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Anxiety Explains Self-Differentiation: Implications for Bowenian Approaches to Marriage and Family Therapy

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ABSTRACT

This study examined the Bowenian construct of Self-Differentiation (SD), defined as the degree to which a person can think according to their personal beliefs while remaining emotionally connected to the family. This study examined the degree to which negative emotionality accounted for the relationship between SD and Relationship Satisfaction (RS). Emotional Cutoff (EC) emerged as the sole predictor of RS. When Trait Anxiety (TA) was entered into the model it mediated between EC and RS. We discuss the importance of treating anxiety of the individual in family therapy and that SD may best be understood when taking anxiety into account.

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Bowen; anxiety; self-differentiation; couples; dyadic adjustment scale

Bowen's Family Systems Theory describes families as units that are connected emotionally. Members of the family influence one another's thoughts, feelings, and behavior. In addition, individual members differ in their level of Self Differentiation (SD), their ability to separate their thoughts and feelings, allowing them to think logically without being swayed by their own emotions during conflict. Individuals who are less differentiated have trouble separating their feelings from others. These types of people are heavily influenced by family or their partner to think, feel and perceive in a certain way, different from their own unique way of thinking and feeling, and have difficulty remaining autonomous. Self-differentiation is associated with psychological functioning; especially the amount of anxiety that a person can manage in life. The more differentiated a person is, the more anxiety that is required to elicit emotional, social and physical symptoms of dysfunction. Mutual connectedness can negatively affect the family system when one person becomes anxious and this anxiety spreads to other members in the group, causing members to feel less support. Bowenian theory suggests that differentiation is directly associated with anxiety (Kerr & Bowen, 1988). The purpose of this research was to examine the interrelationship of Differentiation of Self, State-Trait Anxiety,

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and Relationship Satisfaction. The results of the study generated some useful clinical implications discussed later.

Review of the literature

A study by Murdock and Gore (2004) found that differentiation of self and stress interact to predict varying levels of psychological functioning. The interaction between self-differentiation and stress was highly predictive of functioning regardless of coping style, which previously was thought to be closely associated with self-differentiation. A sample of 119 students from a Midwestern college university completed the Differentiation of Self Inventory (DSI), the Perceived Stress Scale (PSS) to measure current stress level, The Reactive Coping Subscale (PFSOC) to assess coping skills, the Global Severity Index (GSI) of the Brief Symptom Inventory in order to measure psychological functioning, and the Problem-Solving Inventory (PSI).

In a correlation matrix, DSI total scores were significantly negatively associated with GSI and PSS scores. In an hierarchical regression analysis, a statistically significant regression coefficient for the DSI x PSS term suggests that the relation between PSS and GSI is moderated by DSI scores; ($r = .69$), $F(3, 115) = 34.47$, ($p < .01$). This relationship demonstrates that higher levels of differentiation were associated with lower levels of psychological symptoms and perceived stress. The study supported the hypothesis that self-differentiation moderates the relationship between perceived stress and psychological functioning. A total of 48% of the variance in GSI scores could be accounted for by the predictor variables (DSI and PSS) and the interaction term (Murdock & Gore, Jr., 2004). In contrast to the study by Murdock and Gore (2004) using DSI as a mediator, the current investigation examined self-differentiation, which is measured by the DSI, as an exogenous predictor of psychological functioning.

A related study which examined self-differentiation and its effect on adjustment in a college population examined 126 undergraduate college students at a large Midwestern university (Skowron et al., 2004). Participants ranged from age 18-50 ($M = 22.25$). More than half of the students (57.6%) were in a committed relationship and 9.8% had children. Employment information was given as a measure of stress and 79.2% of participants held part-time or full-time positions. Most participants received outside financial support. Researchers were interested in determining how self-differentiation would mediate college stress and adjustment. Participants were contacted and asked to complete random orders of the DSI, Symptom Checklist-90 Revised (SCL-90-R), and the College Stress Inventory (CSI), and a demographic form. When self-differentiation was

considered as a mediator in addition to stress for predicting adjustment, findings were significant, ($r = .11$), $F(4, 121) = 6.38$, ($p = .01$) indicating that possessing all the qualities of self-differentiation including less emotional reactivity, emotional cutoff, fusion, and greater ability to take an I-position in relationships, predicted adjustment over college stress.

