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Social Functioning in Subclinical Poor-Me and Bad-Me Paranoia

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SOCIAL FUNCTIONING IN SUBCLINICAL *POOR-ME* AND *BAD-ME* PARANOIA

by

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A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Science
Department of Psychology

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Acknowledgements

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Abstract

SOCIAL FUNCTIONING IN SUBCLINICAL *POOR-ME* AND *BAD-ME* PARANOIA

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Trower and Chadwick (1995) proposed paranoia as two distinct subtypes: *poor-me* – defined by strong beliefs of undeserved persecution, and *bad-me* – defined by strong beliefs of deserved punishment. Social functioning deficits are common in paranoia but have not been assessed within the *poor-me* and *bad-me* construct. Fourteen individuals with high levels of subclinical paranoia and 14 individuals with low levels of paranoia completed measures of depression, self-esteem, social functioning, and the emotional Stroop Task. Although there were no significant differences between the two paranoia subtypes on social functioning, a trend showed individuals with *bad-me* paranoia having more impaired social engagement and interpersonal contact. Individuals with *bad-me* paranoia also showed a trend of increased prosocial behaviors when compared to *poor-me* paranoia.

Chapter One

Paranoia

There is interest in researching specific symptoms of schizophrenia, rather than the general construct of schizophrenia, which can lead to more tailored interventions and a symptom-focused approach to treatment (as reviewed in Combs et al., 2013). Paranoia is one of the key features of schizophrenia and other psychotic disorders. Paranoia can be defined as an unfounded, excessive, or exaggerated belief, characterized by themes of persecution, suspiciousness, mistrust, and interpersonal threat (Freeman et al., 2005). Over 90% of individuals with schizophrenia spectrum disorders experience paranoid ideation (Moutoussis et al., 2007). Increased levels of paranoia are associated with poorer treatment response and compliance to medications, increased rates of hospitalization, social withdrawal, emotional distress, and lower quality of life (Freeman, 2016). Empirical studies thus attempt to understand the etiology and characterization of paranoia.

Social functioning, depression, self-esteem, and paranoia

Social functioning is of particular interest in the study of paranoia, as paranoia is frequently associated with poorer social functioning and less pro-social behavior (Fenigstein, 1997; Freeman et al., 2002; Freeman et al., 2005; Freeman et al., 2011; Frith & Corcoran, 1996; Green & Phillips, 2004; Green et al., 2008; Hajdúk et al., 2019; Martin & Penn, 2001; Penn et al., 1997; Penn, Sanna, & Roberts, 2008; Riggio & Kwong, 2009). It is believed that information-processing biases are prevalent in

individuals with paranoia and may contribute to an altered processing of ambiguous social stimuli and threatening stimuli, as well as the maintenance of persecutory delusions (as reviewed in Combs, Michael, & Penn, 2006). Although the effects of paranoia on social functioning are often investigated, to date no empirical studies have assessed social functioning within the characterization of *poor-me* and *bad-me* paranoia.

Paranoia has often been associated with increased depression and lower self-esteem in both clinical and sub-clinical populations (Bentall et al., 2008; Combs & Penn, 2004; Drake et al., 2004; Martin & Penn, 2001; Thewissen et al., 2008; Thewissen et al., 2011; Valiente et al., 2011). It has been suggested that self-esteem is important in the onset and maintenance of paranoia (Bentall et al., 2001; Lyon, Kaney, & Bentall, 1994). Conversely, it has been suggested that paranoia may act as a defense against low self-esteem (Chadwick & Trower; 1997; Udachina et al., 2012). However, some studies have reported higher levels of self-esteem in paranoia, which may provide evidence to the instability of self-esteem in paranoia (Combs et al., 2007; Thewissen et al., 2007), which may be related to the type of paranoia an individual is experiencing.

