

Relationship dissolution in the friendships of emerging adults: How, when, and why?

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Abstract

Maintaining high-quality friendships is a key predictor of well-being during emerging adulthood, yet factors leading to friendship dissolution—defined here as actions that may decrease friendship quality or end the relationship completely—are poorly understood. Using an open-ended interview paradigm, we elicited 179 emerging adults' (55.9% female; $M_{age} = 20.42$, $SD = 1.54$; 95.0% full-time university students) description of their behavioral responses to 53 hypothetical vignettes involving challenging situations with same-gender friends. We systematically coded participants' 9,487 verbatim responses, identifying three types of friendship dissolution behaviors: completely ending the friendship, distancing from the friend, or compartmentalizing aspects of the friendship. Examining the occurrence of each response across different types of challenging situations, we found that transgressions by friends were more likely to elicit reported use of distancing and ending strategies. We also began to investigate associations between interpersonal goals and dissolution strategies, finding that stronger endorsement of the goal of asserting oneself was linked to greater odds of reporting ending the friendship, whereas the more participants reported that they would be trying to stay friends, the lower the odds of reporting either ending the relationship or distancing from the friend. Implications for future research on interpersonal processes in friendships are discussed.

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Keywords

Conflict, emerging adulthood, friendship, friendship dissolution, friendship transgressions, goals, young adulthood

The developmental period of emerging adulthood (ages 18–25; Arnett, 2000) is characterized by a changing social world (Tao et al., 2000). Notably, the types of relationships upon which individuals rely to fulfill their needs for intimacy, companionship, and support increasingly shift from family members to friends and romantic partners (e.g., Carbery & Buhrmester, 1998). While the latter two types of relationships both play key roles in need satisfaction (Markiewicz et al., 2006), friendships are the main source of relational support for emerging adults not yet committed to a long-term romantic relationship (Carbery & Buhrmester, 1998). Critically, developing and maintaining high-quality friendships during this period is associated with a greater sense of well-being (Demir et al., 2015; Hartup & Stevens, 1997), as well as academic and emotional adjustment to university (Buote et al., 2007; Friedlander et al., 2007). Conversely, difficulty with friendship formation during the transition to university is associated with increased mental health problems and low academic achievement (Swenson et al., 2008). Despite the importance of maintaining high-quality friendships, little is known about factors contributing to the degradation of emerging adults' friendships. Furthermore, there is virtually no research on the specific behaviors enacted by emerging adults that contribute to friendship degradation, or the interpersonal goals that are linked to use of these strategies, which may elucidate why emerging adults are selecting these strategies.

In the present study, we begin to shed light on the *how*, *when*, and *why* of close friendship dissolution during emerging adulthood. We define friendship dissolution as any behavior that results in the full termination of an existing friendship, or lessens the quality or closeness of a friendship. Given that being deprived of high-quality friendships leaves emerging adults vulnerable to psychopathology and poor academic outcomes (Buote et al., 2007), intentionally ending one's friendships or distancing oneself from friends may be a high-risk strategy. On the other hand, ending a friendship that is toxic or harmful may improve well-being. Aiming to better understand the circumstances of dissolution strategies, we examined emerging adults' open-ended report of *how* they would respond to different challenging situations that occur with same-gender friends, and coded *when* participants' behavior involved terminating or downgrading the quality of the friendship. We also began to elucidate the *why* of friendship dissolution: Given the potential costs and benefits associated with friendship dissolution, we examined associations between dissolution strategies and the interpersonal goals participants endorsed in each situation. Gaining greater insight into emerging adults' experiences of friendship dissolution may ultimately help to advance understanding of the possible impacts of loneliness and poor friendship quality on emerging adults' mental health, ultimately informing intervention strategies that aim to promote better friendship functioning. Thus, the present research aims to systematically identify the different types of dissolution behaviors generated by emerging adults and tie them to specific contextual and motivational factors.

The process of friendship dissolution: How, when, and why

Having close friends contributes to social and emotional well-being throughout adulthood (e.g., Bagwell et al., 2005), in part because of the provisions these relationships afford. Compared with peers who are not friends, friends have more shared interests and regular contact with each other and they communicate more intimately (e.g., Newcomb & Bagwell, 1995). Expectations of reciprocity are theorized to be at the core of the friend relationship (Hartup & Stevens, 1997), and adolescents and young adults expect mutual loyalty, self-disclosure, and trust in their communication with friends (e.g., S. Rose & Serafica, 1986).

Although having friends is a generally positive experience (Demir et al., 2015), greater closeness and intimacy can also breed conflict (e.g., Laursen, 1996). Moreover, friends occasionally engage in behaviors that are hurtful, such as betraying a confidence (e.g., S. Rose & Serafica, 1986). Unlike family relationships, friendships are voluntary (Newcomb & Bagwell, 1995); as such, one or both friends could choose to dissolve the relationship when such circumstances arise. The many social and emotional benefits associated with having at least one friend (see Hartup & Stevens, 1997), suggest choosing to end or weaken a friendship may be a maladaptive strategy in response to challenging situations in friendship. Unsurprisingly then, emerging adults, as well as children and adolescents, select friendship dissolution more rarely than other behavioral strategies when asked to report how they would manage challenging situations involving a friend (e.g., Dirks et al., 2011; McDonald & Asher, 2013). These results suggest that people generally do not voluntarily end or downgrade a friendship in response to a specific challenge.

