

A Longitudinal Perspective on Differentiation of Self, Interpersonal and Psychological Well-Being in Young Adulthood

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Abstract The over-time relationship between differentiation of self and interpersonal and psychological well-being was examined in a sample of young adults in order to test the hypothesis that greater differentiation of self—that is, lower emotional reactivity, better capacity to take an “I” position in relationships, less emotional cutoff, and lower fusion with others—predicted greater interpersonal and psychological health. Results of hierarchical regression analyses confirmed that greater Time 1 differentiation of self predicted lower Time 2 psychological and interpersonal distress after controlling for Time 1 distress levels. Further, canonical correlation analyses revealed several significant patterned associations between aspects of differentiation of self and specific interpersonal problems. Implications for family interventions are discussed.

Keywords Family systems · Differentiation of self · Well-being · Emerging adulthood · Longitudinal

Introduction

Young adulthood is a time of transition, change, new experiences, and challenges for oneself and one’s family (Arnett 2000; Carter and McGoldrick 1999). Research has shown that young adults who report greater emotional and interpersonal well-being are more likely to successfully navigate the transition to college and enjoy greater academic success (e.g., Eccles et al. 1993; Kerr et al. 2004; Petersen et al. 1993). In contrast, young adults who report greater psychological distress and/or interpersonal problems struggle more in

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meeting academic expectations and adjusting successfully to college life, and place higher demands on university counseling center services (e.g., Crespi and Becker 1999; O'Malley et al. 1990). Both theory and existing research suggest that family-of-origin experiences play a central role in the socio-emotional development and adjustment in young adulthood (e.g., Becvar and Becvar 2003; Grolnick 2003; Kenny and Rice 1995; Lopez and Brennan 2000; Mattanah et al. 2004; Peleg-Popko 2004; Roberts Gray and Steinberg 1999).

The transition from adolescence to young adulthood is marked by the central developmental tasks of consolidating one's personal identity, and forming healthy, mature, intimate relationships, coinciding with the family life cycle stage of leaving home/launching (Carter and McGoldrick 1999). During this developmental transition in the family system, young adult children are faced with the prospect of leaving their family of origin and accepting emotional and financial responsibility for self, developing intimate peer relationships, differentiating a self within one's family-of-origin, and establishing a measure of vocational and financial independence (Becvar and Becvar 2003; Nichols and Schwartz 2004). This time period has been shown to be a stressful one for young adults (e.g., Seiffge-Krenko 2006), and the quality of family relationships is thought to play an important role in fostering the development of healthy connections and independence for young adults (Grolnick 2003).

Both theory (e.g., Aylmer 1988; Carter and McGoldrick 1999) and existing research (e.g., Arnett 1998; Grolnick 2003; Kenny and Rice 1995; Lopez and Brennan 2000; Mattanah et al. 2004) suggest that the relative success individuals achieve in developing emotional and interpersonal relational competence in young adulthood is tied to their family-of-origin experiences around emotional regulation, support, connection, and opportunities for autonomy. For example, adolescents who enjoy secure attachments and more parental support for their autonomy experience greater well-being and are more likely to successfully "launch" from their family of origin and navigate the transition to young adulthood (e.g., Kenny and Rice 1995; Mattanah et al. 2004; Rice et al. 1997; Seiffe-Krenke 2006). Adolescent experiences of authoritative parenting (i.e., warmth, acceptance, parental involvement, and a high degree of psychological autonomy) predict later psychological and relational competence, more positive school attitudes, and greater academic success in adolescence (e.g., Dornbusch et al. 1987; Steinberg et al. 1989; Steinberg et al. 1992). In sum, both parent involvement and support for autonomy appear to be critical for successful college student development and adjustment (Palladino Schultheiss and Blustein 1994). Conversely, heightened psychological distress during the launching phase may result from difficulties in negotiating the balance between autonomy and connection in one's family of origin (e.g., Berman and Sperling 1991; Holmbeck and Leake 1999). These studies, taken together, support the centrality of developing autonomy and relatedness for health and effective functioning in young adulthood.

According to Bowen family systems theory (Bowen 1978; Kerr and Bowen 1988), mature functioning in young adulthood results from experiences in one's family relationships characterized by emotion regulation and a balance of autonomy-support and connection. This balance is referred to as *differentiation of self*, and is defined as the capacity of a family system and its members to manage emotional reactivity, remain thoughtful in the midst of strong emotion, and experience both intimacy and autonomy in relationships. Individuals who are more differentiated are less emotionally reactive, better able to regulate emotion, think clearly under stress, and are more capable of remaining in connection with significant others while maintaining a clearly defined sense of self both in and out of relationships (Bowen 1978; Kerr and Bowen 1988; Skowron and Friedlander 1998). Greater differentiation of self is thought to lead to greater interpersonal competence,