Poor-me and *bad-me* paranoia

Trower and Chadwick (1995) proposed paranoia as two distinct subtypes: *poor-me* – defined by strong beliefs of undeserved persecution, and *bad-me* – defined by strong beliefs of deserved punishment. Individuals with *poor-me* paranoia believe they are being treated unfairly and consequently blame others for their persecution and in turn avoid others for fear of being harmed. Individuals with *bad-me* paranoia understand themselves as bad or flawed and deserved to be punished and their avoidance is based on others seeing their flaws and defects in character (Marley, Jones, & Jones, 2017). There

have been many studies that have examined the predicted phenomenological differences in the two subtypes of paranoia, with a common finding being individuals with *bad-me* paranoia exhibiting higher levels of depression and lower levels of self-esteem (Chadwick & Trower, 1997; Chadwick et al., 2005; Fornells-Ambrojo & Garety, 2005; Fornells-Ambrojo & Garety, 2009; Freeman et al., 2001; Green et al., 2006; Marley, Jones, & Jones, 2017; Melo & Bentall, 2013; Morris et al., 2011; Trower & Chadwick, 2005; Udachina et al., 2012). However, the prevalence and construct of these two subtypes of paranoia have been questioned, particularly that the *bad-me* subtype is not as common as the *poor-me* subtype in individuals with early psychosis, and the instability of the deservedness of persecution (Fornells-Ambrojo & Garety, 2005; Marley, Jones, & Jones, 2017; Melo & Bentall, 2013; Udachina et al., 2012). It is possible that individuals with paranoid ideation may fluctuate between the two subtypes of paranoia, or that the time-course of paranoid ideation is implicated in the prevalence of *poor-me* and *bad-me*; studies that have used samples with chronic paranoid ideation found an increased frequency of *bad-me* paranoia (Bentall, 2001; Melo, Taylor, & Bentall, 2006; Fornells-Ambrojo & Garety, 2005; Fornells-Ambrojo & Garety, 2009).

Rationale for Present Study

Phenomenological differences in *poor-me* and *bad-me* paranoia such as depression and self-esteem have been thoroughly investigated. Social functioning has been examined in paranoia, but not within the *poor-me* and *bad-me* constructs. The present study seeks to provide further evidence that paranoia is associated with higher levels of depression, lower levels of self-esteem, and more impaired social functioning, as well as the predicted phenomenological differences in *poor-me* and *bad-me* paranoia.

The current study also seeks to provide novel evidence in the assessment and comparison of social functioning in *poor-me* vs. *bad-me* paranoia.

Hypotheses

Hypothesis 1

We examined the relationships between depression, self-esteem, social functioning, and paranoia. We expected to replicate previous results in that increased paranoia is associated with higher levels of depression, lower levels of self-esteem, and more impaired social functioning.

Hypothesis 2

We examined the relationships between *poor-me* and *bad-me* paranoia and depression and self-esteem. We expected to replicate previous results, with *bad-me* paranoia being associated with higher levels of depression and lower levels of self-esteem than *poor-me* paranoia.

Hypothesis 3

We examined the relationships between *poor-me* and *bad-me* paranoia and social functioning. We expected *poor-me* paranoia to be more avoidant due to fear of harm.

Chapter Two

Method

Participants

Participants included 61 undergraduate college students recruited from

undergraduate psychology courses via SONA at The University of Texas at Tyler.

Paranoia categorization into high and low sub-clinical paranoia groups was evaluated

through the Paranoia Scale (PS), a measure of sub-clinical paranoia. To form groups of

individuals high and low in sub-clinical paranoia, we used the sample mean scores

(Fenigstein & Vanable, 2001). The group high in sub-clinical paranoia showed PS scores

greater than or equal to 1 SD above the sample mean (PS scores $\geq$ 47) and the low

paranoia group showed PS scores less than or equal to 1 SD below the sample mean (PS

scores $\leq$ 26). This method using $\pm$1 SD is consistent with classification into high and low

sub-clinical paranoia groups using the PS from previous studies (Fenigstein & Vanable,

