04$ ,  $t = 2.67$ ,  $p = .008$ ).

### **Disease Avoidance**

Disease avoidance had a negative association with gullibility ( $\beta = -.15$ ,  $SE = .04$ ,  $t = -3.43$ ,  $p < .001$ ), honesty-humility ( $\beta = -.16$ ,  $SE = .05$ ,  $t = -3.67$ ,  $p < .001$ ), and openness to experience ( $\beta = -.12$ ,  $SE = .04$ ,  $t = -2.89$ ,  $p = .004$ ). Disease avoidance also had positive associations with emotionality ( $\beta = .32$ ,  $SE = .04$ ,  $t = 7.21$ ,  $p < .001$ ), conscientiousness ( $\beta = .14$ ,  $SE = .05$ ,  $t = 3.13$ ,  $p = .002$ ) and a marginally significant positive association with extraversion ( $\beta = .08$ ,  $SE = .04$ ,  $t = 1.9$ ,  $p = .052$ ).

### **Group Affiliation**

Group affiliation had no negative associations, but had positive associations with gullibility ( $\beta = .12$ ,  $SE = .04$ ,  $t = 2.87$ ,  $p = .004$ ), emotionality ( $\beta = .23$ ,  $SE = .04$ ,  $t = 5.76$ ,  $p < .001$ ), extraversion ( $\beta = .45$ ,  $SE = .04$ ,  $t = 11.56$ ,  $p < .001$ ), and acceptance ( $\beta = .11$ ,  $SE = .04$ ,  $t = 2.69$ ,  $p = .007$ ).

### **Exclusion Concerns**

Exclusion concerns were negatively associated with honesty-humility ( $\beta = -.21$ ,  $SE = .040$ ,  $t = -5.204$ ,  $p < .001$ ) and extraversion ( $\beta = -.12$ ,  $SE = .038$ ,  $t = -3.171$ ,  $p = .002$ ). Exclusion concerns were positively association with gullibility ( $\beta = .18$ ,  $SE = .039$ ,  $t = 4.526$ ,  $p < .001$ ) and emotionality ( $\beta = .45$ ,  $SE = .040$ ,  $t = 11.446$ ,  $p < .001$ ).

### **Independence**

Independence was negatively associated with extraversion ( $\beta = -.26$ ,  $SE = .04$ ,  $t = -3.17$ ,  $p < .001$ ), emotionality ( $\beta = -.10$ ,  $SE = .05$ ,  $t = -2.16$ ,  $p = .031$ ), and a marginally significant

negative association with agreeableness ( $\beta = -.05$ ,  $SE = .04$ ,  $t = -1.36$ ,  $p = .051$ ). Independence was positively associated with conscientiousness ( $\beta = .16$ ,  $SE = .05$ ,  $t = 3.45$ ,  $p < .001$ ) and openness to experience ( $\beta = .16$ ,  $SE = .04$ ,  $t = 3.75$ ,  $p < .001$ ).

### **Status Seeking**

Status seeking was negatively associated with honesty-humility ( $\beta = -.39$ ,  $SE = .04$ ,  $t = -9.14$ ,  $p < .001$ ) and agreeableness ( $\beta = -.14$ ,  $SE = .04$ ,  $t = -3.31$ ,  $p < .001$ ). Status seeking was positively associated with emotionality ( $\beta = .13$ ,  $SE = .04$ ,  $t = 3.03$ ,  $p = .002$ ), extraversion ( $\beta = .22$ ,  $SE = .04$ ,  $t = 5.42$ ,  $p < .001$ ), and conscientiousness ( $\beta = .21$ ,  $SE = .04$ ,  $t = 4.88$ ,  $p < .001$ ).

### **Mate Seeking**

Mate seeking was negatively associated with honesty-humility ( $\beta = -.16$ ,  $SE = .05$ ,  $t = -3.34$ ,  $p < .001$ ) and conscientiousness ( $\beta = -.12$ ,  $SE = .05$ ,  $t = -2.5$ ,  $p = .014$ ). Mate seeking was positively associated with agreeableness ( $\beta = .10$ ,  $SE = .05$ ,  $t = 2.11$ ,  $p = .035$ ).