On the other hand, losing friends is not a rare experience; indeed, childhood and adolescence are rife with experiences of friendship dissolution (Poulin & Chan, 2010). Studies of friendship stability in middle childhood and early adolescence (A. Bowker, 2004; J. C. Bowker, 2011; Chan & Poulin, 2007) suggest that anywhere between one third and half of children's friendships dissolve over 1 school year and approximately half of children's friendships become less close—a process sometimes referred to as “downgrade dissolution” (J. C. Bowker, 2011). Older adolescents' friendships may be moderately more stable, with approximately half of close friendships enduring over a period of 1 year and 75% of best friends still being close friends (Değirmencioğlu et al., 1998). During the transition to university, high school friendships tend to dissolve or lessen in quality as many friends pursue higher education and move apart from each other (Oswald & Clark, 2003). Furthermore, the exploration of new roles and the broadening of individuals' social networks during emerging adulthood (Arnett, 2000) likely create difficulties in maintaining stable friendships. Given that friendships are both vulnerable to dissolution and a hallmark of healthy social development, understanding the circumstances of dissolution is critical.

Research to identify predictors of friendship dissolution during emerging adulthood has typically focused on external events (e.g., moving to a new location; S. Rose, 1984); as well as characteristics of the relationship (e.g., friendship closeness; S. Rose & Serafica, 1986), or of the individuals (e.g., gender differences; Benenson et al., 2014). In one study (S. Rose, 1984), retrospective accounts of real-life close friendship dissolution pointed to physical separation as the main cause of friendship ending. Notably,

participants indicated that dissolution was rarely clear-cut and deliberate, but rather tended to occur gradually and due to a failure to keep track of the closeness of friendships. In a follow-up study, S. Rose and Serafica (1986) found that the most frequent reasons cited for ending *close* friendships were either a “slow death,” whereby two friends grew apart gradually, or “loss of affection,” perceived causes of which ranged from “differing values” to “betrayal.” Reasons for ending more casual friendships were related to a loss of physical proximity and diminished frequency of contact.

Work on individual differences in friendship dissolution has mainly focused on gender differences. For example, research on conflict resolution in emerging adults’ friendships (Benenson et al., 2014) suggests that women’s anger toward a same-gender friend following a conflict takes longer to dissipate compared with men and that women expect that they will need more time than men before attempting to repair the friendship. However, findings on gender differences are mixed: in another study of emerging adults, males endorsed revenge goals to a greater extent in the face of conflict with friends and were more likely than females to threaten ending the friendship (McDonald & Asher, 2013).

Although these studies provide insight into factors associated with friendship termination during emerging adulthood, less is known about exactly how emerging adults end their friendships. Studies on real-life friendship dissolution (e.g., J. C. Bowker, 2011; S. Rose, 1984; S. Rose & Serafica, 1986) have usually asked participants to report *whether* a friendship has been terminated or downgraded, with less attention paid to the specific behaviors involved in friendship dissolution. Some work with children and younger adolescents provides hints as to how friendships may be dissolved. For example, some early adolescents report that they would respond to provocation by a friend by never speaking to them again (Dirks et al., 2007).

However, emerging adults differ from younger age groups in ways that may shape how they respond to challenges in a friendship. Namely, emerging adults’ comparatively enhanced cognitive abilities (Hartshorne & Germine, 2015) may enable them to utilize more sophisticated strategies to manage friendship difficulties. Illustrating this complexity, work on friendship decay shows that undergraduates’ response to dissatisfaction with a friend involves a nuanced use of strategies that depends on the interpersonal context (Harasymchuk & Fehr, 2019). In this study, participants’ expectations of others’ behaviors depended on their own behavior, and influenced which types of behaviors they viewed as more effective in the face of dissatisfaction. Further differentiating them from other developmental groups, emerging adults tend to expand their social network from a smaller group of frequently interacting classmates during adolescence, to friends from different circles with whom they are less interdependent (Barry et al., 2016). Compared with the more interdependent friendships of younger individuals, emerging adult friendships may thus be seen as more replaceable. Emerging adult friendships also appear unique compared with those of older adults. As they enter committed romantic relationships, some emerging adults may begin to rely on their romantic partner, rather than their friends, to meet core interpersonal needs (Carbery & Buhrmester, 1998), which may diminish the importance of friendships and facilitate friendship dissolution (S. Rose, 1984). Furthermore, research comparing friendship experiences across the adult lifespan indicates that young adults

(ages 18–29) interact significantly more frequently with friends compared with all older age groups (Nicolaisen & Thorsen, 2017), suggesting that friendship may be more central to the well-being of younger adults.

There is also little work mapping the circumstances under which emerging adults engage in friendship dissolution. Research examining how children, adolescents, and emerging adults respond to challenges in their friendships has often focused on one type of situation at a time. For example, research has shown children and early adolescents sometimes select friendship termination in response to hypothetical scenarios in which a friend transgresses by violating a core assumption of friendship (e.g., Dirks et al., 2011; MacEvoy & Asher, 2012). Similarly, McDonald and Asher (2013) documented that emerging adults sometimes endorse ending the friendship in response to hypothetical scenarios involving a conflict with a friend. While these studies provide evidence that friendship dissolution occasionally occurs in response to conflicts and friend transgressions, it remains unclear whether emerging adults are more likely to endorse dissolution responses in certain types of challenging situations, compared with others. In other words, are some types of situations more likely to be the “last straw?”