2001; Combs & Penn, 2004; Combs et al., 2007; Combs et al., 2013). Since we used the

sample mean instead of the normative mean for classification, we included a second

measure of paranoia, the Paranoia/Suspiciousness Questionnaire (PSQ; Rawlings &

Freeman, 1996), to cross-validate the group classification method. After classification,

28 participants were determined to have high (n=14) or low (n=14) paranoia and of these

28 participants, 8 reported a current mental health diagnosis (high paranoia n=6, low

paranoia n=2). Of the participants with high paranoia, 1 reported a diagnosis of ADHD,

1 reported a diagnosis of anxiety, and 4 reported a diagnosis of depression. Of the

participants with low paranoia, 1 reported a diagnosis of anxiety and 1 reported a

diagnosis of both anxiety and depression. There were no significant differences between

the high and low subclinical paranoia groups in terms of gender, $\chi2(df = 1, 28) = 1.35$, p = .25, age, $t(26)= -1.34$, $p = .19$, or ethnicity, $\chi2(df = 2, 28) = .93$, $p = .63$. Participant demographics are described in Table 1.

Table 1

Summary of participant demographics by high and low paranoia

Variable	High paranoia group		Low paranoia group	
	M	*SD*	*M*	*SD*
Paranoia Scale	51.07	5.48	24.00	1.62
Age (years)	20.36	4.07	25.14	12.79
% Male	50.00		28.57	
% White	64.29		57.14	

Measures

Paranoia Scale

The Paranoia Scale (PS; Fenigstein & Vanable, 1992) is a 20-item scale that measures paranoid ideation found in normal individuals in response to everyday events and situations. The PS was developed for use in sub-clinical samples. Each item is scored on a Likert scale ranging from 1 (not at all) to 5 (extremely applicable) with total scores ranging from 20-100. Higher scores reflect higher levels of sub-clinical paranoia. The scale has good psychometric properties and has been widely used in paranoia research (Combs, Penn, & Fenigstein, 2002; Combs et al., 2013; Martin & Penn, 2001).

Social Functioning Scale

The Social Functioning Scale (SFS; Birchwood et al., 1990) was used to measure social engagement, interpersonal communication, and prosocial behaviors. The SFS is a 79-item self-report questionnaire that has been widely used in psychosis research and has

excellent psychometric properties (Birchwood et al., 1990; Dickerson, Ringel, & Parente, 1999). The SFS is considered a valid measure of interpersonal and adaptive functioning in the community (Liefker, Patterson, Heaton, & Harvey, 2011). The SFS is comprised of seven subscales: (1) social engagement (scores range 0–15; frequency of social engagement), (2) interpersonal communication (scores range 0–9; number of social contacts and support), (3) independence-performance (scores range 0–39; number of activities of daily living engaged in over the past month), (4) independence-competence (scores range 0–39; does the individual need help in performing activities of daily living), (5) recreation (scores range 0–45; number of activities/hobbies engaged in over past month), and (6) prosocial behaviors (scores range 0–66; engagement in activities with others or in public places). There is a subscale on educational/occupational status, but we will not report data on this subscale given that all participants were students. We are most interested in the social engagement, interpersonal communication, and prosocial behaviors subscales based on the expectation that paranoia would affect interpersonal functioning (Combs et al., 2007). Higher scores equate to less impaired social functioning.

Persecution and Deservedness Scale

The Persecution and Deservedness Scale (PaDS; Melo et al., 2009) includes two subscales; a paranoia subscale and a deservedness subscale. Both subscales are composed of 10 statements of paranoid content which could be scored from 0 to 4; higher scores reflect increased levels of paranoia. A deservedness item followed each persecution item and followed the same scoring protocol. The participants were instructed to complete each deservedness item only if they scored >1 on the related

persecution item. Final deservedness scores were calculated only for those participants who scored >1 on 3 items or more of the persecution subscale, consistent with Melo & Bentall (2010). The paranoia subscale has been found to have good reliability (alpha = 0.84) and validity, with a strong correlation between PaDS paranoia scores and Fenigstein's Paranoia Scale; r = 0.78, p<.001 (Melo & Bentall, 2010).

