

TRIED AND TRUE: THE INFLUENCE OF PERCEIVED LOYALTY ON
FRIENDSHIP PERCEPTIONS AND FUNCTIONING

by

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Destaney Sauls

ABSTRACT

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Friendships provide social support and often serve to enhance psychological well-being. As such, it is important to understand how these friendships function. One feature that may contribute to friendship functioning is loyalty; however, the role of loyalty in friendships has not been sufficiently studied. The current work is intended to examine the potential relationships between the perceptions of two forms of loyalty and different aspects of friendship functioning. Passive loyalty refers to behaviors intended to be constructive in a relationship, but that may be passive in nature, such as letting a conflict go without holding a grudge. In contrast, active loyalty refers to behaviors that are more overt, such as defending a friend against the criticism of others. Participants were undergraduates drawn from the subject pools of two mid-sized Midwestern universities. Study 1 ($n = 445$) found that participants viewed their current friendships more positively than past friendships and that active loyalty was especially important in predicting the perceived closeness of the friendship. Study 2 ($n = 252$) found that active loyalty predicted perceptions of closeness for both the individual and their friend. Study 3 ($n = 474$) found that perceptions of active loyalty were associated with different aspects of

friendship maintenance (i.e., satisfaction with the friendship, investment in the friendship, and perceived quality of alternatives to the friendship) and that active loyalty had indirect associations with friendship commitment through these features. Although hypotheses for all three studies concerned both passive and active loyalty, passive loyalty was somewhat overshadowed by active loyalty. That is, the associations that emerged for passive loyalty often were obscured when active loyalty was included in the same analysis. However, it is important to note that the associations concerning passive loyalty often resembled the associations for active loyalty but were typically smaller in magnitude. Understanding the different potential implications of passive and active loyalty may allow for additional insights regarding how to cultivate and maintain meaningful friendships, ultimately enhancing the well-being and social connectedness of individuals.

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CHAPTER ONE

INTRODUCTION

Social relationships have long been recognized as a common and important aspect of everyday life. Humans engage in a wide variety of close social relationships with many of these relationships being platonic friendships – essentially, sustained social interactions with individuals who are non-kin and with whom individuals are not engaging in romantic or sexual relations (e.g., DeScioli & Kurzban, 2009; Perlman et al., 2015). Of course, this definition excludes relationships wherein a friend is seen as a potential mate because those friendships tend to display different patterns of functioning than friendships where the relationship is purely platonic (e.g., Bisson & Levine, 2009).

Friendships are ubiquitous and have been found to facilitate several desirable outcomes, such as health, happiness, and successful reproduction (e.g., DeScioli & Kurzban, 2009; DeScioli et al., 2011; Tooby & Cosmides, 1996). In fact, some researchers even consider friendships to be a human universal (e.g., Hruschka, 2010) and friendships likely also exist across different non-human species (e.g., Seyfarth & Cheney, 2012; Silk, 2002). Despite this, our current understanding of friendship dynamics and the potential impact of individual differences on friendship outcomes is limited. The current work examines one such individual difference in perception that may be uniquely related to friendship outcomes – specifically, the potential role of different perceptions of *loyalty* in the context of a friendship. The current work examines how perceptions of passive and active loyalty may be associated with friendship closeness across current and former

friends (Study 1), the extent to which passive or active loyalty may be associated with both an individual's own and their friend's sense of friendship closeness (Study 2), and how these perceptions of passive and active loyalty may be associated with different aspects of friendship maintenance and functioning (Study 3).

The Potential Impact of Loyalty

Despite the prevalence of friendships and platonic social interactions, research concerning friendships is somewhat lacking, and often does not satisfactorily address certain aspects of those relationships that may be important for the functioning of a sustained friendship. One such aspect of friendships – and many other relationships, in general – is loyalty. Friendship dynamics can be complex and multifaceted, but loyalty may be one factor that contributes to the quality and longevity of this kind of relationship. However, research concerning loyalty is scarce and further investigation is needed to gain a better understanding of how loyalty functions in the context of a platonic friendship. Loyalty often involves a sense of being faithful to that relationship and the relationship partner, especially in the face of potential temptations that may lead an individual to abandon or betray their partner, although loyalty may range from a general attitude to specific actions (e.g., Withey & Cooper, 1992). Loyalty is often accepted as an important aspect of both romantic relationships (e.g., Holmes & Rempel, 1989; Larzelere & Huston, 1980) and friendships (e.g., Parker & de Vries, 1993; Savin-Williams & Berndt, 1990), but it is not typically examined in detail (e.g., Rose, 1985; for a meta-analysis regarding friendship expectations, see Hall, 2011). Given that friendships usually involve high levels of intimacy and an expectation of self-disclosure, it is not surprising that issues of loyalty and trust would be essential to the functioning of a friendship.

This simple acceptance of loyalty has prevented a more thorough examination of the role that it may play in the appeal of certain individuals as potential friends. The current research literature regarding friendships may hint at a variety of factors that could potentially impact ongoing friendship functioning, but a more thorough examination of these factors – including loyalty – is necessary to understand friendship dynamics more fully. Although loyalty has often been recognized as a key factor in a variety of relationships, it is possible that it may play an even more important role in relationship functioning than previously hypothesized – or, that the nature of that role is somewhat more complicated than has been assumed so far, and this dynamic nature of loyalty may account for some of the inconsistencies associated with perceptions of loyalty. To be specific, I believe that how loyal an individual *actually* is may be less important than their friend's *perception* of that loyalty.