emotional maturity, and lower psychological distress because it enables one to better modulate the emotional arousal experienced during challenging interpersonal situations. In contrast, less differentiated individuals are less comfortable with intimacy and/or autonomy, thought to be less effective in relationships, experience more interpersonal problems, have greater difficulty regulating emotion (Bowen 1978; Kerr and Bowen 1988), and report greater psychological distress (e.g., Bartle-Haring and Probst 2004; Kim-Appel et al. 2007; Murray, et al. 2006; Skowron and Friedlander 1998; Skowron et al. 2004). In emotionally charged interpersonal situations, less differentiated persons are thought to become more emotionally reactive and engage in emotional cutoff or fusion with others in response to stress (Nichols and Schwartz 2004). According to Bowen theory, while those who gravitate toward emotional cutoff tend toward withdrawal or distance from others when stressed, fusion with others is characterized by a discomfort with autonomy in relationships, wishes to psychologically merge with another, and difficulty tolerating differences of opinion (Kerr and Bowen 1988; Skowron and Schmitt 2003).

Recent reviews of research grounded in family systems theory (Charles 2001; Miller et al. 2004) confirm that support exists for theoretically posited relations between differentiation of self and greater psychological well-being (e.g., Elieson and Rubin 2001; Gavazzi et al. 1993; Skowron and Schmitt 2003; Tuason and Friedlander 2000), lower chronic anxiety (Skowron and Friedlander 1998), greater relationship satisfaction (Skowron 2000), fewer interpersonal problems (Wei et al. 2005), and lower relationship violence (Rosen et al. 2001; Skowron and Platt 2005). However, unlike previous studies that have relied on use of cross-sectional designs, we employed a longitudinal design in the current study in order to test the Bowen family systems theory assertion that differentiation of self *leads to* greater psychological well-being and interpersonal competence. In other words, this study was designed to examine whether differentiation of self would predict greater psychological and interpersonal well-being over time in young adult college students.

We chose to employ a short-term longitudinal design to investigate the contribution of differentiation of self to the interpersonal and psychological well-being of a sample of young adult college students for several reasons. First, as mentioned, most research conducted to date on the role of differentiation of self in late adolescent and young adult development has been cross-sectional in nature (e.g., Miller et al. 2004; Knauth et al. 2006; Skowron 2004; Skowron and Platt 2005), which hampers our ability to test causal relations between differentiation of self levels and important dimensions of individual and relational well-being as posited in Bowen theory. In contrast, use of a short-term longitudinal design in this study allowed us to assess the influence of level of differentiation of self on well-being. Second, given the impossibility of experimentally manipulating levels of differentiation in individuals, use of longitudinal methods are necessary in order to study these causal processes (Pedhazur and Schmelkin 1991). Third, use of a longitudinal design helps us to critically assess whether observed correlations between differentiation of self and well-being variables are due instead to alternate third variables or to common method or source variance. Finally, because we employed Time 1 well-being scores as covariates in the analyses, we were able to reduce the common method and source variance shared between the differentiation of self and well-being measures in tests of whether Time 1 differentiation of self scores predicted Time 2 well-being scores.

In sum, the current study was designed to examine the over-time relationships between differentiation of self, on the one hand, and interpersonal and psychological well-being on the other. A longitudinal design was employed in which Time 2 interpersonal and psychological functioning scores were regressed onto Time 1 differentiation of self scores,

controlling for the effects of Time 1 interpersonal and psychological functioning. We hypothesized that greater Time 1 differentiation of self, that is, lower emotional reactivity, greater ability to take “I” positions in relationships, less emotional cutoff, and less fusion with others, would predict better interpersonal functioning and psychological adjustment scores over time. In the event that young adults’ differentiation of self scores significantly predicted interpersonal well-being, a follow-up analysis was planned to explore patterns of association between aspects of differentiation and specific types of interpersonal problems.

Methods

Participants

Participants were 132 young adults attending a large mid-Atlantic university, ranging in age from 18 to 22 ($M = 19.3$, $SD = .74$). Most participants were single, with 51.6% ($n = 66$) single, never married, and 46.1% ($n = 59$) single, in a committed relationship, while 0.8% were divorced, and 1.6% ($n = 2$) reported “other.” None of the participants reported having children. A majority of the participants were not employed (65.9%; $n = 86$), while 30.2% ($n = 39$) reported working part-time (less than 20 h per week), and 3.9% ($n = 4$) reported working 20 or more hours per week. Most of the participants reported having monthly contact with their mothers and fathers (i.e., 76.7%; $n = 99$ and 72.1%; $n = 93$, respectively); only 2.3% ($n = 3$) of participants reported complete cutoff (no contact) from their fathers; none reported complete cutoff from mothers. The sample composition was 13.6% ($n = 18$) male, 86.4% ($n = 114$) female, and was predominantly European-American (92.4%; $n = 122$), with 3.1% ($n = 4$) Asian American, 1.6% ($n = 2$) Hispanic/Latina, and 0.8% Native American participants, with 2.3% ($n = 3$) electing not to respond.