Rosenberg Self-Esteem Scale

The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) is a 10-item scale used to assess self-esteem level. This scale is scored on a Likert scale of 1 - 4 with scores ranging from 10 - 40; higher scores reflect increased levels of self-esteem. Internal consistency reliability has been shown to be excellent (alpha = .92). This scale has excellent validity data and correlates highly with other measures of self-esteem (Robinson & Shaver, 1973). Additionally, the RSES has been shown to be negatively correlated with the PS scale across several studies (Combs et al., 2000; Martin & Penn, 2001).

Beck Depression Inventory-II

The Beck Depression Inventory - 2 (BDI-II) is a 21-item scale that measures the severity of depressive symptoms (Beck et al., 1996). The scale is rated on a Likert scale from 0 - 3 and scores range from 0 - 63. Higher scores reflect an increased severity of depressive symptoms. The BDI-II has demonstrated good reliability and substantial convergent (with other measures of depression) and discriminant validity and has been widely used in research on depression. The BDI scales have been shown to be related to

level of paranoid ideation in several studies (Kinderman & Bentall, 1996; Martin & Penn, 2001).

Paranoia/Suspiciousness Questionnaire

The Paranoia/Suspiciousness Questionnaire (PSQ; Rawlings & Freeman, 1996) is a 47-item scale designed to measure paranoid ideation in subclinical samples. Each of the items is rated using a true or false format, and scores range from 0-47. Higher scores reflect greater subclinical paranoia. The PSQ was developed in a large sample of undergraduate students (N = 561). In previous research, the PSQ demonstrated excellent internal consistency (Cronbach's alpha = .89) and test-retest reliability over a 12-week period was good (r = .82; Rawlings & Freeman, 1996).

Emotional Stroop Test

The Emotional Stroop Test was initially used to assess for cognitive interference effects for paranoia and depression (Bentall & Kaney, 1989). For this task, the participant was required to read a list of non-threatening words, paranoid-content words (e.g. spy, threat), and depression-content words (e.g. sad, cry). Prior research showed that persons with persecutory delusions and high levels of subclinical paranoia showed slowed color naming to threat words as compared to depressed and neutral words (Bentall & Kaney, 1989; Combs, Penn, & Mathews, in press; Fear et al., 1996).

Procedure

Participants were asked to fill out a demographic sheet that included age, highest education completed, ethnicity, gender, marital status, job status, and if they have any

current diagnoses. Participants then completed all measures within a single session that

lasted approximately 1-2 hours. Participants received course credit for participation.

Chapter Three

Results

To check the validity of the group assignment into high and low sub-clinical paranoia groups based on the sample mean instead of the normative mean, we used another measure of paranoia, the PSQ, where higher scores reflect greater levels of paranoia. An independent samples t-test showed that the two groups significantly differed on this measure t (26)=3.28, $p < .01$, and the PS and the PSQ were significantly correlated, $r = .52$, $p < .001$, which supports our group classification method. Thus, the groups do in fact differ on level of paranoid ideation across two measures.

We used a method consistent with Melo and Bentall (2010) to classify the participants into the *poor-me* and *bad-me* groups. Of the 14 individuals in the high paranoia group, 1 had to be excluded due to not endorsing ≥3 items on the PaDS. We operationalized *bad-me* paranoia as reporting a score of ≥3 on any deservedness item on the PaDS, since endorsing a "3" equates to possibly deserving the persecution. With the remaining 13 participants, 9 were classified as *poor-me* and 4 were classified as *bad-me*. There were no significant differences between the *poor-me* and *bad-me* paranoia groups in terms of gender, $\chi2(df = 1, 13) = 1.04$, $p = .31$, age, t (11)= -.16, $p = .88$, or ethnicity, $\chi2(df = 2, 13) = 1.26$, $p = .53$. Participant demographics by type of paranoia are described in Table 2.