Previous Research Regarding Loyalty in Relationships

Loyalty in relationships tends to be passive and ambiguous. The question of how loyal someone is may never become known unless the relationship is challenged in some way or when that relationship becomes increasingly unsatisfying (e.g., Drigotas et al., 1995). A relationship that does not involve any form of conflict or dissatisfaction would not necessarily require loyalty to continue functioning. The reactive nature of loyalty – and displays of loyalty – makes it difficult to form concrete predictions regarding the potential impact of loyalty in a friendship. Loyalty has most often been described as “passively but optimistically waiting for conditions to improve” (e.g., Sinclair & Fehr, 2005, p. 299) and unfortunately this passive nature has occasionally resulted in inconsistent results regarding loyalty. Nonetheless, it is possible to draw certain

inferences regarding the role of loyalty in friendships by examining research in related domains.

Loyalty has been shown to play a key role in several different relationships, including employment relationships, consumer relationships, and romantic relationships. In employment contexts, it has been argued that loyalty may play a role in the voicing of employee discontent because loyalty is associated with the use of less formal methods of complaint, and the use of less formal methods is, in turn, associated with lower rates of job search activity and lower intentions to quit a current position (Olson-Buchanan & Boswell, 2002). Several interventions have been designed and implemented in an apparent effort to foster employee loyalty (e.g., Hamilton, 2011), likely because employee loyalty is associated with a number of desirable company outcomes, including higher satisfaction with employee wages (Masakure, 2016) and better organizational performance (Guillon & Cezanne, 2014).

The area of loyalty research that has probably received the most attention is brand loyalty. Brand loyalty may be conceptualized as the intention of customers to engage in repeat interactions with a brand or its products with these intentions sometimes persisting for several years (e.g., Guest, 1955). Previous research has suggested that the strength of brand loyalty may be explained, at least in part, by perceived quality (e.g., McConnell, 1968). It stands to reason that many brands would be interested in encouraging repeat business among their customers because this would ensure the continued longevity and profits of that business – for example, brand loyalty and brand sustainability appear to be closely related concepts (e.g., Schultz & Block, 2015). Research in this area has examined the impact of loyalty on several different brand-consumer relationships,

including how loyalty impacts value perception of assorted brands and products (e.g., Yi & Jeon, 2003) and what features may impact brand loyalty, such as social media presence and advertisements (e.g., Barnet & Ferris, 2016). Taken together, it would appear that brand loyalty is a consistent predictor of different consumer or customer behaviors, and many brands appear to be interested in encouraging brand loyalty.

The literature surrounding loyalty in romantic relationships may offer the most relevant parallels regarding what we may expect to find in platonic friendships. Loyalty has long been recognized as a distinctive and important strategy employed during conflict or dissatisfaction in romantic relationships (e.g., Baxter et al., 1997; Rusbult & Zembrodt, 1983; Rusbult et al., 1982). Some authors argue that loyalty in close personal relationships is a social experience, rather than the manifestation of any individual's personal disposition (e.g., Baxter et al., 1997). This perspective suggests that loyalties may vary with context or competition, and in fact, we should expect them to do so. However, this also begins to highlight one of the difficulties associated with the understanding of loyalty – that is, loyalty may be expressed as either a state (e.g., someone is feeling loyalty for their partner in a certain context) or a trait (e.g., someone is generally loyal to their friends).

Although loyalty has traditionally been viewed as a responsive behavior, it is also possible for loyalty to manifest as a trait, such that it is stable across different contexts, including different friendships. If an individual is expected to be loyal to their partner in an ongoing romantic relationship, we would expect there to be some consistency in their loyalty such that the loyalty to their partner would be more important than their other potential loyalty obligations. We may expect some parallels with platonic friendships,

such that loyalty to a friend would be expected to win out over other potential competing loyalties at least somewhat consistently, although a friendship may not necessarily involve as many loyalty tests and trials as a romantic relationship. This is due to friendships and romantic relationships differing in several ways, including the nature of the emotional bond, the level of commitment, and the expectations and obligations that come with the relationship (e.g., exclusivity).

Romantic relationships often involve a high level of emotional investment and commitment, such as exclusivity, cohabitation, and shared resources, which can create more opportunities for loyalty to be displayed or tested. Additionally, romantic relationships are often subject to cultural and societal norms that emphasize the importance of loyalty and fidelity, which may heighten the salience of loyalty features in a relationship. Loyalty is often brought to light in romantic relationships in times of conflict, and some research suggests that loyalty may play an important role in whether a romantic relationship continues or faces dissolution (e.g., Harasymchuk & Fehr, 2019; Rusbult & Zembrodt, 1983; Sinclair & Fehr, 2005). Loyalty has even been described as a kind of relationship “ideal” (Fletcher et al., 1999). In contrast, friendships are typically less formalized and may have fewer explicit expectations or obligations, which can result in fewer questions of loyalty or opportunities for loyalty to be displayed. Nonetheless, friendships may still be subject to certain conflicts, such as competing loyalties or breaches of trust, which can have a significant impact on the relationship.

