

REASONS FOR ROMANTIC BREAKUPS
IN ADOLESCENCE AND EMERGING ADULTHOOD:
A DEVELOPMENTALLY INFORMED EXAMINATION

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Abstract

Objectives: Using a developmentally informed perspective, two studies were conducted towards systematic investigation of breakup reasons, their associated processes and outcomes in adolescence and emerging adulthood. In Study 1, a developmentally-framed measure of breakup reasons was developed, and differences in breakup reasons by age, gender, and dating stage (casual versus serious relationship) were examined. In Study 2, the link between depressive symptoms, reflecting poor post-breakup adjustment, and breakup reasons was examined. The mediating role of negative cognitive style, and moderating effects of gender and dating stage were tested.

Methods: In both studies, a sample of 796 youths (15-25 years old, $M = 17.76$, 60% girls) reporting breakup reasons responded to questionnaires examining variables related to their development and romantic participation.

Results: In Study 1, we developed a five-subscale measure reflecting youths' breakup reasons. Youths' most important reasons for breakups captured problems related to a) romantic affiliation, b) intimacy, c) autonomy, d) own infidelity, and e) partner's status. Lack of romantic affiliation was the most important reason for breakup for all the youths. Boys reported dissolution due to own infidelity more often than did girls. Casually dating youths broke-up due to lack of romantic affiliation more often than youths at a serious romantic relationship stage; the latter reported inadequate intimacy as breakup reason more frequently. In Study 2, breakup reasons and depressive symptoms did not form a significant direct link. However, path analysis revealed that negative cognitive style significantly mediated the relationship between status breakup reasons and depressive symptoms. Further, the path between intimacy-based breakup

reasons and depression was moderated by dating stage of youth. Gender did not moderate the link between breakup reasons and depressive symptoms.

Conclusions: We discuss the multi-faceted and complex nature of romantic dissolution attributions in adolescence and emerging adulthood. The role of developmentally-framed breakup reasons as mechanisms that can help explain poor, as opposed to non-problematic, post-dissolution adjustment among adolescents and emerging adults is reviewed. The findings underscore the importance of developmentally-informed understanding and investigation of breakup reasons, as well as the need for further, longitudinal examination of their role in youths' individual and interpersonal development.

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Chapter One: General Introduction

Romantic Relationships and Breakups in Adolescence and Emerging Adulthood

For Western youths, adolescents and emerging adults, romantic relationships are recognized as normative and formative experiences (Arnett, 2000; Collins, 2003; Meier & Allen, 2009; Furman & Schaffer, 2003). At the same time, a relatively short duration is typical of these romantic relationships and experience of breakups is common (Arnett, 2000; Connolly & McIsaac, 2009a; Sessler, Michelmore, & Holland, 2016). However, until recently, research on romantic breakups and particularly reasons for them during these periods of development has been significantly limited. In adulthood, it has been found that ex-partners often try to make sense of the reasons for their romantic dissolutions (Harvey, Weber, Yarkin, & Stewart, 1982; Weber, 1992). That process, arguably, allows people to make meaning of what led to the breakup and who is responsible for the relationship breakdown (Weiss, 1975). Adolescents and emerging adults are also likely to be engaged in a similar meaning-making process and their conceptualizations of breakup reasons may have a formative function. They can impact the view that young people develop about themselves, their potential romantic partners, and their romantic relationships as contexts where relational selves are developed and enacted, as well as contribute to post-breakup adjustment. The overarching goal of the current research was to build a developmentally appropriate understanding of what adolescents and emerging adults see as the *reasons for their romantic breakups* as well as how such reasons may *interact with the post-breakup outcomes*.

Definition of adolescence and emerging adulthood. In the international scientific community, there is much discussion as to how we define adolescence (Curtis, 2015). Although the exact chronological borders of this period are debated, a developmental period between 10

and 17 years of age is typically included within that time (Curtis, 2015). Researchers look to biological (e.g., brain development, physical and sexual maturation), social, and cultural factors when setting the demarcations of this period. Typically, it has been referred to as a transition period between childhood and adulthood. In turn, the term “emerging adulthood” was created to capture a heterogeneous and “volitional” period of life, that is as neither adolescence nor full adulthood and that falls roughly between the ages of 18 to 25 for young people living in the industrialized societies (Arnett, 2000; 2007). In this dissertation, the term “youths” is used when referring to both adolescence and emerging adulthood to capture broadly this transitional period of development.

In emerging adulthood romantic relationships are particularly salient (Erikson, 1968). This developmental stage is marked by the formation of and transitioning within these relationships. Finding a long-term, satisfying intimate relationship is among the main developmental tasks (Arnett, 2000; Erikson, 1968). Similarly, in adolescence, these are important experiences that promote, in the context of egalitarian relationships, the development of identity and sexuality, capacity for intimacy and autonomy (Collins, 2003). In adolescence, casual, short-term relationships are seen as more developmentally appropriate as these youths explore and experiment with intimate relationships (Arnett, 2000).

Prevalence rates and definition of a romantic breakup. It appears that consistent rates represent romantic participation across various Westernized societies. For example, researchers suggest that over 50% of Australian youths have dated by age 15 (Price, Hides, Cockshaw, Staneva, & Stoyanov, 2016). Similarly, according to the United States-based statistics, about 60% of adolescents report having dated by age 16 (Collins, 2003). About a third of those dating between the ages of 15 to 18 in the North American context report having had a breakup within

the 6 months of being asked about it (Connolly & McIsaac, 2009). In turn, Morris and Reiber (2011), who surveyed participants in the Northeastern State University, in the United States, reported that 98% of their mostly emerging adult sample (mean age = 20) reported having had at least one breakup in the past (multiple breakups were not sampled or explored). These statistics speak to the commonplace nature of these romantic experiences.

Although rarely do studies provide explicit definitions of what is a “breakup”, some researchers (e.g., Karney, Bradbury, & Johnson, 1999) define romantic breakups as a finite state of a given relationship, that is, of being “terminated”. At the same time, studies focusing on youths demonstrate that cycling in and out of the same relationship is not uncommon (e.g., Dailey, Rossetto, Pfiester, & Surra, 2009). Although a definition of a breakup as a finite state may not illuminate the, often, cyclical nature of romantic relationships, it allows us to examine the processes and experiences associated with the “ending” of a romantic union. Better understanding of such experiences is of significance, since they are part of a normative romantic development that lays the foundation to future adult romantic participation (Shulman & Connolly, 2013). They also have been associated with various individual and relational outcomes. For example, in the clinical and youth-justice contexts, such as in counselling centers within educational institutions and juvenile court systems in the United States, youths who have recently undergone romantic breakups commonly present with exacerbated criminal behaviours, significant relationship concerns, adjustment difficulties, self-harm and suicide risk (Drum, Brownson, Denmark, & Smith, 2009; Larson, Sweeten, Piquero, 2016; Price et al., 2016).

Romantic breakups in adolescence and emerging adulthood. Despite being prevalent and associated with possible significant adverse outcomes, the breakup of romantic relationships among youths is less well examined and understood (Connolly & McIsaac, 2009b, 2011;

Norona, Olmstead, & Welsh, 2017; Shulman & Connolly, 2013) compared to such processes as romantic relationship initiation, relationship duration, nature of romantic experiences, and range of normative as well as at-risk activities (Collins, Furman, & Welsh, 2009; Connolly & McIsaac, 2009a). Yet, recent surge in interest and empirical investigation of romantic breakups, particularly in emerging adulthood, supports the idea of their developmental significance. These studies began to deepen our understanding of the factors contributing to breakups among youths and the adjustment outcomes that can be part of that process (e.g., del Palacio-González, Clark, & O'Sullivan, 2017; Lantagne, Furman, & Novak, 2017; Norona, Olmstead, & Welsh, 2017; Vennum, Monk, Pasley, & Fincham, 2017; Waterman, Wesche, Leavitt, Jones, & Lefkowitz, 2017).

Various factors were recently examined as possible contributors to romantic breakups among emerging adults. Lantagne and colleagues (2017) found that the number of lifetime stressful events, romantic appeal, and negative interactions (high level of conflict and low levels of support) all contributed to faster breakdown of romantic relationships. Other researchers found that perceived physical attractiveness during adolescence and emerging adulthood (estimated age 17-18), was linked to higher divorce rates in adulthood (Ma-Kellams, Wang, & Cardiel, 2017). Emerging adults with a history of alcohol problems in adolescence were also found to cycle in and out of relationships (i.e., experience multiple breakups) at a higher rate than emerging adults without such history (Sandberg-Thoma & Kamp Dush, 2014). Klimstra and colleagues (2013), studying youths in Belgium, examined the link between romantic breakups and emerging adults' interpersonal identity, measured as their sense of commitment to and reflection on the current romantic relationship, as well as doubts about current relationship relative to other options. These researchers found that uncertainty about the current relationship

(assessed only in the community sample) and lack of psychological commitment (assessed in college and community samples) were predictors of relationship dissolution among emerging adults. These factors were superior predictors of breakup compared to the personality traits also examined in this study. Taken together, these findings illuminate the fact that romantic breakups among youths are multi-determined phenomena, which encompass factors at the individual (e.g., one's attractiveness) and contextual (e.g., relational or life stressors) levels. However, our understanding of breakups and associated factors in adolescence and emerging adulthood is still at its early stages.

In terms of post-breakup adjustment, multiple factors have also been examined and identified as possible co-contributors. For example, Belu, Lee, and O'Sullivan (2016) in their Canadian sample, found that when having trouble adjusting to their breakup emerging adults showed tendency towards re-establishing contact with the ex-partner, both online and in-person. In fact, being a non-initiator of the breakup, experiencing more surprise over the breakup, and greater degree of distress was predictive of more attempts to reconnect with the ex-partner and more attempts that included various methods. In addition, greater investment in and perceived commitment to a romantic relationship that dissolved explained greater post breakup distress and online surveillance of ex-partners, as markers of poor post-breakup adjustment (Fox & Tokunaga, 2015). However, in this latter study emerging adult and adult relationships were considered indiscriminately. As such, variations in the nature and quality of investment in romantic relationships and commitment to them, expected as a result of different developmental tasks associated with each of these life stages, were not considered. Therefore, possible implications of such variations for post-breakup distress were also not examined.

In turn, Shulman and colleagues (2017) found that emerging adults with the history of depression in adolescence experienced greater difficulty coping with romantic breakups and reported more distress. These difficulties following a breakup were predictive of difficulties in future romantic relationships, including tendency to downplay conflicts and difficulties handling them, as well as exhibiting hurtful behaviour towards partners. At the same time, del Palacio-González, Clark, & O'Sullivan (2016) showed that preceding depressive symptoms do not fully account for the distress experienced post-breakup. They found that, after controlling for earlier depression, intrusive thoughts about the dissolved relationship still explained some of youths' post-breakup distress. Furthermore, Brenner and Vogel (2015) found that adverse adjustment post relationship dissolution could also, in part, be explained by both positive and negative thoughts about one's past romantic relationship. In fact, positive thoughts were associated with more stunted recovery, whereas negative thoughts were associated with negative but also positive recovery features, such as rediscovery of self. Similarly, del Palacio-González and colleagues (2017), found that individuals who think about their past relationship more, both positively and negatively, tend to be more distressed, as seen in their reports of loneliness, emptiness, and disbelief about relationship termination. However, individuals with more frequent negative relationship memories also had higher depressive symptoms post breakup, whereas positive memories did not form this association. These authors drew attention to the differences in how positive and negative memories were processed by their participants. These differences, according to the authors, imply the presence of different cognitive processes involved in the development of post-breakup distress and depression symptoms. Consistently with this line of thought, del Palacio-González and colleagues (2016) found that rumination and intrusive thinking about past relationships, as forms of cognitive information processing, were associated

with great distress following a dissolution. Whereas, perspective deliberate thinking about the breakup, a distinct cognitive process, interacted with earlier intrusive thinking and predicted post-relationship growth. Building on these findings, it seems important to take into account both, *what* information is relevant in explaining post-breakup outcomes (e.g., memories) and also *how* youths process such breakup-related information.

At the same time, it is important to note that associations between various individual and contextual factors with post-breakup distress and well-being are not indiscriminate. For example, certain characteristics, such as Machiavellianism, defined as emotional detachment, distrust, and willingness to manipulate others, were unrelated to post-breakup distress in a UK-based sample that included adolescents (age 16), emerging adults, and adults (up to age 70) (Brewer & Abell, 2017). Similarly, a team of US-based researchers found that whether youths' long-distance romantic connections dissolved or were maintained did not negatively impact their daily affect (Waterman et al., 2017).

Each of the studies reviewed above, contributes to the current knowledge on romantic development by beginning to fill a notable gap in the research on romantic breakups among youth. Taken together, these findings highlight the fact that multiple, but not all and any, factors can contribute to the breakdown of early romantic relationships and to post-dissolution adjustment. Among the factors examined in the literature thus far are mental health history, cognitive processes, and emotional valence associated with relationship-specific thoughts, geographical proximity of the relationship, and past-relationship history. However, what remains to be less well examined from a developmentally-informed perspective, is the *content* of youths' breakup-related thoughts, such as their conceptualizations of the reasons for breakups (Connolly

& McIsaac, 2009a), and interaction of these conceptualizations with other factors, such as cognitive processes, that together may co-determine post-breakup adjustment.

Addressing the question of what youths conceptualize as the reasons for their romantic dissolutions will help us build an understanding of what is normative of adolescents' and emerging adults' breakup reasons, as well help continue to account for the mechanisms that potentiate poor and non-problematic post-breakup adjustment. Subjective reasons "why" a romantic breakup occurred, in adult research, has been linked to emotional reactions following a dissolution (Sprecher, 1994) and ability to "move on" (Barutçu Yildirim & Demir, 2015). In turn, the few studies that have examined the role of clarity and certainty about why breakups occurred, found significant associations with youths' ability to adjust following a romantic dissolution (Barutçu et al., 2015; Hetherington & Stoppard, 2002). Such studies support the idea that understanding the reasons "why" relationships fell apart is important. However, before we delve into the study of the functions served by breakup reasons in romantic development of adolescents and emerging adulthood, we need to gain a developmentally appropriate understanding of what are these reasons.

Theoretical Framework

Developmental systems theory. Developmental systems theory (Lerner & Castellino, 2002) provides an overarching theoretical framework to the current project. According to this theory, youths are seen as active agents of their own development (Lerner, Theokas, & Jellic, 2005). They move towards successful growth and change by negotiating different internal and external factors. To illustrate, youths' emerging developmental needs for sexuality, companionship, and intimacy driven by biological, psychological, and/or emotional states are expected to motivate them to approach interpersonal contexts, such as romantic relationships

Collins, Welsh, & Furman, 2009; Feiring, 1996, Low & Shortt, 2017). These are expected to meet those relational needs. The negotiation of youths' needs with experiences within such relationships are expected promote either satisfaction or disappointment in young romantic partners.

A mismatch between the individual needs and interpersonal contexts can create a dissonant system, potentially leading to negative developmental outcomes (Lerner & Castellino, 2002). According to the theory, feedback from a dissonant system will promote youths to take certain actions, which, in the romantic context, can include breaking up a relationship that fails to meet one's needs. Indeed, Connolly & McIsaac (2009b) have proposed and supported through their findings that youths are acutely aware of their relational needs and should a relationship fail to meet them they will exercise their agency by dissolving that romantic union. That is, in line with the theory, youths will not support a union that does not support their needs and goals (Lerner et al., 2005). In such a manner, youths promote their own positive romantic development (Connolly & McIsaac, 2009b).

To help explain different possible post-breakup outcomes, we turn to a "relational view" encompassed within the developmental systems theory (Gottlieb & Halpern, 2002). A relational view would suggest that developmental outcomes following a romantic dissolution, such as impact on youths' well-being, emotional and mental health, including the development of depressive symptoms, are the products of multiple determinants. Indeed, research grounded in the developmental systems perspective has found that it is the interaction of the cognitive, biological, and interpersonal factors that best accounts for the development of depression among youths (Teunissen et al., 2011). By extension, the finding that romantic participation and romantic breakups have been linked to depressive symptoms among youths (Davila, 2008),

needs to be considered in the context of “relational causality”, where multiple factors co-act to produce such a developmental outcome (Gottlieb & Halpern, 2002). In the current project we adopt this relational view to consider interplay of developmentally-informed breakup reasons with other factors, such as youths’ level of romantic development, their age, gender and cognitive style as possible co-determinants in explaining post-breakup outcomes in adolescence and emerging adulthood.