### **Mate Retention**

Mate retention had no negative associations, but was positively associated with emotionality ( $\beta = .31$ ,  $SE = .04$ ,  $t = 7.42$ ,  $p < .001$ ), extraversion ( $\beta = .15$ ,  $SE = .04$ ,  $t = 3.73$ ,  $p < .001$ ) conscientiousness ( $\beta = .25$ ,  $SE = .04$ ,  $t = 5.62$ ,  $p < .001$ ).

### **Breakup Concerns**

Breakup concerns were negatively associated with honesty-humility ( $\beta = -.17$ ,  $SE = .04$ ,  $t = -4.01$ ,  $p < .001$ ) and extraversion ( $\beta = -.28$ ,  $SE = .04$ ,  $t = -6.89$ ,  $p < .001$ ) and positively associated with gullibility ( $\beta = .17$ ,  $SE = .04$ ,  $t = 3.93$ ,  $p < .001$ ) and emotionality ( $\beta = .21$ ,  $SE = .04$ ,  $t = 5.02$ ,  $p < .001$ ).

### **Kin Care for Family**

Kin care for family was negatively associated with ( $\beta = -.12$ ,  $SE = .04$ ,  $t = -3.11$ ,  $p = .002$ ) and positively associated with honesty-humility ( $\beta = .12$ ,  $SE = .04$ ,  $t = 2.72$ ,  $p = .006$ ), emotionality ( $\beta = .23$ ,  $SE = .04$ ,  $t = 5.51$ ,  $p < .001$ ), extraversion ( $\beta = .26$ ,  $SE = .04$ ,  $t = 6.46$ ,  $p < .001$ ), and conscientiousness ( $\beta = .21$ ,  $SE = .04$ ,  $t = 4.90$ ,  $p < .001$ )

### **Kin Care for Children**

Kin care for children had no negative associations, but was positively associated with emotionality ( $\beta = .12$ ,  $SE = .05$ ,  $t = 2.64$ ,  $p = .008$ ), extraversion ( $\beta = .18$ ,  $SE = .05$ ,  $t = 3.92$ ,  $p < .001$ ), and conscientiousness ( $\beta = .11$ ,  $SE = .05$ ,  $t = 2.14$ ,  $p = .03$ ).

### **Discussion**

All of the significant and marginally significant results are listed above, thus I will focus my discussion on the significant results that involved gullibility. Gullibility had a marginally significant negative association with self-protection, a negative association with disease avoidance, and positive associations with group affiliation, exclusion concerns, and breakup concerns. Consistent with the hypotheses, gullibility was positively associated with group affiliation, exclusion concerns, and breakup concerns. These results are also supportive of the broad hypothesis that personality traits are linked with the fundamental social motives. More specifically, individuals with high levels of gullibility are concerned with belonging to their groups and avoiding loss of connection with others (e.g., being excluded from a social group, breaking up with a romantic partner). In contrast to my hypothesis, gullibility did not have a negative association with independence. This may have been the result of my decision to control for a variety of personality dimensions but this issue requires additional examination in future research. I did not predict the negative association between gullibility and disease avoidance that emerged. This result may have been due to gullible individuals prioritizing their need to be in

close proximity to others over their needs to be isolated from potential illnesses. This finding is interesting and warrants additional research.

The purpose of the present study was to assess the associations that gullibility has with the fundamental social motives. The results of the study were largely consistent with the basic idea that gullible individuals are motivated to remain in groups. Although most of my hypotheses were supported, gullibility was not negatively associated with independence and gullibility had an unexpected negative association with disease avoidance.