Researchers found that self-differentiation partially mediated the effect of academic and financial stress on psychological functioning and directly influenced adjustment. This study found that college stress was negatively related to greater levels of differentiation of self, and therefore differentiation of self was positively related to psychological adjustment. These findings suggests that the association between college-related stress and actual level of personal adjustment depends on the ability to regulate emotional reactivity, maintain interpersonal connections, avoid emotional cutoff, and maintain one's sense of self (I-position) in pertinent relationships (Skowron et al., 2004).

A study performed by Greene et al. (1986) examined self-differentiation and its effect on psychological functioning. Self-differentiation varied among a control group of non-patients, inpatients as well as outpatients at a psychiatric clinic. The inpatient and outpatient group exhibit significantly less qualities of self-differentiation than did the non-patient group (Greene et al., 1986). A recent study by Tuason and Friedlander (2000) examined self-differentiation and its effect on anxiety and psychological symptoms in a Filipino sample population. They found that the construct of self-differentiation has an inverse relationship with psychological distress.

Researchers analyzed multiple correlation coefficients of emotional reactivity, the I-position, emotional cutoff and parents' fusion with others and found a strong association with neuroticism traits in their children. The best predictor of neuroticism was the I-position. Neuroticism had a significant negative correlation with IP ($p < .01$) and a significant positive correlation with FO, EC, and ER ($p < .05$). These four variables of the DSI determined 30% of youths' neuroticism traits and the significant effect is ($p < .01$). Teenagers with greater Neuroticism scores were less able to rationalize their thoughts and control their emotions, resulting in greater stress levels and lower overall DSI scores. The results of this study are also evidence of the idea behind Bowen's theory which emphasized the family system and the affect that persons within the unit can have on the thoughts and behaviors of other members (Fattahi & Goudarzi, 2016).

A study by Ora Peleg (2008), which was published in The American Journal of Family Therapy, examined the relationship between self-differentiation and marital satisfaction in a population of Israeli participants who were in various stages of marriage. Results demonstrated that satisfaction was associated with emotional reactivity, emotional cutoff, and I-position among men and was associated with emotional cutoff among women.

Findings show that marital satisfaction and duration of the marriage was positively correlated among women and negatively correlated among men. These results highlight the importance of a healthy balance of togetherness and separation in order to meet the needs of partners within a marriage (Peleg, 2008).

The researchers of this study were interested in examining construct of self-differentiation and how it's associated relationship adjustment in a college population. Our primary objective is to model the ways in which the quality of differentiation is mediated by psychological functioning in students who self-report as being in a romantic relationship and determine which psychological constructs of anxiety, depression, self-esteem, neuroticism, and personality factors significantly mediate and correlate with the independent and dependent variables. This study is particularly interested in identifying the contribution of general, negative emotionality to couple's adjustment (Anxiety, depression, neuroticism).

As such, the researchers chose to focus on these constructs as a common proxy for global, negative emotionality. A mediation model is presented and demonstrates what researchers found to be a significant mediator between the IV and the DV. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed on all measures used in this study because these measures were not developed and normed on college students within intimate relationships. The results section will discuss the outcome of the EFA and CFA.

Methods

Participants

A total of $n = 248$ participants responded in Qualtrics to the self-report measures. Participants were undergraduate students at Southeastern university enrolled in introduction to psychology courses. In order to qualify for the study, individuals who had been in a romantic relationship for at least 6 months were selected. The sample associated with relationship adjustment included 183 female and 65 male participants. Race/Ethnicity information was reported and the sample included 49 African American, 10 Asian, 168 Caucasian, 8 Hispanic, 2 Native American, and 11 participants who identifies as other. During the data cleaning process, 33 participants were removed from the data set for incomplete or fictitious responding. Current demographic data on the remaining 215 respondents include an average age of 20.5 years with a range between 18-48 y/o. The average years spent in the relationship was 2.5 years. Eight participants reported that they had children, and 69 participants reported that they are currently living with their partner. Sexual orientation information was reported and 2

individuals identified themselves as homosexual, 6 identified themselves as bisexual and 117 as heterosexual.