Dating stage theory and needs-based perspective. Dating stage theory guides our understanding of what romantic needs are likely to be salient for youths at a given stage of their romantic development. The pursuit of those needs creates opportunities for connection between young romantic partners (Collins & Steinberg, 2006; Connolly & Goldber, 1999; Furman & Wehner, 1994) and informs characteristics and experiences associated with each dating stage (Connolly & McIsaac, 2009b). It has been argued that much like characteristics and experiences associated with the dating stages capture youths’ romantic needs, their breakup reasons may reflect which of these needs were unmet (Connolly & McIsaac, 2009b).

In line with developmental theories of romantic participation, we think of adolescent and emerging adult romantic participation as progressing in stages (e.g., Connolly & McIsaac, 2011; B. Brown, 1999). Two stages, based on the dating stages theories, are relevant to our current discussion and include casual dating stage and serious romantic relationships stage (Connolly & McIsaac, 2011). Casual dating stage is characterized by exploratory romantic engagements typically beginning in the context of mixed-gender groups (Connolly et al., 2000). At that time, youths are expected to show a particular preoccupation with peer-status and appearance of their partners (B. Brown, 1999; Furman & Shaffer, 2003). With time, affiliation and intimacy begin to factor in as characteristics and benefits of such romantic relationships (Feiring, 1996; Shulman &

Scharf, 2000), likely reflecting youths' evolving needs. As romantic development progresses, intimate unions at a serious romantic relationships stage are beginning to resemble adult relationships (Connolly & McIsaac, 2009a) characterized by increasing commitment, stability, intimacy, supportiveness, and longer lasting bonds (Seiffge - Krenke, 2003; Shulman & Scharf, 2000). However, these relationships are still known as transient, lasting from several weeks to a few months (Seiffge - Krenke, 2003), with multiple re-partnering over the course of one year (Zimmer - Gembeck, 1999).

Although these stages are typically linked to youths' chronological age, with middle adolescence coinciding with the casual dating stage, and late adolescence/emerging adulthood mapping onto the serious committed relationships, casual and serious dating can occur at both ages (Caspi, Elder, & Bem, 1988; Zimmer-Gembeck, Siebenbruner, & Collins, 2001; Zimmer-Gembeck & Collins, 2008). For example, recent research and theory demonstrate that market variability characterises romantic participation of emerging adults, ranging from adult-like commitment to unstable, ambivalent and poorly managed romantic involvements (Shulman & Connolly, 2013; Roberson, Norona, Fish, Olmstead, & Fincham, 2017). Consequently, variability in adolescent and emerging adult romantic breakup experiences, including reasons for them, may also be expected.

Developmental Significance of the Romantic Breakups Reasons

Focus on adolescence and emerging adulthood. Breakup reasons specific to adolescence and emerging adulthood need to be considered in their own right, because these life stages are associated with unique developmental characteristics and tasks, many of which are markedly different from adulthood (Arnett, 2000). Furthermore, on the one hand, adolescence and emerging adulthood share important similarities, such as role experimentation, identity

formation, and romantic development (Arnett, 2000) as well as increased risk-taking behaviours characteristic of these life stages (Steinberg, 2007). On the other hand, developmental characteristic of emerging adulthood, such as greater cognitive and emotional maturity, evolving psychosocial maturity, as well as different life tasks, such as, the need to make decisions about education, work, and career are among the factors that set this life stage apart from adolescence (Shulman & Connolly, 2013; Steinberg, Cauffman, Woolard, Graham, & Banich, 2009).

Moreover, even within a given life stage notable variability in romantic activities and associated experiences have been found. For example, Roberson and colleagues (2017) classified their sample of emerging adults into different categories of daters, including committers, settlers, casual daters, and volatile daters, based on the types of their romantic activities and relationship characteristics, such as conflict management, relationship satisfaction, future plans for the relationship, and loneliness. Belonging to casual and volatile dating category, was associated not only with a greater likelihood for a breakup during a semester, but also with greater feelings of loneliness. Among adolescents, as mentioned earlier, variability in types of romantic activities and chronological age at which those occur have been also found through earlier research. For instance, although labelled as “atypical”, research has captured entry into dating relationships that compared to the norm follows an earlier (“early starters) or later (“late bloomers”) trajectory (Connolly & McIsaac, 2011). Such variability may be reflected not only in youths’ age at which they begin romantic experiences and subsequent characteristics of their romantic participation, but also in their reasons for breakups.

Yet research grounded in a developmental perspective, one that would focus on the *youths’ conceptualizations* of the reasons for romantic breakups and their developmental significance during these life stages, is still scarce (Connolly & McIsaac, 2009b; Norona et al.,

2017). Toward this end, in the two studies presented in this paper, we conduct a systematic, quantitative investigation of romantic breakup reasons in adolescence and emerging adulthood from a developmental perspective. As well, we examine the possible function of breakup reasons in post-breakup adjustment, specifically the development of depressive symptoms.

Conceptualization of breakup reasons. Although breakups among adolescents and emerging adults are more common and precede such adult experiences (Connolly & McIsaac, 2009a; Shulman & Connolly, 2013), much of what we know about romantic breakups comes from research on adult intimate, often marital, relationship dissolutions (e.g., Amato & Previti, 2003; Cohen & Savaya, 2003; Gravningen et al., 2017; Lampard, 2014; Schade, Hülür, Infurna, & Hoppmann, 2016; Wolcott & Hughes, 1999). Among the topics explored in adult research on marital or intimate relationship dissolutions are the questions of “why” these relationships dissolve, revealing reasons such as partners growing apart and not being able to communicate with each other (e.g., Hawkins, Willoughby, & Doherty, 2012). Such reasons and associated outcomes are only beginning to be documented for adolescence and emerging adulthood. Unique characteristics of romantic participation during these life stages, as discussed earlier, call for a systematic investigation of breakup reasons from a developmental perspective (Connolly and McIsaac, 2009a; Shulman & Connolly, 2013).

In line with the earlier discussion, youths’ life stage may inform breakup reasons in ways reflective of developmentally relevant needs and tasks and differently from what we see in adulthood (e.g., Roisman, Masten, Coatsworth, & Tellegen, 2004; Shulman & Connolly, 2013). Similarly, the stage of youths’ romantic development, that is, whether youths are dating casually or pursuing serious romantic relationships, suggests the presence of different relational needs, such as enhancing one’s status in the peer group, affiliating with the other where sexuality is at

least a possibility, as well as growing interconnectedness and intimacy (Connolly & Goldberg, 1999; Connolly & McIsaac, 2011). These needs, in turn, may contribute to the differences in what youths name as breakup reasons, and what aspects of those they emphasize at a given stage of romantic development. Consistently, Connolly and McIsaac (2009), who examined adolescent breakups and Norona and colleagues (2017), who looked at breakups of emerging adults, tell us that *reasons or motives* behind youths' romantic dissolutions hold unique developmental significance. They reflect the "continuity with salient romantic needs" during these life stages (Connolly & McIsaac, 2009b, p. 1222), such as emphasis on the lack of affiliation as a reason for breakup in adolescent relationships (Connolly & McIsaac, 2009b), and lack of intimacy as a more important breakup reason for emerging adults (Norona et al., 2017). These findings provide important insights into significant developmental processes involved in interpersonal and individual growth of youths in the context of their romantic participation, and breakups specifically (Connolly & McIsaac, 2009b; Norona et al., 2017).

Breakup reasons and post-dissolution adjustment. Research on adult intimate relationship dissolutions, conducted in multiple cultural contexts, such as, Canada, United States, and Israel, links relationship breakdown and reasons for it to individuals' coping and adjustment, including experiences of poor mental health (e.g., Cohen & Finzi-Dottan, 2012; Zella, 2017). Specific reasons for breakups, such as infidelity (Amato & Priveti, 2003; Kitson, 1992), have particularly been linked to negative and intense emotional reactions, difficulties coping, and adjusting following relationship breakdown (e.g., Amato & Previti, 2004; Hall & Fincham, 2006; Sprecher, Zimmerman, & Abrahams, 2010). Thus far, research on adolescents and emerging adults has linked romantic participation overall and breakups specifically to problematic outcomes, such as substance use (Fleming et al., 2010), increased criminal activity among at-risk

youths (Larson et al., 2015), post-traumatic stress symptoms (Chung et al., 2003). Decline in youths' self esteem (Luciano & Ulrich, 2016), significant fluctuations in emotions following a breakup (Sbarra & Emery, 2005), and, less often, to personal growth following a dissolution (Lewandowski & Bizzoco, 2007) were also found. Symptoms and responses characterized as depressive are among the most commonly examined post-breakup outcomes, both among youths and adults (see Davila, 2008 for overview; Monroe, Rohde, Seeley, and Lewinsohn, 1999; Morris, Reiber, & Roman, 2015; Shulman, Seiffge-Krenke, Scharf, Lev-Ari, & Levi, 2017; Szwedo, Chango, & Allen, 2015). However, these are not inevitable outcomes of romantic dissolutions and positive post-breakup experiences, such as personal growth, increased sense of self-confidence, and independence have also been reported (see e.g., Miller, 2009; Tashiro & Frazier, 2003).

The research on the mechanisms that potentiate the different links with post-breakup adjustments among adolescents and emerging adults are still at its early stages. Due to developmental differences such mechanisms may differ from those found for adults. However, consistent with adult research, studies on youths' suggest that *breakup reasons* may play important role in shaping post-breakup outcomes (e.g., Hetherington and Stoppard, 2002; Sorenson, Russell, Harkness, & Harvey, 1993). For example, the lack of clarity as to why romantic relationships broke up was cited as a particularly distressing factor associated with negative effects on youths' sense of self-worth (Hetherington and Stoppard, 2002). This implies, that, just like adults, youths' can conceive of various reasons why their relationship might not have worked out, and, we argue that different reasons may have unique significance at various stages of youths' romantic development. Further, we suggest that understanding what reasons

youths have for breaking up may help us to identify additional mechanisms that could help explain poor post-relationship adjustment.

However, our ability for a systematic examination of reasons for romantic breakups and their associated outcomes across both adolescence and emerging adulthood is currently limited by the absence of a quantitative, developmentally sensitive measure. The need for such a measure is underscored by the growing interest in this field. However, at present, the researchers tend to rely on qualitative methods (e.g., Connolly & McIsaac, 2009b; Norona et al., 2017) or measures with limited psychometric and developmental applicability (e.g., Field, Diego, Pelaez, Deeds, & Delgado, 2010). Limitations inherent in such methodologies impede our ability for systematic investigation of breakup reasons and their associated processes and outcomes in adolescence and emerging adulthood, warranting the need to develop a psychometrically sound, quantitative measure grounded in developmental understanding of their origins.

Objectives of the Current Project

To contribute to the current research and help fill the gaps in knowledge as briefly outlined in the preceding discussion, two studies have been conducted towards this dissertation. Specifically, Study 1 aimed to systematically examine: 1) adolescents' and emerging adults' reasons for romantic breakups by constructing a developmentally-informed, quantitative measure of breakup reasons; 2) the relative importance of these reasons; and, 3) the association of breakup reasons with such potential moderators as youths' gender, age, and stage of romantic development. In Study 2, our goal was to examine the following: 1) existence of a link between breakup reasons of youths with a history of romantic participation and their current symptoms of depression; 2) if negative cognitive style mediates the link between breakup reasons and depressive symptoms; and, 3) gender and romantic stage may serve as moderations in the

association between breakup reasons and symptoms of depression. In the sections that follow, we present the two studies that outline in greater detail the rationale for examining adolescents' and emerging adults' romantic breakup reasons and their proposed associations.

Chapter Two: Study 1.

Romantic relationships are a key aspect of adolescent and emerging adult development, and breakups are an integral component (Connolly & McIsaac, 2009a; Furman & Schaffer, 2003; Moore, Leung, Karnilowicz, & Lung, 2012). Yet, the causes for these breakups have been largely understudied (Connolly & McIsaac, 2009a). Most of what we know about breakups and reasons thereof comes from research on adult divorce (Amato & Previti, 2003; Noller & Feeney, 2013). This research tells us that ex-partners often try to make sense of the reasons for the dissolution of the relationship (Harvey, Weber, Yarkin, & Stewart, 1982; Weber, 1992) as a way to attribute responsibility for relationship failure and organize their understanding of the events leading up to the dissolution (Weiss, 1975). Certainty about breakup accounts has been linked to post-relationship adjustment and ability to “move on” after relationship termination (Barutçu Yildirim & Demir, 2015). Thus, understanding the reasons “why” relationships fall apart in adolescence and emerging adulthood may help us understand the mechanisms that can explain youths' poor post-relationship adjustment and distinguish it from non-problematic outcomes. In adolescence and emerging adulthood, such account making may also have a formative function. It can impact the view young people develop about themselves, their potential romantic partners, and of romantic relationships as contexts where relational selves are developed and enacted. Yet, before we can examine its functions, we need to gain a developmentally appropriate understanding of what youths see as the reasons for their romantic breakups. Thus, the objectives of this study were 1) create a developmentally framed measure of adolescents' and emerging

adults' reasons for romantic breakups, and 2) examine the relative importance of these reasons and 3) consider these reasons in relation to youths' dating stages, age, and gender.

Romantic Relationships and Breakups in Adolescence

Romantic Relationships

For Western youth, romantic relationships are recognized as normative and formative experiences (Collins, 2003; Meier & Allen, 2009; Furman & Schaffer, 2003). By late adolescence or emerging adulthood, most youths have engaged in at least one romantic relationship and may identify themselves as a couple to their parents and peers (Collins, Welsh & Furman, 2009). These relationships play significant role in youths' socio-emotional development (Connolly & Johnson, 1996) and conception of self as a romantic partner (Feiring, 1999a; Tabares & Gotman, 2003). At the same time, romantic relationships may also become a source of emotional distress and maladjustment (Anderson, Salk, & Hyde, 2015). This is especially true for girls (Joyner & Udry, 2000; Margolese, Markiewicz, & Doyle, 2005), however boys also experience depressive problems as a result of romantic interactions (Hankin, Mermelstein, & Roesch, 2007). Romantic breakups are known to contribute to the negative experiences associated with romantic involvement (e.g., Collins, Furman, & Welsh, 2009; Monroe, Rohde, Seeley, and Lewinsohn, 1999; Slotter, Gardner, & Finkel, 2010).

Romantic Breakups among Youth

By age 18, most youths report having had at least one romantic breakup (Collins Welsh, & Furman, 2009). Adolescents are more likely than older youths to report on breakups that occurred within the past 12 months (Connolly & McIsaac, 2011). Fewer emerging adults report having had a recent breakup, likely because their relationships last longer. Indeed, in adolescence, short-term romantic involvements appear to be appropriate ways to explore intimate

relationships, whereas emerging adults are expected to form lasting, intimate, and deep bonds (Arnett, 2000). Although duration of romantic relationships increases over the course of adolescence and emerging adulthood, typically these relationships are less lasting and committed than adult ones, and are marked by more frequent disruptions (Connolly & McIsaac, 2009a; Dailey et al., 2009; Moore et al., 2012). For some youths, romantic breakup may be linked to positive outcomes, such as post-breakup growth (e.g., Lewandowski & Bizzoco, 2007; Moore et al., 2012; Tashiro & Frazier, 2003). However, for others, it is associated with intense, adverse outcomes such as symptoms of anxiety, depression, and maladaptive coping (Fleming et al., 2010; Joyner & Udry, 2000; Monroe et al., 1999). Yet, knowing that a breakup took place does not tell us about the meaning this holds for young people (Anderson, Salk, & Hyde, 2015), limiting our understanding of its implications. It has been suggested that subjective reasons as to “why” the breakup occurred may help explain divergent post-breakup outcomes (Sprecher, 1994).

Reasons for Romantic Breakups

Recently there has been renewed interest and research on romantic relationships and breakups of emerging adults (e.g., Halpern-Meehin, Manning, Giordano, & Longmore, 2013; Sandberg-Thoma & Kamp Dush, 2014). However systematic and developmentally framed examination of breakup reasons is still largely absent from the current research landscape. Contemporary studies of breakups, while pioneering in their attempts, are nonetheless limited methodologically. Some sample only most common breakup causes (e.g., Morris et al., 2015), or examine the nature of only one type of dissolution reason (e.g., Negash, Cui, Fincham, & Pasley, 2014), or group together emerging adults with adult participants when examining their reasons for breaking up in serious relationships (e.g., Dailey et al., 2009; Kellas & Manusov, 2003;

Schade et al., 2016; Sorenson, Russell, Harkness, Harvey 1993; Træen & Thuen, 2013). These design decisions may obscure unique and developmentally significant characteristics of emerging adults' romantic experiences. In turn, research exploring breakup reasons in adolescence is virtually absent (see Connolly & McIsaac, 2009 for an exception). Yet, these are important since romantic experiences of younger youths set the stage for future romantic involvements (e.g., Raley, Crissey, & Muller, 2007). Since emerging adults have transitioned from adolescence but have not yet fully entered young adulthood (Arnett, 2010), we expect to see similarities in how adolescents and emerging adults understand their reasons for romantic breakups as well as shifts in the relative importance of each type of reason at different developmental stages.