The Nature of Loyalty

Loyalty may not function the same way in all relationships because loyalty can also be influenced by contextual factors and individual differences, such as self-construal

(Sinclair & Fehr, 2005), self-esteem (Rusbult et al., 1987), and gender-role orientation (Rusbult et al., 1986). The influence of these individual differences may explain, at least to a certain extent, why correlations between loyalty and different relationship features (e.g., satisfaction, quality) have been weak and inconsistent (e.g., Drigotas et al., 1995; Rusbult et al., 1986). Drigotas et al. (1995) also note that some of these inconsistencies may be due to the passive nature of loyalty – essentially, the passive nature of loyalty may limit the *visible* impact of loyalty on interpersonal relationships because loyalty may be both subtle and susceptible to the influence of different situational factors and individual differences. Loyalty is often considered to be a constructive (i.e., intended for the good of the relationship), but passive (i.e., little to no active or overt behaviors), response to conflict or potential conflict within a relationship with the goal of maintaining or restoring the relationship (e.g., Rusbult, 1987). Many passive loyalty responses in relationships may be as simple as choosing to let a conflict go, or choosing to continue with the relationship despite conflict, both of which would not necessarily involve overt actions or behaviors. However, most close relationships will likely involve some form of periodic dissatisfaction simply by the close and sustained nature of the relationship (e.g., Drigotas et al., 1995) and this periodic dissatisfaction or conflict may provide an individual with some insight into how loyal their interaction partners are. However, the research literature has primarily been concerned with a passive conceptualization of loyalty, and it is possible that passive loyalty is more likely to go unnoticed than active loyalty.

Although most of the loyalty literature has emphasized the passive nature of loyalty, the current work included measures of both passive loyalty and active loyalty in

an attempt to gain a more nuanced understanding of the roles that different presentations of loyalty may play in friendship perceptions and functioning. Passive loyalty may be less visible, and therefore have less of an obvious impact on the relationship than active loyalty. For example, a friend who chooses to remain friends despite a conflict would be displaying passive loyalty. In contrast, active loyalty may involve more deliberate choices and more overt behaviors intended in the spirit of loyalty, such as actions that demonstrate commitment, support, and advocacy for the friend. For example, an individual who defends their friend when that friend is facing outside aggression would be displaying active loyalty. Passive loyalty may not translate into overt behaviors that promote the well-being of the friendship, whereas active loyalty may create a stronger sense of connection and promote greater intimacy and trust – simply put, active loyalty may be more visible, and therefore warrant more of a response from the friend. Additionally, active loyalty may be more likely to withstand challenges to the relationship, as the individual has made a deliberate choice to remain loyal despite obstacles. Although these descriptions may indicate that active loyalty and passive loyalty are completely separate constructs, they are likely to be intimately intertwined in personal relationships. Active and passive loyalty may be considered to be divergent manifestations of an underlying relationship feature. Essentially, even though active and passive loyalty may present themselves in different contexts and be associated with different kinds of behaviors, they are both still forms of loyalty.

Loyalty may be present throughout the course of a relationship, but it may be uniquely important in times of conflict because ongoing loyalty may determine if a relationship continues or dissolves when that relationship involves conflict or

dissatisfaction. However, passive loyalty may not be the most visible or impactful relationship feature, and it has been argued that this may be because loyalty tends to be less salient or more ambiguous than other relationship features, and may ultimately be less obviously influential in an ongoing relationship (e.g., Drigotas et al., 1995; Rusbult & Zembrodt, 1983). It stands to reason that because loyal actions are intended in the spirit of cooperation and renewal, many of the issues surrounding loyalty that have led to inconsistent associations with different relationship outcomes may be attributable to the relationship partner misinterpreting the actions and loyalty of their partner. As such, how loyal an individual *actually* is may be less impactful on a relationship, but *perceived* loyalty still has the potential to impact the functioning of a relationship. Essentially, what may be more important than the actual directed loyalty of the interaction partner is *how loyal someone perceives their partner to be*. Additionally, active loyalty may be more visible than passive loyalty in the context of a relationship, and this may allow active loyalty to have a greater impact on the relationship.

The Exit-Voice-Loyalty-Neglect Model (Rusbult, 1987) is one of the most common approaches to examining loyalty in relationships (see Figure 1). This model describes several avenues of behavior and decision making as responses to dissatisfaction in close relationships. Typically, Exit and Neglect involve the dissolution of a relationship through either active or passive means, respectively, whereas Voice and Loyalty involve constructive efforts to improve the relationship through either active or

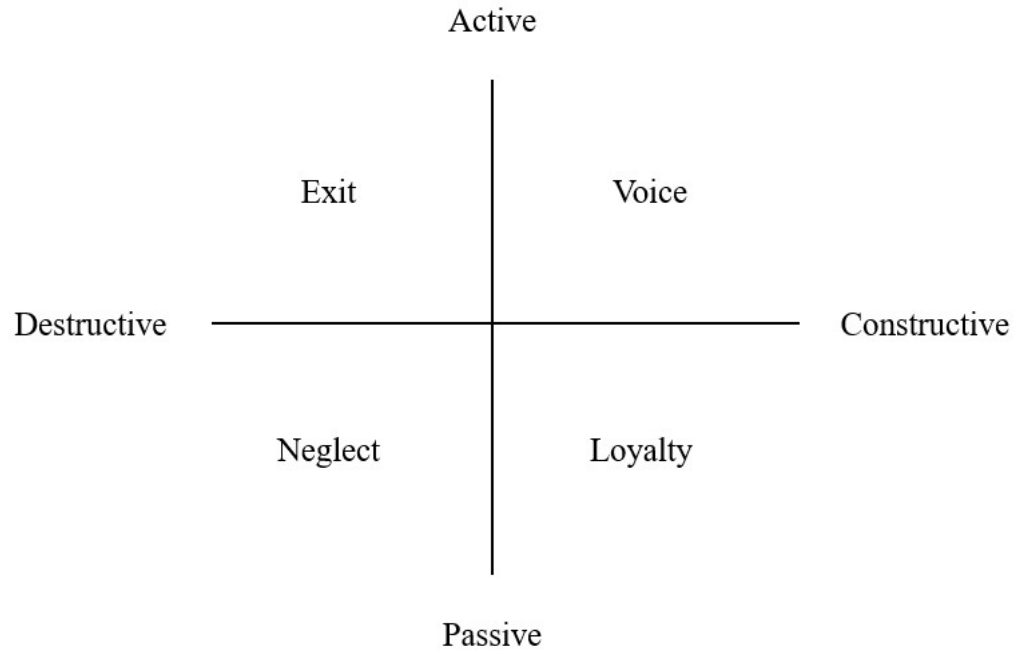


Figure 1. Figure depicting the circumplex conceptualization of the Exit-Voice-Loyalty-Neglect (Rusbult, 1987) model, taken from Drigotas et al. (1995).

