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Friendship and Mental Health Functioning

ALAN R. KING, TIFFANY RUSSELL, AND AMY C. VEITH

Sias and Bartoo (2007) described friendships as a psychological “vaccine” against both physical and mental illness. They hypothesized that prophylactic benefits are often derived from the emotional, tangible, and informational support provided in close personal friendships.

Other clinical researchers have posited that broader forms of social support provide resiliency by “buffering” reactions to life stress (Turner & Brown, 2010). This chapter reviews evidence in support of the contention that personal friendships and social support enhance resiliency to stressors such as trauma, losses, maltreatment, and other developmental adversities. This literature review will be followed by an analysis of original data that provides a test of the general hypothesis that close child and adult relationships portend better overall mental health.

Links between friendship and mental health indices are complex. First, friendship represents a complex construct without a uniform definition. Second, mental health symptom clusters extend across many relevant dimensions that vary in their sensitivity to interpersonal influences. Third, relationships between mental health and friendship variables, however measured, are inherently complicated by their bidirectional nature. While cause–effect relationships prove difficult to establish, collective correlational findings are useful in identifying the sorts of mental health symptom clusters that are most likely to emerge when critical social support and friendship circles have been destabilized.

Defining Qualities of Friendship

Hayes (1988) defined friendship as a voluntary interdependence of two persons over time involving companionship, intimacy, affection, and mutual assistance intended to facilitate the socioemotional goals of both parties. Sullivan (1953) emphasized decades ago that friendships serve many purposes including companionship, assistance, affection, intimacy, alliance, emotional security, and self-validation. Friendships also convey a sense of mutual value, enhance communication

and interpersonal skills, and buffer both partners against life stressors (Bukowski, Hoza, & Boivin, 1994).

Developmental Contributors to Friendship Capacity

Secure and affirming parent–child relationships have been predictive of close and sustainable young adult friendships (Wise & King, 2008). Conversely, childhood maltreatment and other forms of developmental adversity may have deleterious effects on the capacity of the child to develop healthy friendships and other interpersonal relationships. Childhood abuse victims appear to have greater difficulty in initiating and sustaining satisfying peer relationships (Smith, 1995). Parental physical abuse has been found to predict less rewarding adult best friendships (Mugge, King, & Klophaus, 2009). Children from abusive homes have reported that they feel more negative toward a greater portion of their best friendships than do children with nonremarkable histories (Salzinger, Feldman, Hammer, & Rosario, 1993). Abused girls tend to report higher levels of anxiety, depression, and avoidance in their adult relationships (Fletcher, 2009; Godbout, Sabourin, & Lusser, 2009). Peers of abused children have also reported that their abused counterparts are more aggressive and less cooperative (Egeland, Yates, Appleyard, & Dulmen, 2002). Studies have tended to find lower levels of peer support during adolescence (Doucent & Aseltine, 2003) and strained adult friendships among individuals exposed to domestic violence during upbringing (Green & King, 2009; Wise & King, 2008).

Friendship Benefits

Close friendships portend higher levels of self-esteem, psychosocial adjustment, and interpersonal sensitivity (Bagwell et al., 2005). Individuals who identify lifetime friendships have been found to be better adjusted than their friendless peers (Gupta & Korte, 1994). Adults who describe their friendships as more positive and satisfying also report lesser feelings of anxiety and hostility (Bagwell et al., 2005). Young adults who described a close friendship in preadolescence have been found to show greater enjoyment, assistance, intimacy, emotional support, sensitivity, loyalty, mutual affection, and overall higher quality of life than those who did not (Bagwell, Newcomb, & Bukowski, 1998). Close best friendships predict higher general interpersonal happiness (Demir, Özdemir, & Weitekamp, 2007). Best friendships also appear to reduce the chances of being victimized by peers and, if victimization occurs, buffer the negative effects (Cowie, 2000; Owens, Shute, & Slee, 2000). These protective benefits may extend to dampening the deleterious effects of problematic home environments (Schwartz, Dodge, Pettit, & Bates, 2000).

Theoretical and qualitative writings are available to posit the mechanisms by which friendship conveys so many benefits. Friendships often provide warmth, affection, nurturance, and intimacy (Bollmer, 2005) while contributing to self-esteem,

positive family attitudes, and enhanced romantic relationships (Bagwell et al., 1998). Reciprocal friendships can supply cognitive and affective resources, foster a sense of well-being, socialize both parties, facilitate mastery of age-related tasks, and provide developmental advantages that can extend into old age (Hartup & Stevens, 1997). The sense of inclusion and belonging in childhood and adolescence can extend to participation in social organizations and a satisfying social life in adulthood (Furman & Robbins, 1985). Friendships also facilitate adaptive life transitions, including college and workforce entrance, marriage, having children, spousal death, and retirement (Magnusson, Stattin, & Allen, 1985).

While positive friendship effects appear numerous, the negative impact of peer rejection warrants equal attention. Deviant peer interactions appear to diminish feelings of well-being (Pagel, Erdly, & Becker, 1987) and contribute to delinquency among vulnerable adolescents (Hartup & Stevens, 1997). Peer rejection and early school dropout have been linked (Coie, Lochman, Terry, & Hyman, 1992). Peer rejection has also been associated with delinquency, criminality, lower school performance, vocational competence, aspiration level, less participation in social activities, and many mental health problems in preschool, middle school, and adolescence (Deater-Decker, 2001). Peer rejection can come in a variety of forms, including bullying, being ignored, and relational aggression (Bagwell et al., 1998; Salmivalli, Kaukiainen, & Lagerspetz, 2000). Children who are victimized by peers often express hostility, aggression, or withdrawal from social interactions. Social withdrawal after peer rejection has often been accompanied by depression (Rubin & Burgess, in press) and even suicidal ideation (Carlo & Raffaelli, 2000; DiFilippo & Overholser, 2000) among children and adolescents.

Friendships and Mental Health

Adults whose friendships were characterized by frequent conflict, antagonism, and inequality have been shown to have higher rates of psychiatric symptoms than their positively relating peers (Bagwell et al., 2005). King and Terrance (2008) studied best friendship correlates with psychiatric symptomatology among college students using the Minnesota Multiphasic Personality Inventory (MMPI-2). They found 57 (31%) significant ($p < .05$) correlations between MMPI-2 and Acquaintance Description Form (ADF-F2; Wright, 1985, 1989) scale indicators of best friendship closeness, value, and durability (Cohen d effect sizes ranging from .28 to .72). Four of the ADF-F2 scales (security, social regulation, personal, and situational maintenance difficulty) were strongly related to the selected MMPI-2 features. Higher Depression (D), Psychathenia (Pt), and Hypochondriasis (Hs) scores predicted lower levels of best friendship security along with higher situational maintenance difficulty.

While close friendships often serve positive, protective, and healthy functions, relationships high in antagonism, conflict, and inequality can just as predictably

trigger internalized or externalized symptoms of psychological distress (Bagwell et al., 2005). In this regard, destabilized “friendships” appear to be detrimental to mental health. Nezlek, Imbrie, and Shean (1994) found that individuals with low levels of intimacy (i.e., low quality) with their best friends had higher levels of depression. Friendships appear to have an even more direct impact on self-esteem. As with depression, the more positive features in a friendship dyad, the greater the self-esteem and the lower the symptomology of the individuals (Bagwell et al., 2005). Further, King and Terrance (2005) relied on the Millon Clinical Multiaxial Inventory (MCMI-II; Millon, 1987) and the ADF-F2 to examine associations between personality disorder attributes and best friendship qualities. Passive-aggressive, avoidant, schizotypal, sadistic-aggressive, antisocial, borderline, and/or self-defeating personality disorder attributes were linked to best friendships that were less secure (effect sizes ranging from .67 to .78). Passive-aggressive, self-defeating and borderline attributes also predicted best friendships that were more strongly influenced by the pressures and expectations of outsiders.

Social Support and Mental Health

Friendships contribute greatly to the broader resiliency factor of “social support.” Social support has been defined as the perceived level of emotional, informational, or practical assistance collectively provided, or made available, by significant others (Thoits, 2010). Emotional support includes providing love, empathy, and nurturance to another person. Informational support may come in the form of advice or suggestions to deal with a problem or stressful event. Instrumental (practical) social support is represented by tangible aid or services that directly help someone in need. The perception of social support can be even more effective than tangible support itself (Taylor, 2011). While an individual who lost their job may be comforted by their spouse, just knowledge of the availability of partner support is effective comfort in its own right. Perceived, rather than demonstrable, social support has been most strongly linked with stress resistance and well-being (Turner & Brown, 2010). The subjective experience of having a network of caring individuals when needed constitutes social support (House, 1981).

The “buffering hypothesis” proposes that social support enhances resiliency in responding to life stressors (Turner & Brown, 2010). The diathesis-stress model of psychopathology posits that stressors interact with a genetic predisposition to produce the expression of a disorder (Holmes, 2004). Social support is an important consideration in this model since it serves as a protective factor against the deleterious effects of both stressors and genetic predispositions (Buchanan, 1994). Social support appears to have positive effects on mental health prior to onset, at onset, and during stressor exposure. Social support also reduces the risk of onset and relapse after successful treatment (Gayer-Anderson & Morgan, 2013).

In one 3-year follow-up study of first episode psychotic patients, higher levels of social support predicted lower levels of positive symptoms (e.g., auditory or visual hallucinations) and fewer hospitalizations (Norman et al., 2005). Social support and stress have been found to account for 40% of the variance in depression symptoms among single mothers (Cairney, Boyle, Offord, & Racine, 2003). Depression also appears to erode peer social support during later adolescence (Stice, Ragan, & Randall, 2004). Beyond depression, social support also has an effect on anger and other emotions. Social support was inversely related to anger, impulsivity, and suicide risk within one PTSD sample (Kotler, Iancu, Efroni, & Amir, 2001).

Original Analyses

In the current literature review as presented previously, we noticed a paucity of research on the extent to which childhood and adult social support and friendship qualities covary with (self-reported) psychiatric histories. Therefore, we analyzed some original data for the purposes of further elucidation of the hypotheses advanced in this chapter regarding these bidirectional friendship associations. It was hypothesized that these friendship and social support correlates would be broad and often substantial in size. These original analyses were intended to illustrate the important mutual influences of friendship and mental health on one another. While our primary analytic focus was on friendship predictors of psychiatric diagnoses and treatment, a decision was made to extend these analyses even further to include measures of different forms of psychological distress. We attempted to select a broad range of distress indicators to better sample the full range of associations that might be expected between friendship and psychological dysfunction in the college population. These dimensional symptom measures included depression and panic indices, trait aggression, problem drinking, body image preoccupation, and even satisfaction with life.

Method

Original data was collected and analyzed to test hypotheses derived from the literature review presented in this chapter.

Participants and Procedure

Undergraduate students ($N = 988$) enrolled in selected psychology classes at the University of North Dakota were given an opportunity to earn extra credit through completion of electronic survey accessed via a web address. No exclusion criteria were applied. Ages ranged from 18 to 55 ($M = 20.22$, $SD = 4.00$). Ethnic representation (Caucasian, 90.1%; Native American, 1.4%; Hispanic, 1.1%; African American,

1.7%; Biracial, 1.0%; Asian, 2.1%; Other, 2.6%) varied in the sample. Women ($n = 750$, 75.9%) outnumbered the men ($n = 221$; 22.4%).

Materials

Friendship and mental health was examined in this study using a range of indices.

Acquaintance Description Form (ADF-F2)

The 70-item ADF-F2 (Wright, 1985, 1989) has been used widely in friendship research. The ADF-F2 generates subscale scores on 13 different dimensions measuring aspects of the respondent's relationship with a target friend. The ADF-F2 is designed to permit customization in terms of defining characteristics of the friendship. This study relied on an abbreviated version of the ADF-F2 that focuses exclusively on the personal maintenance difficulty (MD-P subscale) of the respondent's "best friendship." Personal maintenance difficulty is defined by the ADF-F2 as the extent to which the relationship was seen to be "frustrating, inconvenient, or unpleasant due to the habits, mannerisms, or personal characteristics" of the best friend. Internal ($r = .62$) and test-retest ($r = .79$) reliability has been established previously for the MD-P subscale of the ADF-F2. The ADF-F2 subscales have been linked to a wide range of concurrent validity indices (Green & King, 2009; King & Terrance, 2006; Muggge et al., 2009; Walter & King, 2013; Wise & King, 2008).

Friendship Circle Favorability

This variable was derived (customized with reversed metric with high scores indicating favorability) from the Peer Relationships scale developed through the Consortium of Longitudinal Studies on Child Abuse and Neglect (LONGSCAN) project coordinated at the University of North Carolina (<http://www.unc.edu/depts/sph/longscan/>). Respondents were asked questions about their satisfaction with the collective friendships they formed in school from kindergarten through high school. Item examples included: *How many of the kids at school (K-12) were friendly toward you? How satisfied were you with the friends you usually hung around with during your school (K-12) years?* Reliability data is unavailable for this measure, but a variety of concurrent validation indices have been provided by the scale developers (LONGSCAN, 1998).