Adopting a view of romantic breakup reasons as a construct shaped by the stage of youths' romantic development (see Connolly & Johnson, 1999; B. Brown, 1999), we examined research findings related to breakup reasons and categorised the reported themes. The categories encompassed: loss of pleasurable affiliation, lack of intimacy, unmet needs for sexuality or passion, infidelity, as well as the need for greater autonomy. Frequent conflicts (e.g., Dailey et al., 2009), increased dissimilarity in interests and attitudes (Sorenson et al., 1993), as well as boredom (e.g., Sprecher, 1994; Træen et al., 2013) contributed to the category reflecting *lack of "affiliation"*. *Intimacy* issues housed themes on communication problems (Field, Diego, Pelaez, Deeds, & Delgado, 2010; Morris et al., 2015), uncaring behaviours (Field et al., 2010), insensitivity and untrustworthiness (e.g., Dailey et al., 2009). Lack of *passion and sexual dissatisfaction* are seen in reports on the loss of attraction in their romantic partners, loss of "romance", unwillingness to engage sexually, or conflicting ideas about sex (Sorenson et al., 1993; Sprecher, 1994; Sprecher, 2002). *Infidelity* is seen in reports on sexual (physical) or

affective (emotional) extradyadic activity (Negash et al., 2014), that could include kissing (e.g., O'Sullivan & Ronis, 2013), spending excessive amounts of time with another person or any form of sexual intimacy (McAnulty & Brineman, 2007), such as “sexting” (sharing sexually explicit information; Wysocki, & Childers, 2011). Finally, desire to explore alternative relationships and desire for more freedom (e.g., Dailey et al., 2009; Felmlee, Sprecher & Bassin, 1990) comprised the *autonomy* category.

Much less is known about adolescent reasons for breaking up with romantic partners. In their exploratory study, Connolly and McIsaac's (2009b) identified some reasons for breakups in adolescence that overlap with those found for emerging adults, including affiliation-based reasons, followed by intimacy, sexuality, and autonomy reasons. Still, some differences in adolescents' breakup reasons were found. Unlike adults' accounts, many adolescents in Connolly & McIsaac's (2009b) study reported unmet *identity* needs when explaining their romantic dissolutions. This finding is consistent with theoretical perspectives that at this age, in particular, youths are in the process of forming different aspects of their identity, including that of the self as romantic partner (B. Brown, 1999; Connolly & Goldberg, 1999). During this period youths begin to look for partners whose characteristics and future goals complement their own (Connolly & McIsaac, 2009a). Consequently, difficulties negotiating and maintaining a sense of self-identity may become particularly salient in determining youths' reasons for breakups.

Although concerns with unmet *status* needs did not emerge in Connolly and McIsaac's (2009b) study, other research has highlighted the importance of adolescents' peer-group status as a determinant of “who” youths should date (B. Brown, 1999) or how to achieve a certain status in a social group (Roscoe, Diana, & Brooks, 1987). Indeed, having a romantic partner has been noted to serve as a marker of high social status (B. Brown, 1999; Roisman et al., 2004). As such,

it is likely that romantic partner's unfavourable impact on one's peer-group status may also become an important consideration for breaking up.

Taken together we expect that adolescents and emerging adults will report on all of these reasons to varying degrees. Different factors may moderate the way youths explain their breakups and the degree to which each category of reasons is endorsed. Specifically, youths' chronological age, stage of their romantic development, and gender could be among the factors contributing to the heterogeneity in youths' explanations of why their romances ended. The rationale for our proposition is presented below.

Age. Given the developmental differences among adolescents and emerging adults in cognitive, emotional, and relational capacity, differences due to age may be expected in choice of breakup reasons (Montgomery, 2005; Steinberg, 2005). Indeed, the limited available research would suggest that breakup reasons of emerging adults and adolescents are not one and the same. For instance, emerging adults frequently reference infidelity (Field et al., 2010; Sprecher, 1994), a reason that did not strongly emerge in adolescents' reasons for breakups (Connolly & McIsaac, 2009b). In turn, theory and research tell us that concerns with identity and peer-group status become most prominent in adolescence (B. Brown, 1999; Connolly & McIsaac, 2009b). They often guide youths' entry into romantic relationships (based on popularity) and their choice of romantic partners (based on similarity in personal values, goals, or cultural backgrounds).

Dating stage. Dating has been shown to progress through stages which are only loosely associated with age (Connolly et al., 2004; Connolly & McIsaac, 2011; Zimmer-Gembeck, Siebenbruner, & Collins, 2001). In line with dating theories (B. Brown, 1999; Connolly & Goldberg, 1999), two stages are particularly relevant to adolescence and emerging adulthood: casual dating and serious romantic relationships (Connolly & McIsaac, 2011). Casual dating is

characterized by exploratory romantic engagements typically occurring in the context of mixed-gender groups (Connolly et al., 2000). Hence youths in casual dating might be more likely than emerging adults to refer to peer-status and affiliation in their breakup reasons (B. Brown, 1999; Furman & Shaffer, 2003). On the other hand, serious romantic relationships are defined as committed involvements marked by stable, intimate, supportive, and lasting bonds (Seiffge - Krenke, 2003; Shulman & Scharf, 2000). We might expect a greater emphasis on loss of intimacy in the breakup reasons of adolescents or emerging adults who describe their relationship as serious rather than casual (Connolly & McIsaac, 2009).

Gender. Males and females do not experience romantic relationships in the same way, so their breakup reasons may also vary. Females emphasize support, intimacy and commitment in their romantic relationships (Feiring, 1996), and report having longer-lasting relationships (Carver, Joyner, & Udry, 2003; Feiring, 1999), a finding which has been attributed to girls having less difficulty identifying the starting point in their romantic relationships. Males, in contrast, are more likely to emphasize social status and sexuality as the key benefits of romantic relationships (Feiring, 1996). When it comes to romantic breakups, adolescent males, just like their emerging adult counterparts, are more likely to report concerns with sexuality and infidelity than are females (Cohen & Finzi-Dottan, 2012; Connolly & McIsaac, 2009b; Sorenson et al., 1993). Further, males, more often than females, cite sexual dissatisfaction as a reason for breakup (Sorenson et al., 1993), while young women are more likely to report feeling unloved, among the reasons for relationship breakup (e.g., Gigy & Kelly, 1993; Kitson, 1992).

Measurement of Romantic Breakup Reasons

At present, we lack a quantitative measurement tool that would allow us to *systematically* examine reasons for romantic breakups and their associated outcomes across adolescence and

emerging adulthood. To date, research has largely used qualitative methodologies to arrive at a person-centered understanding of breakup reasons (Connolly & McIsaac, 2009b; Cupach & Metts, 1986; Dailey et al., 2009; Hill, Rubin, & Peplau, 1976). The few quantitative measures that are available have not been constructed with adolescents or emerging adults in mind (e.g., Gigy & Kelly, 1993; Sprecher, 1994) or show limited psychometric considerations (e.g. Field et al., 2010). However unique characteristics of romantic participation in adolescence and emerging adulthood suggest the value of a measure grounded in what adolescents and young adults have reported about their breakups. In this study, we begin with the creation of a quantitative measure to assess youths' breakup reasons, based on a developmental understanding of their origins.

Objectives of the Current Study

The first objective of this study was to capture breakup reasons in adolescence and emerging adulthood, accounting for relevant theory and research on both age groups. To facilitate this goal, we developed a quantitative measure that can be used across both age groups. Categories of affiliation, intimacy, and passion/sexuality were expected to be among most prominent reasons for breakup, followed by concerns with identity, autonomy, and status. We then explored the role of age, gender, and dating stage (casual vs. serious) on frequency of reported breakup reasons. We expected the salience of intimacy and infidelity to be greater in emerging adults and those whose breakup occurred in a serious relationship. Relying on their self-reports, we expected females to prioritize intimacy, whereas males would prioritize sexuality.

Method

Participants

Two hundred eighty-six (286) adolescents in grades nine to twelve and 510 first-year University students (796 total) were selected from a larger sample, based on having had a romantic breakup. The adolescent group included youths ages 15 to 17 ($M = 15.99$, $SD = .77$). Emerging adults included youths ages 18 to 25 years ($M = 18.75$, $SD = 1.00$). Just over 30% of youths reported having had a breakup within the 3 months prior to this study, 37.3% had a breakup between 4 months to a year, and 32.4% referenced a breakup that occurred more than a year prior to the study. The sample was 60% female and 95% heterosexual. Our sample was ethnically diverse, with Caucasians represented by 57.8% of the participants, Asian Canadians by 12.5%, South Asian Canadians by 6.7%, African/Caribbean Canadians by 6.7%, and Latin American Canadians by 2.4%. The remaining 13.9% of the participants endorsed the “other” or “mixed” ethnic group categories.

Procedure

All procedures were approved by the Toronto District School Board Ethics Review Committee and Ethics Review Board of a large metropolitan University in Central Canada. The youths were told that we aimed to gain a better understanding of teen dating experiences, with the ultimate goal of informing educational programming about healthy relationships. High school students were recruited from a Health and Physical Education course. Information letters and parental consent forms were sent to schools, with participation described as “opt-in consent”. Thirty percent of students returned signed forms, resulting in a sample of 674 students. This participation rate is not uncommon in research where parental consent is sought (Collogan & Fleischman, 2005). Forty two percent of the total adolescent sample reported having a breakup

experience and were selected for this project. University students were recruited in a first-year Kinesiology course through “opt-in” consent, resulting in 85% participation rate, with almost 79% of that sample included in this study. The questionnaire package was completed during class time. Voluntary participation, unlinked to course credit, was emphasized in each setting with an opportunity to withdraw from the study at any time. Small incentives (e.g., pizza and gift certificate raffle) and candy per-person were offered to the study participants. As a follow-up, information on healthy dating was provided to the school students by the research team through in-class workshops that were held later in the school year.

Measures

Youth Attributions of Romantic Dissolutions (YARD). Thirty-four statements reflecting seven hypothesized categories of breakup reasons (affiliation, intimacy, infidelity, passion/sexuality, autonomy, identity, and status) were created grounded in past research (see Appendix D). Included in that process were the qualitative responses that adolescents provided in the study by Connolly & McIsaac (2009). Thematically grouped answers that youths offered in that study as their main reasons for romantic breakups were reviewed. The responses that were the most common and/or representative of the breakup reason themes were “translated” into the questionnaire items. For example, such response as “lost attraction”, which represented the explanation theme of “[l]ack of physical attraction” (Connolly & McIsaac 2009, p. 1216), was “translated” into “you were not physically attracted to your boy/girlfriend” questionnaire item. Breakup reason themes that emerged from the adult research were also reviewed. Themes that have not been reflected in the YARD statements constructed thus far were “translated” into additional YARD items. For example, “pursuit of alternatives” as a breakup theme captured in Dailey and colleagues’ study (2009) on adults and emerging adults was reflected in such YARD

items as “you were interested in someone else” and “you wanted more time for yourself”.

Finally, theory and research on adolescent romantic development (B. Brown, 1999; Roisman et al., 2004) contributed to the items reflecting themes of status and peer group standing as breakup reasons.

When presented with the YARD statements, youths were instructed to reflect on their most recent breakup and to evaluate how much each reason explained their dissolution on a 4-point Likert-type scale, ranging from 1 (not at all) to 4 (very much). Following examination of the responses, a binary data set was created to account for the lack of variability in the original data, where “1” represented “a little bit”, “quite a lot”, or “very much” options, and “0” represented “not at all”. The structure and psychometric properties of these subscales were established in the current study.

Dating Questionnaire (DQ; Connolly, Craig, Pepler, & Goldberg, 2004). The DQ assesses various aspects of the dating experience. Nine items asked participants to identify dating activities as either true or not true of them over the past year (e.g., “I dated more than one person casually”, see Appendix E). Following the guidelines in Connolly et al., 2004, youths were assigned to one of two mutually exclusive dating stages. *Casual dating* stage was determined by grouping together youths who reported dating casually, dating more than one person, or dating one partner only. *Serious romantic relationships* stage included youths who were in a serious relationship, planning engagement, cohabitation, or marriage, or were already married or cohabiting. The casual dating group included 41.6% of the sample and the serious romantic relationships group included 58.4%.

Results

Mapping the Breakup Reasons

Our first objective, that of mapping breakup reasons through the construction of a new measure, was addressed with Factor Analysis in the statistical programme R. We used a split-sample, cross-validation approach, a well-established statistical procedure used to conduct Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) (see T. Brown, 2006; Wegener and Fabrigar, 2000). To that end, we divided at random our total sample of 796 youths, into two subsamples, where less than 5% of the data was identified as missing. A “derivation” subsample of 403 was used in the EFA analysis and a “holdback” subsample of 399 participants was used in the CFA analysis for cross-validation purposes (T. Brown, 2006).

EFA, model specification. Conducting EFA as a first step allows for a data-driven specification of a CFA model, and is recommended at the early stages of scale development (Kelloway, 1995; Wegener & Fabrigar, 2000). Tetrachoric correlations used with binary data, (Panter, Swygert, Dahlstrom, & Tanaka, 1997) were calculated revealing adequate Factorability of R (correlations of above $\pm .30$; B. Williams, Brown, & Onsmann, 2012). EFA on 34 items was conducted using robust Unweighted Least Squares (ULS) estimation with oblique rotation by the promax method (Flora, LaBrish &, Chalmers, 2012; Muthén, 1989) to estimate and clarify the factor structure. Parallel analysis and scree tests were used to determine the number of factors (Costello & Osborne, 2005; Tabachnick & Fidell, 1996). Competing four, five, six, and seven-factor models were examined, as suggested by Costello and Osborne (2005), with the five-factor model showing the best conceptual and statistical fit to the data.

A 21-item five-factor model was extracted using EFA (see Table A1 for the final structure) following recommendations of Costello and Osborne (2005). Criteria for deleting

items from the scale included: crossloadings $\geq .32$ or higher, extraction communalities below .40, and low factor loadings. Only items loading at $\geq .50$ or higher on a single factor and with sound conceptual fit were retained (Costello & Osborne, 2005; B. Williams et al., 2012). A total of 13 items were removed following these criteria. In the final model, the factor reflective of Romantic Affiliation accounted for 20.6% of variance. Intimacy accounted for 14.4%, Autonomy for 13.7%, Status for 12.4%, and Infidelity for 9.9%. In total, this model explained 72.4% of variance in the various reasons for breaking up among adolescents and emerging adults in this sample. Items addressing identity-related reasons for breakups did not form a separate factor. Instead, most showed low loadings and poor conceptual fit across a number of other factors. Passion/sexuality items also failed to emerge as a separate factor. They showed a high tendency for cross-loading with other factors, most notably with affiliation and status. Most of the items reflective of these categories did not meet criteria for inclusion and were dropped from the analysis.

CFA, cross-validation analysis. As the final step, the fit of the five-factor model was validated through CFA in R, using a robust weighted least squares (WLS) estimation known to perform most optimally with binary data (Flora & Curran, 2004). To increase model identification and to fix the metric, the first order loadings were constrained to 1. Since chi-square as a fit statistic offers a biased estimate, additional fit indices were evaluated (Garrido, Abad, & Ponsoda, 2016; Flora & Curran, 2004). Established guidelines indicate that Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) values approaching .95, Root Mean Square Error of Approximation (RMSEA) values of $> .06$, and Standardized Root Mean Square Residual (SRMR) values of $> .08$ indicate acceptable model fit (Hu & Bentler, 1999). Following these recommendations, our five-factor model showed an acceptable fit to the data, $\chi^2(179) =$

312.49, $p < .01$; CFI = .94; TLI = .93; RMSEA = .05; 90% CI for RMSEA [0.04 0.05]; SRMR = .06.

To determine if other conceptually plausible alternatives to the tested model might show better fit (Wegener & Fabrigar, 2000), we considered a one-factor model reflecting a possibility that youths may breakup with a romantic partner due to an overarching sense of relationship dissatisfaction. As expected, this model provided a poor fit to the data, $\chi^2(527) = 1339.84$, $p < .01$; CFI = .72; TLI = .70; RMSEA = .07; 90% CI for RMSEA [0.062 0.071]; SRMR = .09. Specifying this model rather than the EFA determined five-factor model, would increase the risk of Type I and II errors (Hu & Bentler, 1999) providing further support for the selected five-factor model.