passive means, respectively. Notably, this model emphasizes the passive nature of loyalty and does not include items or concepts that would be consistent with “active” loyalty. The original model proposed by Hirschman (1970) included Exit, Voice, and Loyalty, but not Neglect, and was intended to describe possible responses to a decline in product quality. As it stands, we may consider “relationships” generally and “friendships” specifically to fulfill the role of this “product” – any product that we are willing to invest in must present a reasonable quality for an appropriate cost, and when this is no longer true, we may expect loyalty to waver. Essentially, when a relationship is tested in some way, individuals may attempt to leave the relationship (Exit), attempt to make improvements to the relationship (Voice), optimistically wait for the conditions of the

relationship to improve (Loyalty), or choose to let the relationship fall apart (Neglect). Each of these responses has been found to be associated with different aspects of friendship functioning, although loyalty typically displays the least consistent associations (e.g., Rusbult, 1983; Rusbult et al., 1982) and this may be due, at least in part, to the fact that individuals do not appear to be able to perceive loyalty responses from their partner with accuracy (e.g., Drigotas et al., 1995).

Previous research has found that there is often a discrepancy between actual directed loyalty and perceived loyalty in romantic relationships (likely due to the less salient, more ambiguous nature of most loyalty responses). Essentially, people tend to report more of their own loyalty responses, whereas they often fail to notice the loyalty responses of their partners (Drigotas et al., 1995). Drigotas et al. (1995) found that self-reports of Loyalty responses matched partner reports of loyalty responses only about 40% of the time, notably less than the matched scores for Voice (78%), Neglect (67%), and Exit (58%) for those same relationships. Loyalty, as it is defined in the literature, tends to be more passive and ambiguous, and this means that many passive loyalty responses may frequently go unnoticed or be misinterpreted by the partner.

Current Conceptualizations of Friends and Friendships

Friendships tend to be, at least to a certain extent, pleasant and beneficial for us. Friendships appear to have a positive impact on well-being, often serving as a source of social, emotional, or material support (e.g., Campbell, 2002; Hruschka, 2010; Plickert et al., 2007). Research has found that we spend significant amounts of time with our friends, although this often peaks in adolescence (e.g., Larson & Badney, 1988). Additionally, friendships appear to be considered important by a variety of people – for example, when

participants were asked to name their closest and most involved relationship, 36% identified a friend (Berscheid et al., 1989). Given the apparent benefits and importance of friends and friendships, people may be interested in initiating and maintaining especially valuable friendships. However, certain individuals may have different ideas regarding what constitutes a “valuable” friendship (e.g., whether a friendship should be useful; Sauls & Zeigler-Hill, 2020), or even what the definition of a friendship should be. Different people may have divergent definitions of friends and friendships, and this may be due (at least in part) to their divergent experiences with friendships and other kinds of close relationships. Nonetheless, these anecdotal definitions may be combined with the ongoing research literature to formulate a working definition of friendship.

I offer as a basic definition that a *friend* is someone with whom we share a close, platonic, pleasant, sustained, and voluntary relationship – and someone to whom we may be consistently loyal or committed (e.g., Cords & Thompson, 2017; Felmlee & Muraco, 2009). Friendships tend to involve some sense of mutual liking, but they may also provide a myriad of other more tangible benefits, such as physical protection or social capital (e.g., Lewis et al., 2015; Massen et al., 2010). Friendships can be flexible in their presentation and purpose, and this has given rise to several models of friendships that posit a variety of reasons for why we pursue and engage in platonic friendships (e.g., Ackerman et al., 2007; de Vos & Zeggelink, 1997). For example, there are a few different perspectives offered by the evolutionary psychology literature that attempt to explain why we have friendships at all, and whether the purpose and presentation of a friendship may change with time and circumstance (e.g., Lieberman et al., 2007; Silk, 2003).

Models of Friendship

One perspective suggests that friendships may develop out of a sense of *reciprocal altruism* – essentially, we help others who have helped us in the past or who may help us in the future, and this pattern eventually develops into the mutual relationship that we know as friendships (e.g., de Vos & Zeggelink, 1997; Silk, 2003). Another perspective suggests that we form friendships because our minds have never been required to develop the appropriate mechanisms to properly detect the differences between kin and non-kin. Essentially, we form relationships with friends because the proximity of the individual and the generally positive nature of the interactions lead us to treat this unrelated individual as if they were kin (e.g., Ackerman et al., 2007; DeBruine, 2005; Lieberman et al., 2007; Park & Schaller, 2005). Typically, these perspectives and models do not account for issues such as loyalty and commitment (which may be considered issues relevant to specific friendships, whereas these models may be interpreted as being more relevant to the general concept of friendships). A third, more recent, perspective – which is known as the “alliance hypothesis” – may be related to loyalty and suggests that we may develop friendships as a way of fostering *alliances* to weather current or potential future conflicts (Descioli & Kurzban, 2009).