Social Support Index

A customized (minor rewording and item deletions) version of the Resilience Factors scale developed through the LONGSCAN project was used for this index.

Respondents were asked to identify specific contributions to their "social support structure" during their school (K-12) years. Item examples included: *Was there*

ever an adult, outside of your family, who encouraged you and believed in you? Did you ever have a part in a drama, music, dance, or other performing arts group? Were you ever a part of a church group?.

Diagnostic Classifications

Diagnoses were established from affirmative responses to the question: *Have you been diagnosed with any of the following medical conditions (leave bubble blank if answer is no or not applicable)?*

Mental Health Treatment History

Treatment histories were determined from affirmative responses to the stem question: *Have you ever?* This stem was followed by reference to all of the treatment interventions listed in Table 15.1. Attempted suicides were distinguished in number but ultimately clustered in the analysis into three categories (0, 1, > 1).

Depression Symptoms

Depression symptom identification was derived by the authors from a customized listing of the DSM-5 diagnostic criteria for major depression. The question was asked: *Have you experienced any of these depression symptoms within the past two weeks?* This depression index relied upon a 5-point metric with symptom ratings ranging from 0 (symptom not present) to 5 (present daily with significant distress or impairment).

Panic Symptoms

Panic anxiety symptom identification was derived by the authors from a listing of the DSM-5 diagnostic criteria for panic attack. The question was asked: *Have you experienced any of these panic symptoms within the past year (rate symptom only if it emerged quickly and peaked within ten minutes)?* This panic index used a 5-point metric with ratings ranging from 0 (symptom not present) to 5 (present daily with significant distress or impairment).

Buss-Perry Aggression Questionnaire

The Buss-Perry Aggression Questionnaire (BPAQ; Buss & Perry, 1992) is a popular trait aggression inventory with 29 items that are scored on a Likert scale (1 = extremely characteristic of me; 7 = extremely uncharacteristic of me) and segregated into four subscales (Physical Aggression, Verbal Aggression, Trait Anger, Trait Hostility). The BPAQ subscale internal consistency (.89) and 9-week test-retest reliability (ranging from .72 to .80) has been reported by the authors. Concurrent validation summaries are provided elsewhere (Kamarck, 2005).

Table 15.1 Relationship Qualities as a Function of Psychiatric Diagnostic and Treatment Histories

	<i>Adult Best Friendship</i>			<i>Childhood Relationship Favorability</i>						
	<i>Maintenance Difficulty</i>			<i>Friendship Circle</i>			<i>Social Support</i>			
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	
<i>Psychiatric Diagnostic History</i>										
Major Depression	68	12.09	5.20	73	9.56 ^c	2.27	75	12.65	3.57	
Comparison Group	789	11.55	4.56	882	10.40 ^c	1.88	913	13.22	3.94	
Multiple Suicide Attempts	23	13.70 ^a	4.95	27	8.74 ^c	2.31	28	11.00 ^c	4.46	
One Suicide Attempt	39	11.79	4.85	43	9.60 ^a	2.08	43	12.30 ^a	4.34	
Comparison Group	752	11.39 ^a	4.51	838	10.42 ^{ac}	1.88	848	13.66 ^{ac}	3.19	
Bipolar Disorder	8	16.5	7.35	12	10	1.71	12	12.75	5.29	
Comparison Group	849	11.55	4.57	943	10.34	1.93	976	13.18	3.90	
PTSD	24	12.88	3.88	26	9.38 ^b	2.26	27	12.52	3.54	
Comparison Group	833	11.56	4.63	929	10.36 ^b	1.91	961	13.2	3.93	
OCD	32	13.41 ^a	5.66	33	9.88	2.27	34	13.44	3.69	
Comparison Group	825	11.52 ^a	4.56	922	10.35	1.91	954	13.17	3.94	
Panic Attacks	58	13.21 ^a	5.27	63	10.06	1.97	63	13.46	3.35	
Comparison Group	799	11.48 ^a	4.55	892	10.36	1.92	925	13.16	3.95	
Schizophrenia	7	19.43 ^c	4.79	7	10.29	1.70	7	14.29	4.03	
Comparison Group	850	11.53 ^c	4.56	948	10.34	1.93	981	13.17	3.92	
Alcohol Addiction	8	19.00 ^c	4.54	9	9.55	2.19	9	14.11	3.44	
Comparison Group	849	11.52 ^c	4.56	946	10.34	1.92	979	13.17	3.92	
Drug Addiction	13	15.77 ^c	5.10	14	10.07	1.77	14	13.93	3.30	
Comparison Group	844	11.53 ^c	4.58	941	10.34	1.93	974	13.17	3.92	
Borderline Personality	8	16.13 ^b	3.14	8	10.12	1.81	9	14.44	2.83	
Comparison Group	849	11.55 ^b	4.61	947	10.34	1.93	979	13.17	3.93	
ADHD	45	12.22	3.87	48	9.81 ^a	2.16	49	12.78	3.94	
Comparison Group	812	11.56	4.65	907	10.36 ^a	1.91	939	13.2	3.94	
Anorexia/Bulimia Nervosa	25	12.96	4.99	26	9.77	1.48	27	12.67	3.41	
Comparison Group	832	11.55	4.6	929	10.35	1.93	961	13.19	3.93	

	<i>Adult Best Friendship</i>			<i>Childhood Relationship Favorability</i>					
	<i>Maintenance Difficulty</i>			<i>Friendship Circle</i>			<i>Social Support</i>		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
<i>Treatment History</i>									
Antidepressants (> 1 Trial)	46	13.37 ^b	4.69	50	9.26 ^c	2.33	53	12.19 ^b	3.91
Antidepressants (1 Trial)	85	11.92	4.75	96	9.96 ^a	2.10	97	13.28	3.39
Comparison Group	688	11.29 ^b	4.49	767	10.45 ^{ac}	1.85	774	13.63 ^b	3.27
ECT	10	17.50 ^c	5.48	9	8.11 ^b	2.09	10	8.50 ^a	7.01
Comparison Group	802	11.39 ^c	4.49	897	10.35 ^b	1.92	907	13.56 ^a	3.24
Mood Stabilizers	11	15.09 ^b	6.07	13	8.15 ^c	2.19	14	8.43 ^b	6.22
Comparison Group	803	11.42 ^b	4.50	895	10.37 ^c	1.91	905	13.60 ^b	3.22
Anxiolytics	135	11.87	4.69	145	9.82 ^b	2.24	147	13.16	3.44
Comparison Group	682	11.39	4.49	765	10.43 ^b	1.85	774	13.58	3.32
Antipsychotics	11	16.91 ^c	5.24	12	7.67 ^c	2.42	12	8.50 ^a	6.71
Comparison Group	804	11.40 ^c	4.50	897	10.37 ^c	1.90	907	13.59 ^a	3.22
Stimulants	53	13.28 ^b	4.94	56	9.63 ^a	2.39	58	11.74 ^b	4.71
Comparison Group	760	11.36 ^b	4.50	851	10.38 ^a	1.89	860	13.62 ^b	3.20
Psychotherapy History	31	11.90	5.58	36	9.19 ^b	2.56	36	12.53 ^a	3.74
Comparison Group	752	11.39	4.50	836	10.44 ^b	1.84	845	13.65 ^a	3.20
Psychiatric Hospitalization	23	12.26	3.86	25	9.44 ^a	2.26	26	12.19	4.75
Comparison Group	780	11.43	4.53	869	10.37 ^a	1.91	879	13.59	3.24

Notes: Comparison groups comprised remaining sample after target members were identified.

Equal cell variances were not assumed unless Levene's test for equality indicated otherwise.

Tukey HSD testing used multiple cell post hoc comparisons.

^a $p < .05$. ^b $p < .01$. ^c $p < .001$.

Michigan Alcoholism Screening Test

The Michigan Alcoholism Screening Test (MAST; Selzer, 1971) has served as an especially popular (> 500 studies) screening measure of alcoholism risk. The MAST comprises 24 (yes/no) items such as: *Can you stop drinking without a struggle after one or two drinks? Have you ever had delirium tremens (DTs), severe shaking, heard voices, or seen things that weren't there after heavy drinking?* Items are weighted differently based on their ability to discriminate between alcoholic and comparison respondents in the validation sample.

MAST reliability ($\alpha = .80$) has been established (Shields, Howell, Potter, & Weiss, 2007) along with extensive evidence of the scale's classification sensitivity and a range of concurrent validity indices (Storgaard, Nielsen, & Gluud, 1994; Teitelbaum & Mullen, 2000). The MAST scores range from 0 to 54 with alcoholism risk suggested by scores in excess of 6.

Goldfarb Fear of Fat Scale

The Goldfarb Fear of Fat Scale (GFFS) is a 10-item scale (Goldfarb, Dynens, & Garrard, 1985) that relies on a 4-point metric to generate scores ranging from 10 to 40. Item content attests to the high face validity of the GFFS (e.g., *Becoming fat would be the worst thing that could happen to me*). Item content has been shown by the authors to be internally consistent ($\alpha = .85$) with high ($r = .88$) 1-week test retest-retest reliability.

Satisfaction with Life Scale

The Satisfaction with Life Scale (SLS; Diener, Emmons, Larsen, & Griffin, 1985) is a brief 5-item measure of global satisfaction with the entirety of one's life up to the point of testing. Item content attests to the high face validity of the SLS (e.g., *in most ways my life is close to my ideal*). The Likert metric allows scores that range from 1 (strongly disagree) to 7 (strongly agree). Item content has been shown to be internally consistent ($\alpha = .72$) with high ($r = .84$) 8-week test retest-retest reliability among college students (Pavot, Diener, Colvin, & Sandvik, 1991). Total SLS scores have been validated in a range of samples (Pavot & Diener, 1993, 2008) with the index mean and standard deviation around 23.5 and 6.4. Scores falling below 15 indicate life dissatisfaction.

Results

This study employed a two-part analytic strategy to examine the associations found between the psychiatric-friendship indices selected for inclusion. The first approach involved group comparisons regarding friendship qualities between respondents who reported and denied specific diagnoses in their psychiatric histories. Group

difference summaries were supplemented by bivariate correlation analyses to show how psychiatric symptom indices covaried with levels of social support and current best friendship maintenance difficulty.

The ADF-F2 personal maintenance difficulty scores in this sample ranged from 5 to 26 ($M = 11.59$; $SD = 4.62$). Friendship circle favorability scores ranged from 3 to 12 ($M = 10.34$; $SD = 1.92$). Social support scores ranged from 0 to 17 ($M = 13.18$; $SD = 3.92$). Depression scores ranged from 0 to 44 ($M = 6.19$; $SD = 7.95$). Panic symptoms ranged from 0 to 52 ($M = 5.56$; $SD = 8.36$). Total Buss-Perry Aggression scores ranged from 0 to 174 ($M = 38.63$; $SD = 31.46$). Fear of fat scores ranged from 0 to 30 ($M = 7.98$; $SD = 7.07$). The MAST scores ranged from 0 to 45 ($M = 4.66$; $SD = 5.12$). Satisfaction with life ranged from 0 to 30 ($M = 20.47$; $SD = 6.18$).

Table 15.1 presents descriptive and inferential statistics for diagnostic and treatment group contrasts on three friendship indices. Those reporting prior suicide attempts described higher best friendship maintenance difficulty, $F(2,811) = 2.98$, $p = .05$ ($d = .51$); favorable childhood friendship circles, $F(2,905) = 13.47$, $p < .001$ ($d = .87$); and weaker childhood social support, $F(2,916) = 11.89$, $p < .001$ ($d = .80$). These three suicide effect size estimates refer to multiple versus comparison group contrasts. Best friendship maintenance difficulties were greater among respondents reporting prior OCD, $t(855) = 2.27$, $p = .02$ ($d = .41$); schizophrenia, $t(855) = 4.56$, $p < .001$ ($d = 1.71$); borderline personality disorder, $t(855) = 2.80$, $p = .005$ ($d = .99$); alcohol dependence, $t(855) = 4.61$, $p < .001$ ($d = 1.62$); or drug addiction, $t(855) = 3.30$, $p = .001$ ($d = .92$), diagnoses. Prior panic attacks were associated as well with best friendship maintenance difficulty, $t(855) = 2.43$, $p = .02$ ($d = .37$). A trend was identified for higher best friendship maintenance difficulty among bipolar disorder patients, $t(855) = 1.90$, $p = .10$.