Measures

Differentiation of Self Inventory (DSI)

The Differentiation of Self Inventory has four scales that measure emotional reactivity, emotional cutoff, emotional fusion, and the ability to take an I-position. Emotional fusion occurs when individuals are less differentiated. This is when “people form strong bonds with close others and their actions & emotions depend largely on the condition of the relationship at any given time” (Kim-Appel et al., 2007). Emotional cutoff is when individuals in a relationship distance themselves from one another in the form of shutting down emotionally by giving the silent treatment or avoiding critical topics, or physically distancing from one another (Titelman, 2014). Emotional Reactivity is the degree to which an individual reacts emotionally to environmental stimuli, and the ability to take an I-position refers to a person’s clearly defined sense of self (Skowron, 2000). A recent study indicated an acceptable level of internal consistency and reliability of the scale (Skowron & Schmitt, 2003).

The Patient Health Questionnaire (PHQ)

The Patient Health Questionnaire screens participants for symptoms of a depressive episode. In a study performed by Kroenke et al. (2001), six-thousand patients in 8 primary care clinics and 7 obstetrics-gynecology clinics completed the PHQ-9. A 20-item Short-Form General Health Survey was used to measure construct validity, self-reported sick days/clinic visits, and symptom-related difficulty. An exploratory factor analysis yielded a Cronbach’s alpha = .895, indicating an acceptable level of internal consistency and reliability of the scale.

Revised-Dyadic Adjustment Scale (DAS)

The Revised-Dyadic Adjustment Scale measures couple cohesion, consensus and satisfaction. Cohesion refers to how much the respondent participates in activities with their mate, consensus represents how often the respondent agrees with their mate on important topics and satisfaction is how satisfied the individual is in the relationship (Busby et al., 1995). The Dyadic Adjustment Scale was revised based on evidence from previous research which demonstrated that scales and individual items were invalid and unreliable. A study performed by Busby et al. (1995) used construct hierarchy standards to increase validity and reliability. Items within scales that were

more homogenous vs. heterogeneous were selected and used in the revised scale. Initially, researchers came up with 7-first order scales which were combined to create 3-second order scales, consensus, cohesion, and satisfaction. A Cronbach's alpha = .799 was computed for the SAT subscale, .693 for COH, and .821 for CON. This indicates that the subscales exhibit adequate internal consistency and reliability.

State-Trait Anxiety Inventory (STAI)

The STAI measures the participant's current level of anxiety as well as how they typically respond to stressful situations. A study performed by Metzger (1976) examined the reliability and validity of the State-Trait Anxiety Inventory in stress- and no-stress conditions. The STAI was completed by 71 college students in an introductory college course immediately after a 1-hour exam (stress condition) and during class on a non-test day (no-stress condition). The inventory was found to be highly reliable and has the ability to discriminate between high and low stress conditions. This study demonstrates the high reliability and validity of the STAI and how it can be a useful measure of State and Trait anxiety in both clinical and research settings. A Cronbach's alpha = .411 was computed for the subscale Trait Anxiety indicating a low level of internal consistency and reliability of the scale (Metzger, 1976).

The Big Five Inventory

The Big Five Inventory measures respondent scores on the five major personality categories of openness, agreeableness, extraversion, conscientiousness, and neuroticism. For the purpose of this study, researchers focused on neuroticism as a measure of negative emotionality. Neuroticism is characterized by anxiety, irritability, depression, self-consciousness or shyness, impulsivity or moodiness, and vulnerability (Pervin & John, 1999). A Cronbach's alpha of .799 was computed for the subscale neuroticism subscale indicating adequate internal consistency and reliability (Arterberry et al., 2014).

Rosenberg Self-Esteem survey

The Rosenberg Self-Esteem survey assesses the participant's responses to items that measure how a person typically feels about themselves and their own capabilities. The RSE yielded a Guttman scale coefficient of .92 demonstrating strong internal consistency.

Additional psychometric information is available on all measures, and can be requested from the authors.