Table 2

Summary of participant demographics by type of paranoia

Variable	*Poor-me* group		*Bad-me* group	
	M	SD	M	SD
Paranoia Scale	53	6.06	47.75	0.96
Age (years)	20.33	4.80	20.75	3.10
% Male	44.44		75.00	
% White	44.44		75.00	

Hypothesis 1

To examine hypothesis 1, an independent samples t-test showed that the two paranoia groups significantly differed in levels of depression, with individuals in the high paranoia group scoring significantly higher on depression per the BDI-II, $t(26) = 3.2$, $p = .032$, as shown in Table 3. The two paranoia groups did not significantly differ in levels of self-esteem per the RSES, $t(26) = -1.3$, $p = .22$. Finally, the two groups did not significantly differ on measures of social functioning per the SFS; SFS Social Engagement $t(26) = 0.40$, $p = .69$, SFS Interpersonal Contact $t(25) = -1.6$, $p = .13$, and SFS Prosocial Behaviors $t(16) = -.20$, $p = .84$.

Table 3

Paranoia, social functioning, depression, and self-esteem scores by high and low paranoia

Variable	High paranoia group		Low paranoia group	
	M	SD	M	SD
Paranoia Scale	51.07	5.48	24.00	1.62
PSQ	70.79	7.33	59.86	10.10
SFS Social Engagement	12.29	9.12	11.29	2.27
SFS Interpersonal Contact	8.23	1.17	8.79	0.58
SFS Prosocial Behaviors	26.29	13.00	27.36	9.58
BDI-II	13.36	9.29	4.43	4.59
RSES	25.29	2.02	28.93	10.60

Hypothesis 2

To examine hypothesis 2, an independent samples t-test showed persons classified as poor me or bad me paranoia did not significantly differ in levels of depression, t (11) = -.58, p = .57, as shown in Table 4. The two paranoia subtypes did not significantly differ in levels of self-esteem per the RSES, t (11) = -.13, p = .9. On the Emotional Stroop Task, individuals with *bad-me* paranoia took significantly longer on the neutral condition, t (11) = -2.64, p = .023. They also took longer on the paranoia t (11)= -2.13, p = .06 and depression t (11) = -.85, p = .42 conditions, but not within significance.

Table 4

Paranoia, social functioning, depression, and self-esteem scores in poor-me and bad-me paranoia

Variable	*Poor-me* group		*Bad*-me group	
	M	SD	M	SD
Paranoia Scale	53.00	6.06	47.75	0.96
PSQ	72.11	6.83	67.75	9.53
Stroop Task – Neutral	33.04	4.94	40.35	3.60
Stroop Task – Paranoia	35.18	4.39	42.44	8.20
Stroop Task – Depression	37.28	5.67	40.32	6.70
SFS Social Engagement	13.00	11.51	11.50	1.00
SFS Interpersonal Contact	8.63	0.52	7.75	1.89
SFS Prosocial Behaviors	25.5	11.09	27.33	17.90
BDI-II	12.56	9.96	16.00	9.70
RSES	25.33	2.29	25.5	1.73

Hypothesis 3

To examine hypothesis 3, an independent samples t-test showed the two subtypes (*poor-me* vs. *bad-me*) did not significantly differ on measures of social functioning per the SFS as shown in Table 4; SFS Social Engagement t (11) = 0.25, p = .80, SFS

Interpersonal Contact $t(10) = 1.27$, $p = .23$, and SFS Prosocial Behaviors $t(5) = -.17$, p

$= .87$.