The alliance hypothesis may be particularly relevant to issues surrounding loyalty because work in this area has implied that exclusivity and mutualism may be especially important for friendship functioning. For example, when asked to rank their friends, most individuals were able to rank their friends in a very similar position to the rank that their friend gave them (Descioli & Kurzban, 2011) and individuals tend to try and hide their own friendship rankings or friendship preferences in an apparent effort to create

additional opportunities for social support and the sharing of resources (e.g., Shaw et al., 2018). Other work has found that there may be different behaviors that serve as indicators of friendship strength or closeness, such as secret keeping (e.g., Liberman & Shaw, 2018). Children were asked to determine which individuals may be friends, and they were able to look at the patterns of secret sharing and secret keeping as indicators of who may be close friends. These different issues of friendship ranking, alliance, and secret sharing may all be related to loyalty in the friendship.

The Importance of Perceived Loyalty

Loyalty is often assumed to be an integral feature of friendships (e.g., Baxter et al., 1997; Gonzalez et al., 2004; Hall, 2011), but this assumption often means that the specifics of loyalty and the ways in which loyalty may be impacting different features of friendships are overlooked. Although limited work has recently begun to examine how individuals perceive and experience loyalty in a friendship (e.g., Liberman & Shaw, 2019), many of the specifics of these associations require additional scrutiny. However, perceived loyalty does appear to be influential for a number of different relationships and perspectives. For example, perceived loyalty has a significant impact on perceptions of immigrants or individuals with dual citizenship (Jasinskaja-Lahti et al., 2020), trust in a business partnership involving simple versus complex contracts (Praxmarer-Carus, 2014), and perceptions of employment potential (Gibson & Balkwell, 1990). Taken together, it would appear that perceived loyalty impacts perceptions and behaviors in a variety of different interpersonal interactions. Although friendships have not been examined specifically, it seems likely that perceived loyalty has an impact on new and continuing

interpersonal interactions, and that a close interpersonal relationship such as a friendship may also be impacted by perceptions of loyalty.

Perceived Loyalty and Friendship

How loyal someone is to their friend may depend, at least in part, on how loyal that person perceives that friend will be to them. Although this idea has not been tested directly, there is work that may provide indirect support for this hypothesis, particularly in the context of the alliance hypothesis of friendship. Early work intended to examine issues surrounding the alliance hypothesis considered different perspectives that friends may have when considering which friends may be especially valuable. Although this work was largely supportive of the alliance hypothesis' that friendships are the result of alliance formation behaviors, it may also be interpreted as supporting the idea that loyalty and perceptions of loyalty are important in the context of relationships generally and friendships specifically. For example, early work concerning the alliance hypothesis examined the extent to which an individual's ranking of their friend may match their friend's expected ranking of them (e.g., if someone were to rank a good friend as third in their hierarchy of friends, they would expect to be ranked in a similar position on that person's list of friends as well; Descioli & Kurzban, 2009). Although this study did not specifically reference loyalty, these results may also be interpreted in such a way as to support the idea that loyalty and perceived loyalty may be important factors to consider when examining the intricate nature of human friendships.

Overview and Predictions

The friendship literature has often overlooked the potential importance of loyalty to friendships. When loyalty is referred to at all, it is often glossed over or conceptualized

as being similar to commitment, a feature considered to be important to relationships of all kinds (e.g., Florian et al., 2002; Kurdek & Schnopp-Wyatt, 1997). Friendships are an important and common part of life, and an expansion of this literature to address the importance of loyalty allows us to gain insight into the different processes involved in friendship functioning and maintenance. The purpose of the present studies was to investigate the role that perceived loyalty may play in different friendship dynamics, and whether different kinds of loyalty may display divergent associations with certain aspects of friendship functioning. The present work investigated the potential associations that perceptions of passive and active loyalty had with friendship closeness among both current and former friends (Study 1), the potential associations between passive or active loyalty and the sense of closeness that members of a friendship dyad may feel (Study 2), and the potential connections that passive and active loyalty perceptions have with various aspects of friendship maintenance and functioning, such as friendship commitment (Study 3).

CHAPTER TWO

STUDY 1: VARIATIONS IN PERCEPTIONS OF LOYALTY ACROSS CURRENT AND FORMER FRIENDSHIPS

Study 1 was intended to examine the potential associations that perceptions of different forms of loyalty have with friendship closeness. This study serves as the first attempt to gain insight into the dynamic interplay between perceptions of loyalty and friendship closeness, and provides a unique perspective on friendship dynamics by comparing these perceptions across both current and former friends. Comparing current and former friendships can help researchers understand how relationships evolve over time, the factors that contribute to their continuation or termination, and the dynamics that influence these changes. The current work represents an initial attempt to understand some of the features that may be contributing to a wide variety of friendship outcomes, such as whether the friendship dissolves or endures. Additionally, exploring these different dimensions of loyalty may provide insights into whether loyalty has any relation with closeness, and whether certain types of loyalty are more strongly associated with the perceived closeness between friends. Understanding the differences in perceived friendship closeness between current and former friends is crucial for beginning to comprehend how friendship dynamics may change with time and circumstance. Exploring these differences will provide valuable insights into how perceptions of loyalty shape the longevity and stability of friendships – and potentially shed light on why some friendships end whereas others continue. As such, I present the following hypotheses:

Hypothesis 1: Participants would report higher levels of both perceived passive and perceived active loyalty for their current friendships than their former friendships.