Procedure

Participants were recruited through the university subject pool and were offered course credit. The study was reviewed and approved by the Institutional Review Board and participants completed an electronic sign-up and consent process through SONA Systems (SONA Systems Ltd., 2019) participant pool management software. Once participants chose to complete the survey, they were redirected to Qualtrics (Provo, Utah) to complete all self-report measures. This data was exported and analyzed using Microsoft Excel (2018), SPSS (IBM, 2018), and AMOS (IBM, 2019). Participants were given two course credits which were granted to them upon completion of the survey through USA SONA systems for students and researchers.

Data analyses

A data processing pipeline was constructed in order to test study hypotheses. Since all of the data were derived from self-report measures and all of the hypotheses are correlational in nature, data analyses were conducted using a multi-step framework as developed by Lowry and Gaskin (2014). The framework allows for the careful screening of data prior to a basic process that included 1) Checks of data quality, 2) Exploratory Factor Analysis, 3) Confirmatory Factor Analysis, 4) Bivariate Correlations of Factor Resultant Variables, and 5) Structural Equation Modeling (SEM). The details of this data framework are described in Lowry and Gaskin (2014) and the results are discussed below in the Results section.

Results

Data quality

Data screening was performed to ensure reliability and validity. In order to determine if respondents were not paying attention and just answering survey items randomly, researchers checked to see if participants responded to reverse-coded items the same way that they responded to normally coded items. For example, on the Rosenberg Self-Esteem scale, if a participant answered “strongly agree” to both the reverse scored item “I feel that I am a person of worth, at least on an equal plan with others” and the normally-coded item “All in all, I am inclined to feel that I am a failure”, then researchers would be able to determine that said respondent was not paying attention. A total of 33 participants were removed as a result of this screening process (See Participants section, above).

Table 1. Descriptive statistics for scale totals before CFA.

	N	Minimum	Maximum	Mean	Std. Deviation	Clinical Cutoff
BFI_TOT	195	17	34	26	3.46559	NA
DAS_TOT	195	24	75	48.426	6.65717	47.31
DSI_TOT	195	43	100.00	68.47	11.52	NA
PHQ_TOT	195	2	35.00	16.18	6.02	15.00
RSE_TOT	194	13	40.00	23.42	3.01	0-15
STAI_TOT	195	35	65.00	48.03	5.17	54-55

Notes: DAS = Dyadic Adjustment Scale, DSI = Differentiation of Self Inventory.

BFI = Big Five Inventory, RSE = Rosenberg Self-Esteem Inventory.

STAI = State-Trait Anxiety Inventory, PHQ = Patient Health Questionnaire.

TOT = Total Summed Score.

Descriptive analyses by construct

Descriptive statistics for all measures are displayed in Table 1.

Analyses of the relationships between constructs

The results of a simple Pearson bivariate correlational analysis are presented in Table 2 below. All the results are shown, but only the boxes appearing as shaded are significant after correction for multiple comparisons as made with the Holm-Bonferroni Procedure (see below). Due to the problem of inflation of family-wise Type I error, a Holm's-Bonferroni procedure was performed¹.

Self-differentiation

Pearson's 2-tailed correlations revealed interesting associations between Self Differentiation subscales and other variables of interest. 1) Emotional reactivity was significantly positively associated with neuroticism and trait anxiety ($r = -.437$, $p < .01$; $n = 195$). 2) The ability to maintain an I-position was positively correlated with self-esteem ($r = .313$, $p < .01$; $n = 195$) and negatively correlated with trait anxiety ($r = -.343$, $p < .01$; $n = 195$) and neuroticism ($r = -.733$, $p < .01$; $n = 195$).

Anxious and depressive symptoms were significantly positively correlated with trait anxiety ($r = .585$, $p < .01$; $n = 195$) and neuroticism ($r = -.231$, $p < .01$; $n = 195$). Researchers found that the scale measuring dyadic consensus was significantly negatively associated with somatic and depressive symptoms ($r = -.293$, $p < .01$; $n = 195$) and trait anxiety ($r = -.269$, $p < .01$; $n = 195$). Dyadic cohesion was found to be significantly negatively correlated with somatic and depressive symptoms ($r = -.294$, $p < .01$; $n = 195$) and trait anxiety ($r = -.236$, $p < .01$; $n = 195$). Cohesion was positively associated with self-esteem ($r = .236$, $p < .01$; $n = 195$). Dyadic satisfaction was also positively correlated with self-esteem ($r = .282$, $p < .01$; $n = 195$) and negatively correlated with trait anxiety ($r = -.403$, $p < .01$; $n = 195$) and somatic symptoms ($r = -.398$, $p < .01$; $n = 195$).