Respondents reporting histories of major depression, $t(953) = 3.07$, $p = .003$ ($d = .44$); PTSD, $t(953) = 2.57$, $p = .01$ ($d = .51$); or ADHD, $t(953) = 1.94$, $p = .05$ ($d = .29$), described relatively unfavorable childhood friendship circles during upbringing.

Best friendship maintenance difficulties were greater among respondents reporting prior treatment with ECT, $F(2,810) = 4.27$, $p < .001$ ($d = 1.32$), or antidepressant, $F(2,816) = 5.02$, $p = .007$ ($d = .46$); mood stabilizing, $t(812) = 2.67$, $p = .008$ ($d = .79$); antipsychotic, $t(813) = 4.02$, $p < .001$ ($d = 1.19$); or stimulant, $t(811) = 2.98$, $p = .003$ ($d = .42$), medications. Participants reporting prior antidepressant, $F(2,910) = 11.22$, $p < .001$ ($d = .62$); ECT, $t(904) = 3.48$, $p = .001$ ($d = 1.17$); mood stabilizer, $t(906) = 4.14$, $p < .001$ ($d = 1.16$); anxiolytic, $t(908) = 3.10$, $p = .002$ ($d = .32$); antipsychotic, $t(907) = 4.88$, $p < .001$ ($d = 1.41$); stimulant, $t(905) = 2.31$, $p = .02$ ($d = .39$); psychiatric hospitalization, $t(892) = 2.40$, $p = .02$ ($d = .48$); or psychotherapy, $t(870) = 2.89$, $p = .006$ ($d = .65$), treatment described less favorable childhood friendship circles during upbringing. Social support during upbringing appeared relatively lower among respondents

who reported prior treatment with antidepressants, $F(2,921) = 4.96, p = .007$ ($d = .43$); ECT, $t(915) = 2.28, p = .048$ ($d = 1.29$); mood stabilizers, $t(917) = 3.10, p = .008$ ($d = 1.32$); antipsychotics, $t(917) = 2.62, p = .02$ ($d = 1.30$); stimulants, $t(916) = 3.00, p = .004$ ($d = .49$); or psychotherapy $t(879) = 2.04, p = .04$ ($d = .29$).

Bivariate correlations between mental health indicators and relationship outcome measures are presented in Table 15.2. Depression symptoms and lower life satisfaction in adulthood were associated with less favorable friendship circles and lower social support during upbringing. These mental health indices were linked as well to greater strains in concurrent best friendships. Less favorable childhood friendship circles predicted greater panic symptom expression in adulthood. Panic symptoms were linked as well to adult best friendship maintenance difficulty. Less favorable childhood friendship circles and lower social support predicted higher levels of adult aggressiveness (particularly trait hostility). Aggressiveness and hostility in adulthood were logically linked to higher best friendship maintenance difficulty. Goldfarb fear of fat scores were associated with both adult best friendship maintenance difficulty and less favorable friendship circles during upbringing. Elevated risk of problem drinking (MAST) was associated with higher best friendship maintenance difficulty.

Table 15.2 Bivariate Correlates Between Mental Health Distress and Relationship Qualities

	<i>Adult Best Friendship</i>		<i>Childhood Relationship Favorability</i>			
	<i>Maintenance Difficulty</i>		<i>Friendship Circle</i>		<i>Social Support</i>	
	<i>n</i>	<i>r</i>	<i>n</i>	<i>r</i>	<i>n</i>	<i>r</i>
Major Depression	794	.12**	888	-.23***	896	-.16***
Panic Symptoms	776	.12**	862	-.16***	874	-0.06
Buss-Perry Aggression	729	.08*	819	-.11***	826	-.10**
Physical Aggressiveness	793	.08*	890	-.10**	898	-.09**
Verbal Aggressiveness	824	0.01	919	-0.06	930	-0.05
Trait Anger	794	.09**	889	-0.04	900	-0.06
Trait Hostility	804	.18***	903	-.16***	913	-.11**
Michigan Alcoholism Screening Test (MAST)	857	.16***	955	-0.04	988	0.06
Goldfarb Fear of Fat Scale	806	.16***	896	-.13***	907	0.02
Satisfaction with Life Scale	823	-.19***	918	.24***	932	.19***

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

Fisher's z transformations (Ferguson, 1981) identified two significant gender differences in correlation strength. The link between friendship circle favorability during upbringing and trait hostility in adulthood was significantly ($p < .01$) stronger among the women ($r = -.20, p < .001$) in contrast to the men ($r = -.03, p > .05$). Women ($r = -.11, p < .01$) and men ($r = .04, p > .05$) differed significantly ($p < .05$) in their link between social support and panic symptoms.

Discussion

Broad and strong associations were expected to be found in this study between the closeness of child and adult friendships and personal histories of psychiatric symptomatology.

Findings presented in Tables 15.1 and 15.2 provide compelling support for the breadth and depth of these important associations. Adult best friendship maintenance difficulty was significantly higher for participants disclosing histories of seven different major psychiatric conditions (panic attacks, obsessive-compulsive disorder, suicide attempts, drug addiction, borderline personality disorder, alcohol addiction, or schizophrenia), psychiatric pharmacologic treatments of all types (stimulants, mood stabilizers, antidepressants, antipsychotics, or electroconvulsive therapy), and current symptoms of depression, panic attacks, anger, and/or problem drinking. Prior anorexia and/or bulimia nervosa diagnoses were not linked to these friendship and social support indices. These findings were surprising, given the salience of the other mental health nexuses, and a simple explanation could not be found. While childhood social support concerns were predictive of higher psychotherapy and/or hospitalization utilization rates, these forms of treatment were not predictive of current best friendship quality. Psychotherapy often focuses on the enhancement of relationship skills, so perhaps the normative status of current best friendships in this sample reflected well on those treatment histories.

Less consistent links were established between childhood social support and psychiatric history. Smaller friendship circles and weaker social support during childhood and adolescence were, however, strongly linked to multiple lifetime suicide attempts. Childhood friendship circles were smaller as well for respondents with a prior (or current) major depression, PTSD, or ADHD diagnosis. Respondents who described relatively smaller friendship circles and general social support during upbringing were, however, more likely to indicate prior (or current) treatment with antidepressants, mood stabilizers, stimulants, antipsychotics, ECT, and psychotherapy. These developmental deficits within the total sample also predicted adult symptoms of depression, hostility, and lower life satisfaction, but not problem drinking. Fear of gaining weight within the total sample was associated with smaller childhood friendship circles and higher adult best friendship maintenance difficulty.

The results from this analysis suggested a linear relationship between severity of past psychiatric problems (if alcoholism classified as "severe" illness) and current

best friendship relationship difficulties. General life satisfaction was also related inversely to current best friendship maintenance difficulty. Interestingly, neither a diagnosis of (nonsuicidal) major depression nor prior psychotherapy or hospitalization treatment was predictive of current best friendship strains. The extent to which psychiatric problems place an unusual burden on close relationships, or interpersonal conflicts exacerbate mental health symptoms, cannot be determined using this research design. While unmeasured latent variables may account for some covariation, we continue to support the parsimonious hypothesis that friendship and mental health status pose direct, bidirectional, influences on one another.

Future Research Directions

The social consequences of psychiatric diagnoses are often negative in nature. Many diagnoses and disorders affect the lives of individuals through isolation, stigma, and exclusion. One potential avenue for intervention may involve “befriending” programs. Befriending involves the provision of a one-on-one companion who can provide mental health patients with a more natural and nonprofessional resource to enhance functioning, particularly in the social or recreational realm (Davidson, Haglund, et al., 2001; Eckenrode & Hamilton, 2000). While some brief training and background information may be provided, volunteer friends can greatly complement the systematic services already provided by mental health professionals. The befriending strategy has been used sporadically over time. Harris and colleagues (1999) found that chronically depressed women who participated in a befriending program had remission rates of 72% in contrast to 39% remission rates in chronically depressed women in a waiting list group. Befriending programs are one way to help chronically mentally ill patients feel socially integrated (Mitchell et al., 2011). Befriending has led to increases in the frequency and effectiveness of social and communication behaviors among autistic children (Deater-Decker, 2001). Users of befriending groups have reported high satisfaction and a variety of benefits such as decreased isolation, increased self-confidence, increased self-esteem, feeling valued, and gaining a sense of hope and agency (Bradshaw & Haddock, 1998; Davidson, Haglund, et al., 2001; McCorkle, Dunn, Wan, & Gagne, 2009; Staeheli, Stayner, & Davidson, 2004).

The limitations of the method employed in this study warrant emphasis. These results may not generalize well beyond college samples, where mental health histories may vary less extensively than in the general population. College student perceptions of relationship qualities may differ substantially from those offered by older adults in the general population. Retrospective accounts of childhood social support, and even psychiatric history, warrant interpretive caution due to reliability concerns. These psychometric considerations may also vary as a function of the sample composition. The survey employed in this study was completed at a single point in time, and the correlational nature of these analyses precluded causative inferences regarding the nature and direction of any “effects” that are found.

Friendship and social support effects, however, are not easily studied through experimentation. Meta-analyses may eventually help identify the operative relationship qualities that maximize the short- and long-term benefits for recipients exposed to varying levels of psychosocial stress at different development points in time. The complexity posed by this equation of contributing factors is obvious. Longitudinal data may be of even greater value in illustrating how early friendships alter the developmental trajectories of many different mental health conditions. The present review and findings will hopefully contribute to this emerging data base.

Conclusions

Evidence in support of the general claim that personal relationships and mental health are mutually affected by one another seems to be compelling. Hypotheses that close relationships function as a mental health “vaccine” (Sias & Bartoo, 2007) or “buffer” (Turner & Brown, 2010) have been supported in the literature. Questions remain as to the direct and indirect mechanisms of action, magnitude and specificity of effects, and extent to which these factors do indeed operate causally on one another. While effect sizes ranged widely in our college sample, there was a trend for closer associations to be forged in regard to more serious mental health conditions such as schizophrenia, chemical dependence, borderline personality disorder, and suicidality. While our findings suggested robust connections between friendship variables and mental health, this assertion has to be tempered by recognition that even statistically significant effects in this sample accounted for only modest amounts of outcome variance. There is clearly much additional work that has to be done in social and clinical psychology research to more fully understand these complex nexuses.

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Maintaining Long-Lasting Friendships

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Friendships play a significant role in people's social lives. Friendships provide significant social support and opportunities for social connection, and having friendships is connected with mental well-being (e.g., Baumeister & Leary, 1995), happiness (e.g., Demir, Ozdeir, & Marum, 2011), and decreased social loneliness (e.g., Binder, Roberts, & Sutcliffe, 2012). Given the importance of friendships, it is essential to understand not only how friendships are initiated and formed but also how people maintain these friendships over time. In this chapter, I will provide an overview of the research on the importance of engaging in maintenance behaviors to sustain long-lasting, quality friendships. The first part of the chapter reviews the types of behaviors used to maintain friendships with a focus on understanding the variability of behaviors, friendship developmental aspects, and the frequency of use and effectiveness of these maintenance behaviors. The final part of this chapter provides an overview of theoretical frameworks for understanding the process of friendship maintenance. Specifically, we consider how maintenance behaviors function within the context of interdependence theory and interpersonal styles.

Unlike other types of relationships, such as marital and familial relationships, friendships are purely voluntary (Wiseman, 1986). As such, they have a unique vulnerability to relationship deterioration and termination. Indeed it has been suggested that friendships have the "weakest of any close bond in social life, because if it loses the qualities which make for the extraordinary closeness combined with the voluntariness it encourages, it chances loss of all" (Wiseman, p. 192). For example, Roberts and Dunbar (2011) found that both close and intimate friendships, compared with kin relations, experienced greater decrease in emotional intensity of the relationships when there was a decrease in contact or joint activities. The researchers note that their study "reveals that even these very closest friends require active maintenance (contact and performing activities together) to maintain a high level of emotional closeness, and without this maintenance these relationships are prone to decay" (p. 193). Effective maintenance of the relationship appears to be crucial to the continued health and quality of the friendship.

Relationship maintenance is conceptualized both as the phase in between initiation and termination of the relationship and also as a process. That is, once a relationship has been formed the individuals must engage in behaviors that function to sustain the relationship to the individuals' satisfaction. Although not as exciting as friendship initiation or as distressing as termination, the maintenance phase is, hopefully, the longest phase of the friendship.