A final area which merits further investigation is understanding why emerging adults dissolve friendships. Given the benefits of these relationships, downgrading or dissolving a friendship is a critical choice. Given the many benefits associated with having a friend (Friedlander et al., 2007), terminating or downgrading friendships may put emerging adults at emotional risk. Yet there may be situations when friendship dissolution occurs with the goal of self-preservation, for example, if maintaining frequent contact with an emotionally draining friend generates stress and decreases one’s well-being (Daley et al., 1997; Hammen, 1991). Supporting this rationale, research on romantic relationships (e.g., Hawkins & Booth, 2005) suggests that staying in an unhappy relationship may be more detrimental to partners’ well-being than simply ending the relationship. Alternatively, dissolution may occur as an attempt to “get back” at offending friends. Indeed, prior work examining emerging adults’ responses to friendship challenges suggests that some may endorse revenge goals that have the potential to damage friendships when confronted with interpersonal conflict (McDonald & Asher, 2013). While these studies suggest an association between certain interpersonal goals and friendship termination, a more comprehensive account of which goals may correlate with which types of dissolution is needed.

Present research

Although it has been documented that emerging adults’ friendships sometimes end (S. Rose, 1984; S. Rose & Serafica, 1986), little is known about precisely how, when, and why these relationships dissolve. Accordingly, the first goal of the present study was to map the types of dissolution strategies used by emerging adults, and to identify how often they report they would use them. We then examined which types of challenging interpersonal situations were most likely to elicit different types of friendship dissolution responses; in other words, which situations may constitute “the last straw.” We also explored whether there were any gender differences in participants’ endorsement of

different dissolution strategies, and tested whether being single or in a romantic relationship was associated with endorsement of these strategies. Finally, we examined associations between emerging adults' endorsement of key interpersonal goals and their reported engagement in friendship dissolution.

To address these goals, we drew on data collected during the third of a series of five studies conducted to develop a situation-based measure of social competence with same-gender friends during emerging adulthood, which are described in detail in Kirmayer et al. (2021). In the first two studies, independent samples of emerging adults were asked to (a) generate challenging situations occurring with same-gender friends; (b) rate how commonly occurring, difficult to manage, and critical for the relationship each situation was. Using this information, we identified a core set of friendship challenges, which were reliably coded into one of three categories: (1) Transgressions, in which one friend violated one of the core expectations of friendship (e.g., one friend revealed private information about the other; MacEvoy & Asher, 2012). Notably, participants described circumstances in which a friend transgressed against them (*Friend Transgressions*), but also times they transgressed against a friend (*Participant Transgressions*). (2) Conflicts-of-interest (hereafter referred to as *Conflicts*), in which the needs, desires, or opinions of the two friends came into conflict, (e.g., two roommates disagree about noise). (3) *Support* situations, which included difficulties related to the exchange of support or advice. Unlike transgressions, in these situations, one friend was clearly trying to support the other, but they were unsure what to do, or the support was experienced as intrusive, condescending, or unhelpful.

In the study described here, an independent sample of emerging adults was asked to report what they would actually say or do in response to each of the identified friendship challenges, which were presented as hypothetical vignettes. Hypothetical vignettes are a useful tool for studying friendship dissolution for two reasons. First, using standardized situations is essential in order to compare behavior and goal selection across different contexts. While research on real-life dissolution (e.g. S. Rose, 1984) is vital in illustrating the complexity and variety of these events, participants' retrospective accounts may conflate context, behavior, and motives, making it difficult to systematically investigate whether certain types of situations tend to elicit specific goals and behaviors. Second, hypothetical vignettes are ideal for studying rare behaviors, which may be difficult to capture through other approaches (e.g., daily diaries). Retrospective studies studying real-life dissolution (e.g., J. C. Bowker, 2011) suggest that friendship dissolution may not occur that frequently. Critically, even though responses to hypothetical vignettes do not constitute actual behaviors enacted in the face of actual situations, they have been shown to correlate with participants' real-life behavior and the quality of their relationships (e.g., Dirks et al., 2017; A. J. Rose & Asher, 2004).

Moreover, our open-ended approach provided an opportunity to examine the variety of ways that emerging adults dissolve their friendships. Research has focused on completely severing the relationship (e.g., Dirks et al., 2011; MacEvoy & Asher, 2012; McDonald & Asher, 2013); however, for emerging adults, friendship dissolution may be more complex than termination. Indeed, previous work (Kirmayer et al., 2021), in which we coded a subset of the responses generated by participants in the current study, provided initial support for three strategies related to friendship dissolution: (1) *Ending* the friendship, for example by deciding to completely cease contact with the friend; (2)

Distancing self from the friend, which involves acting in a way that diminishes the closeness of the friendship or the frequency of interactions (e.g., not initiating contact oneself, but responding when the friend reaches out); and (3) *Compartmentalizing* the friendship, which involves setting limits about the type of activity or the topics of conversation allowable within the friendship (e.g., not relying on that friend for help with schoolwork). In the current study, we extended this work by coding all of the responses generated for the presence of these categories, which allowed us to examine the relative frequencies of each type of response, as well as whether gender, and whether the individual is in a romantic relationship, predicted the reported use of these behaviors.

In each situation, participants were also asked to rate their endorsement of seven interpersonal goals. In choosing goals, we were guided by McDonald and Asher (2013) who examined young adults' endorsement of goals in response to conflicts in interpersonal relationships, including goals related to *Revenge*, *Relationship Maintenance*, and *Tension Reduction*. As we assessed a diversity of situations, we adapted some of the goals used in this study. For example, we combined the goals of control (i.e., "I would be trying not to be pushed around") and self-interest (i.e., "I would be trying to do what I want"), which are specific to conflict, into an *Assertiveness* goal that captured standing up for oneself more generally. We also included two additional goals. Although the focus of the current work is dissolution responses, we anticipated that participants would respond to the vignettes with a wide range of behavioral responses, including constructive strategies such as apologizing. As such, we asked about *Responsiveness* to the friend's needs. Review of the situations indicated that friendship challenges often occur when other friends are present; thus, we included a *Self-Presentation* goal.