Further, we sought to confirm that the final breakup reasons model fit well should it be applied to adolescents and emerging adults separately. To that end, we conducted a CFA by splitting the validation subsample by age. The model showed acceptable fit to the emerging adult subsample, $\chi^2(179) = 341.99$, $p < .01$; CFI = .94; TLI = .93; RMSEA = .05; 90% CI for RMSEA [0.04 0.05]; SRMR = .05, and adolescent subsample, $\chi^2(179) = 262.634$, $p < .01$; CFI = .94; TLI = .93; RMSEA = .05; 90% CI for RMSEA [0.03 0.05]; SRMR = .06. The model fit to the two subsamples was almost identical to the fit where overall sample was used. Therefore, we believe that a single, comprehensive, and developmentally sensitive measure of breakup reasons used with both age groups is appropriate in highlighting expected shifts in youths' understanding of their breakup reasons.

Descriptive statistics and reliability. Five subscale scores were computed by averaging across the items within each factor. Internal reliability coefficient α s were .84 (Romantic Affiliation), .74 (Intimacy), .77 (Autonomy), .62 (Infidelity), and .65 (Status). It should be noted

that, although the internal consistencies of infidelity and status are lower compared to those typically considered as “acceptable” in social science research, Clark and Watson (1995) indicate that it is a common practice now for contemporary researchers to cite reliabilities in the .60 - .70s as good or adequate, suggesting that internal reliabilities on the YARD scale meet that criteria. Correlations among the five subscales were small to moderate in size, ranging between $r = .14$ and $r = .48$. Means and *SDs* for the five YARD subscales are reported in Table A2.

Links between Age, Gender, and Dating Stage with Breakup Reasons

To determine the distribution of breakup reasons, and whether youths’ responses vary by age, dating stage and gender, we conducted a *profile analysis* (Tabachnick & Fidell, 2007) using the total original sample of 796 youths. In the current analysis, breakup reasons served as a within-subject factor, while age, dating stage, and gender were treated as between-subjects factors. To better understand where the differences lay, we conducted multiple comparisons using Bonferonni adjustments.

Profile analysis is used when groups of participants respond repeatedly on the subscales of one measure using the same units of measurement (C. Brown, 2012). The data is then transformed to a set of contrasts (Scheiner & Gurevitch, 2001) where means of the different groups are compared on each of the subscales through univariate and multivariate tests (Bray & Maxwell, 1985; C. Brown, 2012). These contrasts, characterized as profiles, yield three tests (Bray & Maxwell, 1985). Namely, a test of flatness looks at a main effect across dependent variables, which, in our study, is a set of *breakup reasons*. A test of levels is equivalent to a main effect testing between-group differences, which in our study, are based on age, dating stage, and gender. Finally, a test of parallelism, equivalent to an interaction, is seen in variability in

responses on the YARD subscales based at the intersection of participants' age, dating stage, gender (Bray & Maxwell, 1985).

Main effects. The main effect of *breakup reasons* revealed significant differences in the relative importance of each category, $F(3.69, 2802.85) = 339.30, p < .001, \eta_p^2 = .31$.

Specifically, regardless of age, gender, and stage of romantic development, the adolescents and emerging adults in this study endorsed most strongly affiliation reasons as explanations for why their relationship ended (see Table A2). The next most strongly endorsed breakup reasons were perceptions of inadequate intimacy and loss of autonomy. These two reasons were not significantly different from each other. Infidelity concerns superseded only inadequately met status needs, whereas the latter were endorsed at the lowest rate. Significant main effect of *age* was also found, $F(1, 759) = 14.49, p < .001, \eta_p^2 = .02$, where adolescents endorsed all breakup reasons more strongly ($M = .42$) compared to emerging adults ($M = .36$).

Interactions. A significant two-way interaction was obtained between *reasons and dating stage*, $F(3.69, 2802.85) = 6.65, p < .001, \eta_p^2 = .01$. Namely, affiliation-related problems were significantly more salient for casually dating youths ($M = .64$) than youths in serious relationships ($M = .56$). Whereas, inadequate intimacy explained breakups of youths in serious romantic relationships more so compared to casually dating group ($M = .53$ and $M = .47$, respectively). The two dating-stage groups did not differ significantly on any other category of breakup reasons (Figure B3). A significant two-way interaction between *reasons and gender*, $F(3.69, 2802.85) = 6.39, p < .001, \eta_p^2 = .01$ revealed that males ($M = .29$), significantly more than females ($M = .20$), indicated that their relationships ended due to infidelity (Figure B2). The relative importance of all other categories of breakup reasons did not differ significantly between males and females.

Although the two-way interaction between reasons and age was not significant, $F(3.69, 2802.85) = 2.03, p < .09, \eta_p^2 = .00$, the three-way interaction between breakup reasons, dating stage, and age was significant, $F(3.69, 2802.85) = 3.84, p < .001, \eta_p^2 = .01$. At the casual dating stage adolescents endorsed all categories of breakup reasons, except for intimacy, more strongly than did emerging adults. That is, casually dating adolescents and emerging adults had comparable reports of inadequate intimacy with their romantic partner as the reason for their relationship dissolution. The remaining categories of reasons were endorsed significantly more strongly by adolescents (see Table A3). At the serious relationships stage, a somewhat different pattern was evident. Adolescents in serious romantic relationships reported relationship breakdown due to intimacy problems and their own infidelity significantly more than did emerging adults in serious relationships (see Table A3). Breakups due to affiliation, autonomy, and status problems were of comparable relative importance for the two age groups. These results indicate that the interplay of the stage of romantic involvement, youths' age, as well as gender, shape the reasons why youths breakup in romantic relationships.

Discussion

This study examined adolescents' and emerging adults' understanding of "why" their romantic relationships ended. Using a developmental lens, we constructed a new quantitative measure that allowed us to examine systematically how youths understand the causes behind their breakups and their perceptions of the relative importance of each breakup reason. We found consistent categories of breakup reasons that overlapped across adolescence and emerging adulthood. Youths identified affiliation, intimacy, autonomy, infidelity, and status-related concerns as key factors explaining the breakdown of their romantic unions. The categories that emerged in our study are consistent with our knowledge about youths' romantic relationships

and correspond well to the notion that breakups stem from a failure of romantic relationships to meet youths' emerging romantic needs (Connolly & McIsaac, 2009b).

We created a scale, grounded in a developmental perspective on romantic development, which captured the multi-faceted nature of youths' reasons for romantic breakups. The present scale demonstrates adequate internal reliability and was designed for use across both adolescence and emerging adulthood, allowing for direct comparisons to be made. As expected, adolescents and emerging adults seem to share similar conceptualization of breakup reasons, as supported by the results of our exploratory and confirmatory factor analyses. Having a unified conceptualization and measurement of the breakup reasons across the two life stages will allow future research to gain a better understanding of developmental shifts in romantic breakup experiences.

Problems in affiliation, intimacy and autonomy ranked as the top three most important breakup reasons among all participants. Since companionship and shared activities on a date, along with closeness, trust, and intimate communication are among the primary characteristics and benefits of youths' romantic relationships (Connolly, Craig, Goldberg, & Pepler, 1999; Feiring, 1996), it makes sense that poorly met affiliation and intimacy needs feature prominently as youths' breakup reasons. These findings are also consistent with the research on young adult breakup reasons, where feelings of boredom (Sprecher, 1994) and growing apart (Sorenson et al., 1993), along with poor communication and uncaring behaviour are reported (Field et al., 2010). The finding of the relevance of *autonomy*-related breakup reasons, reflected in the need for more independence from a romantic partner, is consistent with research indicating that maintenance of personal autonomy in a context of intimate relationship is critical to the longevity of that union (Barry, Lawrence, & Langer, 2008). Since youths are in the process of learning how to balance

autonomy and relatedness needs in the romantic context (Taradash, Connolly, Pepler, Craig, & Costa, 2001), it is not surprising that difficulties in this domain emerged as unique reasons for relationship dissolution. *Infidelity*-related problems also emerged as a unique factor in our analysis, albeit at a much lower rate than most other reasons. Reports of infidelity as breakup reasons are consistent with the adult marital relationships literature (Cohen & Finzi-Dottan, 2012). It also adds a new dimension to our understanding of the breakup reasons among youths. As sexual encounters begin at this age, cheating starts to factor in as a reason why romances end. Finally, youths' perception that the romantic partner could be undermining their peer-group status was identified as a unique category of breakup reasons. Consistent with past research, concerns with fitting in and being accepted in the peer group are important influences on young people's romantic participation (B. Brown, 1999; Roscoe et al., 1987) and, as we now see, on their decisions to breakup in adolescence and emerging adulthood. Although we know from past research that status enhancement serves as an important motivation for engaging in casual sex, especially among emerging adult males (Regan & Dreyer, 1999), current findings suggest that peer-group norms continue to shape emerging adults' decisions regarding romantic involvement.

Contrary to our expectation, categories of passion/sexuality and identity did not emerge as separate factors. Although passionate love and the possibility of sexual encounters typically characterize youths' romantic relationships (Connolly et al., 1999; Connolly & Goldberg, 1999), in our analysis passion/sexuality items loaded on affiliation and status factors. Explanations for this finding are not immediately obvious. However, it is possible that youths show a capacity for a more integrated view of romantic needs (Connolly et al., 1999), where such experiences as affiliation with a romantic partner provide important contexts that allow for passion and sexuality needs to be fulfilled. Additionally, sexual activities are the least common type of

romantic experiences among youths in romantic relationships (O'Sullivan, Cheng, Harris, & Brooks-Gunn, 2007). Instead experiences which serve as social and personal markers of partners' status as a couple take precedence over sexuality. It is possible, that youths in our sample perceived unmet sexuality/passion needs as a backdrop to the lack of peer-group acceptance or unmet needs for romantic closeness. Similarly, romantic identity problems did not emerge as a distinct reason for romantic breakup, although adolescence and emerging adulthood are said to be times of identity exploration and formation (Arnett, 2000; Connolly & Goldberg, 1999). Most of the identity-related reasons loaded, albeit weakly, on the intimacy and status factors of the YARD. These findings may be reflecting the interconnectedness that characterizes intimacy and identity (Connolly & Goldberg, 1999; Kelly, Zimmer-Gembeck, & Boislard, 2012). It is also possible that lack of adequate closeness makes the task of negotiating autonomy less relevant (Connolly & McIsaac, 2009b). In turn, conceptualization of the peer-status as a social validation of one's sense of self (Kelly et al., 2012) may help explain the mapping of the identity-related reasons onto inadequately met social status needs.

Turning to the moderators examined in this study, we found that all played important parts in influencing youths' reasons for breakups. For instance, adolescents' stronger emphasis on the lack of intimacy in their serious relationships might indicate that, compared to emerging adults in such relationships, adolescents may not have yet reached the capacity for deep emotional intimacy that is expected at this stage (Connolly & Goldberg, 1999). In turn, our finding that adolescents at both stages endorsed infidelity reasons stronger than emerging adults, suggests that normative need for sexual exploration in adolescence (Tracy, Shaver, Albino, & Cooper, 2003) might contribute strongly to the breakdown of budding romantic unions. Next, we found that stage of romantic development, as expected, modulates relative importance of

breakup reasons. The fact that for casually dating youths across age groups affiliation-related problems were significantly more salient compared to youths in serious relationships is consistent with what we know about characteristics of romantic relationships at this stage (e.g., Furman & Shaffer, 2003). In turn, our finding that inadequate intimacy will be relatively more important as a breakup reason for youths in serious romantic relationships maps well onto the finding that in steady stable romantic relationships emotional intimacy is particularly high (Meier & Allen, 2009). Thereby, perceived lack of intimacy is likely to provide important grounds for relationship dissolution in serious relationships. In terms of gender differences, our finding that more young males than females report breakups due to their own infidelity is consistent with the past research. We know that more men than women report having cheated on their partner (McAnulty & Brineman, 2007), and male infidelity is cited more often as a reason for breakups (Cohen & Finzi-Dottan, 2012). Our expectation that intimacy problems will be endorsed more by females than males was not supported. Consistently, Connolly & MaIsaac (2009b) found similar results and suggested that once actively engaged in romantic relationships boys become as aware as girls of intimacy problems. With regard to age, we found an interesting tendency of younger youths to endorse all of the breakup reasons more strongly than emerging adults. We speculate that this pattern of results speaks to a general uncertainty that younger youths may have about the actual “breaking point” in the relationships or they might see all of the issues that they encounter in their unions as small steps towards their end.

Some limitations of this study should be acknowledged. Although significant, our findings yielded small effect sizes, limiting the practical significance of the conclusions that we can draw about the interconnections of breakup reasons with other factors. A more detailed examination of youths’ romantic history may offer a more nuanced understanding of the

continuities and changes in youths' breakup reasons and reasoning. Since this study was cross-sectional, our ability to make conclusions about developmental changes in youths' conceptualizations of breakup reasons is constrained and future research should utilize longitudinal designs. Future studies may also consider capturing an emerging adult sample that has more variability in age, as well as include non-university emerging adults increasing generalizability of the study's findings. Finally, perspectives of both ex-partners should be considered in future studies to better understand the relational context of their breakup explanations. For example, it would be important to consider a history of partners' mutual infidelity and the role of partner's infidelity as a reason for relationship breakup at two life stages.

Despite these limitations, our study offers the first systematic examination of adolescents' and emerging adults' breakup reasons. It also provides the first developmentally informed, comprehensive, and psychometrically sound measurement tool of breakup reasons in adolescence and emerging adulthood. Having this tool opens up possibilities for exploration of the deeper meaning and role of breakup reasons in romantic and individual development of youths across the two life stages. The findings confirm the ubiquitous importance of closeness and autonomy in sustaining romantic connections and highlight the pernicious effects of infidelity. Our findings help to lay the groundwork for further examination of relationship loss in individual and relational contexts of youth's development.

Chapter Three: Study 2

Romantic Relationships, Breakups, and Depressive Problems

Although normative and important for positive development, romantic relationships of youths are also associated with intense emotional and cognitive demands that may overwhelm

and stress young people in as much as they can lead to the onset of depressive symptoms (R. W. Larson, Clore, & Wood, 1999; Monroe et al., 1999). In fact, research shows that romantic relationships are often associated with experience of depressive symptoms (Quatman, Sampson, Robinson, & Watson, 2001), both among adults (e.g., Davila, Karney, Hall, & Bradbury, 2003) and youths (e.g., Welsh, Grello, & Harper, 2003; S. Williams, Connolly, & Segal, 2001).

Examination of interconnections between various aspects of adolescents' romantic relationships (such as, simply being romantically involved, timing of pubertal development, and experience of a romantic breakup) and depressive symptoms has been on the rise over the past two decades (Szwedo et al., 2015). For example, we do know that mere involvement in romantic relationships, as well as sexual activities in that context, are among the factors linked to the development of depressive symptoms in adolescence (e.g., Davila, 2008; Davila, Steinberg, Kachadourian, Cobb, and Fincham, 2004; Steinberg & Davila, 2008; Quatman et al., 2001). Experience of perceived romantic stress, such as conflicts or problems with a romantic partner, has also been linked to the symptoms of depression among adolescents (Anderson et al., 2015). Further, an association between adolescents' unmet romantic ideals and mental health problems has been found (Klingemann, 2006). Yet, when it comes to adolescent romantic breakups, it is less clear what factors contribute to a path that leads to the development of depression.

Similarly, knowledge about emerging adults' romantic experiences and depressive symptoms is limited. Some of the existing research tells us that, among emerging adults, no significant association between current romantic involvement and depressive symptoms is found, whereas a recent breakup can predict such adverse outcomes (Simon & Barrett, 2010). However, what has been significantly less well understood are the conditions under which such associations are likely to develop (Szwedo, Chango, & Allen, 2015) or mechanisms that potentiate this link

between romantic breakup and adverse mental health outcomes. As such, we suggest that further examination of possible mechanisms both in adolescence and emerging adulthood is of importance, and propose that youths' explanations of their breakups may help predict a path to poor post-breakup outcomes, such as depressive problems, making it the focus of the current study.

Breakups and Depressive Problems

Youths' romantic breakups are among the strongest predictors of depression, in various cultural context, including the US and Ireland (Dooley, Fitzgerald, & Giollabhui, 2015; Florsheim, 2003; Joyner & Udry, 2000; M. Larson et al., 2015; Monroe, Rhode, Seeley, & Lewinsohn, 1999). Frequency of breakups has been linked to increased depressive symptoms, particularly in emerging adulthood when lasting romances are expected (McIsaac, 2010). Emerging adults are also more likely to report depressive symptoms if they had experienced a recent breakup, with a stronger link being observed for females than males (Simon & Barrett, 2010). Consistent with these experiences of emerging adults, in Hetherington and Stoppard's (2002) qualitative study, adolescent girls revealed that they saw romantic breakups as a leading cause for girls' experience of depression.