Instruments

Inventory of Interpersonal Problems (IIP; Horowitz et al. 2000)

The IIP is a 64-item inventory used to assess an individual’s interpersonal functioning. Items are rated on a 5 point Likert-type scale with values ranging from 0 = *not at all* to 4 = *extremely*. The IIP is comprised of a total score and eight subscales that represent eight dimensions of interpersonal functioning: (1) *Domineering/Controlling* (a desire to control others and inability to consider another person’s point of view); (2) *Vindictive/Self-Centered* (seeking revenge and easily angered); (3) *Cold/Distant* (a lack of connection with others and difficulty initiating and/or maintaining relationships); (4) *Socially Inhibited* (fearful/timid in social situations and difficulty joining new groups or initiating social interactions); (5) *Nonassertive* (lacking self-confidence and difficulty being firm with others); (6) *Overly Accommodating* (seeking to win others’ approval by being inoffensive and being excessively submissive); (7) *Self-Sacrificing* (excessively generous and trouble setting limits with others); and (8) *Intrusive/Needy* (self-imposing and, in general, having inappropriate boundaries). Raw scores on each subscale are converted to standardized T-scores using available norms (Horowitz et al. 2000), such that a high score (i.e., $T = 70+$) indicates significant distress in a particular interpersonal domain. Horowitz et al. (2000) report reliability coefficients for each of the subscales ranging from .76 to .96, and the subscales are positively correlated with both the Brief Symptom Inventory and the

Symptom Checklist-90-R Global Severity Indices (range .57–.78), which indicates good concurrent validity. Internal consistency estimates for the IIP-total scores at Time 1 ($\alpha = .94$) and Time 2 ($\alpha = .93$) were high in the current sample.

Outcome Questionnaire (OQ-45)

The OQ-45 (Lambert et al. 1996) is a self-report instrument designed for repeated measurement of client changes occurring throughout the course of mental health treatment. When completing the OQ-45 respondents are asked to estimate the frequency with which they have experienced various emotional states during the previous week. Frequencies are based on a five-point Likert-type scale with values ranging from 0 (never) to 4 (almost always) for 36 negatively worded items and reverse scored (4 for never and 0 for almost always) for nine positively worded items. OQ-45 total scores can range from 0 to 180, with higher scores reflecting greater distress, more frequent and severe symptoms; scores falling at or higher than 63 are considered to reflect problematic functioning in relation to a normative population. The OQ-45 total score was used in this study. The OQ-45 manual documents good reliability and validity across a number of settings, clinical, and normative populations. Research has indicated excellent internal consistency reliability (Cronbach's $\alpha = .93$) and good test-retest reliability ($r_{tt} = .84$) for the OQ-45. Internal consistency estimates in the current sample were also high (i.e., Time 1 $\alpha = .93$; Time 2 $\alpha = .94$). Evidence of the OQ-45's construct validity is based on a series of observed correlations between OQ-45 scores and alternative measures of symptomatic distress (e.g., Beck Depression Inventory; $r = .80$) and interpersonal functioning (e.g., Inventory of Interpersonal Problems; $r = .60$).

Differentiation of Self Inventory (DSI; Skowron and Friedlander 1998)

The DSI is a 43-item self-report measure designed to assess one's level of differentiation of self within one's current significant relationships. Respondents rate items using a 6-point Likert-type scale, ranging from 1 (not true of me) to 6 (very true of me) to describe their typical feelings in their relationships. The focus of the current study was based on the four DSI subscales: *Emotional Reactivity* (ER), *I-Position* (IP), *Emotional Cutoff* (EC), and *Fusion with Others* (FO). The *Emotional Reactivity* subscale reflects the degree to which a person responds to environmental stimuli with emotional flooding, emotion lability, or hypersensitivity to the point of being consumed by them. The *I-Position* subscale contains items that reflect a clearly defined sense of self as well as one's ability to thoughtfully adhere to personal convictions even when pressured to do otherwise. The *Emotional Cutoff* subscale reflects feeling threatened by intimacy and isolating oneself from others and one's emotions when intrapersonal or interpersonal experiences are too intense. The *Fusion with Others* scale reflects emotional over-involvement and/or over-identification with one's parents or significant others. All raw scores for EC, ER, and FO, as well as one item in IP, are reverse scored and summed; higher scores reflect lower levels of emotional cutoff, emotional reactivity, and fusion with others, as well as greater ability to take an "I" Position with others. Higher total scores indicate greater differentiation of self. Internal consistency estimates for the subscales have ranged from .74 to .88 (Skowron and Friedlander 1998). In the current sample, Cronbach alphas for the DSI subscales at Time 1 were: ER $\alpha = .83$; IP $\alpha = .80$; EC $\alpha = .82$; and FO $\alpha = .69$; and at Time 2 were: ER $\alpha = .85$; IP $\alpha = .79$; EC $\alpha = .86$; and FO $\alpha = .76$. Test-retest reliability estimates were also high: DSI-total = .78; ER = .76; IP = .80; EC = .77; and FO = .76. Construct

validity of each scale has been indicated by documented relations with less chronic anxiety and symptomology (Skowron and Friedlander 1998) and problem-focused coping styles (Murdock and Gore 2004).