Hypotheses. Based on previous research on emerging adults' reasons for dissolving close friendships (S. Rose & Serafica, 1986), we hypothesized that dissolution responses would occur most frequently in *Friend Transgressions*, in which the participant's friend acts in a way that violates a core expectation of friendship, and in *Conflicts*, in which the participant and their friend have differing wants and needs, or hold different values or personal opinions. We expected that *Support* situations and *Participant Transgressions*—in which the *participant* violated core friendship expectancies—would be less likely to elicit dissolution responses. Although mixed findings in the literature prompted us to investigate gender differences in dissolution behavior, we made no hypotheses about gender differences. Given the greater reliance on romantic partners for need satisfaction for some young adults (Carbery & Buhrmester, 1998), we expected that friendship dissolution responses would be more likely for participants in a romantic relationship, as the interpersonal cost of losing a friend may be lower for them, compared with single participants. McDonald and Asher (2013) found that report of friendship termination in response to conflict was associated with greater endorsement of both revenge and tension reduction goals. Thus, we hypothesized that these same goals would be positively associated with friendship dissolution responses in our sample.

Method

Participants

One hundred and eighty-one undergraduate students participated in a 2-hour long study. Participants received \$20 in exchange for their participation, or two extra credits toward an undergraduate psychology course. Two participants were excluded from the analyses: one participant had already taken part in a previous study using the same hypothetical scenarios, and another participant's audio recording was lost due to a technical error. The final sample consisted of 179 participants ($M_{age} = 20.42$, $SD = 1.54$). Of these, 55.9% identified as female, with all remaining participants identifying as male; 82.7% identified as heterosexual, and 55.9% identified as Non-Hispanic White. Other ethnicities represented included Chinese (11.7%) and South Asian (7.3%). Nearly all participants (95.0%) were registered as full-time university students and 38.0% reported being in a romantic relationship.

Procedures

All procedures were approved by the relevant research ethics board and all participants provided informed, written consent. Participants were seated in a room with a same-gender interviewer and asked to read brief vignettes describing each of 62 challenging situations occurring with a close, same-gender friend. Situations described Conflicts, Friend Transgressions, Participant Transgressions, and Support (see Table 1 for examples of each situation type). Vignettes were presented in random order and participants were instructed to imagine that each scenario had happened to them. After each vignette, participants responded to the question "What would you say or do if this happened to you?" Interviewers prompted participants when responses were unclear. After describing how they would respond, participants read the following prompt: "You will now be asked to rate the extent to which you'd hold a series of goals," then used a scale of 1 (*strongly disagree*) to 10 (*strongly agree*) to rate each of the following goals: Revenge ("I would be trying to get back at my friend"), Relationship Maintenance ("I would be trying to stay friends"), Tension Reduction ("I would be trying to keep myself from getting upset"), Moral ("I would be trying to do the right thing"), Self-Presentation ("I would be trying not to look bad in front of my friends"), Assertiveness ("I would be trying to communicate or assert my own needs"), and Responsiveness ("I would be trying to respond to or meet my friend's needs"). Order of presentation of the goals was randomized after each vignette.

Nine vignettes were excluded from the present analyses either because they did not elicit sufficient variability in participants' responses, or because most participants were unsure about the core challenge. The remaining 53 vignettes, which comprised 16 Conflicts, 13 Friend Transgressions, 13 Participant Transgressions, and 11 Support, were retained for coding and analyses. As described in Kirmayer et al. (2021), we developed a reliable, descriptive coding manual that captured the array of responses generated. Three of the behaviors were related to friendship dissolution: *Ending* the friendship; *Distancing*

Table 1. Examples of situations and friendship dissolution responses.

| <i>Situation Type</i> | <i>Sample Vignettes</i> |
|------------------------------|---|
| Participant Transgression | While studying with a few male/female friends from your class, you begin talking about some of your mutual male/female friends. During this conversation, you tell them one of your mutual friend's secrets that he/she told you in confidence a few days earlier. Later that evening, your friend calls you and accuses you of spilling his/her secret. |
| Friend Transgression | You are open to discussing personal issues like your sexual history with your male/female friends but have made it clear that you will only do so in private because you don't want other people to hear. At lunchtime, you are sitting with these friends and some other guys/girls from school that you don't know very well. Suddenly, one of your male/female friends starts talking about a very personal story that you shared with him/her recently. |
| Conflict | You and your male/female friend recently tried out for the same extracurricular activity at school. There was only one spot available. That day, you receive an e-mail letting you know that you were accepted for the activity. At lunchtime, you see your friend and he/she asks you whether you have heard back and that he/she doesn't think the notifications have gone out yet. |
| Support | Whenever you get into a fight with your romantic partner, you turn to one of your male/female friends. That evening, while on the phone with your friend, you mention to him/her that you and your partner got into another big fight. Your friend replies by saying that he/she is really worried about you. He/She suggests that you should consider breaking up with your partner. |
| <i>Response type</i> | <i>Sample Responses</i> |
| Ending | I would stop communicating with this friend. I would not be friends with them anymore. |
| Distancing | I would wait for my friend to make plans the next time. I would talk to this friend less often. |
| Compartmentalizing | I would stop discussing romantic relationships with my friend. I would not share class notes with this friend anymore. |

self from the friend; and *Compartmentalizing* the friendship, by setting limits on the types of activities or topics one engages in with the friend. Examples of each response are presented in Table 1.

For the current study, a research assistant (RA) unaware of hypotheses reviewed all 9,487 responses generated by participants and coded them for the presence of one of the three dissolution behaviors. A second RA coded the responses of a randomly selected subset of 40 participants (20 females). Inter-rater agreement for each category was adequate: Ending the friendship, $\kappa = .73$; Distancing, $\kappa = .78$; Compartmentalizing, $\kappa = .73$. Responses could be coded as both Distancing and Compartmentalizing, but when a strategy coded as Ending was present, the other strategies were not coded.