At the same time, we know that not everyone who goes through a romantic breakup develops depressive symptoms (Monroe et al., 1999; Tashiro & Fraizer, 2003), or that some breakups do not explain subsequent depressive symptoms (Ha, Dishion, Overbeek, Burk, & Engels, 2014). In fact, some youths experience a sense of personal growth, including feeling stronger, more self-confident and more independent following their romantic breakup (Tashiro & Fraizer, 2003). Langlais and colleagues (2017) also found that divorced emerging adult mothers who subsequently experienced breakups of new romantic relationships showed positive long-

term adjustment and improvement in well-being if remained single. Neither did emerging adults who experienced a dissolution of their long-distance romantic relationship seem to be adversely impacted (as measured by their daily affect) when compared to those youths who maintained their long-distance unions (Waterman et al., 2017). Our current understanding of what aspects of breakup experiences might be linked to depressive symptoms or what factors mediate or moderate that link is still limited (Anderson et al., 2015). Yet, research tells us that knowing why the breakup occurred is important in giving ex-partners a sense of positive post-breakup adjustment. For example, Sorenson et al., (1993) found that giving a full and clear account of what happened and why it happened was crucial in giving their emerging adult and adult participants a sense of control over their recovery from a breakup and ability to move on with their life. Similarly, Hetherington and Stoppard (2002) found that their adolescent participants also identified lack of clarity about what went wrong in relationships and what caused dissolutions as a particularly distressing factor, which impinged on girls' sense of self-worth. This supports the idea that the perceived causes for a romantic dissolution may serve as important mechanisms in determining post-relationship coping and adjustment.

From the needs-based perspective (Connolly & McIsaac, 2009b), dissolutions attributed to developmentally salient unmet needs are expected to have strongest connections with poor adjustment. Bravo, Connolly, and McIsaac (2017) have identified romantic affiliation, intimacy, autonomy, infidelity, and status concerns as breakup reasons that are of utmost importance during casual dating and serious romantic relationship stages of romantic development, stages when romantic relationships progressively increase in importance in youths' lives (B. Brown, 1999; Connolly & McIsaac, 2009a). These are expected to form associations with depressive symptoms as a marker of poor post-breakup adjustment. Consistent with this expectation, S.

Williams et al., (2001) found a link between lack of intimacy, identified as important unmet relational need in youths' romantic relationships, and their cognitive vulnerability to depression. These authors suggested that failure to develop intimacy with romantic partners may lead youths to negative cognitions about the self, and place young people at risk for depression (S. Williams et al., 2001). By extension, breakups due to unmet intimacy needs may be associated with negative cognitions about romantic self or one's romantic future. In turn, since negative cognitions and depression are related (Garber, Weiss, & Shanley, 1993), it may be important to evaluate how negative thinking is related to adolescents' conceptualizations of why breakups occurred. We suggest that negative thinking styles, activated by one's breakup attributions, may mediate a path to depression among youths. In the current study, we explore this link by employing a newly developed quantifiable measure of youths' breakup reasons (Bravo et al., 2017). Taking a multi-dimensional approach to measuring youths' breakup reasons helps us not only demonstrate the multi-faceted and complex nature of dissolution attributions formed in reference to the same relationship, but also elucidate how self-endorsed, qualitatively diverse causes for breakup may differentially impact youths' mental health status.

Cognitive Vulnerability–Transactional Stress Model of Depression

The relationship between negative thinking style and depressive symptoms, outlined above, is captured in the cognitive vulnerability–transactional stress model of depression (Hankin & Abramson, 2001), which provides an additional theoretical framework specific to this study. According to the cognitive vulnerability model of depression (Rubenstein, Freed, Shapero, Fauber, Alloy, 2016) individuals with a tendency towards a negative cognitive style are more likely to make negative inferences about negative/stressful life events, thereby fostering helplessness and depressive symptoms (Abela, Stolorow, Zhang, & McWhinnie, 2012). These

individuals are at risk for developing depressive episodes if, as a result of a negative event in their life, they infer that they are deficient and not worthy, while causes of this event and its future consequences are global and stable (Robinson & Alloy, 2003). Such a negative thinking style creates cognitive vulnerability to and increased risk for developing depression. Indeed, youths who demonstrate this negative cognitive style, and tend to ruminate about the negative inferences of stressful life events, have been found to be more likely to develop and have longer duration and frequency of major depressive episodes (Robinson & Alloy, 2003). Once developed, this vulnerability continues to potentiate risks for developing depression into adulthood, making the need to identify the developmental factors contributing to the formation of this vulnerability ever so salient (Hamilton, Stange, Abramson, & Alloy, 2015).

We know that among adolescents, exposure to a particular class of interpersonal stressors, specifically, conflict with friends or parents, as well as romantic breakup, predicts higher levels of negative cognitive style and depressive symptoms (Hamilton et al., 2015). When it comes to romantic breakups, focusing on negative aspects of one's breakup has been associated with grief (Boals & Klein, 2005), while focus on positive emotions relates to heightened well-being and self-growth (Fredrickson & Joiner, 2002). Similarly, del Palacio-González and colleagues (2016) found that dissolution-specific intrusive thoughts were associated with greater concurrent post-relationship distress. In turn, ability to think positively about negative or stressful life events, and specifically about ones' breakup, have been linked to greater ability to cope with negative emotions and protected against residual increases in post-breakup depressive symptoms (Szwedo et al., 2015). As such, it is likely not sufficient to simply experience breakup to develop depressive symptoms, or, even, to know why the breakup occurred, but rather ongoing (negative) thinking about the reasons for dissolution and their

possible implications is what mediates the path to depressive symptoms. Negative appraisals related to particular reasons for romantic breakup may serve as activating agents evoking dysfunctional assumptions and thinking styles to a degree sufficient to trigger depressive symptoms (Hamilton et al., 2015; Lo, Ho, & Hollon, 2008). Consequently, in this study, we set out to examine the link between retrospective attributions that adolescents and emerging adults make about their breakups and depressive symptoms as it may be mediated by their negative cognitive style.

The Role of Moderators: Gender and Dating Stage

When it comes to the association between youths' romantic experiences and depressive outcomes, the role of different factors moderating this relationship has not been well studied (Anderson et al., 2015). *Gender* of the young people and *the stage of their romantic development* have been found to influence youths' explanations of why their romantic relationships broke up (Bravo et al., 2017), and, by extension, may moderate the link between youths' breakup reasons and depressive symptoms.

Gender. Although both sexes find failed romantic relationships distressing (Moore et al., 2012), girls may experience more depressive symptoms post-breakup, given that they are generally more susceptible to affective distress during adolescence (Natsuaki, Biehl, & Ge, 2009). Indeed, girls after age 13 experience significantly more depressive symptoms than do boys (Ge, Lorenz, Conger, Elder, & Simons, 1994). They are also more likely to report an increase in depressive symptoms co-occurring with the onset of romantic involvement (Joyner & Udry, 2000) and in relation to unfulfilled romantic needs (e.g., relationship problems, lack of romantic partnership, or romantic breakup; Hetherington & Stoppard, 2002). In fact, girls are said to carry specific vulnerability to depression. It stems from their biologically primed, through

the greater release at puberty of the hormone oxytocin, that drives a higher need for interpersonal, emotional interconnectedness, in particular, with one “ideal” partner (Frank & Young, 2000). Consequently, unfulfilled relational needs or loss of relationships are more likely to trigger depressive problems among girls.

Past research also tells us that girls are more likely to make depressogenic attributions compared to boys (Hankin & Abramson, 2002) and they have greater vulnerability to negative cognitive style (Hu, Zhang, & Yang, 2015). We also know that girls tend to have emotionally closer relationships (friendships and romantic relationships) compared to boys, and problems in those relationships are said to relate to greater distress in girls than in boys (La Greca & Harrison, 2005). In fact, exposure to interpersonal stressors that can be attributed, at least in part, to girls’ own actions (e.g., relationship conflicts or romantic breakup) predicts their greater tendency towards rumination and associated depressive symptoms (Hamilton et al., 2015). Taken altogether, it is likely that when it comes to depressive symptomology in relation to breakup reasons, this association will be moderated by gender. However, for those boys who do become depressed, there is a need to gain deeper understanding into the factors that contribute to their vulnerability (Ingram, 2001).

Dating stage. The stage of romantic development also may moderate the way that breakup reasons associate with depressive symptoms following a romantic dissolution. Specifically, the stage theory of romantic development indicates that each stage is associated with experiences and characteristics that are unique and most salient to that period (Connolly & McIsaac, 2011). In this study, the casual dating and serious romantic relationship stages are particularly relevant. Casual dating is known to occur in mixed-gender groups, where companionship and peer-group status are emphasized as important factors related to romantic

experience (Connolly et al., 2000). Serious romantic relationship stage is associated with intimacy, commitment, and stability (Seiffge - Krenke, 2003; Shulman & Scharf, 2000), supposedly mirroring adult intimate bonds. The stage-specific characteristics are likely reflective of both youths' romantic experiences at that stage and their romantic needs. For instance, it is suggested that emerging adults' main developmental task includes finding a long-term, satisfying intimate relationship (Arnett, 2000). In contrast, in adolescence it may be more developmentally appropriate for youths to explore and experiment with intimate relationships, a task that is better met in the context of casual, short-term relationships (Arnett, 2000). It is, therefore, likely that unmet romantic needs or a mismatch between the stage-related experiences and one's needs may contribute to the reasons why romantic relationships dissolve, and, in turn, help explain the link with adverse post-breakup adjustment.

Consistently, one line of research indicates that being involved in more serious romantic activities than what is considered "typical" in early adolescence has been linked to increased externalizing problems, compared to youths with "on-time" romantic development (Connolly et al., 2013). Compain, Goward, and Hayward (2004) report that despite being normative, romantic relationships formed prior to late adolescence are associated with adverse emotional, psychological, and behavioural adjustments. In particular, romantic involvements among early to mid-adolescent girls have been linked to poor psychological adjustment, self-esteem, and body-image issues. Early sexual involvements have also been linked to poor psychosocial functioning (Welsh, Grello, & Harper, 2003). These findings suggest that more advanced romantic activities may exceed adolescents' capacity for such relational load as well as present a poor match to their actual romantic needs. In turn, involvement in committed romantic relationships among emerging adults has been linked to more positive outcomes (e.g., less depressive symptoms for

women and less problematic alcohol use across gender) when compared to being single (Whitton, Weitbrecht, Kuryluk, & Bruner, 2013). Past research shows that progression toward greater commitment in emerging adults' romantic relationships is associated with improved subjective well-being (Kamp Dush & Amato, 2005). Hence, relationship stage or status has unique significant implications for individuals' well-being and socioemotional functioning, and it may also play significant a role in moderating the association between youths' depressive symptoms and reasons for their romantic breakup.

Objectives of the Current Study

In the current study, we set out to examine how certain processes associated with romantic breakups, specifically youths meaning making about the reasons for romantic dissolutions, may help explain the development of depressive symptoms among adolescents and emerging adults at different dating stages. There were three goals in the current study. First, we examined the link between youths' retrospective attributions regarding their most recent romantic breakup and their current symptoms of depression. Second, we tested if the association outlined above may be mediated by youths' tendency toward negative cognitive thinking style. We expected, based on past research (e.g., Davilla, 2008; Monroe et al., 1999), that breakup reasons, particularly those reflecting lack of affiliation and intimacy (see Bravo et al., 2017; Connolly & McIsaac, 2009), will show significant associations with depressive symptoms. Third, we examined whether the association between breakup reasons and current depressive symptomology is moderated by youths' gender and stage of romantic development. We expected that for girls, breakups due to intimacy and affiliation reasons will have a stronger link to depressive symptoms than for boys. We also expected that "casual dating" status will moderate a stronger link between affiliation and status reasons for breakup and depressive symptoms,

while “serious romantic relationship” status will moderate a stronger path between intimacy breakup reason and depressive symptoms.

Method

Participants

A sample of 796 youth, who were part of a larger study and reported on their most recent romantic breakup, was used in this study. Mean age in this sample was 17.76 ($SD = 1.62$). Breakups that occurred within the three months prior to this study were reported by slightly over 30% of youth. Breakups that occurred between four months to a year prior to this study were reported by 37.3%, and 32.4% experienced a breakup more than a year prior to the study. The sample was 60% female and 95% heterosexual. We had an ethnically diverse sample of youth, represented by 57.8% of Caucasians, 12.5% of Asian Canadians, 6.7% of each South Asian Canadians and African/Caribbean Canadians, and 2.4% of Latin American Canadians. “Other” or “mixed” ethnic group categories captured 13.9% of our sample (see Table A4 for description of demographic characteristics).

Procedure

Participants for this study were recruited from the local schools and at one of the Universities located in the large Canadian metropolitan. Consequently, we obtained approval for this project from the school board ethics review committee and Ethics Review Board of a large Canadian University. Participants were explained that through our research we wanted to understand youths’ dating experiences, so as to better inform educational programming about healthy romantic relationships. Participants who were below consenting age were provided with information letters and parental consent forms, asking those to be returned with or without parental signature. Consent was presented in an “opt-in” format, and consequently, youths who

required parental approval to participate could “opt-in” to do so only with the consent of their parents (Appendix C). Signed parental forms were provided by about 30% of youths, resulting in a sample of 674 individuals, whereas 85% of those of consenting age agreed to participate in our study. In studies where parental consent is sought, reported here participation rate is not uncommon (Collogan & Fleischman, 2005). Eighty-two percent of that sample reported having had a breakup, and almost 95% of that sample met the “dating stage” selection criteria for the current study, ultimately comprising the final sample used here for data analysis. Questionnaire package was completed during the class time in youths’ respective institutions. Participation in our study was voluntary and unlinked to course credit, which was emphasized in every setting, giving the students opportunity to withdraw from the study at any time. We offered small incentives (e.g., pizza and gift certificate raffle) to all the study participants. As the data collection part of the project was concluded, our research team offered students information on healthy dating in a form of a workshop conducted during their class-time later in the school year.

Measures

Youth Attributions of Romantic Dissolutions (YARD). Five categories of breakup reasons, namely, affiliation (e.g., “you were bored with the relationship”), intimacy (e.g., “you did not trust your boy/girlfriend”), infidelity (e.g., “you “made out” with someone else”), autonomy (e.g., “you wanted more time for yourself”), and status (e.g., “you felt that dating your boy/girlfriend was making you less popular”) represented in 21 items comprise the YARD scale (Appendix D). In it, youths are asked to think about their most recent romantic relationship and rate each breakup reason on a scale from 1 (not at all contributed to my breakup) to 4 (very much contributed to my breakup). In the current project, a binary data set was created to account for the lack of variability in youths’ original responses, where “1” represented “a little bit”, “quite a

lot”, or “very much” options, and “0” represented “not at all”. Internal consistency for this sample was acceptable, ranging between $\alpha = .84$ and $.62$ for the five subscales.

The Reynolds Adolescent Depression Scale (RADS; Reynolds, 1987). This measure assesses depressive symptoms in non-clinical populations. Reliability and validity of this measure is “good” (Reynolds & Mazza, 1998). We used a modified 22 item version of the scale (see Appendix F) including only those items that have been shown to discriminate well between the different levels of depressive symptoms (McIsaac, 2010). Youths in this study rated their affective state on a 4-point Likert scale. A composite mean score was calculated (Reynolds, 1987). Internal reliability for this sample was $\alpha = .93$.

The Adolescent Cognitive Style Questionnaire (ACSQ; Hankin & Abramson, 2002). ACSQ assesses cognitive vulnerability to depression among adolescents. The measure is comprised of six interpersonal and six achievement hypothetical scenarios that need to be evaluated by youth. In the current study, three hypothetical negative events in the domain of romantic situations were presented to the participants. Youths were asked to respond to five questions in regard to each hypothetical scenario, making inferences regarding the stability, globality, consequences, implications of self-worth, and internality attributions perceived in relation to presented situation (see Appendix G). Each question was rated on a 1 to 7 scale, with higher scores indicating a more negative cognitive style. A composite negative cognitive style was calculated by summing the dimensions of stability, globality, consequences, self, and internality. Internal reliability for this sample was $\alpha = .87$.

Dating Questionnaire (DQ; Connolly, Craig, Pepler, & Goldberg, 2004). Dating experiences of our participants were assessed with the DQ (see Appendix D). Youths were presented with examples of dating activities which they rated as either true or not true of them

over the past year (e.g., “I dated more than one person casually”). Two mutually exclusive dating stages were created in line with the procedure used in Connolly, Craig, Goldberg, and Pepler (2004). The category of *casual dating* stage represented youths who were dating casually, dating more than one person, or dating one partner only. A *serious romantic relationships* stage captured youths in serious relationships, planning engagement, cohabitation, or marriage, or already married or cohabiting youths.