Friendship Maintenance Behaviors

Relationship maintenance is generally conceived as behaviors that occur between the initiation and termination of the relationship (e.g., Dindia & Canary, 1993). Although the specific goal of maintenance behaviors can vary, relationship researchers generally conceive of maintenance as behaviors that people engage in to "keep a relationship in existence, to keep a relationship at a specific state or condition, to keep a relationship in satisfactory condition, and to keep a relationship in repair" (Dindia & Canary, 1993, p. 163). This variation in the goal of relationship maintenance is interesting to note as people may vary in the desired degree of closeness or intimacy that they want from that friendship. Thus, friendship maintenance behaviors might be used in different ways depending on the underlying motivations of the person in the friendship. Furthermore, these behaviors can occur routinely or be used strategically (Dainton & Aylor, 2002; Dainton & Stafford, 1993). For example, someone might strategically engage in a behavior when one realizes that the relationship is in deterioration and in need of specific intervention. Alternatively, many of these behaviors might routinely occur throughout the relationship and without any specific intention or motivation. This routine use of maintenance behaviors reflect reasons such as internalization of relationship importance or prosocial values, and also serve to promote the successful continuation of the friendship.

In the initial research identifying friendship maintenance behaviors, Oswald, Clark, and Kelly (2004) conducted an exploratory factor analysis of 45 types of possible maintenance activities. These activities were identified in research based on romantic maintenance (e.g., Dainton & Stafford, 1993; Stafford & Canary, 1991) as well as behaviors identified as important for friendships (e.g., Fehr, 1996; Hays, 1984). Based on exploratory factor analysis, Oswald and colleagues found four key maintenance behaviors for friendships: supportiveness, positivity, openness, and interaction. The first factor identified in the exploratory factor analysis was labeled "positivity" (accounting for 30.70% of the variance) and included behaviors that make the relationship rewarding (e.g., *express thanks when one friend does something nice for the other* and *try to be upbeat and cheerful when together*) as well as *not* engaging in antisocial behaviors that would negatively affect the friendship (e.g., *not returning each other's messages*). The second factor identified was "supportiveness" (accounting for 18.51% of the variance) and included behaviors that involved

providing assurance and supporting the friend (e.g., *try to make the other person feel good about who they are and support each other when one of you is going through a tough time*) and the friendship (e.g., *let each other know you want the relationship to last in the future*). The third factor included behaviors related to “openness” (accounting for 6.63% of the variance) and included behaviors related to self-disclosure (e.g., *share your private thoughts*) and general conversation (e.g., *have intellectually stimulating conversations*). The final factor was labeled interaction (accounting for 4.61% of the variance) and included behaviors and activities that the friends engaged in jointly (e.g., *visit each other’s homes and celebrate special occasions together*). This factor structure was similar for both males and females and was subsequently revalidated with confirmatory factor analyses and shortened to 20 items (5 items per scale). The factors on the shorter scale demonstrated adequate scale structure in the confirmatory factor analysis and also acceptable internal reliability (Cronbach alphas ranging from .75 to .95). The subscales are also positively intercorrelated (r 's ranging from .12 to .61).

These four key friendship behaviors are theoretically consistent with the maintenance typologies that Fehr (1996) identified based on a literature review of friendships. In that review Fehr suggested key strategies of self-disclosure, providing support and assurance, maintaining levels of rewards, and shared time as central for maintaining friendships. These behaviors also share similarities to the types of behaviors that are used to maintain romantic relationships. Based on exploratory factor analysis, Stafford and Canary (1991) identified five relationship maintenance strategies that were important for maintaining romantic relationships. These behaviors included positivity, assurances, openness, shared tasks, and social networks. This suggests that being positive, providing assurances, and support as well as self-disclosure are important for maintaining a variety of types of relationships. In contrast, while socially interacting is important for maintaining the friendships, romantic relationships also focus on interactions that involved shared tasks and social networks. Thus, while there are similarities of maintenance behaviors across relationship types, it is also important to realize that different types of relationships will require different maintenance behaviors.

Use of maintenance behaviors depends on a number of characteristics including the sex of the individuals in the relationship and the status of the relationship. In regard to friendship status, Oswald and colleagues (2004) found that people reported engaging in more of all of the maintenance behaviors in best friendships than in close or casual friendships. People also reported engaging in more maintenance behaviors for close friendships than for casual friendships. Consistent results have been found across numerous studies. For example, among newly formed college friendships, close friends engaged in more maintenance behaviors of positivity, assurances, task sharing, social networking, banter, routine contact, and computer-mediated communication than casual friendships (McEwan & Guerrero, 2012). Binder and colleagues (2012) compared “core friendships” with “significant

friendships,” where core friendships were defined as having a closer level of emotional intimacy than significant friendships. They found that people engaged in more of each of the maintenance behaviors with “core friends” than “significant friends.” Interestingly, the difference in maintenance behaviors between the friend types was most profound for openness, suggesting that intimate self-disclosure was more pronounced in the core friendships. Extending this line of research, Hall, Larson, and Watts (2011) found that best friends were perceived as being more capable of fulfilling ideal relationship maintenance expectations than were close or casual friendships. Taken together, these various findings suggest that friends expect, and receive, more maintenance behaviors from their friendships as they become more intimate.

Consistent with a body of research looking at sex differences in friendships (e.g., Hall, 2011), there are also substantial differences in use of maintenance strategies depending on the sex of the friends. Oswald and colleagues (2004) found that participants reporting on their female same-sex friendship were more likely to engage in supportiveness than those individuals reporting on same-sex male friendship or cross-sex friendships. In contrast, individuals reporting on a cross-sex friendship reported engaging in more supportive behaviors than people reporting on male same-sex friendships. People reporting on cross-sex and female same-sex friendships reported engaging in more openness than those reporting on male friendships. Interestingly, positivity did not vary by gender of friendship. In their research on expectations for friendship maintenance, Hall and colleagues (2011) found that women, compared with men, reported having had higher ideal standards of maintenance behaviors that they expected from their friends. For women, these higher friendship maintenance standards were positively associated with having same-sex friends who actually met the friendship maintenance standard. In contrast, they found for men that having increasingly higher friendship maintenance standards was actually associated with decreased perception that these standards were being fulfilled by their same-sex friends. For both men and women, Hall and colleagues (2011) found that maintenance standards and fulfillment of expectations were positively associated with friendship satisfaction. Taken together, these findings might suggest that male friendships, and to some extent cross-sex friendships, may not be as effective at engaging in maintenance behaviors and may be more vulnerable to deterioration and termination.

The maintenance of cross-sex friendships is especially interesting given that there is the potential for differing relational goals. One friend might want to maintain the relationship as a platonic friendship or alternatively one might want to transition the friendship to a romantic relationship. In investigating cross-sex friendships, Weger and Emmett (2009) found that both men and women who desired a romantic relationship with their friend were more likely to engage in routine maintenance activities. Women who desired a romantic relationship with their male friend also engaged in more of the support and positivity maintenance behaviors. These

findings suggest not only that increased use of maintenance behaviors might be associated with increasing the friendship status from casual to close or best friends but also that in the context of cross-sex friendships the individuals may be using maintenance behaviors to escalate the platonic friendship to a romantic relationship.

In sum, this body of research on friendships suggests that the sex of the friends involved in the relationship may play an interesting role in determining the type, frequency, and goal of the maintenance behaviors used to maintain the friendship. However, this research is still in the beginning stages of fully exploring the role of the friends' sex. For example, research has largely ignored how factors such as sexual orientation or transgendered status might be related to engaging in friendship maintenance behaviors (see chapter 4 for more on these topics). Likewise, most of this research has looked at gender as a binary construct and simply measured sex classification. However, gender roles might play an important role. For example, Aylor and Dainton (2004) found that for romantic relationship maintenance it was the individuals' gender roles (measured as masculinity and femininity), rather than sex, that were a better predictor of their use of maintenance behaviors. Thus, this is an area where additional research could be useful to fully understand the role of sex, gender roles, and sexual orientation in friendship maintenance.

Friendship Maintenance and Relationship Satisfaction

Friendship maintenance behaviors should function to contribute to mutual intimacy, closeness, and commitment, which have been identified as essential aspects of a friendship (Wiseman, 1986). The four friendship maintenance behaviors (supportiveness, positivity, openness, and interaction) have been found to correlate with, and statistically predict, an individual's satisfaction with the friendship (Oswald et al., 2004). However, friendship commitment was predicted by supportiveness and interaction but not by one's use of openness or positivity. This suggests that while positivity and openness may play a role in making the friendship satisfying, they do not have the same predictive strength with commitment to the friendship. It may be that supportiveness and interaction allow the friendships to develop a deeper level of emotional intimacy that promotes long-term commitment.

If maintenance behaviors are enacted to keep a relationship at the desired level of satisfaction, then usage of maintenance behaviors should also be associated with friendship longevity. To examine the predictive ability of maintenance behaviors over time and distance, Oswald and Clark (2003) examined the maintenance of best friendships during the first year of college. Best friendships during adolescence and young adulthood provide an interesting opportunity to understand the function of friendship maintenance during times of transition. For young adults, close friendships are beginning to become more stable, compared with childhood

friendships, yet fewer than half of adolescents' best friendship last longer than 1 year (e.g., Branje, Frijns, Finkenauer, Engels, & Meeus, 2007). Best friends play an especially crucial role for adolescents as they provide acceptance, respect, trust, intimacy and opportunities for self-disclosure (e.g., Cole & Bradac, 1996, see also chapter 15 on best friends and mental health status). However, these friendships, compared with other types of relationships, appear to be especially vulnerable to deterioration when there is a decrease in contact and time spent in shared activities (Roberts & Dunbar, 2011). Thus, it is essential to understand how these close relationships are maintained, especially during periods of transitions when relationships might be especially vulnerable to deterioration or termination.

In a longitudinal study examining what happens to high school best friendships during the first year of college, nearly half of all of high school best friendships transitioned to close or casual friendships (Oswald & Clark, 2003). However, use of the maintenance behaviors of self-disclosure, positivity, supportiveness, and interaction were predictive of maintaining the friendship during the first year of college. Communication-based maintenance seemed to be of central importance and was associated with not only maintaining the best friendship but also sustaining high levels of friendship satisfaction and commitment. Importantly, maintaining the best friendship was associated with less loneliness, further suggesting the importance of maintaining close friendships for social and mental well-being.

There is growing evidence that use of maintenance behaviors may be associated with a wide range of relationship-related behaviors and individual differences. For example, when conflict in a relationship occurs, the friends might engage in maintenance behaviors to sustain the relationship through tough times and simultaneously engage in problem-solving behaviors. Oswald and Clark (2006) found that maintenance behaviors positively correlated with constructive problem-solving styles of voice (actively and positively working toward solving a problem) and loyalty (constructively but passively solving a problem). In contrast, maintenance behaviors were negatively correlated with destructive problem styles of neglect (a passive, destructive way to solve problems) and exit (destructive active way to solve problems).

Friendship maintenance behaviors are also associated with perception of available resources from newly formed social networks (McEwan & Guerrero, 2012). McEwan and Guerrero note that friendship maintenance behaviors not only are used to sustain developed friendships but also can be used to increase closeness in newly formed friendships. In a study of first-year college students, it was found that maintenance of casual and close friendships was associated with friendship quality. Furthermore, friendship quality and close friendship maintenance were directly related to perceived availability of resources from the network.

Engaging in friendship maintenance behaviors appears to have even broader benefits on psychological well-being. Across four studies, Demir and colleagues (2011) found that engaging in friendship maintenance behaviors was strongly predictive of happiness. Furthermore, while previous research has found that autonomy support

from a friend (perception that the friend is supportive of their autonomous actions, perspective, and choices) is predictive of happiness, Demir and colleagues found that this association is fully mediated by use of friendship maintenance behaviors. They argue that perceiving one's friend as supportive of their autonomy is associated with increased engagement of friendship maintenance behaviors to maintain the supportive bond, which in turn contributes to overall happiness.

Together these lines of research suggest interesting implications for friendship maintenance behaviors. Not only does engaging in maintenance behaviors support continuation of a satisfying friendship but also it appears to be part of a broader set of relationship behaviors that help people to resolve relationship conflicts, strengthen friendships that provide autonomy support, and contribute ultimately to a satisfying life and happiness.

Maintaining Friends With Modern Technology

With the development of technology, friends now have a variety of mediums in which they can maintain friendships, even if not in immediate proximity. Online social networking sites are frequently highlighted as being used to maintain long-distance friendships as they allow for frequent "online" interactions and communications (such as instant messaging and active communication exchanges) as well as the ability to stay informed of friends' lives and activities by sharing information via more passive information exchanges such as viewing posts and photos. Given the popularity of online social networking and other computer-mediated communication (CMC) options, it is not surprising that they are becoming an increasingly important part of friendships (see chapter 6, "Friendship and Social Media," for a more thorough discussion) with an increasing number of people reporting that they use CMC to maintain current friendships (e.g., Craig & Wright, 2012; McEwan, 2013) and to escalate the friendships to more intimate levels (e.g., Sosik & Bazarova, 2014).