Procedure

Prospective participants enrolled in two large undergraduate classes were solicited to participate in the study. Course instructors granted permission to introduce the study to students during class time. Interested students attended one of several scheduled testing sessions during the third week of the semester and again during the last week of the semester, approximately 12 weeks later. Data collection procedures were repeated in both the Fall and Spring semesters of a single academic year. Students who elected to participate provided written informed consent and completed a packet of questionnaires consisting of a demographic form, OQ-45, IIP, and DSI presented in counter-balanced order. Students received course credit for study participation. Individuals were permitted to decline participation in the study with no adverse consequences to their grades and to complete an alternate assignment for extra course credit in lieu of study participation.

Results

Table 1 presents the means, standard deviations, and range of the predictor and criterion variables at Time 1 and Time 2. At Time 1, 25.8% ($n = 34$) of participants were clinically distressed as per their OQ-45 scores at or above 63, and at Time 2, 23.3% ($n = 30$) were clinically distressed. The pattern of zero-order intercorrelations shown in Table 2 illustrates the presence of strong inverse relations between the Time 1 DSI predictor scores and Time 2 OQ-45 and IIP criterion scores, as predicted.

First, we conducted a series of hierarchical regression analyses to test relations between Time 1 (beginning of semester) differentiation of self scores and Time 2 (end of semester) psychological and interpersonal adjustment scores, while controlling for the effects of early semester adjustment scores. While representing an important strategy for use with longitudinal data, use of Time 1 OQ-45 and IIP scores as covariates produces a constrained estimate of the magnitude of impact of the differentiation of self scores on psychological and interpersonal functioning because large autocorrelation coefficients exist over the 3-month period for the adjustment indices (for OQ-45 symptoms, the 3-month autocorrelation is $r = .82$; for IIP scores, the 3-month autocorrelation is $r = .58$). Therefore, the following analyses should be considered as tests of significance only and not as providing effect size estimates.

The first hierarchical multiple regression was performed to test the hypothesis that Time 1 DSI subscale scores would predict Time 2 psychological distress scores (OQ-45-2), after controlling for Time 1 psychological distress scores (OQ-45-1). In step 1, OQ-45-1 scores were entered into the model, $F(1, 131) = 226.92$, $R^2 = .63$, $p < .0001$, followed by the four DSI subscales in step 2, which yielded a significant increment in the prediction of Time 2 psychological distress scores: $\Delta F(4,127) = 7.48$, $\Delta R = .07$, $p < .0001$. Results are shown in Table 3. Interpretation of results indicates that lower emotional reactivity, better ability to take “I” positions in relationships, and lower emotional cutoff and fusion with others assessed at the outset of a semester, taken together, predicted lower symptomatic distress later in the semester, after controlling for Time 1 level of distress. Follow-up individual t -tests for each of the regression coefficients revealed that Emotional

Table 1 Means and standard deviations

	Mean	SD	Minimum	Maximum	Possible range
Differentiation of self-time 1	3.69	.57	2.11	5.34	1–6
Emotional reactivity (ER)	3.14	.82	1.27	5.36	
Emotional cutoff (EC)	4.73	.78	2.50	6.00	
I position (IP)	3.92	.77	2.00	5.45	
Fusion with others (FO)	3.08	.64	1.67	4.75	
Differentiation of self-time 2	3.74	.64	2.03	5.57	1–6
Emotional reactivity (ER)	3.28	.88	1.18	5.64	
Emotional cutoff (EC)	4.73	.78	2.50	6.00	
I position (IP)	3.92	.77	2.00	5.45	
Fusion with others (FO)	3.08	.64	1.67	4.75	
OQ-45-time 1	49.36	19.78	5.00	117.00	0–180
OQ-45-time 2	48.60	21.58	2.00	118.00	
Inventory of interpersonal problems-time 1	55.50	9.38	38.00	78.00	$T = 50$ (SD = 10)
1. Domineering/controlling	52.04	10.29	39.00	90.00	
2. Vindictive/self-centered	52.33	9.81	39.00	87.00	
3. Cold/distant	52.49	11.17	40.00	87.00	
4. Socially inhibited	54.85	10.88	38.00	90.00	
5. Nonassertive	57.35	9.83	37.00	79.00	
6. Overly accommodating	55.48	10.82	34.00	86.00	
7. Self-sacrificing	53.92	9.43	34.00	76.00	
8. Intrusive/needy	55.05	9.82	39.00	84.00	
Inventory of interpersonal problems-time 2	56.22	9.63	38.00	80.00	$T = 50$ (SD = 10)
1. Domineering/controlling	52.21	10.78	39.00	95.00	
2. Vindictive/self-centered	52.09	8.86	39.00	81.00	
3. Cold/distant	51.80	10.09	40.00	85.00	
4. Socially inhibited	53.95	9.93	39.00	90.00	
5. Nonassertive	56.24	9.35	37.00	81.00	
6. Overly accommodating	55.00	10.59	34.00	82.00	
7. Self-sacrificing	53.79	9.87	36.00	75.00	
8. Intrusive/needy	54.64	9.11	38.00	89.00	