Results

Analytical Approach

Path analysis allows for a parsimonious way to simultaneously account for multiple variables through a regression-based analysis. As such, in order to understand how breakup reasons, predict negative cognitive style specific to romantic situations and how the activated vulnerability mediates the path to depressive symptoms, a hypothesized path model was tested using structural equation modeling. We also explored the effect of interactions (moderation) between gender and breakup reasons and dating stage and breakup reasons on depressive symptoms. Given the exploratory nature of this analysis, we started by evaluating the mediating effects of the negative cognitive style.

Mediation was tested by linking the five categories of breakup reasons (affiliation, intimacy, autonomy, infidelity, and status) to negative cognitive style, and linking negative cognitive style to concurrent depressive symptoms. Breakup reasons were modeled as correlated with one another. Exploratory regression analysis indicated the presence of an interaction between gender and intimacy, as well as an interaction between dating stage and intimacy. As a result, these served as significant predictors of depressive symptoms and were included in the final model.

Descriptive Statistics and Correlations

We found that the casual dating group included 41.6% of the sample and the serious romantic relationships group included 58.4%. Youths in this sample reported an average level of depression of 1.76 ($SD = .53$), indicative of low levels of depressive symptoms in this sample. Participants in this sample also tended to report low levels of negative cognitive style, with a mean score of their overall attribution style being 2.37 ($SD = .96$). Frequency with which youths in our sample endorsed each of the five breakup reasons ranged between $M = .59$ and $M = .11$ (see means and standard deviations for each of the five subscales presented in Table A5).

A correlation matrix (see Table A6) was calculated to examine the associations between the study variables, with a primary focus on the relationship between youths' breakup reasons and self-reported symptoms of depression (test of hypothesis 1). We found that all the breakup reasons correlated with each other for both males and females, but neither of these variables correlated above .50, indicating the absence of multicollinearity. We also found that for both males and females, intimacy breakup reasons were significantly associated with depressive symptoms; autonomy and status were associated with depressive symptoms only for males, while for females this association was evident for infidelity breakup reason. For both genders, negative cognitive style was significantly associated with depressive symptoms. For males, negative cognitive style was also significantly associated with intimacy, autonomy, and status-related concerns as breakup reasons, while no significant associations were observed between negative cognitive style and breakup reasons among females. Finally, dating stage had a significant negative association with romantic affiliation for males only, while for females dating stage did not show significant associations with any of the other study variables.

Path Analysis

We initially tested the mediating effect of the negative cognitive style on the relationship between each of the breakup reasons and depression. Negative cognitive style was a statistically significant mediator of the relationship between status and depression only. Therefore, the remaining mediation pathways were removed from the final model (see Figure B3). To examine model fit we consulted the following indices: Root Mean Square Error of Approximation (RMSEA; values below .06), Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) (values approaching .95), and Standardized Root Mean Square Residual (SRMR) values of < .08 (Hu & Bentler, 1999). To examine the significance of indirect (mediated) effects, we followed the bootstrapping procedure outlined by Shrout and Bolger (2002). Structural Equation Modeling (SEM) was conducted using Maximum Likelihood (ML) estimation method. Our hypothesized model showed a good fit to the data, $\chi^2(28) = 101.99$, $p < .001^1$; RMSEA = .06, 90% CI for RMSEA [0.05, 0.08]; CFI = .98; TLI = .96; RMSEA = .05; SRMR = .07. Examination of parameter estimates revealed that among the five categories of breakup reasons none had a direct effect on depressive symptoms. However, negative cognitive style significantly mediated the relationship between *status* breakup reason and depressive symptoms, $b = .07$, $p = .009$), with greater status-related causes for romantic dissolution predicting more negative cognitive attributions. In turn, having a more negative cognitive style regarding romantic relationships predicted an increase in depressive symptoms. Status breakup reason self-reported by youths explained 1.1 % of the variance in their negative cognitive style. In turn, 17.1 % of variability in youths' depressive symptoms were accounted for by the predictors in the model.

¹ While we report the χ^2 fit statistic, it is important to note that with large sample sizes greater attention should be given to approximate fit indices (Garrido, Abad, & Ponsoda, 2016)

Results of the moderation analysis revealed that while the outcome of *intimacy* breakup reasons on its own was not significantly associated with depressive symptoms, the path between *intimacy-based* breakup reasons and depression was moderated by dating stage of youth, $b = .21$, $p = .04$. Specifically, for those at a serious romantic relationship stage, the association of intimacy breakup reasons with depression was stronger than for those at the casual dating stage. Finally, being female predicted greater depression scores in our study, $b = -.31$, $p < .001$, however, no moderation effects were observed.

Discussion

Building on past research, which indicates that experience of romantic dissolution is associated with an increase in depressive symptoms (Monroe et al., 2000), we examined whether specific elements of such breakup experiences might help explain this link. In this study, we examined the association between romantic breakup reasons held by adolescents and emerging adults and their concurrently reported depressive symptoms. The role of negative cognitive style as a possible mediator of this association, as well as gender and stage of romantic development as possible moderators were also explored.

First, we found that reasons for breakups did not form direct links with depressive symptoms. There could be various explanations for such a finding. First, youths in this study reported on their *current* depressive symptoms but the breakups, for which they reported reasons, could have occurred more than one year ago from the time of the study. Such a temporal disconnect might have attenuated the possible association that youths' breakup reasons may form with depressive symptoms. Indeed, we know from research on adult intimate relationships that passage of time "heals all wounds", and ex-partners of romantic relationships tend to report fewer adverse outcomes and better coping with more time since breakup (e.g., Soons, Liefbroer,

& Kalmijn, 2009). Given this consideration, a post-hoc analysis was conducted, where the final model was evaluated while controlling for the time since breakup. Result revealed no change in the model fit or significant associations that were reported above. Nevertheless, in the future research it would be helpful to examine the link to depressive symptoms immediately after the breakup, when emotions associated with the reasons that contributed to the dissolution are still strong. It is also possible that not having one's needs met in the context of a romantic relationship simply does not automatically trigger depressive symptoms. This finding is consistent with the report by Ha et al., (2014), indicating that having the experience of a breakup does not automatically explain development of depressive symptoms. Rather perceived implications or meaning of the different reasons may enable the path. As such, this result supports the idea that processes beyond this direct path need to be examined.

Indeed, negative cognitive style specific to romantic situations emerged as a mediator in the association between breakup reasons and depressive symptoms, potentiating a significant link between the two latter variables. Specifically, results of our mediation analysis showed that *status-related breakup reason* was significantly related to depressive symptoms through a mediating role of negative cognitive style. It is of interest that only the breakup reason, which implies the presence of peer scrutiny over one's romantic relationship and romantic partner showed indirect association with depressive symptoms. Existence of such a link makes sense once we consider the fact that youths' romantic relationships are a notoriously social phenomenon (Howard et al., 2015). These relationships are being monitored and evaluated on an ongoing basis by one's peer group, and one's sense of self is being defined publicly in relation to their relationship status and partner (Howard et al., 2015). It is not surprising then, that the perception of being judged by one's peer group for losing in status due to an affiliation with a

given romantic partner may not only give youths the grounds for breaking-off that romantic relationship (Bravo et al., 2017), but also activate negative ways of thinking about oneself and one's future, thereby potentiating a link with depressive symptoms. In line with this reasoning, existing research indicates that loss of popularity within one's peer group may be associated with the development of poor self-regard among adolescents, and may place these youths at risk for depression (Teunissen et al., 2011). In addition, tendency towards negative cognitions about self, as well as global negative thinking about life and one's future, are among the strongest predictors of adjustment after the breakup (Boelen & Reijntjes, 2009). Taken together, the loss of a romantic partner as well as of one's standing in the peer-group may imply for adolescents and emerging adults a more global and pervasive loss, especially among those who tend to display a negative cognitive style, thereby exacerbating vulnerability to depression. This view of status-related breakup reasons may help explain how the link to cognitive attributional style characterized by internal, global, and stable negative thinking may be activated, and association with depressive symptoms is formed.

The finding that remaining breakup reasons did not form an association with depressive symptoms neither directly nor through mediation of negative cognitive style, is surprising upon initial consideration, especially when such a link is evident for status-related breakup reasons. However, based on del Palacio-González and colleagues' (2016) findings, we see that negative thinking style (e.g., brooding) does not automatically presuppose distress and poor post-relationship adjustment. In fact, in their study, brooding was associated with long-term post-relationship growth, even when initially participants' post-breakup thinking was intrusive and distressing in nature. These authors concluded that initiating cognitive processing of one's breakup is ultimately associated with positive outcomes. Adopting such a viewpoint on breakup

reasons may help explain the lack of association seen in our study between these reasons (arguably involving cognitive processing) and depressive symptoms.

We also found that stage of romantic development moderates the link that *intimacy-related break-up reasons* form with depressive symptoms. As hypothesized, those youths who were at a “serious romantic relationship” dating stage, showed a stronger link with depressive symptoms compared to those at the “casual dating” stage. This finding is consistent with the notion that the need for intimacy is particularly salient when young people enter a phase of romantic development where committed relationships are expected (Connolly & Goldberg, 1999). Adolescent girls, for example, report that serious relationships, characterized by trust, honesty, and communication, are a particularly desired form of romantic experience (Howard et al., 2015). Having intimacy in romantic relationships has been linked to increased relationship satisfaction (Patrick, 2003) and quality (Birnie, 2010), life happiness (Russell & Wells, 1994), and personal well-being (e.g., Johnson, Kent, & Yale, 2012). Consequently, it makes good sense that loss of a serious romantic relationship, where intimacy, as its key component, was not fulfilled, would be particularly disheartening for youths at a corresponding stage of romantic development.

It is noteworthy, that contrary to our expectation, breakup reasons of affiliation and status, when endorsed by casually dating youth, did not form significant associations with depressive symptoms. Perhaps, seen as exploratory and transient by the causally dating youth, ability of these relationships to meet youths’ relational needs is also perceived as limited. Therefore, breakups due to unmet romantic needs at the casual dating stage do not hold long-lasting implications for youths’ emotional and psychological well-being. Consistently, Zimmer-Gembeck et al. (2001) reported that quality of mid- adolescents’ romantic relationships (typically

known as casual in nature) were associated with social acceptance and competence, rather than emotional well-being. In the same vein, dissolutions of such casual romantic liaisons, no matter the reasons, will not have significant connections with psychological adjustment as demonstrated by our findings.

Finally, our finding that females were more likely to report depressive symptoms than males is consistent with past research showing that females, especially during their adolescent years and particularly in recent years, are more vulnerable to depression (Bor, Dean, Najman, & Hayatbakhsh, 2014; Ge et al., 1994). At the same time, contrary to our hypothesis, gender did not moderate the association between breakup reasons and depressive symptoms. This finding is surprising given that some past research shows that recent romantic breakups are associated with significantly more depression among females than males (see Hunt & Chung, 2012; Simon & Barrett, 2010). However, other researchers do not find gender differences in post-breakup adjustment (see Hunt & Chung, 2012; Tashiro & Frazier, 2003), which stands in support of our non-significant findings. It may also be that when youths' reasons for their romantic breakups are taken into account, the gendered associations of breakups with post-relationship adjustment disappear. Indeed, we know that having clarity about what caused one's relationship dissolution promotes better post-breakup adjustment (Hetherington and Stoppard, 2002), and reflecting on the reasons why their relationships ended, may serve a comparable function for adolescents and emerging adults, particularly females. Future studies may want to explore this association between breakup reasons and positive post-breakup outcomes. It will also be of importance to broaden our understanding about developmental implications of breakup reasons. Specifically, by connecting them to relationship goals for and/or quality and characteristics of youths' subsequent romantic engagements, and young people's satisfaction with the unions, we can

examine the extent to which understanding of what did not work in their past relationships informs their subsequent romantic participation and own romantic development.

A few of the study's limitations also need to be acknowledged here, as they might have contributed to the current pattern of results. Namely, many of the YARD items asked youths in this study to reflect on the self-attributed reasons for breakups (e.g., "you did not trust your boyfriend/girlfriend"), which, much like seeing oneself as an initiator of the breakup, may have a protective function (see Hunt & Chung, 2012 for discussion) and dampen the possible association with post-breakup depressive symptoms. Therefore, in the future, it will be useful to examine the association between depressive symptoms and breakup reasons, but this time asking youths to think about partner-attributed breakup reasons. It also worth noting that adolescents and emerging adults in our sample tended to report low levels of depressive symptoms. It is possible that this particular sample did not manifest marked distress, or that the measure we used to assess depressive symptoms failed to draw out adequate reporting in this sample. It would be useful, in the future, to test associations examined in this study using a different instrument designed to assess depressive symptoms among adolescents and emerging adults. Finally, since youths' romantic relationships are more transient in nature than adult ones, the typical "healing" process following the breakup may also occur at a higher rate. From this standpoint, it may be important to capture both youths' conceptualizations about and interconnections between their breakup reasons and markers of adjustment and well-being immediately following a breakup.

Despite these limitations, our study provides the first insight into the role of developmentally-framed breakup reasons in poor adjustment following a romantic dissolution in adolescence and emerging adulthood. Overall, our study confirms that regardless of the cause of the breakup, youths are not bound to develop depressive symptoms in the aftermath of

relationship dissolution. Instead, what potentiates such a link is the negative evaluation that youths give to that breakup reason and its implication. Notably, as a result of this study, we find that those breakup reasons which are rooted in the public domain (e.g., disapproval by friends or loss in own peer status) are particularly distressing to adolescents and emerging adults. Finally, the stage of romantic development (serious versus casual) has significant implications for how well young people will adjust following the dissolution when the causes of the breakup are attributed to the inadequately met intimacy needs. Consequently, when working with young people in clinical or educational settings, professionals need to be cognizant of how youths interpret their breakup reasons and what stage of romantic development they are at, since these are among the factors that potentiate poor post-breakup adjustment in adolescence and emerging adulthood.

Chapter Four: General Discussion

The current project offered a first systematic investigations of breakup reasons among adolescents and emerging adults. We examined their interaction with youths' gender, life stage, adolescents' or emerging adulthood, and stage of romantic development, casual or serious dating, as well as post-breakup outcomes. Thereby, the current investigation filled a remaining gap in the literature that focuses on developmentally informed understanding of romantic participation during these life stages. We found that five categories of breakup reasons, namely romantic affiliation, intimacy, autonomy, infidelity, and status, capture youths' understanding of "why" their romantic relationships came to an end. Among our key findings is that a single, multi-faceted instrument, developed in this project, is able to capture in a developmentally sensitive manner breakup reasons of both adolescents and emerging adults. In this format, future

research can continue building understanding of youths' conceptualizations of the reasons for romantic dissolutions and examining developmental shifts in these conceptualizations.

Current findings pertaining to breakup reasons and associated developmental shifts are excellent reflections of the stage theory of adolescent romantic development (B. Brown, 1999; Connolly & McIsaac, 2011) and the romantic needs perspective (Connolly & McIsaac, 2009b). The two theories inform us about the shifts in what youths emphasize in their romantic experiences or needs as they progress through different romantic stages (Meier & Allen, 2009). Consistently, in the current project, we find that the emphasis in youths' conceptualizations as to "why" their romantic relationships came to an end shifts based on the stage of their romantic development. Specifically, we found that for youths at the "casual dating" stage, regardless of their age, lack of romantic affiliation was the most important breakup reason, whereas for those at the "serious romantic relationships" stage, lack of intimacy was more important as a reason for breakup. These findings are consistent with what we know from past research about characteristics and experiences associated with romantic relationships at each of these dating stages (e.g., Furman & Shaffer, 2003; Meier & Allen, 2009). At the same time, it is noteworthy that the categories of breakup reasons did not change across adolescence and emerging adulthood, attesting to important developmental continuities between the two life stages. Overall, by virtue of this study, we have taken the first step in the systematic investigation of breakup reasons in adolescence and emerging adulthood, and advanced our understanding of these experiences and of the factors, such as stage of romantic development, that significantly modulate relative importance of breakup reasons across these two life stages. In the future, the existence of our measure will allow the researchers to make further direct comparisons between

the two life stages, and continue to gain a better understanding into the nature and function of romantic breakup reasons.