Hypothesis 2: Perceptions of both passive and active loyalty would be associated with closeness in the friendship, such that increased levels of loyalty would be associated with increased levels of closeness.

Method

Participants and Procedure

Participants were 509 undergraduate students from two mid-sized universities in the Midwestern region of the United States who were enrolled in psychology courses and participated in exchange for partial fulfillment of a research participation requirement. I determined the sample size for this study should be at least 250 participants by referring to previous findings regarding the average effect size in personality-psychology ($r \approx .21$; Richard et al., 2003) as well as different guidelines for reducing error ($N > 250$; Schönbrodt & Perugini, 2013). Participants were asked to consider 5 current and 5 former friends as they completed measures of passive and active loyalty via a secure website. Data were excluded for 46 participants who failed to successfully complete two or more of the directed response items that were included in the instruments to identify inattentive responding (e.g., “Answer this item with ‘Strongly Disagree’”), 6 participants for being univariate outliers, and 12 participants for having invariant response patterns as assessed by long-string analysis (Huang et al., 2012). The final sample consisted of 445 participants (147 males, 283 females, 1 transgender individual, 10 genderqueer or gender nonconforming individuals, and 4 individuals who identified as ‘other’). The mean age of participants was 19.95 years ($SD = 2.90$), and their racial/ethnic composition was 76% White, 8% Black, 6% Asian, 5% Hispanic, and 5% other.

Measures

Demographics. Participants completed a broad questionnaire regarding their demographics and friendship features (e.g., gender, racial/ethnic background, friendship background).

Perceived Passive Loyalty. Perceived passive loyalty was assessed using the Loyalty Subscale of the Exit-Voice-Loyalty-Neglect Scale (Rusbult et al., 1986) which was modified to reflect perceptions of a friend's loyalty (Appendix A). The Loyalty subscale includes 7 items that capture how loyal an individual believes their friends will be (e.g., "When we have problems in the friendship, my friend patiently waits for things to improve" [$\alpha = .73$]). Participants were asked to rate how often each item occurs on a scale ranging from 1 (*never does this*) to 9 (*always does this*).

Perceived Active Loyalty. Perceived active loyalty was assessed using the Perceived Active Loyalty (PAL) measure, which was designed for use in the current work (Appendix B).¹ The PAL includes items intended to assess the perception of active loyalty in the context of a friendship (6 items; e.g., "my friend would defend me if someone said something bad about me" [$\alpha = .71$]). Participants were asked to rate their agreement on a scale ranging from 1 (*never*) to 7 (*always*).

¹ The PAL measure consists of 6 items assessing perceptions of active loyalty: "My friend would defend me if someone said something bad about me," "My friend would say good things about me to other people," "My friend would often choose to spend time with me over other people," "My friend would not tell other people my secrets," "My friend probably wouldn't say anything to defend me if someone said something bad about me" (reverse-scored), "My friend would stab me in the back if they thought they could get away with it" (reverse-scored). These 6 items were retained from a larger pool of 24 items and were chosen based on their specificity (e.g., concrete actions) and their potential overlap with other items on the measure (i.e., items that appeared to be redundant were considered lower priority). An exploratory factor analysis suggests the existence of a single factor with an Eigenvalue of 2.44 that explained 49% of the variance.

Closeness. Friendship closeness was assessed using a single item (“How close would you consider this friend to be?”). Participants were asked to rate their level of closeness on a scale ranging from 1 (*not close at all*) to 10 (*very close*).

Results

Descriptive statistics and zero-order correlations are presented in Table 1.

Perceived passive loyalty for current friends was positively correlated with passive loyalty for former friends, active loyalty for current friends, and closeness for current friends but not active loyalty for former friends or closeness for former friends. Perceived passive loyalty for former friends was positively correlated with active loyalty for both current and former friends as well as closeness for former friends, but not closeness for current friends. Perceived active loyalty for current friends was positively associated with perceived active loyalty for former friends, as well as closeness for current and former friends. Perceived active loyalty for former friends was positively associated with perceived closeness for former friends.

The data from this study comprised a multilevel data structure because observations at one level of analysis were conceptually nested within another level of analysis (i.e., participants provided multiple responses across the two categories of current and former friends). Because of the hierarchical structure, hierarchical linear modeling was utilized to employ a series of multilevel models to analyze these data (HLM; Bryk et al., 1998). Multilevel models were used to analyze these data because these models can account for the violation of the independence assumption that occurs

Table 1*Study 1: Intercorrelations and Descriptive Statistics*

	1	2	3	4	5	6
1. Perceived Passive Loyalty (current)	—					
2. Perceived Passive Loyalty (former)	.37**	—				
3. Perceived Active Loyalty (current)	.25**	.12*	—			
4. Perceived Active Loyalty (former)	.05	.58**	.31**	—		
5. Closeness (current)	.16*	.06	.57**	.10	—	
6. Closeness (former)	.05	.19**	.17*	.27**	.17*	—
<i>Mean</i>	4.68	4.12	5.64	4.34	7.69	6.15
<i>Standard Deviation</i>	0.66	0.78	0.74	1.01	1.29	1.95

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

when responses comprise a nested data structure. Conceptually, these models involved two steps. In the first step, a regression equation was estimated at Level 1 to yield intercept and slope coefficients that serve as an index of the associations that perceptions of passive loyalty and active loyalty had with friendship closeness. In the second step, Level 2 analyses examined whether the intercepts and slopes obtained from the Level 1 analyses differed between groups depending on the status of the friend as current or former.²

Participants reported higher levels of passive loyalty ($B = .28$, $SE = .02$, $t = 14.61$, $p < .001$), active loyalty ($B = .64$, $SE = .02$, $t = 25.99$, $p < .001$), and closeness ($B = .72$, $SE = .05$, $t = 14.80$, $p < .001$) for current, rather than former, friends. For the analyses concerning closeness, the main effect of passive loyalty was not significant ($B = -.03$, $SE = .04$, $t = -0.77$, $p = .440$), but a positive association emerged for active loyalty ($B = .71$,

² Preliminary analyses for each of the three studies involved controlling for the gender of the participant and the length of the friendship. However, these variables had little impact on the results and were subsequently excluded from primary analyses.