Table 2. Results of correlational analyses after Holm-Bonferoni procedure.

	EC	IP	FO	ER	CON	SAT	COH	RSE	PHQ	Neuroticism	T_ANX
EC	1	.199**	.345**	0.077	.244**	.392**	.217**	.312**	-.283**	-.173*	-.411**
IP		1	.444**	.484**	0.043	0.069	0.065	.313**	-.143*	-.733**	-.343**
FO			1	.673**	0.095	.212**	.165*	.330**	-.297**	-.401**	-.517**
ER				1	-0.028	0.053	0.011	.185**	-.184**	-.437**	-.368**
CON					1	.479**	.390**	0.066	-.293**	-0.006	-.269**
SAT						1	.591**	.282**	-.398**	-0.087	-.403**
COH							1	.236**	-.294**	-0.075	-.236**
RSE								1	-.399**	-.304**	-.527**
PHQ									1	.231**	.585**
NEUR										1	.405**
T_ANX											1

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

*Correlation is significant at the 0.05 level (2-tailed).

Notes: DAS = Dyadic Adjustment Scale, DSI = Differentiation of Self Inventory.

BFI = Big Five Inventory, RSE = Rosenberg Self-Esteem Inventory.

STAI = State-Trait Anxiety Inventory, PHQ = Patient Health Questionnaire.

CFA = Confirmatory Factor Analysis, COH = Coherence, CON = Consensus.

SAT = Satisfaction, EC = Emotional Cutoff, ER = Emotional Reactivity.

FO = Fusion with Others, IP = I-Position, NEUR = Neuroticism, T_ANX = Trait Anxiety.

Trait anxiety

Trait anxiety was significantly correlated with all measures and had the strongest correlation with somatic and depressive symptoms ($r=.585$, $p<.01$; $n=195$). Trait anxiety was significantly positively correlated with Neuroticism ($r=.405$, $p<.01$; $n=195$) and symptoms of anxiety and depression ($r=.585$, $p<.01$; $n=195$). Trait anxiety had a significant negative correlation with Self-Differentiation and Dyadic adjustment ($p<.01$). Neuroticism was significantly negatively correlated with dyadic adjustment and self-differentiation ($p<.01$) and negatively associated with self-esteem ($r=-.304$, $p<.01$; $n=195$). RSE scores were significantly negatively associated with all measures of negative emotionality including neuroticism, trait anxiety and depression and somatic symptoms ($p<.01$). There was a significant positive correlation with self-differentiation and dyadic adjustment ($p<.01$) as well.

The model

Due to the finding that Emotional Cutoff (EC) was significantly correlated with all of the subscales of the Revised Dyadic Adjustment Scale, and that Trait Anxiety (T_ANX) was significantly correlated with all of these factors, a model was constructed to test the hypothesis that EC would predict DAS, as a latent variable calculated from the subscales of the RDAS, mediated by T_ANX. The first hypothesis was that EC would significantly predict DAS. The second hypothesis was that T_ANX would mediate this relationship, this effectively explaining the relationship between EC and RDAS by accounting for the variance shared between these factors and reducing their relationship to a nonsignificant level.