Note: Scores on DSI and its subscales (i.e., ER, IP, EC, & FO) can range from 1 to 6, with higher scores on indicating greater differentiation, specifically, less emotional reactivity (ER), greater ability to take an “I” position in relationships (IP), less emotional cutoff (EC), and less fusion with others (FO). Scores on the OQ-45 can range from 0 to 180, with higher scores indicating greater psychological distress. The IIP and its eight subscale scores are standardized (i.e., $M = 50$, $SD = 10$), with higher scores indicating greater interpersonal problems on that specific dimension

Cutoff-Time 1 scores uniquely predicted symptomatic distress, in that young adults who reported less emotional cutoff at Time 1 also reported lower psychological distress at Time 2, after accounting for amount of Time 1 distress.

Next, a second hierarchical multiple regression was performed to test the hypothesis that Time 1 DSI subscales scores would predict Time 2 interpersonal problems (IIP-Total-2), after controlling for Time 1 interpersonal problems (IIP-Total-1). In step 1, IIP-Total-1 scores were entered into the model, $F(1,131) = 56.17$, $p < .0001$, $R^2 = .30$, followed by each of the DSI subscales in step 2, which yielded a significant contribution to

Table 2 Intercorrelations among differentiation, psychological symptoms, and interpersonal problem variables at time 1 and time 2 (*N* = 132)

Variable	Time 2 scores														
	ER	IP	EC	FO	DSI-T	OQ	IIP1	IIP2	IIP3	IIP4	IIP5	IIP6	IIP7	IIP8	IIP-T
Time 1 scores															
1. Emotional reactivity (ER-1)	.77**	.48**	.08	.51**	.58**	-.38**	-.12	-.22*	-.04	-.24**	-.21*	-.25**	-.25**	-.29**	-.27**
2. I position (IP-1)	.52**	.81**	.20*	.53**	.53**	-.47**	-.04	-.26**	-.15	-.43**	-.47**	-.42**	-.36**	-.19*	-.36**
3. Emotional cutoff (EC-1)	.25**	.21*	.78**	.24**	.56**	-.57**	-.37**	-.39**	-.56**	-.50**	-.29**	-.27**	-.39**	-.27**	-.41**
4. Fusion with others (FO-1)	.55**	.40**	.05	.76**	.57**	-.33**	-.02	-.03	.00	-.18*	-.38**	-.38**	-.41**	-.21*	-.29**
5. DSI-total-1	.70**	.48**	.45**	.67**	.78**	-.60**	-.24**	-.31**	-.30**	-.43**	-.39**	-.41**	-.48**	-.36**	-.44**
6. OQ-45-1	-.52**	-.55**	-.41**	-.44**	-.59**	.82**	.23*	.41**	.31**	.46**	.26**	.30**	.37**	.30**	.41**
7. IIP1-dominance-1	-.22*	-.08	-.29**	-.05	-.24**	.33**	.65**	.46**	.37**	.24**	.04	.06	.16	.48**	.29**
8. IIP2-vindictive-1	-.12	-.14	-.24**	-.09	-.19*	.21*	.43**	.55**	.48**	.36**	.11	.01	-.01	.22*	.31**
9. IIP3-cold/distant-1	-.08	-.24**	-.48**	-.11	-.29**	.40**	.41**	.47**	.68**	.56**	.29**	.19*	.20*	.18*	.44**
10. IIP4-socially inhibited-1	-.24**	-.43**	-.41**	-.30**	-.40**	.44**	.23*	.37**	.50**	.74**	.49**	.46**	.39**	.15	.52**
11. IIP5-nonassertive-1	-.28**	-.46**	-.25**	-.46**	-.40**	.27**	.02	.22*	.30**	.53**	.65**	.58**	.38**	.14	.46**
12. IIP6-overly accommodate-1	-.34**	-.52**	-.22*	-.47**	-.43**	.37**	.03	.20*	.28**	.47**	.66**	.74**	.49**	.23*	.49**
13. IIP7-self-sacrificing-1	-.35**	-.35**	-.21*	-.45**	-.42**	.34**	.15	.13	.21*	.37**	.44**	.57**	.67**	.34**	.43**
14. IIP8-intrusive/need-1	-.28**	-.19*	-.09	-.21*	-.25*	.27**	.34**	.31**	.28**	.19*	.22*	.24**	.26**	.62**	.30**
15. IIP-total-1	-.33**	-.45**	-.39**	-.39**	-.47**	-.46**	.37**	.47**	.55**	.64**	.55**	.52**	.46**	.39**	.58**