In our second study, we examined the possible function of breakup reasons as a mechanism in the development of depressive symptoms following a romantic dissolution. Consistent with the studies that do not show an association between romantic breakups and depression as a post-dissolution outcome (e.g., Ha et al., 2014), we did not find a direct link between youths' self-endorsed reasons for breakup and their concurrent depressive symptoms. Results of our mediation analysis confirmed our proposition that the way youths interpret their breakup reasons is a significant factor in helping explain the development of depressive symptoms following a romantic dissolution. Specifically, consistent with our hypothesis, based on the cognitive vulnerability–transactional stress model of depression (Hankin & Abramson, 2001), we found that those with the tendency toward negative cognitive style were more likely to report stronger depressive symptoms in relation to the status-based breakup reasons. In line with this cognitive vulnerability theory, these youths seemed to be more likely to ruminate about the negative implications or meanings of this stressful life event (Robinson & Alloy, 2003), and interpreted the breakup that occurred due to negative peer judgement and non-acceptance of their romantic partner as particularly profound and detrimental to themselves and their romantic future. Such tendency toward negative interpretation, as expected, mediated the link with depressive symptoms. In addition, although romantic stage theories have always purported the significant role of peers in shaping of adolescents' romantic participation (Brown. B, 1999; Connolly & Goldberg, 1999), current studies demonstrate that in romantic domain, the influence of peers extends beyond the earlier dating stages and into emerging adulthood, by both shaping one of the reasons why romantic dissolutions take place (the “status” breakup reason; Bravo et

al., 2017), and by potentiating the link with adverse post-dissolution adjustment. Knowing this, it seems important for researchers and clinicians not to underestimate how complex interplay between multiple systems, including youths' conceptualizations about the reasons for their romantic breakups, influence of peer groups, and intraindividual cognitive vulnerabilities, impacts youths' adjustment during their romantic development.

Furthermore, the stage of romantic development emerged as an important factor moderating the interplay between breakup reasons and post-dissolution adjustment. We learned in the current project, that being at a serious romantic relationship stage is associated with greater level of distress when youths' relationship dissolved due to perceived lack of intimacy. These findings are consistent with the idea that processes and factors beyond just having undergone a romantic breakup are responsible for forging the link with depressive symptoms during adolescence and emerging adulthood (Anderson et al., 2015). Current research project demonstrates that adverse post-breakup outcomes may be reflections of a complex interplay of multiple factors, including ones' reasons for a romantic breakup, the stage of romantic development, salient romantic needs, and tendencies in cognitive information processing. Each one on its own might not foster the development of poor post-breakup adjustment, but together, as a system, they weave a web of possible adversities for young romantic partners. Having this insight suggests the need for further investigation of how romantic experiences, specifically breakup reasons, may be associated with adverse as well as positive outcomes. It also warrants the need to consider how this knowledge may be best integrated into programming around healthy romantic relationships in adolescence and emerging adulthood to help better prepare youths for negotiating their adjustment following an almost inevitable experience of romantic dissolution. Clinicians may also benefit from integrating the knowledge about breakup reasons

and their function into treatments of youths struggling with depression and relationship difficulties.

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Appendix A

Table A1

Promax rotated Loadings from Exploratory Factor Analysis of Youths' Attributions of Romantic Dissolutions (YARD) Scale: The Five-Factor Model

Subscales/Subscale Items ^a	Factor Loadings	<i>h</i> ²
Romantic Affiliation		
You were losing interest in your boy/girlfriend	.90	.90
You were no longer having fun in the relationship	.87	.75
You were bored with the relationship	.86	.79
You didn't like your boy/girlfriend anymore	.85	.78
You no longer felt in love with your boy/girlfriend	.81	.68
Your felt you had nothing in common	.76	.65
Intimacy		
You felt that boy/girlfriend was not honest with you	.89	.76
You felt that boy/girlfriend was not putting enough effort	.79	.65
You felt that boy/girlfriend was not treating you well	.78	.73
You did not trust your boy/girlfriend	.75	.55
Your boy/girlfriend did not communicate about feelings well	.67	.60
Autonomy		
You wanted more time for other parts of your life (e.g., school, work)	.92	.80
You wanted more time for yourself	.92	.83
You wanted to spend more time with your friends	.90	.85
You felt your boy/girlfriend wanted too much commitment	.62	.63
Infidelity		
You "made out" with someone else	.91	.88
You had sex with another person	.89	.78
You were flirting with someone else	.83	.75
Status		
You felt that your boy/girlfriend was not popular enough	.91	.86
You felt that your boy/girlfriend was not part of the right crowd	.80	.79
You felt that dating your boy/girlfriend was making you less popular	.75	.90

^a The following items were eliminated from the final model following the established criteria: You were not physically attracted to your boy/girlfriend, You felt your boy/girlfriend was too different in age or maturity, The opinion of your parents (e.g., they did not approve of your choice, or didn't want you to date at all), You were interested in someone else, You were not physically attracted to your boy/girlfriend, You thought your boy/girlfriend smoked, drank, or partied too much, You felt there were too many religious or cultural differences, You wanted to just be friends, You wanted to "go all the way" (i.e., have sex) and your boy/girlfriend didn't want to, You didn't think that your boy/girlfriend was "hot" anymore, You felt your boy/girlfriend had no future goals, The opinion of your friends (e.g., they did not like your boy/girlfriend, or think that he/she was right for you), You wanted to "make out" but your boy/girlfriend didn't.

Table A2

Means and Standard Deviations for the five YARD subscales

Breakup Reasons	<i>N</i>	Mean	<i>SD</i>
Romantic Affiliation	768	.59 ^a	.36
Intimacy	790	.50 ^b	.35
Autonomy	790	.49 ^b	.38
Infidelity	786	.23 ^c	.30
Status	784	.11 ^d	.24

^{a,b,c,d} Denote significant contrasts ($ps < .001$).

Table A3

Mean Ratings Reflecting a Three-Way Interaction of Romantic Breakup Reasons by Dating Stage and Age

Breakup Reasons	<u>Casual Dating</u>		<u>Serious Relationship</u>	
	Adolescence <i>M (SD)</i>	Emerging Adulthood <i>M (SD)</i>	Adolescence <i>M (SD)</i>	Emerging Adulthood <i>M (SD)</i>
Romantic Affiliation	.68 (.31) ^a	.59 (.36) ^b	.57 (.38)	.56 (.36)
Intimacy	.46 (.34)	.49 (.35)	.57 (.34) ^a	.49 (.35) ^b
Autonomy	.60 (.35) ^a	.45 (.38) ^b	.50 (.39)	.47 (.39)
Infidelity	.27 (.29) ^a	.17 (.28) ^b	.29 (.34) ^a	.21 (.29) ^b
Status	.13 (.26) ^a	.07 (.19) ^b	.14 (.27)	.11 (.24)

^{a,b} Denote significant contrasts ($ps < .000$)

Table A4
Demographic Characteristics on the Total Sample (N = 796)

Variables	<i>M (SD)</i>	Percent (%)	n
Adolescents			
ages 15 to 17	15.99 (.77)	35.9 %	286
Emerging adults			
ages 18 to 25	18.75 (1.00)	64.1%	510
Stage of romantic development			
casual dating		41.6%	331
serious relationship		58.4 %	465
Gender			
female		60.2%	479
male		39.8%	317
Breakups occurrence:			
within 3 months		30.3%	239
4 months to 1 year		37.3%	295
> 1 year		32.4%	256
Current romantic partner			
yes		43.7%	346
no		56.3%	446

Table A5

Descriptive Statistics for Breakup Reasons, Depressive Symptoms, and Negative Cognitive Style

Variables	<i>N</i>	<i>M</i>	<i>SD</i>
Breakup Reasons			
Romantic Affiliation	768	.59 ^a	.36
Intimacy	790	.50 ^b	.35
Autonomy	790	.49 ^b	.38
Infidelity	786	.23 ^c	.30
Status	784	.11 ^d	.24
Depressive Symptoms	764	1.76	.53
Negative Cognitive Style	760	2.37	.96

^{a,b,c,d} Denote significant contrasts ($ps < .001$).

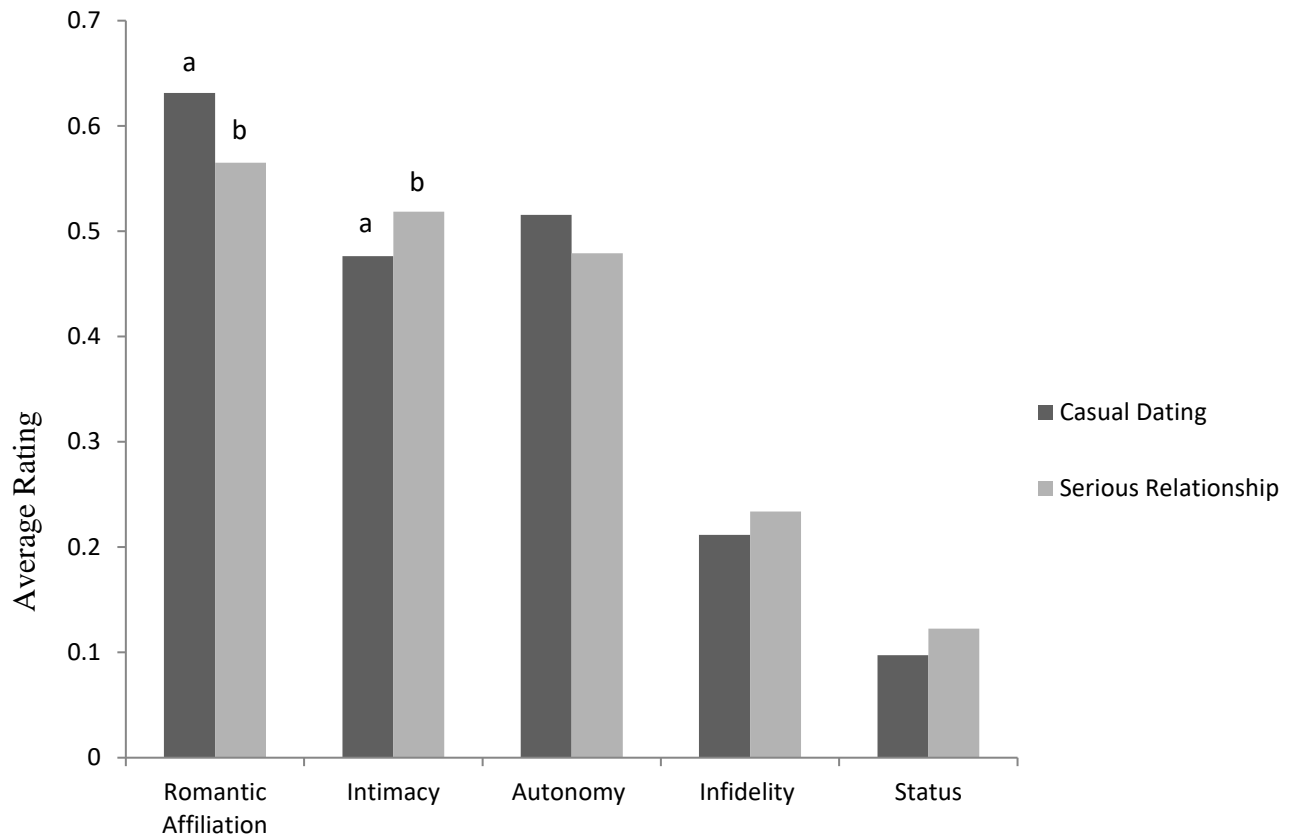
Table A6
Correlation Matrix of Breakup Reasons, Moderating, and Mediating Variables

Variables	<u>Male (N = 317) ^a</u>					<u>Female (N = 479) ^a</u>		
	1	2	3	4	5	6	7	8
Breakup Reasons								
1.Romantic Affiliation	1	.23**	.48**	.22**	.31**	.004	-.03	-.06
2.Intimacy	.40**	1	.13**	.11**	.16**	.10*	.03	.09
3.Autonomy	.51**	.29**	1	.20**	.27**	.05	-.01	-.04
4.Infidelity	.26**	.20**	.21**	1	.16**	.12*	-.004	.08
5.Status	.34**	.35**	.26**	.23**	1	.03	.06	.07
6.Depressive Symptoms	.03	.21**	.05	.04	.15**	1	.37**	.02
7.Negative Cognitive Style	.05	.14*	.12*	.07	.16**	.33**	1	.06
8.Dating Stage	-.15*	.02	-.05	.02	.04	.07	-.05	1

Note. ^aCorrelations for males are shown in the bottom half of the table below numbers 1; correlations for females are shown in the top part of the table.

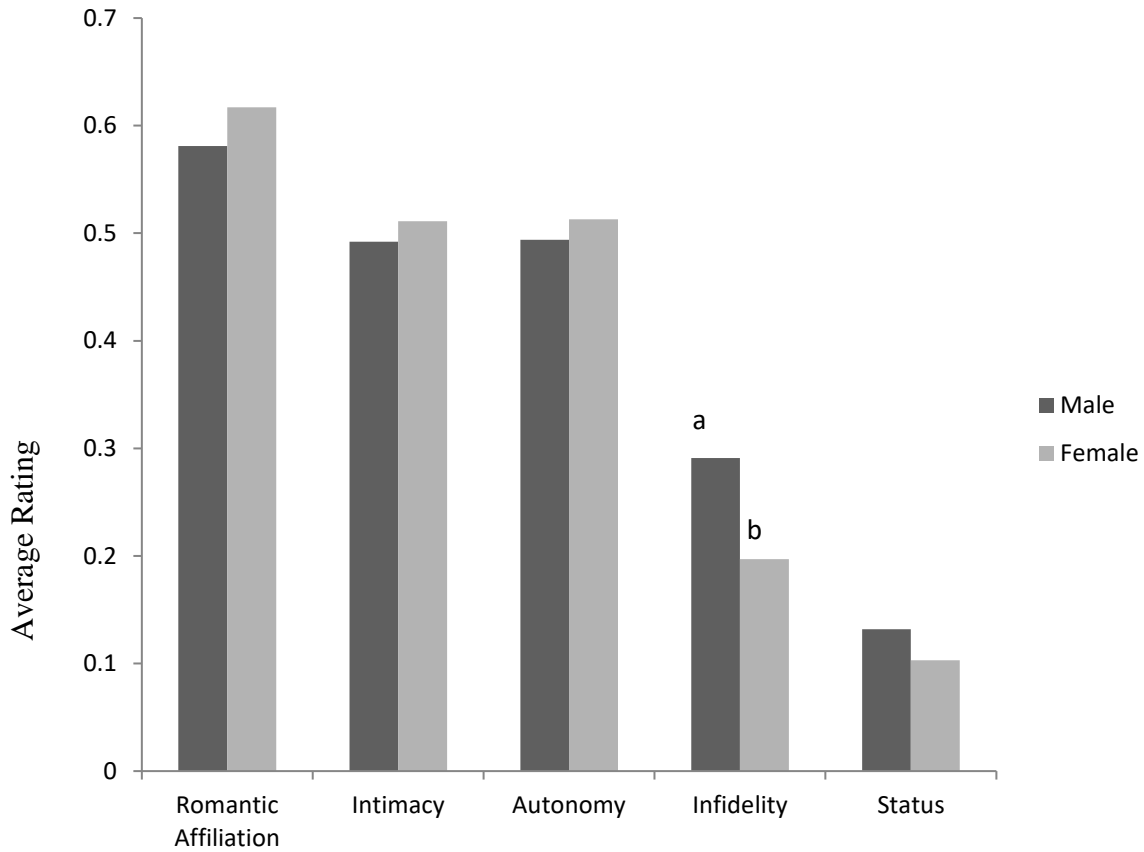
** p < 0.01, two-tailed, *p < 0.05, two-tailed

Appendix B



^{a,b} Denote significant contrasts ($ps < .001$).

Figure B1. Average Ratings Reflecting Relative Importance of Endorsed Breakup Reasons by Dating Stage.



^{a,b} Denote significant contrasts ($ps < .001$).

Figure B2. The Average Ratings Reflecting Relative Importance of Endorsed Breakup Reasons by Gender.