In an examination of friendship-maintenance strategies specific to Facebook, it was found that people use Facebook to maintain the relationship via "sharing" (self-disclosure by sharing news, updating one's profile, and commenting on a friend's profile, etc.) behaviors and "caring" (indicating care and interaction with the friend by posting special notes on friend's wall, offering support following bad news, congratulating a friend on good news posted, posting photos to share experiences with friends, etc.; McEwan, 2013). Facebook also allows people to passively follow their friends' lives via "surveillance" of the friend's posts and sharing pictures. In McEwan's study of 112 young adult friendship dyads, both of the friends' engaging in the maintenance behaviors that were classified as "caring" were positively correlated with own and friend's report of friendship satisfaction, liking of the friend, and perceived closeness. Similarly, using Facebook as a method of "surveillance" was positively associated with friendship satisfaction, liking, and closeness. However,

a different pattern was found for using Facebook “sharing.” Interestingly, Facebook “sharing” was negatively associated with friendship satisfaction, liking of the friend, and closeness of the friendship. Both one’s own sharing behaviors and their friend’s sharing on Facebook behaviors were negatively associated with satisfaction and liking in the friendship. This is inconsistent with research that finds self-disclosure as an important part of friendship maintenance (e.g., Oswald et al., 2004).

The differential findings for McEwan’s (2013) caring and sharing Facebook maintenance strategies suggest that self-disclosure on Facebook may function differently than face-to-face self-disclosures. The Facebook self-disclosures measured by McEwan’s “sharing” maintenance strategy reflected impersonal mass broadcast of information rather than an interpersonal, intimate exchange. However, the “caring” maintenance dimension included a number of items that reflected personal and intimate exchanges such as congratulating people on their posts of good news and sending condolences upon reading posts of bad news. Thus, the caring dimension included aspects of intimate self-disclosure. These findings together suggest that self-disclosure on Facebook that is intimate and person specific, rather than general mass communication, is predictive of positive friendship outcomes and promotes friendship closeness. Similar results were found by Valkenburg and Peter (2009), whereby instant messaging between adolescent-aged friends was predictive of intimate self-disclosure and friendship quality. Other research has found that Facebook communication strategies that allow for deeper communication that includes self-disclosure and supportiveness, such as private exchanges, rather than mass announcements, not only serve to maintain the relationship but also promote escalation of the friendship to more intimate levels (Sosik & Bazarova, 2014).

The usage of these types of electronic mediums for maintenance may depend on the closeness of the friendship. Yang, Brown, and Braun (2014) found that in newly forming friendships, college students preferred using Facebook posts or text messages that were less intimate. However as the friendship closeness increased, then instant messaging, phone calls, or Skype (computer programs that allow for video conversations) that allowed for intimate self-disclosure became more prevalent. McEwan and Guerrero (2012) had similar conclusions about CMC as a friendship maintenance strategy. They found CMC as a form of maintenance was especially prevalent in the more casual, newly developing friendships, rather than close relationships, where intimate self-disclosure might be more relationship appropriate.

While social networking sites such as Facebook are the most frequently highlighted as CMC mechanisms for maintaining friendships, there are a number of other media that allow friends to engage in maintenance behaviors even when they are not in physical proximity. For example, electronic communication via text and voice messaging (Hall & Baym, 2012) and online gaming programs that allow friends to mutually interact and compete against each other on a game while in different locations (Ledbetter & Kuznekoff, 2012) have been suggested as electronic opportunities for friendship maintenance. For example, Hall and Baym (2012)

argued that phone text and voice messaging is one type of friendship maintenance strategy. They found that use of text and mobile phone messaging contributed to relationship interdependence, which was positively associated with friendship satisfaction. However, there appear to be limits on the effectiveness of mediated communications for maintaining friendships. Paradoxically, mobile phone maintenance expectations also contributed to an overdependence between friends that was negatively associated with friendship quality. This suggests an implication for mobile phone messaging as well as CMC more generally. While these methods may be useful for maintaining friendships, everything must be done in a balance that is mutually appreciated by both friends.

When used to maintain friendship over long distances, CMC has also been shown to have psychological benefits (e.g., Baker & Oswald, 2010; Ranney & Tropp-Gordon, 2012). The use of CMC by first-year students who have low-quality face-to-face friendships was associated with decreased psychological anxiety and depression (Ranney & Tropp-Gordon, 2012). However, this benefit of CMC was not found for individuals with higher quality face-to-face relationships, presumably because they were already getting sufficient social support from their proximal friendships. Other research has suggested that shy individuals appear to benefit more from using online social networks in terms of reducing their loneliness and having higher perceived friendship quality (Baker & Oswald, 2010).

In sum, as technology develops, the opportunities and methods of maintaining friendships also advance. While online social networking sites, CMC, and easy access to cellular phones offer increased opportunities for communicating, it is important to note that not all maintenance across these different media is equivalent. These technologically based maintenance behaviors appear to be most effective when they promote more intimate self-disclosures and opportunities for supporting the friendship. In contrast, frequent but impersonal communication appears to be ineffective at successfully maintaining friendships and promoting the support that comes from those types of friendships.

Dyadic Nature of Friendships and Friendship Maintenance

Friendships are by their nature dyadic and interdependent. That is, to maintain a relationship, it requires effort from both people. The majority of the research on relationship maintenance has focused on one person's maintenance behaviors and his/her self-report of relational satisfaction or quality. However, it is essential to understand how each person's behavior contributes not only to his/her own relationship satisfaction but also to his/her friend's relationship satisfaction. That is, each person's behaviors should be investigated to fully understand how friendships are maintained.

Oswald and colleagues (2004) sought to examine how this dyadic interdependence functioned in friendship maintenance among 148 pairs of friends, who reported on their own engagement of maintenance behaviors and on their perception of their friends' use of maintenance behaviors. There was a high level of self-other agreement, suggesting that one person's behaviors were highly correlated with the friend's perceptions of their behaviors. Furthermore, there was a high level of equity in the friendships, such that each of the friends' reported use of the maintenance behaviors did not differ. Finally, there was a high level of perceived equity, such that participants felt that both they and their friend were engaging in similar levels of maintenance behaviors. Interestingly, these measures of dyadic similarity on maintenance behaviors did not vary by friendship status. So while best friends engaged in more of the maintenance behaviors than did close or casual friends, the dyadic matching on maintenance behaviors did not differ. This suggests that there is reciprocity and matching between the friends when engaging in maintenance behaviors.

For maintenance behaviors to be effective it appears that both individuals' behaviors contribute to the overall dyadic level friendship satisfaction and commitment (Oswald et al., 2004). Thus, it is not what one friend does, but what both friends do jointly, that appears to contribute to the maintenance of a satisfying and committed relationship. However, Oswald and colleagues (2004) did not find that perception of the friend's behaviors was associated with dyadic level satisfaction and commitment. Given the high level of similarity and accuracy in perceptions, this might not be surprising. That is, given the little variability between the two friends reports, it makes sense that actual behaviors rather than perceptions were the stronger statistical predictors. This also suggests that maintenance behaviors are things that friends do together, which results in the high level of self-other agreement in the reports. Similar results were found by Oswald and Clark (2003) in that the maintenance behaviors were found to contribute to dyadic level relationship satisfaction and commitment. In contrast, problem-solving styles tended to be an individual-level behavior and predicted individual-level satisfaction and commitment. Together, the findings from the Oswald and colleagues (2004) and Oswald and Clark (2003) studies strongly suggest that friendship maintenance behaviors are joint, equitable, and mutually engaged in by both friends. These behaviors appear to be inherently dyadic and interdependent in nature. Furthermore, dyadic friendship maintenance sometimes requires people to do what is in the best interest of the friendship (dyadic-level focus) rather than what is an individual's personal interest (individual-level focus).

Theoretical Frameworks for Understanding Friendship Maintenance

Wiseman (1986) notes that friendships, like all long-term relationships, have "unwritten contracts" of how the relationship should function. Friendships have an

expectation of mutual aid, supportive behavior, and “assumed bonds of investment, commitment, and reward dependability which fulfill a friend’s needs” (p. 203). Rusbult’s relationship investment model (Rusbult, 1980, 1983) has provided a useful framework for understanding these components of friendships and the friendship maintenance processes. The relationship investment model proposes that friendship satisfaction is a function of the rewards (positive aspects of the relationship) minus the costs of the relationships. Furthermore, commitment to the friendship is reflected by the satisfaction, plus the investments (what would be lost if the relationship were to end) minus the alternatives (the other things that could be done if the relationship were not in existence). Branje and colleagues (2007) demonstrated in a longitudinal study of adolescents that the investment model predicted stability in friendship as well as the tendency to switch best friends. Furthermore, satisfaction, investments, and alternatives predicted friendship commitment both concurrently and over time.

Friendship maintenance behaviors appear to be engaged in a manner consistent with the predictions of the investment model framework (Rusbult, 1980, 1983). Friends’ usage of maintenance behaviors of support, openness, and interaction positively correlates with relationship satisfaction and commitment (Oswald et al., 2004). Further, the maintenance behaviors correlate positively with rewards and negatively with relationship costs. Likewise, maintenance behaviors positively correlate with investments and negatively with alternatives to the relationship. In sum, maintenance behaviors are associated positively with rewards and investments that support relationship satisfaction and commitment but negatively with costs and alternatives, which negatively contribute to satisfaction and commitment.

The underlying motivation of the use of the maintenance behaviors may also play a role in how the maintenance behaviors correlate with the investment model variables. Mattingly, Oswald, and Clark (2015) studied 115 friendship dyads and asked them to report on their own as well as perceptions of the friends’ use of maintenance behaviors. However, they also asked the friends to report on how often the behaviors were used strategically (with specific intention to obtain a desired result from the friendship) and routinely (without specific intention to obtain a desired result from the friendship). The results of the study indicated that an individual’s self-reported own use of routine maintenance behaviors correlated with their self-reported friendship satisfaction, commitment, rewards, and investments. In contrast, the individual’s self-reported strategic use of the maintenance behaviors was correlated with friendship costs and commitment but negatively associated with rewards. Perceptions of the friend’s use of routine behaviors was positively associated with one’s own friendship satisfaction, rewards and investments, but negatively associated with friendship alternatives. In contrast, perceptions of the friend’s use of strategic friendship maintenance was negatively associated with satisfaction, costs, commitment, and investments and positively associated with friendship alternatives.

These results clearly suggest that the underlying motivation, and perceptions of friend's motive, for engaging in maintenance behaviors has implications for their effectiveness and ultimately the friendship satisfaction. Behaviors that are engaged in routinely correlate positively with relationship satisfaction and commitment, as well as with the variables that are consistent with supporting relationship satisfaction and commitment. In contrast, engaging in these behaviors with strategic intention does not contribute to the friendship satisfaction and commitment and may in fact have the opposite effects. Perceiving that one's friend is strategically engaging in these behaviors was associated with *increased* alternatives and *decreased* satisfaction, costs, commitments, and investments. These findings are similar to the results presented by Dainton and Aylor (2002) findings that routine use of relational maintenance strategies accounted for a larger percentage of the variance in relationship satisfaction and commitment than did strategic maintenance in romantic relationships. Although not tested, it is possible that strategic maintenance behaviors may be seen as manipulative or perhaps signaling an exchange orientation to the relationship. However, routine behaviors might be perceived as signaling a communal orientation to the relationship and through that mechanism contribute to greater friendship satisfaction and commitment.

It is also important to consider, theoretically, *who* is most effective at maintaining friendships. Theoretical frameworks that take into account people's orientations toward relationships may be useful for understanding their use of relationship maintenance behaviors. For example, it has been suggested that people who have communal or interdependent approaches to relationships may be more likely to engage in relationship maintenance behavior (see Ledbetter, 2013; Ledbetter, Stassen, Muhammad, & Kotey, 2010; Mattingly, Oswald & Clark, 2011). One proposed theoretical framework useful for studying relationship maintenance (Ledbetter, 2010) is the inclusion of other in self model (Aron, Aron, Tudor, & Nelson, 1991). From this perspective, friendship closeness is in part developed from including the friend as part of one's own self. Ledbetter and colleagues (2010) argue that relational maintenance behaviors are "acts that foster perceptions of shared resources, identities, and perspectives" (p. 22), which are core parts of including the friend in one's sense of self.

In a qualitative study of relational maintenance behaviors within the context of a romantic relationship, Ledbetter and colleagues (2010) argued that a number of maintenance behaviors facilitate the inclusion of other in self. For example, sharing resources such as finances and helping with shared tasks are maintenance behaviors that reflect the concept of shared resources. Maintenance behaviors of physical contact, expressions of affection, and managing conflict can contribute to a shared identity. Maintenance behaviors of casual conversation, use of humor, intimate conversations, and shared time all contributed to shared perspectives between the individuals in the relationship. Subsequent research has found that these maintenance behaviors positively correlate with the Inclusion of Other in Self Scale (Ledbetter,

2013). Thus, maintenance behaviors may contribute to closeness by facilitating the sense of the partner as part of oneself. While this appears to be a promising theoretical framework for studying maintenance behaviors, to date this has only been tested within the context of romantic relationships. Additional research within the context of friendships is warranted.