* *p* < .05; ** *p* < .01

Table 3 Hierarchical multiple regressions testing the effects of time 1-differentiation of self on time 2-psychological symptoms & interpersonal problems ($N = 132$)

Predictor variable	<i>B</i>	SE	β	R^2	ΔR^2	<i>F</i>	ΔF
<i>OQ-45 time 2^a</i>							
Step 1				.63		226.92	
OQ-45-1	.86	.06	.80**				
Step 2				.70	.07		7.48
OQ-45-1	.75	.07	.69**				
ER1	2.26	1.64	.09				
EC1	-7.43	1.42	-.28**				
IP1	-.74	1.76	-.03				
FO1	-1.95	1.97	-.06				
<i>IIP Time 2^b</i>							
Step 1				.30		55.74	
IIP-Time 1	.56	.08	.55**				
Step 2				.36	.05		2.66
IIP-Time 1	.42	.09	.41**				
ER1	.79	1.08	.07				
EC1	-2.47	.94	-.21*				
IP1	-1.52	1.10	-.13				
FO1	-1.39	1.32	-.10				

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

Results for the full models were as follows: ^a $F(5, 126) = 60.35$, $p < .0001$, $R = .84$, $R^2 = .70$; and ^b $F(5, 126) = 13.84$, $p < .0001$, $R = .60$, $R^2 = .36$

interpersonal problems: $\Delta F(4,127) = 2.68$, $\Delta R = .05$, $p = .04$. Individual follow up *t*-tests performed on each of the regression coefficients revealed that Time 1 Emotional Cutoff scores uniquely predicted interpersonal problems. Specifically, lower emotional cut-off at Time 1 predicted fewer interpersonal problems 3 months later (see Table 3).

Given the significant relations observed between DSI scores and total IIP scores, we sought to further explore relations between differentiation of self levels (represented by the four DSI subscales) and the eight IIP cluster scores reflecting specific types of interpersonal problems. A canonical correlation analysis was performed using the 4 DSI subscales as predictor variables and the 8 IIP cluster scores as the criterion variables. A canonical analysis allows one to ascertain the extent and nature of association between a set of predictor and a set of criterion variables. One or more independent *roots*—unique patterns of correlation among the predictor and criterion variables—may emerge as statistically significant. Each significant root that emerges represents a unique pattern of correlations among the predictor and criterion variables. In order to interpret the meaning of each canonical root, the relative weightings of the *structure coefficients* (i.e., correlations between the predictor and criterion variables on the one hand, the underlying root on the other) are examined (Tabachnick and Fidell 2007).

Results are summarized in Table 4, and show that the full canonical model was significant: Pillais' trace = 1.06; multivariate $F(32,480) = 5.37$, $p < .0001$. Four significant canonical roots were extracted, with R_c 's ranging from .67 to .25, and each root accounted for a significant portion of the relationship between DSI and IIP scores. Table 4 shows

Table 4 Canonical correlation analysis of differentiation of self and inventory of interpersonal problems scales ($N = 132$)

Root				
Variables	1	2	3	4
<u>Differentiation of self-inventory</u>				
Emotional reactivity	.43	.44	-.53	-.59
“I” position problems	.75	.55	–	–
Emotional cutoff	.75	-.60	–	–
Fusion with others	.52	.60	.37	-.49
<u>Inventory of interpersonal problems</u>				
1. Domineering/controlling	-.37	.41	–	.51
2. Vindictive	-.58	–	.51	–
3. Cold/distant	-.68	.63	–	–
4. Socially inhibited	-.89	–	–	–
5. Nonassertive	-.78	–	–	–
6. Overly accommodate	-.71	–	–	–
7. Self-sacrificing	-.78	–	-.30	.44
8. Intrusive/needy	-.43	–	–	.79
Percent variance	49%	33%	13%	4%
Canonical correlation	.67	.60	.43	.25
Eigenvalue	.82	.55	.23	.07

Note: Canonical coefficients greater than or equal to .30 are listed

results of the canonical analysis, including canonical correlations between the DSI and IIP variables, eigenvalues, and structure coefficients for each canonical root.

As shown, the first canonical root accounted for 49% of the variance. Using a cutoff of .3 (Tabachnick and Fidell 2007), structure coefficients associated with each of the four DSI predictors and all eight IIP criterion variables loaded on this canonical root. Interpretation of the root indicated that greater differentiation of self—as indexed by greater ability to take I positions in relationships (.75), less emotional cutoff (.75), less fusion with others (.52), and less emotional reactivity (.43)—together were associated with lower relationship distress on the eight interpersonal problem dimensions (i.e., lower scores on IPP Controlling [-.37], Vindictive/Self-Centered [-.58], Cold/Distant [-.68]), Socially Inhibited [-.89], Nonassertive [-.78], Overly Accommodating [-.71], Self-Sacrificing [-.78], and Intrusive/Needy scales [-.43]). In contrast, those who were less differentiated, in other words, were more emotionally reactive, less able to take I positions, more emotionally cutoff or fused with others, in turn, reported greater interpersonal distress in these eight areas of interpersonal functioning.