$SE = .04, t = 17.22, p < .001$). Essentially, it would appear that active loyalty is associated with higher levels of friendship closeness, but passive loyalty is not. The cross-level interaction of passive loyalty and friendship status was not significant ($B = .03, SE = .03, t = 0.95, p = .344$), but the cross-level interaction of active loyalty and friendship status was significant ($B = .20, SE = .03, t = 7.11, p < .001$). Simple slopes tests revealed that active loyalty was positively associated with closeness for former friends ($B = .50, SE = .05, t = 11.13, p < .001$) and current friends ($B = .99, SE = .04, t = 28.22, p < .001$), but that this association was especially strong for current friends. Essentially, active loyalty appears to be particularly important in terms of predicting friendship closeness, and this association is moderated by the current or former friendship status such that active loyalty had an especially strong positive association with closeness for current friends.

Discussion

For Study 1, I was interested in the possibility that perceptions of both passive and active loyalty in a friendship may be associated with an increase in the perceived closeness of the friendship, but that this may be especially true for current friends relative to former friends. The results were somewhat consistent with my hypotheses. Current friendships were generally viewed as having higher perceived levels of passive loyalty, active loyalty, and friendship closeness. Perceptions of passive loyalty did not appear to have a significant association with friendship closeness. However, the main effect of active loyalty was significant such that perceptions of active loyalty were connected with friendship closeness, whereas passive loyalty was not associated with closeness. Although there may be a number of explanations for the divergent associations regarding active and passive loyalty, these findings do begin to suggest that active loyalty may play

an interesting and important role in predicting friendship closeness, and this association may be influenced by whether it is an ongoing friendship. Specifically, perceptions of active loyalty appear to have a particularly strong positive association with closeness in current friendships when compared to former friendships. This pattern of results begins to suggest that the effect of active loyalty on friendship closeness may be more pronounced when the friendship is ongoing. It is entirely possible that active loyalty has a kind of cumulative effect in an ongoing friendship, and this may be related to the increased sense of closeness. Further research is necessary to verify that actively demonstrating loyalty, such as through acts of support, care, and dedication, may be particularly influential in strengthening the closeness of current friendships – or that close friendships may offer more opportunities to display active loyalty.

CHAPTER THREE

STUDY 2: LOYALTY IN DYADS

The purpose of Study 2 was to examine the ways in which perceived passive loyalty and perceived active loyalty may be associated with a sense of friendship closeness in a friendship dyad. Much of the research literature concerning loyalty in a relationship context has focused on a passive definition of loyalty, and I was interested in the possibility that active loyalty may represent a related yet distinct form of loyalty that may play a unique role in friendship perceptions and functioning. Specifically, for Study 2, I was interested in the possibility that an increased sense of loyalty may be associated with increased perceptions of closeness for both an individual and their friend, and this may suggest that certain forms of loyalty may demonstrate a reciprocal effect in the context of a friendship. By examining friendship dyads, I was able to more thoroughly examine the possibility that there may be both actor and partner effects for active loyalty and passive loyalty. Typically, in an Actor-Partner Interdependence Model (APIM; Kenny et al., 2006), both members of a dyad are treated as an actor and a partner. For example, in a married couple, the wife's stress may be associated with her own relationship satisfaction (an actor effect) but also her husband's relationship satisfaction (a partner effect), and vice versa (see Figure 2 for a basic example of an APIM model). My use of both members of these friendship dyads allowed me to explore the parallels between passive loyalty and active loyalty, and the potential associations that these forms of loyalty may have with closeness. Given this, I propose the following hypotheses:

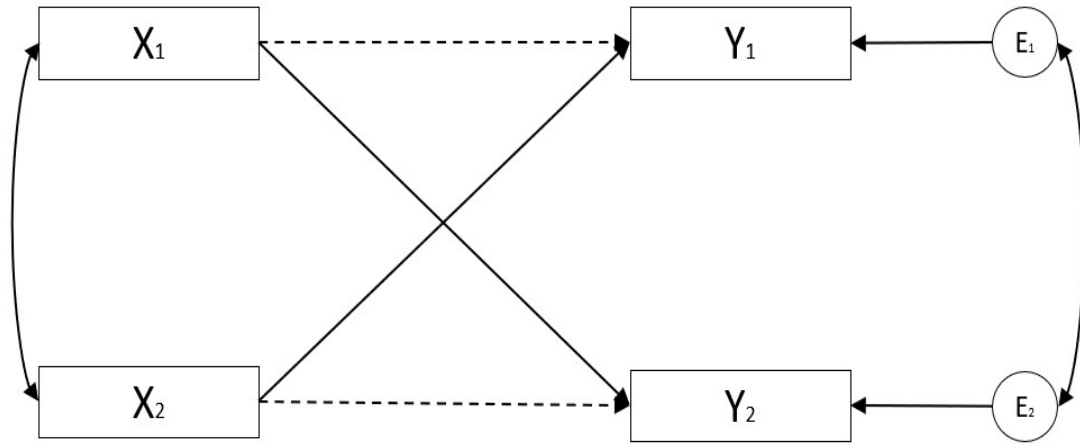


Figure 2. Figure depicting a basic APIM model wherein dashed lines represent the actor effects and solid lines represent the partner effects, taken from Kenny et al. (2006).