Relational interdependent self-construal (RISC; Cross, Bacon, & Morris, 2000) also provides a useful framework for studying individual differences associated with use of friendship maintenance behaviors. Relational interdependent self-construal represents individual differences in the extent to which an individual thinks of oneself as interdependent or independent from his/her close relationships. Individuals with high interdependent self-construal define their self through their social connections and relationships with others. In contrast, individuals with independent self-construal view their self-concepts as independent and autonomous from others. Relational interdependent self-construal is associated with a number of prorelationship variables such as having more close friendships, having greater self-other overlap, engaging in more self-disclosures, and having more satisfying and committed relationships (e.g., Cross et al., 2000; Cross, Morris, & Gore, 2002; Morry & Kito, 2009).

It has been argued that individuals who have a strong RISC should be more effective at maintaining their friendships (Mattingly et al., 2011). Furthermore, Mattingly and colleagues propose that this association between RISC and friendship maintenance behaviors should occur because RISC functions to strengthen the communal relationship. They propose that it is this communal orientation that then results in the individual engaging in more behaviors to maintain the friendship. However, they also argue that this should only occur for maintenance behaviors that occur routinely and reflect a communal orientation to the friendship. They argue that this process does not occur for strategic use of maintenance behaviors, as strategic behaviors reflect an exchange orientation to the relationship. Supporting their arguments, a path model showed that RISC was positively associated with routine maintenance behaviors as well as other prorelationship behaviors of accommodation and willingness to sacrifice. Furthermore RISC was positively associated with communal strength. Importantly, communal strength mediated the association between RISC and routine friendship maintenance.

Together, both Ledbetter's work on inclusion of other in self (Ledbetter et al., 2010; Ledbetter, 2013) and Mattingly and colleagues' work on RISC (Mattingly et al., 2011) strongly suggest that theoretical frameworks that take into account individuals' communal orientations to relationships can further our understanding of why some people are more effective at maintaining their friendships. This research suggests that having an orientation to the relationship that promotes closeness, via inclusion of self in other or having an interdependent construal, promotes engaging in behaviors that are supportive of the friendship. Furthermore, this suggests that people struggling to maintain satisfying relationships may wish to reflect

on their goals and orientation to relationships as a way to develop insight into their friendship behaviors.

Conclusion

Brehm, Miller, Perlman, and Campbell (2002) write that relationship maintenance is “less exciting than newfound love and less dramatic than separation, but effectively keeping alive the successful relationships you have already formed can contribute substantially to achieving a rich, rewarding set of close relationships” (p. 430). While the body of research on friendship maintenance is growing, there is still a need for additional work. Much of the research is correlational and cross-sectional. Additional research that is longitudinal would further our understanding of how friendship maintenance behaviors are used over time and especially during times of friendship transition and turmoil. Further dyadic work where both individuals in the relationship are assessed will provide a deeper understanding of the interdependent nature of friendships. Furthermore, as technology changes and different methods of maintaining friendships are developed, research should also investigate the effectiveness and limits of these different media. Finally, understanding how people work to maintain other social relationships such as kin relationships, business/professional relationships, dual relationships such as work-friends, and mentoring relationships would provide a more complete picture of maintenance behaviors. Fully understanding the process through which people maintain their friendships will ultimately help researchers and clinicians better understand how to assist people with maintaining relationships that provide important sources of support and contribute to life satisfaction and well-being.

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Conclusion

Friendship: An Echo, a Hurrah, and Other Reflections

DANIEL PERLMAN

Friendship is the hardest thing in the world to explain. It's not something you learn in school. But if you haven't learned the meaning of friendship, you really haven't learned anything.

—Muhammad Ali

Muhammad Ali is not my usual source for wisdom. In his friendship quote, however, I like his implicit message that it is beneficial for us in our daily lives to have grasped the meaning of friendship. Yet I also see in his remark what I hope is becoming a falsehood—namely, his view on whether friendship is something you can learn about in school. It seems to me the current volume is a testimonial that we now know a considerable amount about friendship and we can teach a lot about its nature, its antecedents, its dynamics, and its consequences.

My goal in this chapter is to offer reflections on what the contributors to the current volume have accomplished. I comment on both the chapters in the book and on friendship as an area of research. In places I draw on bibliometric evidence.

In his foreword, William Rawlins claims that friendship is elusive to study yet vital. I touch on both those points, starting with thoughts on why friendships are important. Then, I turn to the elusive issue of how to define friendship. Next, I present bibliometric information on the growth, volume, and disciplinary context of friendship research. After that, I address a central paradox inherent in friendships: their beneficial and detrimental aspects. Finally, I end by considering the future directions of work on friendship.

Two Reasons Why Friendships Are Important

I am delighted that Mahzad Hojjat and Anne Moyer have assembled this volume. Hurrah! I am an unabashed fan of studying friendship; I am appreciative of the range and caliber of scholarship the editors have brought to bear on friendship.

Embedded throughout this book are reasons why friendships are important. Adding to this mix, I highlight two facets that stand out for me.

First, it is true, as is often said, that humans are social animals. We have many different kinds of relationships, but friendships are certainly a significant, pleasant form of them. A considerable amount of the time spent with other people is spent with friends. For example, Chicago area high school students spent 30% of their daily time awake—close to 5 hours—with friends (in comparison with only 18% of their time with family; Larson, 1983). Similarly, a sample of employed Texas women estimated that they spent 2.6 hours per day with friends (compared with 2.7 hours per day with their spouses and 2.3 hours per day with their children; Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004). Furthermore, Kahneman and his colleagues found that participants were in their most positive moods when they were with friends as opposed to with spouses, children, other classes of people, or alone. Larson, Mannell, and Zuzanek (1986) obtained similar results, showing that the pinnacle of happiness is achieved when people are with both their spouse and friends together.

Second, there are interesting and varied views on trends of what is happening in our social lives. Discussions have occurred vis-à-vis survey data (e.g., Fischer, 2009), the impact of technology (e.g., Boase & Wellman, 2006), and postmodernity (e.g., Stevens & van Tilburg, 2011). Some see modern life leading to a decline in relationships, others see ways social change is opening new doors. Postmodern theorists such as Beck and Giddens (see Stevens & van Tilburg, 2011) believe that in moving away from a more traditional society our lives have become more individualized. They posit that we have greater freedom to set our personal lifestyles and to construct our personal social networks according to our personal preferences. Complementing this latter view, I see significant demographic trends that have and are taking place in the United States and other countries around the world. For instance, between 1950 and 2010, the percentage of American adults who were married dropped from 72% to just 51% (Cohn, Passel, Wang, & Livingston, 2011). During roughly the same time span, the proportion of single-person households in the United States has more than tripled from 9% to 28% (Klinenberg, 2012, pp. 4–5). Dystopian scholars likely see these single individuals as lonely and isolated.

My sense is that we all have a need for relationships (Baumeister & Leary, 1995) but the extent to which and means by which we fulfill that need vary. It appears to me that accompanying the trend away from marriage there is an associated trend toward friendships becoming more important in American and probably in many European societies. Consistent with this, Klinenberg (2012, p. 97) notes that single women are more likely than married women to have weekly face-to-face as well as other mediated forms of contact (e.g., phone calls or e-mails) with a best friend. In sum, I am arguing that friendships are important because of the time we spend with friends, the pleasure we derive from friendships, and the increasing role of friendships in filling our social needs.

Exactly What Is Friendship?

When survey researchers ask respondents about their friendships, members of the general public have no trouble answering. But do all respondents have the same notion in mind? Probably not. This brings to the fore the question: Exactly what is friendship?

Definitional Attempts: A Baker's Dozen

Often one of the places scholars start in studying a phenomenon is by defining it. In this book that is certainly true. I found efforts to define or at least describe key attributes of friendship in a majority of chapters (Rawlins; Erdley & Day; Wrzus, Zimmermann, Mund, & Neyer; Adams, Hahmann, & Blieszner; Monsour; Ledbetter; VanderDrift, Agnew, & Besikci; Morrison & Cooper-Thomas; Lunsford; McConnell, Lloyd, & Buchanan; Holt-Lunstad; and King, Russell, & Veith). Some of the qualities assigned to friendships are that they are voluntary, involve an emotional tie (closeness, intimacy, liking and/or affection), may involve aid or support, and encompass companionship. Some definitions note that friendships are between peers and involve mutuality (in the sense that both partners are friends with each other). Friendships are typically referred to as relationships, which implies they are not a fleeting or very limited set of interactions but rather last for some duration.

Wrzus et al. characterize friendships by what they typically are not (e.g., a sexual relationship). Ledbetter raises the question of whether scholars should have a separate name for the large number of so-called friends that people list on social media sites such as Facebook.

One aspect of friendship that contributors to this volume implicitly acknowledge is its conjunctive nature (VanderDrift et al.; Morrison & Cooper-Thomas; and Lunsford). That is, a single relationship can embody friendship as well as other roles (e.g., romantic partner, coworker, mentor, family member, etc.). In a classic early study of the social networks of northern Californians, Claude Fischer (1982) found respondents themselves considered over two-thirds of coworkers and neighbors as friends. Kin were less likely than nonkin to be considered friends, but even among kin, 34 percent of wives were considered friends. Presumably when people see animals as friends (McConnell et al.), this, too, involves the conjunctive roles of being a friend and a pet.

Although there is certainly overlap among definitions, it is also true that there is not a consensus on a single definition. Both Rawlins and Monsour allude to the difficulty scholars have had in reaching a single definition. Monsour reports that in the development of this book, authors were asked if they were going to provide a formal definition of friendship: some said no, some said yes, and others said they would provide typical characteristics of friendship.

A Prototype Approach

My own stance comes closest to those who look for the typical characteristics. I have been influenced by discussions of classical versus prototype definitions (e.g., Fehr, 1988). According to a more traditional approach, friendship has a set of defining attributes and only relationships manifesting all those properties qualify as a friendship. According to the prototype approach, the features of friendship form a fuzzy set—qualities typically found in friendship but not always necessarily there.

Each of these approaches has its advantages and disadvantages, but I lean toward the prototype view. For me, the typical—but not universally present—characteristics (or paradigm case) approach reflects the way life really is—a bit messy. The assumptions of classical definitions are that scholars can agree on characteristics of the entity being defined and that each of the defining characteristics will be manifest in any case classified within the defined category. These assumptions seem shaky to me. Friendship scholars have difficulty totally agreeing on the attributes of friendships. Furthermore, when classical formal definitions are advanced, I am not convinced that the defining characteristics are always present in all the relationships that people think of as friendships. For example, in this book friendships are depicted as involving peers and reciprocity. Nonetheless the chapter on mentoring and friendship included mentor relationships cum friendships between individuals of different status. Similarly, many of the relationships that people identify as friendships are relationships in which partners rate themselves as over- or underbenefited (Messman, Canary, & Hause, 2000) rather than fully reciprocal.

Monsour notes the important point that a lack of consensus on a definition of friendship makes comparing findings across studies difficult. While a prototype definition does not totally resolve this dilemma, having a model with some variability around it may well add robustness to findings. Further, if there is a well-articulated prototype but the prototype varies some across cultures and time, prototype versions can be used as a moderating factor to determine whether the changing nature of the prototype alters friendship's association with other variables.

The Status and Context of Friendship Research

One sometimes gets the impression that friendship is a neglected cousin in social science research. Hojjat and Moyer justify the need for the present book saying that there have not been any other friendship books in recent years, even though research has been increasing. There are a few older volumes and one very recent book on friendship and happiness (Demir, 2015), but I resonate to the editors' point. The current, more general volume fills a noteworthy gap.

Growth of the Friendship Scholarship

To get an indication of the growth of psychologically oriented friendship research, I searched the *PsycInfo* database, which is centered on psychological publications but also has some interdisciplinary content. I searched *PsycInfo* for publications with “friendship” as either a title word or an index term. Figure 17.1 shows the growth of friendship publications since 1965 in 5-year periods. During those 5-year periods, the number of articles with “friendship” as a title word increased from 35 to 655 (or 7 per year to 131), and designating “friendship” as an index term increased from 38 to 2,227 (or 7.6 per year to 445.4). (The changes in index frequencies may reflect changes in the American Psychological Association’s insistence on having index terms starting in the mid-1980s). As a title word, “friendship” was used considerably less than “love” (2,611 times vs. 5,742), a bit more than loneliness (2,302), and over half again as often as “marital satisfaction” (1,649).