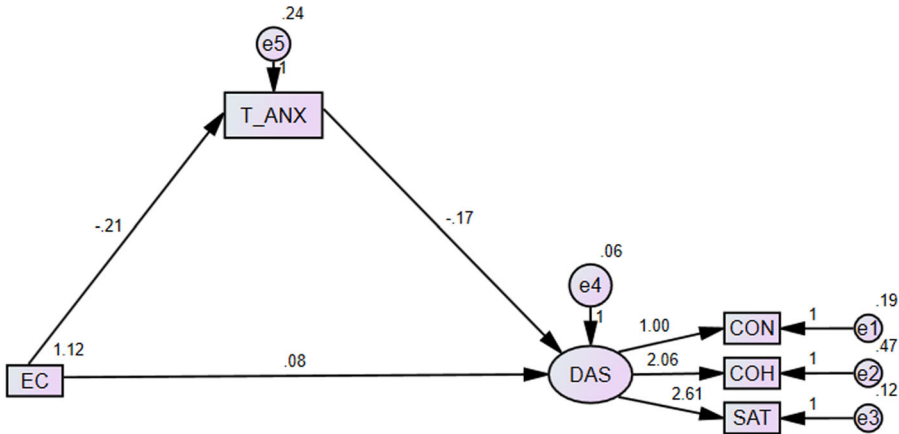


Figure 1. Standardized regression coefficients for the relationship between Emotional Cutoff and Differentiation of Self was mediated by Trait anxiety. The standardized regression coefficient between Emotional Cutoff and Differentiation of Self, controlling for Trait anxiety is .08 ($p < .01$).

Step 1 of the mediation model shown in Figure 1 demonstrates that Emotional Cutoff on Differentiation of Self Inventory scores (DSI), ignoring the mediator, was significant, *Estimate* = .078, *Standard Error (SE)* = 0.23, $p < .01$. Step 2 demonstrated that the regression of the EC subscale scores on the mediator, Trait anxiety, was also significant, *Estimate* = -.210, *SE* = 0.33, $p < .01$. Step 3 of the mediation model shows that the mediator (Trait anxiety) controlling for DSI scores, was significant, *Estimate* = -.167, *SE* = .045, $p < .01$. Step 4 of the mediation analysis shows that, controlling for the mediator Emotional cutoff scores were still a significant predictor of DSI scores, *Estimate* = .078, *SE* = 0.23, $p < .01$ (See Figure 2). However, significant mediation was found in the model when Trait anxiety was included ($p < .01$). The mediation model had a *GFI* = .993 which indicates that this model measures the variables of interest with high satisfactory. The *RMSEA* = .01 indicating that the model has absolute fit based on the non-centrality measure. Consequently, support was provided for both hypotheses. EC predicts RDAS, and T_ANX is a significant mediator of this relationship.

Discussion

The two figures above demonstrate that trait anxiety is a significant mediator between emotional cutoff and dyadic adjustment. In terms of the DSI subscales, Emotional Cutoff (EC) correlates significantly with dyadic adjustment and negative emotionality. To the contrary, Emotional Reactivity (ER), I-Position (IP), and Fusion with Others (FO) only correlate with negative emotionality. Another striking finding is that Trait Anxiety

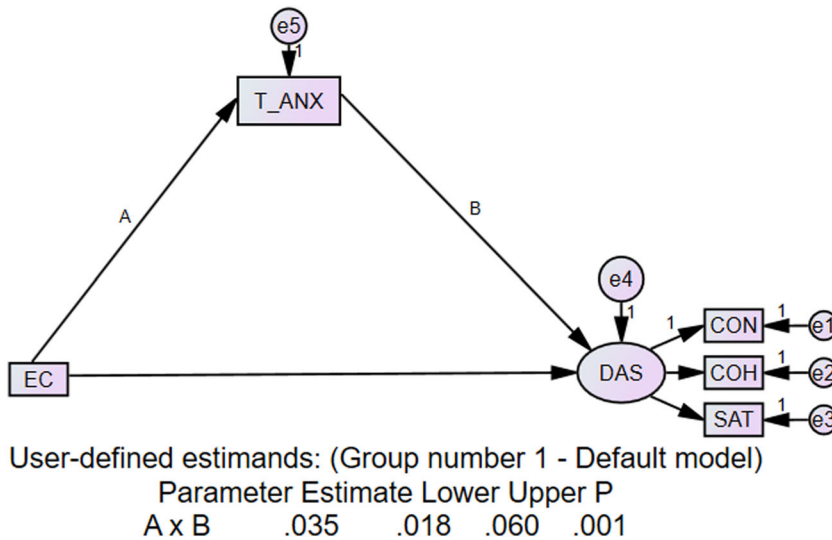


Figure 2. Illustration of the standardized regression coefficient between Emotional Cutoff and Differentiation of Self was statistically significant, as was the standardized regression coefficient between Trait anxiety and differentiation of self. The standardized indirect effect was $(-.21)(-.17) = .035$.

correlates significantly with all constructs including self-esteem, self-differentiation, psychological dysfunction and neuroticism.