The second canonical root accounted for 33% of the variance. Interpretation of structure coefficients indicated that DSI scores characterized by greater emotional cutoff (-.60), when associated with lower emotional reactivity (.44) and fusion with others (.60), predicted more Cold/Distant (.63; IIP scale 3) and Domineering/Controlling (.41; IIP scale 1) interpersonal problems. Inspection of the third canonical root—accounting for 13% of the model variance—showed that greater DSI emotional reactivity (-.53) and less fusion with others (.37) taken together, predicted higher IIP scores on scale 2 Vindictive/Self-Centered (.51) and lower scores on scale 7 Self-Sacrificing (-.30), indicating tendencies to engage

in revenge-seeking, being quick to anger, and less self-sacrificing in relationships. The fourth canonical root accounted for 4% of the variance, and showed significant associations between greater emotional reactivity ($-.59$) and fusion with others ($-.49$) scales on the one hand, and higher scores on 3 IIP scales: Domineering/Controlling (.51), Self-Sacrificing (.44) and Intrusive/ Needy (.79). Interpretation of the canonical loadings suggested that greater emotional reactivity and fusion with others, taken together, predicted more intrusiveness, poor interpersonal boundaries, efforts to control others, difficulty considering other's views, and difficulty setting limits with others.

Discussion

This study examined the over-time relationship between differentiation of self and psychological and relational well-being in a sample of young adult college students. Results demonstrated that greater differentiation of self—that is, lower emotional reactivity and an ability to take “I” positions in one's relationships, along with less emotional cutoff or fusion with others in relationships—assessed early in the semester, predicted fewer psychological symptoms and interpersonal problems at the semester's end. Thus, individuals who reported that they were more emotionally reactive and less able to regulate their emotions, who had difficulty maintaining a clear sense of self in relationships, and who tended to engage either in emotional cutoff or fusion with others, experienced the greatest interpersonal distress and psychosocial problems 3 months later, even after statistically controlling for early semester problem levels. In contrast, those who were better able to emotionally regulate, think clearly under stress, and stay in good emotional contact with others while also maintaining a clear sense of self in those relationships, reported the highest levels of psychosocial and interpersonal well-being 3 months later. These findings support Bowen's (1978) central assertion that differentiation of self leads to greater well-being.

Further, analyses revealed unique contributions of Emotional Cutoff and “I” Position scores to well-being. Specifically, young adults who began the semester emotionally cutoff from others and having greater difficulty defining a clear sense of self in their relationships, in turn, developed more psychological and interpersonal problems over time compared to their more differentiated peers. Further, young adults who had difficulty defining a self in their relationships also tended to resort to emotional cutoff, perhaps in an effort to hang onto a sense of “self.” One wonders whether these less differentiated young adults believe that entering into an intimate relationship with another requires one to give up “self,” or that, in order to carve out sufficient space to be a self, they feel compelled to remain emotionally distant from others. Taken together, these findings support the notion that both good emotional contact *and* good self-definition lead to the development of well-being in young adulthood. Further research is needed to investigate whether these less differentiated young adults also tend to struggle more with the central tasks of young adulthood—namely, the development of one's identity and a capacity for intimate relationships with others (e.g., Arnett 2000; Berman et al. 2006; Clausen 1991).

In addition, results of subsequent canonical analyses clarified some interesting relationships between differentiation problems and later interpersonal problems. As shown in Table 4, the first canonical root—representing almost half the variation—was characterized by the set of four differentiation of self subscales—led by greater emotional cutoff and difficulty taking “I” positions in relationships—predicted greater interpersonal distress along all eight dimensions, though it was most characterized by pathological dominance

and/or submission, and fusion and/or distancing. In other words, young adults who were most emotionally reactive to others, least able to take “I” positions in their relationships, and most emotionally cutoff from or fused with others, developed the most problems in their interpersonal relationships over time, across the continua of (a) affiliation and (b) interdependence. This pattern of findings suggests that less differentiated young adults reported experiencing a wider variety of and more severe interpersonal problems over time.

Interpretation of the second root indicated that individuals who tended to emotionally cutoff from others were more likely to try to control others when in relationship with them, or to remain distant and aloof, “go it alone,” and show difficulty sustaining long-term relationships with others. These findings suggest that attempts at control in relationships may result in part from feeling anxious in intimate relationships, emotionally and/or physically distancing from others as a result. Interpretation of the third root showed that greater emotional reactivity led to greater aggression and insensitivity in one’s relationships, characterized by fighting, irritability, quickness to anger, holding grudges, and feeling little concern for others’ happiness, or welfare. Thus, young adults who had greater difficulty modulating emotional arousal, regulating emotion, and thinking clearly under stress, developed a hostile dominance stance in their relationships over time. These findings are consistent with both theory (Bartle and Rosen 1994; Smith 2001) and existing research (Rosen et al. 2001; Skowron and Platt 2005), documenting the central role of differentiation of self problems—namely emotional reactivity—in interpersonal aggression. Future research is needed to explore the mechanisms underlying this connection. Along these lines, work in our lab has begun to examine relations between self-reported reactivity (i.e., DSI-ER), neurophysiological reactivity and regulation (i.e., cardiac vagal tone), and relationship violence. Interpretation of the final root suggested that individuals who were more emotionally reactive and tended to fuse with others, demonstrated poor relationship boundaries, intrusiveness, neediness over time, and reported more difficulty spending time alone.