Within psychology, there was a period when the study of interpersonal attraction was very prominent. Here the basic goal was to find the determinants of whom we like as friends. Many of these studies were experiments in which the researcher created various experimental conditions and recruited strangers to come to a laboratory to interact for short periods of time (Huston & Levinger, 1978). The frequency with which “interpersonal attraction” was used as an index term surpassed the frequency with which “friendship” appeared as an index term in the *PsycInfo* database for the period 1965–1979. The use of the term “interpersonal attraction” has dried to a trickle over the subsequent years, with use of the term “friendship” continuing to grow. In the most recent 5-year period, there were 39 publications using “friendship” as an index term for every one using “interpersonal attraction.”

To look at the place of the friendship literature from a different vantage point, I counted how many times each different index term in 1,265 articles published in the *Journal of Social and Personal Relationships* (1984–2012) was used. I found that with 178 uses, “friendship” ranked eighth in frequency among nearly 1,000 index

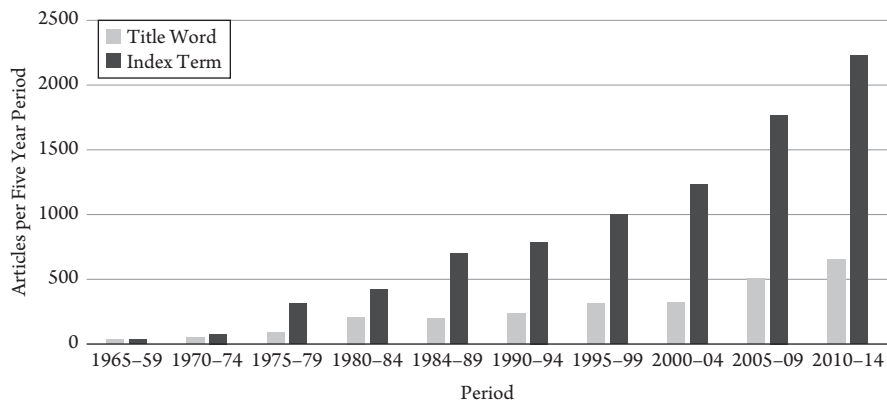


Figure 17.1 Articles with “friendship” as a title word or index term (per 5-year period).

terms. It was used in 14% of all articles. A slightly different analysis covering 1984–2014 showed “friendship” as an index term was used in a slightly higher percentage of articles in the first 15 years of the journal’s history (15.6%) than in the second 15 (11.3%). Clearly, friendship has been and remains a significant topic among relationship scientists.

The Study of Friendship as a Multidisciplinary Endeavor

Over this 50-year period shown in Figure 17.1, “friendship” was used as a *PsycInfo* index term 8,566 times, so the body of literature dealing with friendship in some way is considerable. But the *PsycInfo* database, while it does cover some publications in ancillary disciplines, is not exhaustive. Looking at the professional affiliations of authors in the present volume shows the majority are associated with psychology departments but there are also contributors from communications units (e.g., William Rawlins, William Monsour, Andrew Ledbetter) and human development and family studies (HDFS) or child development departments (e.g., Rosemary Blieszner, Gail E. Walton, myself) plus a sociologist, Rebecca Adams, now chairing a gerontology program. To get a broader picture than the present author list, I checked the departmental affiliation of the first (or corresponding) author (Figure 17.2) of the 178 articles published in the *Journal of Social and Personal Relationships* between 1984 and 2012 for which the word “friendship” was an index term. Slightly over half the authors were from psychology departments (54%), but close to half were from other departments (including communications, sociology, HDFS, and education). Research on friendship is definitively a multidisciplinary endeavor.

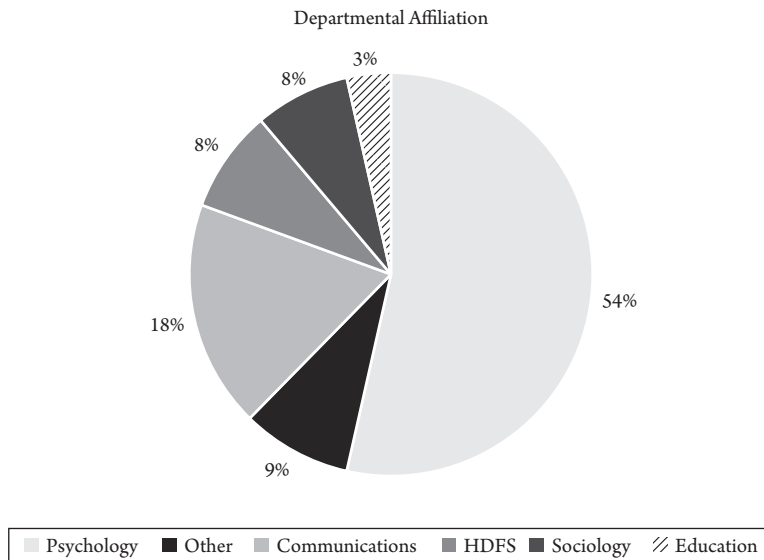


Figure 17.2 Departmental affiliations of the first authors of articles in *JSPR*.

The Paradox of Friendship's Upside and Downside

Our lives often have their upsides and their downsides. Friendships are no different. For a full appreciation of friendship, it is important to consider both sides as well as how these opposing properties can be understood within one phenomenon.

The Benefits of Friendships

A very prominent theme throughout this volume is that friendship is beneficial. Holt-Lunstad is a key spokesperson for this theme. In her chapter she makes the following points, which I quote:

- Having more and better relationships is associated with better physical health and greater odds of survival,
- There exists strong epidemiological evidence of a directional effect of relationships on health . . . being socially connected can be protective,
- Having a larger number of friends improves physical and mental health,
- The overall magnitude of the [social connectedness] effect on risk for mortality was comparable with and in many cases exceeds the effect of many well-established risk factors for mortality. For instance, lacking social connectedness carries a risk equivalent to smoking up to 15 cigarettes per day, and is greater than alcohol abuse, physical inactivity (sedentary lifestyle), obesity, and air pollution, among others, and
- Close friendships give meaning in our lives and make us happier.

Whereas Holt-Lunstad focus on the health benefits of friendship, Erdley and Day and King et al. dig into the psychological and mental health benefits. Erdley and Day discuss how friendship is linked with being less likely to be lonely, depressed, anxious, and/or bullied, as well as with being high in self-esteem and school adjustment. Overlapping some with Erdley and Day's points, King et al. add other associations between friendship and indicators of positive mental health (e.g., higher psychosocial adjustment, higher quality of life).

Several other authors more briefly allude to the theme that friendships benefit us physically and/or mentally (e.g., Rawlins; Hojjat, Boon, & Lozano; Oswald) or illuminate other aspects of this general theme. For example, Morrison and Cooper-Thomas note organizational benefits of friendship: "Employees with a best friend at work are seven times as likely to be engaged in their jobs; in addition they serve customers better, have higher well-being, are more productive, and are less likely to get injured on the job." VanderDrift et al. identify how valuing and embedding a strong friendship aspect in romantic relationships can benefit the romantic relationship (e.g., in terms of dyadic satisfaction) and the lives of the romantic partners (e.g., life satisfaction). McConnell et al. summarize ways having relationships with companion animals is connected to various psychological-type benefits in children and/or adults (e.g., greater self-confidence, self-esteem, and autonomy; less fearfulness,

anxiety, and loneliness) as well as greater physical fitness. Oswald cites data showing that the use of friendship maintenance behaviors promotes closeness in the early stages of friendship development, correlates with one's satisfaction with the friendship, and predicts the longevity of friendships.

The Downside of Friendship

Juxtaposed to the view that relationships benefit us, especially the contributors to Part III of this volume detail ways friendships can, as Hojjat and Moyer say, "sour." A lot of this has to do with the ways relationships themselves entail negative aspects. Hojjat et al. assert,

Friendships are the breeding grounds for many of the events and experiences that elicit offense, injury, and upset . . . friendships constitute one of the most common contexts in which people encounter transgressions, provocations, betrayals, wrongdoings, and related aversive experiences such as hurt feelings and hurtful messages.

Hibbard and Walton discuss the view that competitively structured situations can, at least under some circumstances, block us from satisfying our needs and thereby undermine our liking potential friends and the quality of our relationships with them. In particular, they proffer that when competition is focused on beating others (as opposed to striving for personal excellence), competition is apt to have a deleterious effect.

In another chapter in Part III, Clark, Harris, Fernandez, Hasan, and Votaw focus considerable attention on identifying predictors of remaining friends after a breakup. Their chapter begins, however, with another typically unpleasant aspect of relationships: the hurts that occur both before and after the breakup of romantic relationships that terminate. Ending friendships appears to be more benign than ending romantic relationships, but nonetheless terminating friendships can create hurt feelings, too (e.g., upset, angry, sad; Tortu, 1984). In this volume Adams et al. cite evidence that discussions of fading friendships are dominated by feelings of "betrayal, indifference, and hurt." Similarly, the loss of friends through death can produce feelings of bereavement (e.g., despair, depression, loss, aloneness; deVries & Johnson, 2002).

The negative side of friendship crops up elsewhere in the volume beyond Part III. Erdley and Day indicate how friendships can contribute to youths' socialization into deviant behaviors (alcohol, tobacco, and marijuana use; risky sexual behaviors; delinquent offenses) and contagion effects can contribute to adolescents' experiencing depression. In the work context, Morrison and Cooper-Thomas note how dual coworker and friendship relations can be problematic, and Lunsford notes three ways having a peer as opposed to a more senior mentor may be limiting: (1) peers provide less instrumental support, (2) they may be less willing to provide critical reflections, and (3) the mentoring relationship may be perceived as providing the mentee with

an unfair advantage. Overlapping some of these points, Holt-Lunstad notes friends can foster risky, unhealthy behaviors as well as create stress. In this general vein, King et al. found that college students who had difficulty maintaining friendships were more likely to report suicide attempts, drug addiction, and/or drinking problems.

Reconciling the Pros and Cons of Friendships

Reading this volume, it is clear that friendship has both a positive and a troublesome side, yet overall it seems to me the positive side has the upper hand. In terms of the scholarly literature, although some (Gable & Reis, 2001) take an opposite view, two analyses of relationship research have found that coverage of positive topics is more common than attention to negative aspects (Duck, 1994; Hoobler, 1999). With regard to actual friendship, previously cited data shows being with friends is associated with positive feelings. Friendships are voluntary, so people can disengage if they want. Friends typically do not have the obligations and responsibilities that cohabiting and marital partners have. All in all, it is not surprising that being with friends is generally rated as a positive time in our lives.

A key question becomes, when will friendships be positive for us either in terms of our evaluating them positively or their leading to beneficial outcomes, and when will they be negative? Providing a comprehensive, concrete answer to that question is a daunting task, but I believe we have already seen some elements of the answer and I have ideas about the form the analysis could take. Contributors to this volume have already identified several variables that predict relationship satisfaction. The flip side of those predictions points to when and for whom relationships are not working so well.

Apropos of the form the analysis might take, Clark et al. classify predictors of the success of postromantic relationship into three categories: individual, dyadic, and social network. These categories of variables are clearly important. I would add a fourth category: a broader array of contextual and environmental factors. In research on the health benefits of relationships there is a lot of concern about the form of social connectedness and the pathways via which relationships lead to outcomes (Holt-Lunstad). There is also concern about gender and other group differences. All in all, I might frame the question about positive and negative outcome as follows: Who, under what conditions, via which processes leads to which positive versus negative outcomes of friendships? Essentially this boils down to various categories of variables: predictor, mediator, moderator, and outcome.

Berkman, Glass, Brissette, and Seeman (2000) offer one frequently cited model of the association between social integration and health. They start with macro-structural conditions that influence social networks, which in turn are a foundation for psychosocial mechanisms (e.g., social support) that impact health via various behavioral, psychological and physiological pathways that contribute to positive versus negative health outcomes. Their explication nicely identifies things to consider at each step in their model. For a friendship model we would need to narrow

social networks to friendship per se, and give more consideration to individual difference factors, moderators, and specific outcomes. Nonetheless, Berkman et al.'s analysis illuminates significant components of what might go into a model to identify when friendships might be beneficial versus detrimental in the health domain.

Future Directions in the Study of Friendship

Box 17.1 provides short summaries of the recommendations for future research on friendship that I identified in this volume. The three most frequently mentioned recommendations were to study more diverse populations, to examine the interplay between friendships and technology, and to enhance the way research is done. Each of these recommendations seems sensible. I reflect on each of the three most frequently mentioned suggestions, a couple of the moderately frequently mentioned suggestions, and on theory as a suggested direction.