Based on the analysis of the data, researchers found consistency with the findings of previous literature. According to [Figure 2](#), level of differentiation predicts dyadic adjustment and is significantly mediated by trait anxiety. Emotional reactivity, emotional cutoff, fusion with others, and the ability to maintain an I-position significantly predict dyadic adjustment, however emotional cutoff proved to be the greatest predictor of dyadic adjustment when researchers account for trait anxiety.

Emotional cutoff and the tendency to distance oneself from close others during conflict successfully predicts dyadic adjustment and is a useful measurement of relationship satisfaction in the population of college aged individuals. Emotional cutoff is significantly negatively correlated with dyadic satisfaction. This demonstrates that the more an individual is likely to distance themselves from their partner during conflict and high stress, the less satisfaction they will experience in their relationship. Trait anxiety is significantly correlated with all variables of interest. This demonstrates that the more qualities of trait anxiety a person possesses, the less adjusted they are in their relationship, they exhibit lower levels of self-differentiation, tend to display more neurotic characteristics and more depressive symptoms.

Researchers discovered that self-differentiation is negatively correlated with trait anxiety. Depressive and somatic symptoms are significantly

negatively correlated with relationship adjustment scores. This is consistent with previous literature which examined the association between level of differentiation and psychological functioning. Individuals who are more differentiated exhibit fewer symptoms of psychological dysfunction, depression and anxiety and greater overall physical health. Individuals who apply skills that improve qualities of self-differentiation will benefit by their increased ability to manage stress in their relationships and in life (Sohrabi et al., 2013).

The ability to take an I-position was significantly negatively correlated with trait anxiety and depressive symptoms and positively correlated with relationship adjustment, as found in previous studies performed by other researchers including Skowron and Friedlander (1998). Neurotic behavior is predictive of greater tendency to react emotionally to environmental stimuli, an increased tendency to cutoff from close others during conflict and greater emotional fusion with one's significant other. Previous research demonstrated that lower levels of self-differentiation had the greatest effect on trait anxiety. Anxiety is a defining characteristic of neuroticism, which is why researchers chose to examine the effect of N on the DSI scores.

Previous studies had not examined the direct effect of Neuroticism on self-differentiation within an individual. One study examined parental level of differentiation and its effect on neuroticism traits within their children and a significant correlation was found ($p < .01$) between level of differentiation in the parent and level of neuroticism in their offspring (Fattahi & Goudarzi, 2016). The researchers found the same effect when examining the direct effect of level of differentiation on neuroticism within the same participant. Individuals who display neurotic personality traits have a difficult time regulating their mood and emotions and tend to use fewer problem-focused coping skills to manage interpersonal conflict. These individuals focus more on their emotions during conflict instead of problem solving, leading to increased conflict and a weakened ability to manage stress. These individuals are more likely to detach emotionally, react to their environment, and allow close others to influence their thoughts and actions.

Our team successfully predicted and found that self-esteem positively correlates with self-differentiation. This shows that individuals with low self-esteem are unable to maintain their individualistic sense of self and still remain emotionally connected to close others. Participants with low self-esteem find it more difficult to reason during conflict with their partner. Consistent with past studies, we also found that participants with lower levels of self-differentiation exhibited significantly greater psychological dysfunction (depression, trait anxiety, and somatization) than highly differentiated individuals (Skowron & Friedlander, 1998).

Some limitations to this study include the collection of data using self-report measures instead of using direct observation. Several items on the DSI failed to load on a particular factor during the EFA and were removed from the CFA model. Researchers suggest considerations for revisions of the DSI in order to increase reliability and validity of the measure in order to assess college-aged individuals within relationships. The possibility of the quality of self-differentiation varying between cultures leaves room for future research analysis within diverse populations. There is little research that examines level of differentiation within individualistic vs. collectivistic cultures and how self-differentiation affects relationship quality. It would be interesting to look at how level of differentiation effects overall adjustment in different ethnic groups.