Table 2. Absolute frequency (%) of friendship dissolution responses as a function of situation type.

| | Ending | Distancing | Compartmentalizing |
|---|-----------|------------|--------------------|
| Conflict (16 Situations) | 18 (0.6%) | 32 (1.1%) | 142 (5.0%) |
| Friend Transgression (13 Situations) | 97 (4.2%) | 173 (7.4%) | 42 (1.8%) |
| Participant Transgression (13 Situations) | 5 (0.2%) | 2 (0.1%) | 8 (0.3%) |
| Support (11 Situations) | 0 (0.0%) | 3 (0.2%) | 9 (0.5%) |

Notes. Percentage was calculated by dividing the absolute frequency by the total number of possible responses in that situation type.

Data analytic approach

We began by examining the frequencies of each of the three types of friendship dissolution responses and comparing their occurrence across the different situation types. Friendship dissolution strategies were reported infrequently: 179 participants provided a response to each of 53 situations, resulting in 9,487 opportunities to endorse friendship dissolution. Participants reported they would end the friendship 120 times. Distancing (210 responses) and Compartmentalizing (201 responses) were more common but still rare. Table 2 reports the frequency of each response as a function of situation. Given that fewer than 1.0% of responses to Participant Transgressions and Support were coded as a dissolution behavior, we excluded these situations from our models examining the effect of situation type on endorsement of dissolution strategies.¹ Subsequent models not concerned with situation type included responses to all 53 situations.

We used a general mixed modeling approach to answer our research questions. Each series of models examined the associations between 1) Situation type; 2) Participant gender; 3) Relationship status; and 4) Goal endorsement, and the odds of reporting one of Ending, Distancing, or Compartmentalizing. As such, three models were fit for each research question, each with a different dissolution response as a dichotomous outcome, where 0 = "Did not endorse the behavior" and 1 = "Endorsed the behavior."

Cross-classified structure. Every participant reported how they would respond and rated their endorsement of all seven goals in each of 53 situations. As such, our data follow a cross-classified structure, with both *situation* and *participant* as the higher-level units. Conceptually, it is likely that each participant would have different baseline levels for responses and goals; it is also possible that each of the 53 situations would elicit different levels of responding and goal endorsement. To capture this variability, we allowed intercepts to vary randomly across both situation and participant in all models (Bates, 2010).

Model selection. In keeping with current best practices (Barr et al., 2013), we initially fit the maximum random structure for each set of models, by allowing the slopes of factors to vary randomly where conceptually plausible. For example, it seemed possible that the relationship between situation type and endorsement of ending the friendship would vary across participants. As such, we fit a model in which the slope of situation was allowed to vary randomly across participants. In cases where the resulting models did not support inclusion of these random effects (e.g., failed to

converge or yielded model singularity warnings), more parsimonious models were fit again omitting these random slopes (Barr et al., 2013).

In the interest of concision, we report only results from the models which successfully converged using the maximum random structure possible. All models reported below were fit in R, using the `glmer` function in the `lme4` package (Bates et al., 2015). Where relevant, statistical significance of the fixed effects reported here was estimated using the Satterthwaite approximation with the R package `afex` (*Analysis of Factorial Experiments*; Singmann et al., 2020).

Results

Association between situation type and dissolution responses

Three mixed-effects logistic models were computed using restricted maximum likelihood estimation (Laplace approximation), each examining the fixed effect of situation type on Ending, Distancing, or Compartmentalizing the friendship. Due to the scarcity of dissolution responses in Support and Participant Transgression situations (see Table 2), we only included Conflicts and Friend Transgressions, for a total of 29 vignettes. For each dissolution response, a null model was fit that included the fixed effects of gender and relationship status, and a random intercept of situation and participant. Situation type, dummy-coded as Conflict (0) vs. Friend Transgression (1), was then added as a fixed effect to each model in order to compare fit.

In the case of Ending, adding the fixed effect of situation type to the null model yielded better fit, $\chi^2(1) = 11.89, p < .001$. The estimate for the fixed effect of situation type was 2.16 ($SE = .61$; $OR = 8.67$); that is, the odds of endorsing Ending were 8.67 times higher in Friend Transgressions than in Conflicts. When Distancing was the dependent measure, adding the fixed effect of situation type to the null model also improved model fit, $\chi^2(1) = 11.14, p < .001$. The estimate for the fixed effect of situation type was 2.54 ($SE = .74$; $OR = 12.68$); that is, the odds of reporting distancing were 12.68 times higher in Friend Transgressions than in Conflicts. In contrast to Ending and Distancing, adding the fixed effect of situation type to the null model with Compartmentalizing as an outcome did not significantly improve model fit, $\chi^2(1) = .26, p = .61$, indicating that situation type was not associated with endorsement of this response.

Association between gender and dissolution responses

All 53 situations were included in the present analyses, including Participant Transgression and Support situations. For each of the three dissolution responses, we fit a null model containing only random intercepts of participant and situation, and a random slope of gender across situation. This random slope yielded a singularity warning in the case of Ending, so this term was dropped from this null model. It was retained for the Distancing and Compartmentalizing models. For each dissolution response, we then fit a model adding a fixed effect of gender. In all three cases, none of these models showed better fit than the null model—Ending, $\chi^2(1) = .29, p = .59$; Distancing, $\chi^2(1) = .41, p = .52$;

Compartmentalizing, $\chi^2(1) = .80, p = .37$ —suggesting that gender was not associated with the odds of endorsing any dissolution response.