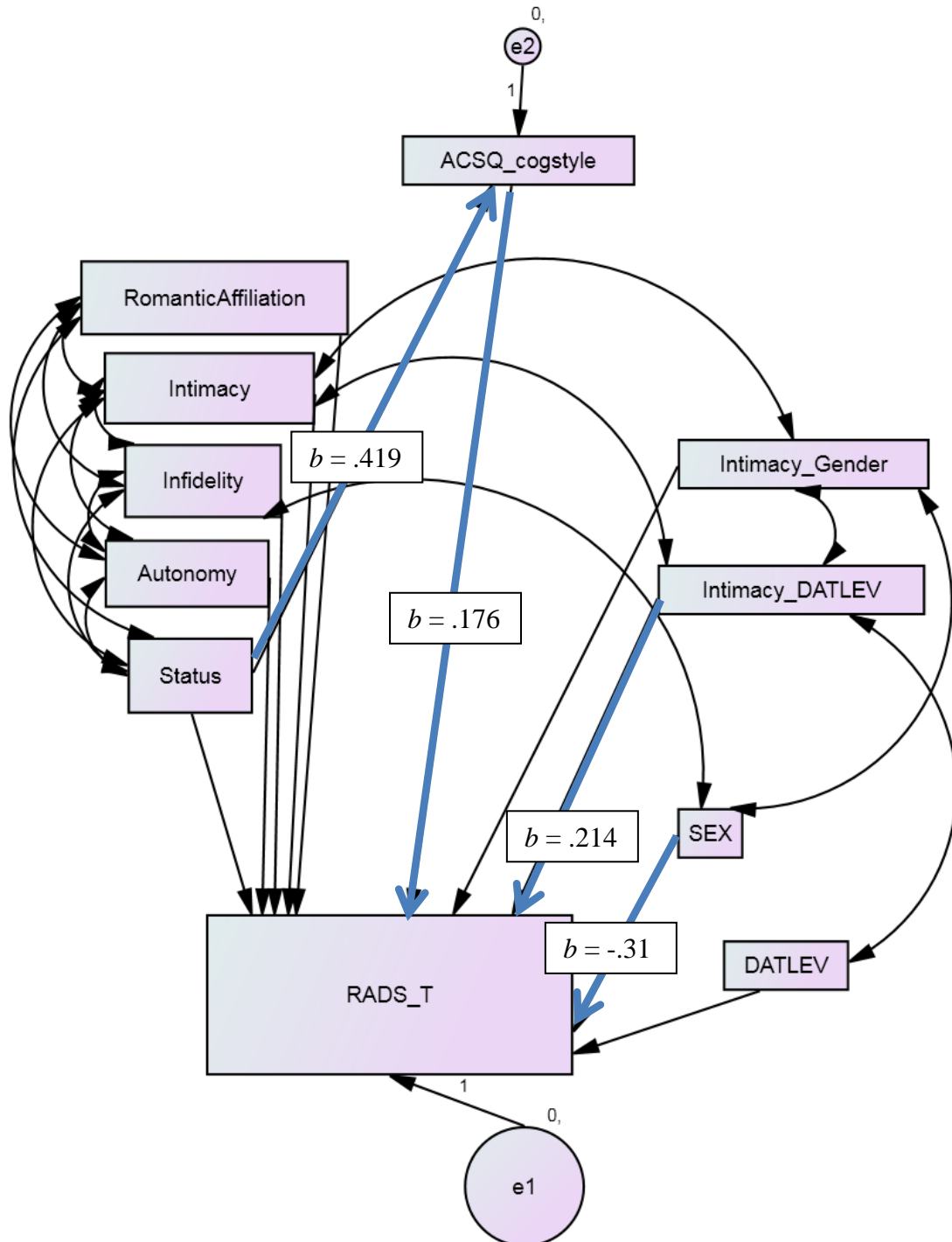


Figure B3. Path Analysis between Breakup Reasons and Depressive Symptoms accounting for Mediation by Negative Cognitive Style and Moderation by Gender and Dating Stage.

Appendix C

Consent

DATING AND BREAKING-UP SURVEY FOR TEENS

Dear Parent(s) and Student:

We are a team of psychology researchers from York University who study psychological contributors to positive youths development. Right now we are studying the dating experiences of young people. We believe that this is an important area of study because dating activities can impact teens² mood, self-esteem, and overall well-being in both positive and negative ways. We are especially interested in the experience of a romantic break-up. We plan to study how break-ups may be experienced differently by different teens and how teens are able to cope with these break-ups when they occur.

We recognize and appreciate that there is a wide variety of dating experiences among the multi-cultural young people of Toronto. Teens' dating experiences can include going to the movies or a party with a group of boys and girls, or spending time with a special person one-on-one. It can also include the choice to not participate in dating activities at all. We strongly value diversity in teens' dating attitudes and activities and believe that our research is most helpful if it includes teens from all levels of experience.

At this time, we are inviting all students in your teen's class to participate in our study. Participation would involve completing a questionnaire two times during the 2004-2005 school year: once in the fall and again in the spring. The questionnaire would ask about a) dating and break-up experiences, b) positive and negative qualities of dating relationships, c) mood and self-esteem, and d) demographic information like age, gender, ethnicity, and parent's educational background. Your teen would complete the survey during class time, along with other students from his or her grade level, in the library or auditorium. It will take students about 45 minutes to complete the survey and, during this time, they will be fully supervised by members of our research team.

We know that some of the questions are quite personal. Please know that all responses will be kept private and confidential. Your teen's name will not appear anywhere on the survey. When your teen completes the survey in the fall, s/he will receive a Research Identification Number that will be securely stored separately from the survey. This RIN will be used again when the survey is completed in the spring. At no time will your child have to respond to questions that s/he is uncomfortable with and s/he is free to withdraw from the study at any time. Members of the research team will be available to talk to students who have concerns about issues raised in the survey. In some cases, team members will choose to speak to a student about his or her responses and to put that student in touch with the appropriate support services in the school.

Your child's participation is voluntary. Those who choose to participate will have their name entered into a draw to win free movie passes after completing the survey. This is a small way for us to thank students for their valuable contribution to our study. At the end of our study, we will also be giving your child's school a summary report of our research findings. Parents will also be able to access the findings from our study online at the website of the LaMarsh Centre for Research on Violence and Conflict Resolution: <http://www.yorku.ca/lamarsh/>.

² The wording was adjusted to "youth" and "young people" when the consent forms were provided to the University students.

This research has been approved by the Ethics Review Board of York University, the Toronto District School Board, and your school's principal Mr./Mrs. Principal.

**At this time, we are asking for your consent for your child's participation in our study.
On the back of this page, you will find a place for you and your child to sign.
Please complete this form and have your child return it to his or her teacher by Specified Date.**

Any questions or concerns about this project can be directed to Ms. Caroline McIsaac, the Project Coordinator and a Psychology Doctoral Student, via email or phone.

We sincerely thank you for your cooperation!

Dr. Jennifer Connolly, Ph.D.
Director, LaMarsh Centre for Research
Professor, Department of Psychology
York University

DATING AND BREAKING-UP SURVEY FOR TEENS

PLEASE FILL OUT PARTS A and B OF THE CONSENT FORM BELOW

Student's name (please print clearly): _____

Homeroom Teacher's Name: _____

PART A : PARENT'S CONSENT FOR STUDENT TO PARTICIPATE

PLEASE CHECK ONE

_____ I, the **PARENT**, give **CONSENT** for my child to participate in the Dating and Breaking-Up Survey for Teens conducted by Dr. Connolly and Dr. Pepler.

_____ I, the **PARENT**, **DO NOT GIVE CONSENT** for my child to participate in the Dating and Breaking-Up Survey for Teens conducted by Dr. Connolly and Dr. Pepler.

Signature of Parent: _____ Date: _____

PART B: STUDENT'S CONSENT TO PARTICIPATE³

PLEASE CHECK ONE

_____ I, the **STUDENT, CONSENT** to participate in the Dating and Breaking-Up Survey for Teens conducted by Dr. Connolly and Dr. Pepler.

_____ I, the **STUDENT, DO NOT CONSENT** to participate in the Dating and Breaking-Up Survey for Teens conducted by Dr. Connolly and Dr. Pepler.

Signature of Student: _____ Date: _____

**PLEASE COMPLETE THIS FORM AND RETURN IT TO YOUR
HOMEROOM TEACHER AS SOON AS POSSIBLE**

³ University students' own consent to participate in the study was requested; no parental consent was required.

Appendix D

Youths Attributions of Romantic Dissolutions (YARD)

Romantic relationships end for a number of reasons. We would like to know what reasons lead to the break-up of your *most recent romantic relationship*.

<i>Please circle the amount that EACH reason contributed to your break-up</i>	not at all	a little bit	quite a lot	very much
Your friends did not accept your boy/girlfriend.	1	2	3	4
You did not trust your boy/girlfriend.	1	2	3	4
You were flirting with another boy/girl.	1	2	3	4
You felt your boy/girlfriend was too different in age or maturity.	1	2	3	4
The opinion of your parents (e.g., they did not approve of your choice, or didn't want you to date at all).	1	2	3	4
You were no longer having fun in the relationship.	1	2	3	4
You were interested in someone else.	1	2	3	4
You were bored with the relationship.	1	2	3	4
You felt that your boy/girlfriend did not communicate well about his/her feelings.	1	2	3	4
You were not physically attracted to your boy/girlfriend	1	2	3	4
You "went all the way" (i.e., had sex) with another boy/girl.	1	2	3	4
You thought you boy/girlfriend was not popular enough.	1	2	3	4
You wanted more time for yourself.	1	2	3	4
You thought your boy/girlfriend smoked, drank, or partied too much.	1	2	3	4
You felt your boy/girlfriend was not treating you well.	1	2	3	4
You felt you had nothing in common.	1	2	3	4
You "made out" with another boy/girl.	1	2	3	4

You wanted to spend more time with your friends.	1	2	3	4
You felt that dating your boy/girlfriend was making you less popular.	1	2	3	4
You felt your boy/girlfriend was not honest with you	1	2	3	4
You felt your boy/girlfriend wanted too much commitment.	1	2	3	4
You no longer felt in love with your boy/girlfriend.	1	2	3	4
You did not like your boy/girlfriend anymore.	1	2	3	4
You felt your boy/girlfriend was not putting in enough effort to the relationship.	1	2	3	4
You felt there were too many religious or cultural differences.	1	2	3	4
You wanted more time for other parts of your life (e.g., school, work).	1	2	3	4
You felt your boy/girlfriend was not part of the right crowd.	1	2	3	4
You wanted to just be friends.	1	2	3	4
You were losing interest in your boy/girlfriend.	1	2	3	4
You wanted to "go all the way" (i.e., have sex) and your boy/girlfriend didn't want to.	1	2	3	4
You didn't think that your boy/girlfriend was "hot" anymore.	1	2	3	4
You felt your boy/girlfriend had no future goals.	1	2	3	4
The opinion of your friends (e.g., they did not like your boy/girlfriend, or think that he/she was right for you).	1	2	3	4
You wanted to "make out" but your boy/girlfriend didn't.	1	2	3	4

Appendix E

The Dating Questionnaire (DQ)

1. For each sentence, check the box that best describes your dating activities *over the past year*.

True	False	
<input type="checkbox"/>	<input type="checkbox"/>	I rarely participated in dating activities
<input type="checkbox"/>	<input type="checkbox"/>	I went to movies, concerts, and parties with boys and girls.
<input type="checkbox"/>	<input type="checkbox"/>	I went on "dates", but with a group of people.
<input type="checkbox"/>	<input type="checkbox"/>	I went on casual "dates", just the two of us.
<input type="checkbox"/>	<input type="checkbox"/>	I dated more than one person casually.
<input type="checkbox"/>	<input type="checkbox"/>	I had a boy/girlfriend and I only dated him/her.
<input type="checkbox"/>	<input type="checkbox"/>	I had a boy/girlfriend and we were in a serious relationship.
<input type="checkbox"/>	<input type="checkbox"/>	I had a boy/girlfriend and we were planning to get engaged, married, or live together
<input type="checkbox"/>	<input type="checkbox"/>	I was engaged, married, living with someone.

Appendix F

Reynolds Adolescent Depression Scale (RADS)

EVERYONE can answer these questions about their feelings. Circle the number that best describes you.

	Almost never	Hardly ever	Sometimes	Most of the time
1. I feel lonely	1	2	3	4
2. I feel my parents don't like me	1	2	3	4
3. I feel important	1	2	3	4
4. I feel like hiding from people	1	2	3	4
5. I feel sad	1	2	3	4
6. I feel like crying	1	2	3	4
7. I feel that no one cares about me	1	2	3	4
8. I feel sick	1	2	3	4
9. I feel loved	1	2	3	4
10. I feel like running away	1	2	3	4
11. I feel like hurting myself	1	2	3	4
12. I feel that other students don't like me	1	2	3	4
13. I feel upset	1	2	3	4
14. I feel life is unfair	1	2	3	4
15. I feel I am bad	1	2	3	4
16. I feel I am no good	1	2	3	4
17. I feel sorry for myself	1	2	3	4
18. I feel mad about things	1	2	3	4
19. I have trouble sleeping	1	2	3	4
20. I feel worried	1	2	3	4
21. I get stomach aches	1	2	3	4
22. I feel like nothing I do helps anymore	1	2	3	4

Appendix G

The Adolescent Cognitive Style Questionnaire (ACSQ)

The next questions are about dating situations that we'd like you to IMAGINE yourself in. EVERYONE can answer these questions, even those of you who aren't dating someone right now.

Decide for yourself the main reason that would have caused the imaginary situation if it actually happened to you.

Answer each question about what it would mean if it actually happened to you by circling the numbers.

SITUATION 1: You want a boy/girlfriend but you don't have one.

1. Do you not have a boy/girlfriend because of something about you or because of something else? (circle one)

Totally caused by something else	1	2	3	4	5	6	7	Totally caused by something about me
----------------------------------	---	---	---	---	---	---	---	--------------------------------------

2. Do you think the reason you don't have a boy/girlfriend will cause you to not have a boy/girlfriend in the future? (circle one)

Totally caused by something else	1	2	3	4	5	6	7	Totally caused by something about me
----------------------------------	---	---	---	---	---	---	---	--------------------------------------

3. Do you think the reason you don't have a boy/girlfriend will cause problems in other parts of your life? (circle one)

Will only cause problems in my love life	1	2	3	4	5	6	7	Will cause problems in all areas of my life
------------------------------------------	---	---	---	---	---	---	---	---------------------------------------------

4. Do you think other bad things will happen to you because you don't have a boy/girlfriend? (circle one).

Nothing bad will happen	1	2	3	4	5	6	7	Very bad things will happen
-------------------------	---	---	---	---	---	---	---	-----------------------------

5. Do you think there is something wrong with you because you don't have a boy/girlfriend? (circle one).

Doesn't mean anything is wrong with me	1	2	3	4	5	6	7	Definitely means something is wrong with me
----------------------------------------	---	---	---	---	---	---	---	---------------------------------------------

SITUATION 2: Your boy/girlfriend breaks up with you, but you still want to stay together.

1. Did they break-up with you because of something about you or because of something else? (circle one)

Totally caused by something else	1	2	3	4	5	6	7	Totally caused by something about me
----------------------------------	---	---	---	---	---	---	---	--------------------------------------

2. Do you think the reason they broke-up with you will also cause others to break-up with you again in the future? (circle one)

Will never again cause others to break-up with me	1	2	3	4	5	6	7	Will also cause others to break-up with me
---------------------------------------------------	---	---	---	---	---	---	---	--------------------------------------------

3. Do you think the reason they broke-up with you will cause problems in other parts of your life? (circle one)

Will only cause problems in my love life	1	2	3	4	5	6	7	Will cause problems in all areas of my life
------------------------------------------	---	---	---	---	---	---	---	---------------------------------------------

4. Do you think other bad things will happen to you because they broke-up with you? (circle one)

Nothing bad will happen	1	2	3	4	5	6	7	Very bad things will happen
-------------------------	---	---	---	---	---	---	---	-----------------------------

5. Do you think there is something wrong with you because they broke-up with you? (circle one)

Doesn't mean anything is wrong with me	1	2	3	4	5	6	7	Definitely means something is wrong with me
----------------------------------------	---	---	---	---	---	---	---	---------------------------------------------

SITUATION 3: You can't get a date for a big dance you want to go to.

1. Did you not get a date because of something about you or because of something else? (circle one)

Totally caused by something else	1	2	3	4	5	6	7	Totally caused by something about me
----------------------------------	---	---	---	---	---	---	---	--------------------------------------

2. Do you think the reason you didn't get a date will also cause you to not get dates in the future? (circle one)

Will never again cause others to break-up with me	1	2	3	4	5	6	7	Will also cause others to break-up with me
---------------------------------------------------	---	---	---	---	---	---	---	--------------------------------------------

3. Do you think the reason you didn't get a date will cause problems in other parts of your life?
(circle one)

Will only cause problems in my love life	1	2	3	4	5	6	7	Will cause problems in all areas of my life
------------------------------------------------	---	---	---	---	---	---	---	------------------------------------------------

4. Do you think other bad things will happen to you because you didn't get a date? (circle one)

Nothing bad will happen	1	2	3	4	5	6	7	Very bad things will happen
----------------------------	---	---	---	---	---	---	---	--------------------------------

5. Do you think there is something wrong with you because you didn't get a date? (circle one)

Doesn't mean anything is wrong with me	1	2	3	4	5	6	7	Definitely means something is wrong with me
----------------------------------------------	---	---	---	---	---	---	---	---------------------------------------------------