In sum, these findings linking greater differentiation of self with psychological and interpersonal well-being over time appear consistent with other longitudinal research demonstrating links between attachment, autonomy, and well being (e.g., Allen et al. 2007; Lopez and Brennan 2000; Seiffe-Krenke 2006), and provide more definitive support for Bowen’s (1978) and Kerr’s (Kerr and Bowen 1988) assertions that differentiation of self plays a central role in healthy adult development.

While this research represents a meaningful first effort to study the effects of differentiation of self on well-being over time, several limits should be noted. These include the low representation of ethnically diverse individuals in the sample and the focus on participants in emerging adulthood. Likewise, though we employed psychometrically sound measures of differentiation of self and psychological and interpersonal distress, follow-up studies are needed that incorporate behavioral observations of the constructs in order to cross-validate these findings.

Implications for Intervention

Given that lower differentiation of self was associated with the development of more psychological and interpersonal problems over time, we offer several suggestions for family systems-oriented therapy with young adults. First, in terms of assessing clients’ presenting concerns, these results suggest that client who present in therapy with psychological symptoms and/or relationship problems may also be struggling with emotional

reactivity, difficulty creating and maintaining a clear sense of self in their relationships with others, and/or tend to emotionally distance or cutoff from others when distressed.

According to Bowen theory, interventions designed to increase differentiation of self focus on helping individuals decrease their emotional reactivity, foster capacity for greater intimacy and autonomy in relationships, and facilitate awareness of the emotional forces operating in significant relationships and patterns that existed in the nuclear and the extended family (Meyer 1998). Many young adults leave home as children, without working out mature adult relationships with their parents (McGoldrick and Carter 2001; Nichols 1987). “Family therapy with one person” represents a viable approach to assisting these young adults to work out more mature relationships with parents and siblings by stimulating their interest in salient relational patterns in their families of origin, teaching basic ideas about emotional process, and helping them to maintain regular contact with their own parents and siblings (Kerr and Bowen 1988; Titelman 1998; 2003).

Bowen (1978) espoused working with individual members of a family, asserting that when an individual raises his or her level of differentiation and remains in contact with the family, that the level of differentiation in the family system increases as well. Bowen family systems interventions are designed to help individuals learn how to remain calm and thoughtful in their relationships, especially under stress, thus enabling them to clarify their personal life principles, which are frequently neglected in response to high anxiety, and to accept greater personal responsibility for their own feelings, beliefs, and actions, and make thoughtful, responsible life choices (Meyer 1998). According to Bowen theory, “a successful effort to improve one’s level of differentiation and reduce anxiety strongly depends on a person’s developing more awareness of and control over his emotional reactivity” (Kerr and Bowen 1988, p. 127). Initial efforts to reduce reactivity can include a number of useful adjuncts to strengthening one’s level of differentiation of self, such as meditation, biofeedback, yoga, exercise, or any activities that enhance one’s awareness of physical manifestations of reactivity (Kerr and Bowen 1988). These efforts to calm reactivity can be followed with efforts to explore and identify one’s personal life principles (Meyer 1998). Among young adults who have distanced from their families of origin over time, efforts to bridge the emotional cutoff may be facilitated by work on gaining more emotional objectivity or neutrality about oneself in important relationship systems, and developing person-to-person relationships with family members and important others. In other words, greater emotional neutrality is achieved through work designed to facilitate greater awareness of the relationship systems in which one is embedded and by working to become more thoughtful and neutral about the emotional systems one is a part of as well as one’s role in each of them (Kerr and Bowen 1988). Greater neutrality, in turn, is thought to facilitate the capacity to be more of a “self” in one’s relationships and/or to experience comfort and satisfaction with intimacy. For the emotionally cutoff young adult, the goal of therapy might be to help him or her figure out how to stay connected in his or her relationships while also developing a clear self in the midst of those connections. Kerr and Bowen (1988) explained:

Better differentiated people are more successful in maintaining a network of emotionally supportive relationships. It’s paradoxical that people lower on the scale have a greater need for emotionally supportive relationships, yet less ability to maintain an intact network. (p. 118)

Nonetheless, these ideas regarding Bowen family systems-based therapy with young adults will require empirical examination in order to evaluate whether or not these family-systems oriented intervention efforts are capable of enhancing differentiation in young adults, reducing symptoms, and promoting greater interpersonal well-being.

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