One study found that greater levels of self-differentiation results in better psychological adjustment, social problem-solving, and greater ethnic group belonging among persons of color (Skowron et al., 2004). These are just a few suggestions for areas of future research in regards to Bowen's concept of self-differentiation. This concept is still greatly understudied, however the affect that Self differentiation has on psychological function and mental well-being are striking, and the intergenerational effect is ever-present, making it an important concept to examine.

Future research can inform practitioners within the area of marital and family therapy, as well as individuals within relationships of the benefits of adapting skill that promote self-differentiation into their lifestyle. Self-differentiation can improve satisfaction in intimate and family relationships by increasing one's ability to manage stress, decrease anxiety and depressive symptoms, and direct individuals and couples onto a path toward greater mental and physical wellness.

Clinical implications

This study has several clinical implications. Do not rely on measures of self-differentiation to determine if a couple's relationship will result in high or low relationship satisfaction. That is, if a couple comes in for therapy and reports low relationship satisfaction or the Revised Dyadic Adjustment Scale indicates low satisfaction; do not assume that low relationship satisfaction is due to the low self-differentiation of by either or both partners. The study findings suggest that trait anxiety is a primary driver of low relationship satisfaction. Consequently, assess the anxiety level of each partner using a clinical interview and/or an anxiety measure such as the State Trait Anxiety Instrument.

If one or both partners in the relationship are anxious, treating the anxiety as part of couple's therapy may significantly increase relationship

satisfaction. Such an approach is consistent with research findings of affective neuroscientists who have studied primal emotions in humans and other animals (Joanning, 2020; Panksepp, 2008, 2011; Panksepp & Biven, 2012). If an organism is anxious, a primal emotional circuit, the FEAR/ANXIETY circuit becomes dominant as the organism attempts to survive. When this circuit is active, it suppresses other circuits important to relationship satisfaction; specifically, the SEEKING/EXPECTANCY, CARE/NURTURANCE, PLAY/JOY, AND LUST/SEXUALITY circuits (Joanning, 2020). These four primal circuits are the basis of high relationship satisfaction. The circuit names are capitalized to distinguish them from interpretations of primal emotions generated by the limbic system of the brain commonly known as feelings. If FEAR/ANXIETY, ANGER/RAGE, or PANIC/GRIEF circuits are operating, humans generally do not experience caring, nurturance, play, joy, sexuality, or curiosity (Panksepp, 2011).

This study suggests that therapists need to explore anxiety when expressed by one or both partners. Therapy needs to reduce anxiety so positive emotional circuits can be activated. Therapies specifically designed to reduce anxiety, and anger or panic, include Brent Atkinson's Pragmatic Experiential Therapy, Susan Johnson's Emotionally Focused Therapy (Johnson, 2019), or John Gottman's Sound Relationship House (Gottman, 1999; Gottman & Silver, 2015).

Relationship therapy with couples seen in conjunction with the larger research project from which the current study is drawn has shown that when negative emotional circuits are suppressed and positive emotional circuits are activated, couples report a shift from experiencing dissatisfaction to satisfaction with their relationship (Joanning, 2020).

Notes

1. The Holm-Bonferroni Method (also called Holm's Sequential Bonferroni Procedure) is a way to deal with Family Wise Error rates (FWE) for multiple hypothesis tests (Holms, 1979). It is a modification of the Bonferroni correction. The Bonferroni correction reduces the possibility of getting a statistically significant result (i.e. a Type I error) when performing multiple tests. Although the Bonferroni is simple to calculate, it suffers from a lack of statistical power. The Holm-Bonferroni method is also fairly simple to calculate, but it is more powerful than the single-step Bonferroni. The results of this technique are shown in Table 2 below. Of the 55 unique correlations, 36 are actually significant when controlling for FWE. This indicates that our initial correlation matrix had a false discovery rate of 55/19 or 34.5%. All of the correlations presented in green, ending with EC – COH are significant, and all those below are non-significant.

Disclosure statement

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