The Three Most Frequently Mentioned Themes

A recent survey of articles in top psychology journals found that 96% of studies involved WEIRD participants: individuals from Western, educated, industrialized, rich, and democratic societies (Henrich, Heine, & Norenzayan, 2010). Only 12% of the world's population live in such societies. Closer to friendship research, a study of articles in the *Journal of Social and Personal Relationships* found that over half involved research with college students, clearly introducing age and educational biases in the findings (de Jong Gierveld, 1995). In a second study, women were more apt than men to reply to recruitment letters for couple research projects (Hill, Rubin, Peplau, & Willard, 1979). In a third study, ethnic minorities in the Los Angeles area were less likely than Whites to respond to a letter soliciting their participation in marital research, and even if they responded to the solicitation they were less likely to actually agree to be in the study (Karney, Kreitz, & Sweeney, 2004).

Fortunately chapters in this volume do testify that at least some research on diversity vis-à-vis age (Adams et al.), sexual orientation (Monsour), ethnicity (Rose & Hospital), and mental health (King et al.) is being done. In defense of relationship scholarship, perhaps the top psychology journals are not the best places to find research on non-WEIRD samples. Nonetheless, it is clear that biases exist in whom friendship scholars study. Having a more representative database would enhance the external validity and generalizability of what we know.

Like the chapters on diverse populations, the chapter by Ledbetter confirms that research is being done on social media and technological-type innovations (see also Erdley & Day; Holt-Lunstad). Research ideas and trends come from many sources. Work in this area illustrates how technological and societal change can give rise to new avenues of investigation.

Box 17.1 Recommendations for Future Research

- Examine more varied populations (e.g., minority groups, disability groups, immigrants, etc.; Erdley & Day; Rose & Hospital; Ledbetter; Hojjat et al.; McConnell et al.; cf. King et al.)
- Technology, electronic communication, and social media (Erdley & Day; Lunsford; Lunstad; Oswald), including a wider array of social media platforms rather than just Facebook (Ledbetter)
- Enhanced research designs (e.g., more complex, longitudinal, dyadic, social network analysis; Wzrus et al.; Ledbetter; Clark et al.; Oswald; cf. King et al.)
- Comparisons and/or interdependencies with other types of relationships (Wzrus et al.; Hojjat et al.; Oswald)
- Examine the causal direction between friendship and other variables (Erdley & Day; VanderDrift et al.; cf. Lunsford)
- Research designed to develop and evaluate friendship interventions (Erdley & Day; Adams et al.; cf. King et al.)
- Study facilitators and barriers to cross-identity relationships and the interaction patterns of individuals in such friendships (Rose & Hospital) as well as the positive and negative motivations for friendships between ex-romantic partners (Clark et al.)
- More qualitative research (Rose & Hospital; Ledbetter)
- Study the friendships of individuals who do not fit neatly into static, binary conceptions of gender (Monsour)
- More precise measures for classification of race, ethnicity, and sexual orientation (Rose & Hospital)
- Greater use of theory (Ledbetter)
- Do research recognizing the interplay between online and other forms of communication (Ledbetter)
- Examine whether offline and online friendships have the same health effects (Lunstad)
- Do more interdisciplinary research (Ledbetter)
- Study individual differences (e.g., attachment styles; VanderDrift et al.)
- Study the operation and fulfillment of higher-order needs in friendships (VanderDrift et al.)
- More research on mentors as friends (Lunsford)
- More attention to mediators and moderators (Clark et al.)
- More research on forgiveness and revenge in friendships (Hojjat et al.) especially on the role of the transgressor
- More research on competition including examining it across the life span, as a situation versus a trait, as a multifaceted phenomenon, and cross-culturally (Hibbard & Walton)

As an aside, although not covered in this volume, another noteworthy domain in which social change has occurred is in the interface between friendships and sexual relations. The phenomenon of “friends with benefits” (having sexual relations in platonic relationships) has been labeled and become a focus of research (Levine & Mongeau, 2010). It merits the scholarly attention it is getting.

This volume does not have a chapter on the methods used to study friendships. I see methods as one of the key pillars of the field. I join with other contributors to this volume in wishing for continued development of methods and greater use of the best methods. Nonetheless, I think there have been various advances in the methods used by relationship scientists in the past two to three decades to applaud (e.g., statistical procedures to handle dyadic data and longitudinal data; experience sampling and daily diary methods; physiological, neuroscience, and biomarker type measures; developments in qualitative research).

In the last 35 to 40 years, it is likely true that psychologically trained relationship researchers have retreated from conducting laboratory experiments that were popular during the era when interpersonal attraction research was more common. Given that social scientists tend to consider experiments the gold standard for inferring causality, some may lament the dearth of experiments. Contributors to this volume called for more work to determine the direction of causality. In defense of a shift toward nonexperimental designs, conducting research on people’s experiences of friendships in their daily lives makes generalizing to people’s actual friendships easier. Some friendship phenomena undoubtedly operate in reciprocal, bidirectional influence patterns. Along these lines, Wrzus et al. discuss how neuroticism influences friendships and how friendships influence neuroticism. Furthermore, there are some logical and statistical methods, given panel type designs, for inferring causality from nonexperimental data (S. Finkel, 1995).

Moderately Frequently Mentioned Recommendations for Future Research

Among the moderately frequently mentioned recommendations for future research, there appear to be a couple of underlying commonalities. First, some contributors to this volume pointed to the need for additional research on their topic of research in general (e.g., Lunsford; Hojjat et al.; Hibbard & Walton). Second, other contributors brought forth ideas about specific profitable avenues research on their topic might pursue (e.g., Monsour; VanderDrift et al.; Ledbetter). Both these thrusts seem sensible.

Wrzus et al. call for doing more research on the interdependencies between friendships and other forms of relationships. Along somewhat similar lines, Oswald also briefly alludes to looking at different types of relationships to get a better overall picture of maintenance behaviors. Wrzus et al. talk about some steps to take along this path. In looking at the interdependencies among relationships, two very plausible positions are (1) that strengths in one form of relationship can compensate

for deficiencies in others and (2) some individuals are generally more successful in relationships, so that people who succeed in one form of relationship are likely to succeed in other forms. Wrzus et al. cite data consistent with the compensation view (e.g., that closeness to friends is inversely related to closeness to family members). Ledbetter cites evidence consistent with a rich-get-richer position: According to the media multiplexity theory for which there is support, people who have stronger friendship ties are the ones who employ more communication media to maintain their relationships. I share Wrzus et al.'s view that further exploration of how different types of relationships intertwine would be valuable and appreciate their thoughts on steps to be taken.

Erdley and Day as well as Adams et al. focused on interventions for enhancing friendship. I especially resonated to their points. In the more general field of marriage and the family, marital preparation as well marital enrichment programs have been developed and researched (e.g., Madison & Madison, 2013). There are journals primarily or partially devoted to research on and therapy for couples such as the *Journal of Couple and Relationship Therapy* and *Journal of Marital and Family Therapy*.

With regard to promoting friendship, there does not appear to be as much. But there is some. For example, social skill training has been used to enhance the peer relations of children and adolescents (Foster & Bussman, 2008). There have also been numerous efforts to alleviate loneliness and social isolation, many of which are aimed at least in part at helping lonely individuals to make new friendships or enhance existing ones (e.g., see Cattan & White, 1998; Masi, Chen, Hawkey, & Cacioppo, 2011).

As we have seen in the discussion of the benefits and downsides of friendship, lacking friends and/or having poor quality friendships is associated with lower physical and emotional well-being. We also know that children with poor peer relations are at risk for later adjustment problems (e.g., dropping out of school, criminal behavior; Parker & Asher, 1987). Further development and evaluation of efforts to enhance children's and adults' friendship is definitely worthwhile.

Theory as a Future Direction

In her seminal 1996 book on friendship, Beverley Fehr devoted a chapter to theories. She covered four psychological traditions: reinforcement, social exchange and equity (divided into interdependence and equity), cognitive consistency, and developmental. For the most part, these were theoretical traditions that could be applied to friendship but were not theories that evolved out of an interest in friendship per se. In surveying the theoretical landscape nearly 20 years after Fehr's volume, it seems to me that at one level the landscape has changed significantly: Reinforcement and cognitive consistency perspectives are less prominent in the literature on friendship, and in their place attachment and evolutionary perspectives have gained in influence (see Harvey & Wenzel, 2006). There are also some conceptual frameworks grounded in psychology that seem narrower but

have relevance to friendships and other frameworks outside of psychology. For example, within psychology these include

1. Gable and Reis's (2010) capitalization model (i.e., the view that sharing good news with close others enhances relationships);
2. Clark's distinction between communal and exchange relationships (i.e., relationships in which we benefit others because we are concerned with their welfare versus relationships in which we do things for others on a quid pro quo basis, repaying or setting up obligations; Clark & Aragon, 2013); and
3. Aron's self-expansion model (i.e., the position that we have a basic desire for self-expansion as a means to accomplish our goals and one way we can achieve self-expansion is what Aron calls "including the other in the self"—having a self-concept that includes some of our partners resources, perspectives and identities; Aron & Nardone, 2012).

Recently, there have been two promising conceptual formulations on interpersonal attraction. E. Finkel and Eastwick (2015) argue that we become attracted to others who help us achieve our high priority needs or goals. Montoya and Horton (2013) have advanced a two-dimensional view: They believe we are attracted to another person to the extent that we believe the other person has the capacity to facilitate our goals/needs and the other person is willing to do so. Outside of psychology there are also useful frameworks. Monsour, for example, points to dialectical and feminist intersectional theories as relevant to friendships.

Of the theories that Fehr covered, the one that most directly stemmed from an interest in dyadic relationships was Levinger's analyses of the development and deterioration of relationships (Levinger, 1980; Levinger & Snoek, 1972). Nonetheless, in what Fehr offered as well as in the current volume, I do not find a general theory of friendship. In this sense I do not find a significant shift in theorizing despite being able to see changes in the attention devoted to specific theoretical viewpoints.

In a special section of the *Journal of Social and Personal Relationships* on how we should study relationships, published in 1995, Ellen Berscheid called for a grand theory. She envisioned a theory that would be multidisciplinary and address various types of relationships, recognizing the similarities and differences among them. In general, I see the social sciences as having moved from more general theories to narrower ones. In the present volume, I admired Lunsford and Hibbard and Walton for advancing more focused conceptual models, respectively, regarding mentoring and competition between friends.

In the 20 years since Berscheid wrote, no grand or metatheory of relationships has been advanced and gained prominence. I do not see one on the immediate horizon. Nonetheless, I would like to see a theory or model that addresses friendship in a broader, more holistic manner.

Apropos of formulating a broader framework, there are two noteworthy dimensions of friendships underlying much of this book: first, that relationships have

a beginning, a middle, and an ending (Ledbetter; Oswald; Morrison & Cooper-Thomas; Clark et al.), and second, that relationships evolve and change over the life span (Erdley & Day; Wrzus et al.; Adams et al.; Hibbard & Walton). There have been models such as Levinger's (1980; Levinger & Snoek, 1972) of how relationships build and decline. There also have been models of how relationships change over at least parts of the life course (e.g., Buhrmester, & Furman, 1986; Carstensen, 1987). It does seem possible and desirable that thinking along each of these two lines could be updated, elaborated more fully, and, whether concerned with multiple types of relationships or not, articulated specifically with reference to friendships.

In this volume, Adams et al. offer a still-evolving, broad conceptual model stemming specifically from an interest in friendship. I find much to admire in their effort that bridges sociological and psychological perspectives. In their writing, Adams, Blieszner and their coauthors have addressed both the previously identified developmental dimensions. Adams and Blieszner are definitely making progress in the direction I am urging. I would love for them to do a monograph-length explication of their views addressing various aspects of friendship in greater depth, offering a set of testable propositions, and conducting (or at least stimulating) programmatic research to test their views. I would also note that in her dissertation and in unpublished papers, Hilla Dotan (2007) has taken steps in the direction of updating models of relationship development especially with reference to work friendships. I hope more work on developing friendship theory in these domains will be produced and published in the years ahead.

Summary and Conclusion

In this chapter I have argued that scholars have had difficulty reaching a consensus on a definition of friendship but that I favor a prototype conceptualization. I claimed that, among other reasons, friendships are important because of the time we spend with friends, the pleasure we derive from friendships, and the increasing role of friendships in filling our social needs. During the past 50 years research on friendship has grown; it is a multidisciplinary endeavor. I highlighted evidence from throughout this volume indicating that friendships can be both beneficial and detrimental. The question is: Who, under what conditions, via which processes leads to which positive versus negative outcomes of friendships? I concluded by discussing directions for future research on friendship, calling for broader, more holistic theoretical analysis.

To take off from my opening Mohammad Ali quote, if you have read this book, I am sure you have learned a lot of things about the value of friendship and what makes them successful. You really have learned something intellectually stimulating and important for your daily life. Hurrah to the editors and the authors for giving us such an informed, current, and broad tutorial.

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