Association between relationship status and dissolution responses

Including all 53 situations, we fit null models for each dissolution response, containing only random intercepts of participant and situation and a random slope of relationship status (dichotomized as single vs. in a relationship) across situation. The random slope of relationship status yielded a singularity warning for the Compartmentalizing model, so this term was dropped. In order to test whether relationship status was associated with dissolution response endorsement, we then added a fixed effect of relationship status to the test models. Model contrasts showed that adding relationship status did not yield better fit for any of the three dissolution responses: Ending, $\chi^2(1) = .78, p = .38$; Distancing, $\chi^2(1) = 1.16, p = .28$; Compartmentalizing, $\chi^2(1) = .65, p = .42$. Thus, being in romantic relationship was not associated with the odds of endorsing any of the three dissolution responses.

Association between goals and dissolution responses

In three separate mixed-effects logistic models, we examined the association between dissolution response and seven goals: Revenge, Relationship Maintenance, Tension Reduction, Morality, Self-Presentation, Assertiveness, and Responsiveness. Given our interest in the fixed effects of all seven goals, and the lack of theoretical precedent for specifying a clear, parsimonious null model, we opted to rely on the statistical significance tests computed with the *afex* package (Singmann et al., 2020) using the Satterthwaite approximation to compute p-values for each fixed effect. All goals were simultaneously entered as fixed effects in the models. We initially let the slope of each goal vary randomly across participants, as we deemed it plausible that the associations between goals and outcomes may differ across participants. Models with random slopes for *all* goals had singular fit, so only the random slopes of goals with a significant fixed effect were retained. We initially included fixed effects of gender and relationship status as covariates, and let the slope of gender and relationship status vary randomly across situations. Inclusion of all of these effects was not supported in all models. Only the most parsimonious models with the maximum random structure possible are described below. As with previous models, we allowed for a random intercept of participant and situation. Models were fit using restricted maximum likelihood (Laplace approximation).

We first examined the association between endorsement of each of the seven goals and Ending. The model also included a fixed effect of gender. Slopes for the Relationship Maintenance and Assertiveness goals were allowed to vary across participants. Only two goals were significantly associated with Ending: Relationship Maintenance, estimate = $-.48$ (OR = 0.62), $SE = .08, z = -5.91, p < .001$, and Assertiveness, estimate = $.25$ (OR = 1.28), $SE = .09, z = 2.77, p < .01$. For each unit decrease in Relationship Maintenance, the odds of endorsing Ending were 1.62 times greater; whereas for each unit increase in Assertiveness, the odds of endorsing Ending were 1.28 times greater.

In the model examining Distancing, we included the seven goals, gender, and relationship status as fixed effects, a random intercept for participants and situation, random slopes of gender and relationship status on situation, and a random slope of the Relationship Maintenance goal varying across participants. In this model, only the fixed effect of Relationship Maintenance was significant, estimate = $-.25$ (OR = 0.78), $SE = .05$, $z = -4.32$, $p < .001$. In other words, for each unit decrease in Relationship Maintenance, the odds of reporting a Distancing response were 1.28 times greater.

Next, we turned to the relationship between goal endorsement and Compartmentalizing. An initial model was computed with the seven goals, gender, and relationship status as fixed effects. Random intercepts were specified for participant and situation, and random slopes were allowed to vary for each of the seven goals, across participants. A random slope of gender was allowed to vary across situation. This model converged with a singularity warning, so a more parsimonious model was computed which was identical but did not include any random slopes for the goals, which resolved the singularity problem. Based on the significance tests computed with *afex*, none of the fixed effects of goals on compartmentalizing were significant in either model.

Discussion

Close friendships are a crucial component of well-being in emerging adulthood (Demir et al., 2015). As such, friendship dissolution represents a consequential interpersonal process which merits closer empirical attention. Contributing to the broader literature on friendship maintenance and dissolution, the present study begins to lay the groundwork for a body of work elucidating friendship dissolution processes in emerging adulthood. In providing initial insight into to *how*, *when*, and *why* friendship dissolution occurs, we hope to offer a foundation to begin investigating *who* is most likely to enact these behaviors, ultimately providing a framework for interventions targeting well-being by improving friendship functioning.

Using a hypothetical vignette methodology, we elicited participants' open-ended responses across an array of critical friendship challenges. In an earlier study (Kirmayer et al., 2021), preliminary coding of a subset of the responses generated identified three types of friendship dissolution strategies: completely *Ending* the friendship, as well as two strategies that downgrade the relationship (i.e., make it less close), *Distancing* from the friend, and *Compartmentalizing* the friendship. Distancing strategies involve making quantitative changes to the nature of a friendship by decreasing the frequency of contact or communication, whereas compartmentalizing the friendship entails making qualitative changes to the nature of the relationship, by setting limits on the types of activities or topics of conversation in which they are willing to engage with their friend. In the current study, we coded all 9,487 responses generated and found that emerging adults endorsed the downgrade strategies more frequently than complete termination of the relationship. Taken together, these data provide insight into *how* young adults dissolve their friendships.