Chapter Four

Discussion

Paranoia research is becoming increasingly important due to its association with poorer treatment response and medication compliance, increased rates of hospitalization, interpersonal relationships, emotional distress, lower quality of life, and persistent biases in cognitive processing for threatening stimuli (as reviewed in Combs et al., 2013; Freeman, 2016). In this study, we examined paranoia, social functioning, depression, and self-esteem in a sample of individuals with high and low levels of sub-clinical paranoia, as well as examining these variables in individuals who show characteristics of the *poor-me* and *bad-me* construct. This is the first study to examine social functioning within the *poor-me* and *bad-me* framework. Our sample represented fewer individuals with *bad-me* paranoia than *poor-me* paranoia, which was expected with the sample of college students. This is consistent with previous research in that *bad-me* paranoia is not as common as *poor-me* paranoia, particularly in individuals with early psychosis (Fornells-Ambrojo & Garety, 2005).

In terms of high and low paranoia, our research supports previous research in that the group with higher paranoia showed elevated levels of depression. While the two paranoia groups did not significantly differ in levels of self-esteem, it is worth noting the mean scores on the RSES were lower for the group with high paranoia, which supports previous research. The idea is that when confronted with life failures and threats, persons with paranoia become depressed but tend to reject self-criticism (Combs et al., 2013). Regarding social functioning, there was no significant difference between the two groups in terms of number of social contacts and tendency to engage others in conversation.

However, the group high in sub-clinical paranoia showed a reduced tendency to attend public events, but this was only a trend. This is consistent with research that as paranoia increases so does social avoidance, but it is more general in nature and only for public events (Brown et al., 2014; Freeman, Garety, & Kuipers, 2001; Freeman et al., 2007; Gay & Combs, 2005; Riggio & Kwong, 2009).

Regarding *poor-me* and *bad-me* paranoia, our results are consistent with previous research such that individuals with *bad-me* paranoia exhibited a trend in higher levels of depression. This is expected due to the internalizing blame individuals with *bad-me* paranoia typically experience. No between-group differences were found in any measures of social functioning, but the trend showed individuals with *bad-me* paranoia having a fewer number of social contacts and a reduced tendency to engage others in conversation. It is also worth noting that individuals with *bad-me* paranoia showed a trend of increased prosocial behaviors when compared to *poor-me* paranoia. This partially supports the hypothesis that individuals with *poor-me* paranoia may be more avoidant due to fear of harm. Additionally, individuals with *bad-me* paranoia took significantly longer on the neutral Stroop task and longer on the paranoia and depression tasks, albeit non-significantly. These results support the notion of *bad-me* paranoia having a greater influence on both cognitive processing and the processing of emotional stimuli. Taken together, these results support previous research showing the prevalence of *bad-me* paranoia in samples with chronic paranoid ideation, and it appears the length of paranoid ideation may be related to more impaired processing of emotional stimuli (Bentall, 2001; Melo, Taylor, & Bentall, 2006; Fornells-Ambrojo & Garety, 2005; Fornells-Ambrojo & Garety, 2009).

There are many limitations of the present study, such as the sample size; we originally intended to gather 120 or more participants but due to COVID-19, our data collection time was shortened. This study also used a subclinical sample, and it is possible the results may differ in a clinical sample and with individuals along the spectrum from early to chronic psychosis. It is possible that the biases examined in this study only become evident when clinical paranoia is present. Additionally, paranoia is thought to be on a continuum, and this study characterized individuals as either high or low paranoia (Combs, Michael, & Penn, 2006). It may be beneficial to include participants in the middle range of paranoia, as mentioned in Combs et al. (2013). Finally, most of the measures in this study were self-report, except for the performance-based emotional Stroop Task, which may influence results if participants were either unaware, unsure, or dishonest.

In conclusion, this study provides novel data about social functioning in individuals with *poor-me* and *bad-me* paranoia, while supporting previous research on phenomenological characteristics of paranoia and cognitive processing differences between the two subtypes of paranoia. Paranoia has a profound effect on everyday functioning, and we hope these results may be beneficial to future studies assessing cognitive and behavioral differences in these subtypes of paranoia.

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