The results of this study reveal that gullibility is associated with the fundamental social motives, even when controlling for basic personality traits (e.g., extraversion, agreeableness). My results were generally consistent with previous results concerning agreeableness and the fundamental social motives (Neel et al., 2016). Consistent with my results, Neel et al. (2016) demonstrated agreeableness to be positively associated with group affiliation. These results are likely because agreeable individuals want to be identified with and by groups. However, Neel et al. (2016) showed agreeableness to be negatively associated with exclusion and breakup concerns. The primary explanation for this discrepancy is the previously mentioned possible shift in the fundamental social motives throughout the lifespan because Neel et al. (2016) used community samples with the average age of participants being approximately 35 years across her studies, whereas the participants in my study were much younger (i.e., the average age was less than 20 years). It is possible that the connections gullibility and agreeableness have with the fundamental social motives may be different for individuals in different developmental periods. Another possibility is that the measures of agreeableness and gullibility may be tapping into unique constructs. This explanation is possible because the agreeableness measure from the HEXACO-60 is designed to capture healthy levels of agreeableness rather than maladaptive

aspects of agreeableness such as gullibility. Further research is needed to explain this noteworthy discrepancy.

### **Clinical Directions**

The *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association, 2013) contains diagnostic criteria for dependent personality disorder (DPD), which is characterized by both dependency and insecure attachment (Gore et al., 2012; Schroeder, Wormworth, & Livesley, 1990). Gullibility could be a factor in this disorder with the fundamental social motives contributing to this cognitive process. As the present study has shown, gullibility is associated with lower levels of disease avoidance and higher levels of group affiliation, exclusion concerns, and breakup concerns. Although these traits are not pathological in and of themselves, abnormal levels of these traits in combination with other psychological instabilities could be an underlying component of DPD. Further research is needed to investigate this relationship.

### **Limitations and Future Directions**

Although the present study has numerous strengths (e.g., large sample size, control of basic personality dimensions), there are some limitations. The first limitation of the present study is the abbreviated nature of the measure of basic personality dimensions that it utilized (i.e., the full length HEXACO consists of 192 items; Lee & Ashton, 2008). Although the brief measure of the HEXACO is considered to be sufficient for capturing basic personality dimensions, there could be missing or added associations that may have emerged if I had used the full-length version of the instrument.

The second limitation of the present study involves the constraints that accompany my use of a correlational design. Although personality traits are relatively stable over time, there is

still not enough evidence to determine whether gullibility causes higher levels of a particular fundamental social motive. The present study makes the argument that gullibility affects the importance of each fundamental social motive in an individual, but it is quite possible that the fundamental social motives may shape the development of gullibility (e.g., individuals who have exclusion or breakup concerns may be more likely to develop gullibility). Another possible explanation for the associations in the present study could be a third variable intervening as a mediator or moderator that affect both the development of gullibility and the fundamental social motives (e.g., an individual may have an overbearing group of friends that cause the individual to be gullible to what they are saying and also shift the fundamental social motives that someone may find important). Future studies should attempt a longitudinal approach to gain a better understanding of the causal links between gullibility and the fundamental social motives.

The third noteworthy limitation of this study is the use of self-report measures. Self-reports can be unreliable because individuals may try to respond in a socially desirable manner. The present survey asked participants to assess their own levels of certain traits that may be undesirable (e.g., “I am so trusting that I’ve been taken advantage of,” “Having close ties to my family is not very important to me”), which may cause people to answer how they think the researchers would want them to answer. In addition to the social desirability problem, self-report relies on participants’ awareness of their cognition and behavior. This dilemma is not unique to this study, as many psychological studies struggle with the issue, however there is certainly an added dimension when an undesirable characteristic such as gullibility is a focus of the assessment. As far as we know, there has been no research that has evaluated how effective gullibility self-assessments are in measuring the actual gullibility of an individual compared to the self-perceived gullibility. Other study designs (e.g., observer ratings) would be beneficial for

future research. Regardless of the previous limitations, the present study expands what is known about the gullibility and the fundamental social motives.

### **Conclusion**

The results from this study revealed that gullibility was associated with specific fundamental social motives. More specifically, gullibility was positively associated with group affiliation, exclusion concerns, and breakup concerns whereas it was negatively associated with disease avoidance. Taken together, these results suggest that individuals with high levels of gullibility tend to be characterized by fundamental social motives that involve them seeking affiliation with others. These results are consistent with the possibility that gullibility may be intimately connected with the desire to maintain connections with others.

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