Situation type and endorsement of dissolution responses

Aiming to identify the contexts in which friendship dissolution occurs, we examined participants' endorsement of each of the three friendship dissolution responses in four interpersonal situations—Conflicts, Friend Transgressions, Participant Transgressions, and Support. Dissolution responses were virtually nonexistent in situations involving problems in providing support or transgressions by the participant, suggesting that only specific types of situations may provide the impetus to dissolve a friendship. Using mixed-effects logistic models, we found that responses involving ending the friendship or distancing from the friend were more likely to occur in response to scenarios in which a friend had transgressed than those involving a conflict of interest. This finding points to important conceptual distinctions between types of situations where friends are at odds. Much of the existing theoretical literature examining how individuals manage relevant challenging friendship situations does not distinguish between conflict and transgression by the friend. For instance, Laursen and Collins' (1994) influential definition of conflict emphasizes behavioral opposition as the core characteristic of conflict. Our data suggest that whose fault the opposition is—nobody's fault, in our definition of "conflict," and the friend's fault, in our definition of "transgression"—may influence emerging adults' likelihood of engaging in friendship dissolution behaviors. Future research should examine attributions of responsibility for oppositional situations as a potential factor influencing the likelihood of ending friendships or distancing from friends.

Despite the relatively high frequency of compartmentalizing in conflict situations, we found no difference in the likelihood of compartmentalizing when comparing conflicts and friend transgressions. An early version of our analyses based in an ANOVA framework found that compartmentalizing indeed occurred more frequently in conflicts, compared with friend transgressions. This finding was deemed plausible, as the conflicts in our study were "nobody's fault"; hence setting limits around conflictual activities or topics of discussion may be a way of preserving the friendship. However, we failed to find the same effect using the mixed modeling approach reported in the present study. Inspection of the raw data revealed that participants had disproportionately endorsed compartmentalizing in only one conflict situation, involving a friend's continued friendship with the participant's ex-romantic partner. Given its reliance on group mean comparison, our original repeated measures ANOVA failed to account for the fact that the mean difference in compartmentalizing between the two situation types was in fact due to only one situation, rather than a reliable pattern across conflict situations. In contrast, using a cross-classified mixed model led to the more accurate conclusion that variance in participants' endorsement of compartmentalizing was not due to the difference in situation type, when modeling the contribution of the 29 situations individually. The discrepancy in results between the two statistical approaches illustrates the importance of selecting a data analytic approach that allows researchers to go beyond group mean comparison, and appropriately model random effects in their data. While we did not find differences in compartmentalizing between friendship transgressions and conflicts overall, its high endorsement in one specific conflict situation suggests that there are contexts in which this novel response is relevant and perhaps adaptive. Given the novelty of this behavior, identifying the specific features of interpersonal

situations most likely to elicit compartmentalizing from emerging adults is a promising avenue for future research.

Associations between endorsement of interpersonal goals and dissolution responses

Using general mixed-effects models, we examined the association between seven goals and our three dissolution behaviors. Greater endorsement of relationship maintenance was associated with reported use of both ending and distancing behaviors, such that the more participants reported that they would be trying to stay friends, the lower the odds of endorsing either of these dissolution responses. These associations provide evidence for the validity of reports of ending the friendship, as participants engaging in this behavior are clearly not trying to maintain their friendship. The negative association between maintenance and distancing suggests that distancing may be used as a milder or less definitive form of ending, with the same intent to lessen friendship quality. These results are inconsistent with the alternative possibility; that is, that emerging adults may use distancing behavior to preserve friendships in the face of a negative event, for example by taking time to let difficult emotions pass before attempting reconciliation. Similarly, the lack of association between relationship maintenance and compartmentalizing suggests that emerging adults may not be strategically setting limits on fraught topics and activities with the goal of protecting a friendship.

Stronger endorsement of the goal “I would be trying to communicate or assert my own needs” in response to friendship challenges was associated with greater odds of reporting ending the friendship. Thus, another purpose of this dissolution behavior may be self-preservation. In some cases, the intent behind breaking off a friendship for emerging adults may be to protect themselves from friends who are perceived to interfere with their own well-being. Interestingly, assertiveness was not associated with either distancing or compartmentalizing. It may be that maintaining *any* contact with a friend perceived to be detrimental to one’s well-being is not viewed as an effective strategy, and completely eschewing a friendship may be the last resort when facing a transgressing friend. Although it will be important to replicate this finding, these data hint that “assertively ending” a harmful friendship may constitute an adaptive strategy for emerging adults, a possibility that merits further investigation.

Interestingly, the goals we expected to be associated with dissolution behaviors based on prior research were not significant predictors in our models. Notably, endorsement of revenge did not predict reported dissolution responses, suggesting that these behaviors may not be enacted with the explicit intent of harming friends. This result differs from McDonald and Asher (2013), who did find that revenge goals were associated with friendship dissolution. We also did not replicate their finding that endorsement of tension reduction was linked to greater report of dissolution. Methodological differences between this study and ours may explain these discrepancies. First, McDonald and Asher (2013) used hypothetical vignettes selected specifically to elicit revenge goals. In contrast, we included a comprehensive range of the different types of situations encountered in emerging adults’ friendships, which may have weakened associations. Second, we assessed response endorsement by asking participants to generate open-ended responses,

whereas they asked participants to rate how likely they would be to engage in a given strategy, which may have increased the strength of associations with goals, which were measured in the same way.

In general, there were few associations between the goals we studied and the three friendship dissolution responses. One reason may be that few responses were coded as ending, distancing, or compartmentalizing, leading to low statistical power. A close-ended design asking participants about their willingness to resort to friendship dissolution in each situation may address this issue. Furthermore, our simultaneous inclusion of all goals in each model is a more conservative test of the question, due to the shared variance among goals. Finally, we included goals designed to fit with an array of challenging situations and many different behavioral responses. For this reason, we consider these results to be exploratory. It will be important to try to replicate these findings and to examine additional goals that may be more directly relevant to friendship dissolution. For example, emerging adults may not want to end or downgrade a friendship, in order to maintain cohesion in their group of friends, or to avoid feeling lonely. In general, the small number of studies linking interpersonal goals to relationship management strategies in relevant interpersonal contexts highlights the need for more research in this area, specifically with emerging adults.

Individual differences in endorsement of dissolution strategies

Given its focus on the *when*, *how* and *why* of friendship dissolution, our study did not provide an extensive exploration of individual-level factors—the *who*—in friendship dissolution. Paralleling research identifying predictors of romantic relationship maintenance and dissolution in adults (e.g., Lydon & Karremans, 2015; Rusbult et al., 1986), we view this as a crucial next step in advancing our knowledge of friendship processes. Below we consider the two individual-level predictors considered in this research: gender and romantic relationship status.

Unlike previous work on gender differences in emerging adults' reactions to challenging friendship situations (Benenson et al., 2014; McDonald & Asher, 2013), we found no gender differences in endorsement of dissolution strategies. Of course, the present findings are specific to same-gender friendships and may not generalize to mixed-gender friendships. While empirical work on mixed-gender friends remains rare, emerging adults seem to hold different expectations for male and female friends' transgressive behaviors, with both genders judging women who engage in betrayals of trust more severely than men (Felmlee et al., 2012). Such discrepancies may account for different patterns of dissolution behaviors in emerging adults, with participants' and friends' genders possibly interacting with situation types. It will also be important to examine how sexual identity contributes to experiences with friends. While limited to distinctions between gay, lesbian, and heterosexual participants, research by Baiocco et al. (2014) suggests that friends' sexual identity and gender may both influence the well-being derived from friendships and merit closer empirical attention.

Despite work showing that romantic partners normatively replace friends as the primary source of support in later stages of emerging adulthood (Carbery & Buhrmester, 1998), we did not find that romantic relationship status predicted reported use of

dissolution strategies. It may be that our use of hypothetical vignettes obfuscated a potential association between relationship status and friendship dissolution. That is, real-life difficulties with a specific friend are likely to be perceived as more critical than those described in a hypothetical vignette, and the willingness to dissolve a friendship may be impacted by an individual's other interpersonal supports (including a romantic partner). Relatedly, another predictor of real-life friendship dissolution may be social satisfaction. Prior work on the dissolution of romantic relationships suggests that individuals with attractive alternatives are more likely to dissolve their current relationship in the face of dissatisfaction (e.g., Feinlee et al., 1990; Rusbult et al., 1986). Similarly, individuals who perceive that they have other friendship alternatives—for example, those who have more friends and are more satisfied with those friendships, as well as individuals with higher self-esteem—may be more likely to dissolve a given friendship, as may those who feel less need to belong. Charting the impact of one's interpersonal landscape on the real-life likelihood of responding to friendship challenges with dissolution is an important future direction.

Limitations and future directions

The present study relied on hypothetical vignettes to elicit participants' verbal description of behaviors they believed they would enact in the face of each situation. While this open-ended method provides valuable insight into how emerging adults think they would respond to friendship challenges, it does not allow for strong conclusions about their *enactment* of dissolution behaviors in real-life situations. Moreover, our vignettes depicted discrete situations. It seems plausible that while certain critical events may lead emerging adults to dissolve friendships, in other cases, dissolution may take place over longer periods of time involving an accumulation of negative events. Future work should examine this possibility more closely, perhaps by manipulating the chronicity of the challenges, in order to better understand the relational context of friendships leading to the enactment of dissolution behaviors.

In the present study, we investigated whether endorsing certain goals was associated with a higher likelihood of selecting dissolution responses in the face of challenging situations. Future work should examine other key intrapsychic variables likely to influence behavior selection, such as the emotions elicited by friendship challenges, as well as attributions about friends' intentions in transgression situations and conflicts. It may be that some individuals more readily assume that friends who violate core friendship expectations do so intentionally, or because of stable character traits. Whether individual differences in attributional tendencies are associated with behavior selection in the face of friendship challenges remains an open question.

Finally, an important limitation of this research relates to the generalizability of our findings across all emerging adults. The hypothetical situations used in the present research were generated through interviews with emerging adults enrolled in an undergraduate program, who are not representative of all individuals aged 18–25. Arnett's (2000) discussion of emerging adulthood points to demographic diversity during this developmental period. As such, vignettes based on university students' accounts of friendship challenges are less likely to capture friendship processes in the

“forgotten half” (Arnett, 2000, p. 476) of emerging adults who transition to the workforce and likely face very different social environments. Correspondingly, it will be important to examine interpersonal processes and challenges during this developmental period *outside* of university settings.

Conclusion

The present study aimed to begin mapping the *how*, *when* and *why* of same-gender friendship dissolution in emerging adulthood. Emerging adults’ open-ended responses to a comprehensive range of hypothetical challenging situations included three types of dissolution behaviors: ending, distancing, and compartmentalizing. These three dissolution responses occurred almost exclusively in transgressions by a friend and conflicts, and ending and distancing were most likely to occur in response to transgressions. The greater their endorsement of a relationship maintenance goal, the less likely participants were to select ending or distancing in response to a situation. In contrast, participants who endorsed trying to meet their own needs to a greater extent in response to a given situation were more likely to say that they would end the friendship. This work extends the budding literature on friendship maintenance and dissolution in emerging adulthood and highlights the role of contextual and motivational factors in interpersonal processes

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Open research statement

As part of IARR’s encouragement of open research practices, the author(s) have provided the following information: This research was not pre-registered. The data used in the research are available. The data can be obtained by emailing melanie.dirks@mcgill.ca. The materials used in the research are available. The materials can be obtained by emailing melanie.dirks@mcgill.ca.

Note

1. Initial models including responses to all four types of situation failed to converge, given the lack of variability in these two situations, where nearly all responses were *not* coded as any of the three friendship dissolution behaviors.

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