Hypothesis 3: The perceived passive loyalty of a friend will be positively associated with the perceived closeness reported by that individual (actor effect) and their friend (partner effect). That is, Friend A’s perceptions of the passive loyalty of Friend B will be positively associated with both Friend A’s and Friend B’s perception closeness.

Hypotheses 4: The perceived active loyalty of a friend will be positively associated with the perceived closeness reported by that individual (actor effect) and their friend (partner effect). That is, Friend A’s perceptions of the active loyalty of Friend B will be positively associated with both Friend A’s and Friend B’s perception of closeness.

Method

Participants and Procedure

Half of each dyad (referred to as *Friend A*) was recruited from the subject pools of two large Midwestern universities and took part in the study in exchange for partial fulfillment of a research participation requirement. Friend A was then asked to nominate

a close friend to complete the matched measures (referred to as *Friend B*). There were 405 Friend A participants and 224 Friend B participants. The disparity between the initial sample sizes is most likely due, at least in part, to the fact that Friend A received partial fulfilment of a research participation requirement as compensation, whereas Friend B was not provided with any compensation. That is, it is possible that many Friend B participants failed to complete the measures because neither Friend A nor Friend B received an incentive for Friend B doing so. For Friend A, data were excluded for 1 participant for being a univariate outlier, and for 27 participants due to having invariant response patterns as assessed by long-string analysis (Huang et al., 2012). For Friend B, data were excluded for 15 participants who failed to successfully complete two or more of the directed response items that were included in the instruments to identify inattentive responding (e.g., “Answer this item with ‘Strongly Disagree’”), 3 participants for being univariate outliers, and 4 participants for being multivariate outliers. Data were also excluded for participants who could not be matched to their dyadic partner. This may have occurred because their friend did not complete the additional survey, their friend did not enter the ID number correctly, or one member of the dyad was excluded from analyses based on the data screening procedures. There were 76 Friend B participants who could not be matched to Friend A. Although some of the ID numbers were similar to some of the randomly generated ID numbers from Friend A’s data file, many of these ID numbers appeared to be completely incorrect. It is possible that the Friend A participants were inaccurate when giving Friend B their ID number because there was no incentive to be correct. Future dyadic studies would benefit from secondary confirmation of the ID number, such as a follow-up email. It is also important to note that some participants

were excluded due to the various data screening procedures that led to their partner being excluded from the analyses (i.e., the exclusion of one participant resulted in the exclusion of their friend). For example, the Friend A participant “49626” was excluded from data analyses based on the long-string analysis, and as such the Friend B participant “49626” was necessarily excluded, despite meeting other inclusion criteria. The final dyadic sample consisted of 126 friendship pairs (252 total participants). The mean age of Friend A participants was 19.95 years ($SD = 2.80$), and their racial/ethnic composition was 71% White, 9% Black, 7% Asian, 4% Hispanic, and 9% other. The mean age of Friend B participants was 20.81 years ($SD = 5.32$), and their racial/ethnic composition was 79% White, 7% Black, 6% Asian, 4% Hispanic, and 4% other.

Measures

Demographics. Participants completed the same broad questionnaire regarding their demographics as in Study 1.

Perceived Passive Loyalty. Perceived loyalty was assessed using the modified Loyalty Subscale of the Exit-Voice-Loyalty-Neglect Scale (Rusbult et al., 1986) as in Study 1 (Friend A [$\alpha = .74$]; Friend B [$\alpha = .75$]).

Perceived Active Loyalty. Perceived active loyalty was assessed using the Perceived Active Loyalty (PAL) measure as in Study 1 (Friend A [$\alpha = .83$]; Friend B [$\alpha = .81$]).

Closeness. Friendship closeness was assessed using the same single item as in Study 1.

Results

Descriptive statistics and zero-order correlations are presented in Table 2. The passive loyalty reported by Friend A was positively associated with the passive loyalty reported by Friend B. The passive loyalty reported by Friend B was positively associated with the closeness reported by Friend B. The active loyalty reported by Friend A was positively associated with the active loyalty reported by Friend B, as well as the closeness reported by both Friend A and Friend B. The active loyalty reported by Friend A was positively associated with the reported closeness of both Friend A and Friend B. The closeness reported by Friend A was positively associated with the closeness reported by Friend B.

Table 2*Study 2: Intercorrelations and Descriptive Statistics*

	1	2	3	4	5	6
1. Perceived Passive Loyalty (Friend A)	—					
2. Perceived Passive Loyalty (Friend B)	.48**	—				
3. Perceived Active Loyalty (Friend A)	.16	.10	—			
4. Perceived Active Loyalty (Friend B)	.07	.10	.51**	—		
5. Closeness (Friend A)	.10	.12	.56**	.41**	—	
6. Closeness (Friend B)	.16	.18*	.53**	.53**	.64**	—
<i>Mean</i>	4.82	4.66	6.26	6.20	8.93	8.96
<i>Standard Deviation</i>	0.94	0.83	0.72	0.80	1.24	1.29

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

Primary data analyses were conducted using an APIM analysis (Kenny et al., 2006), which is capable of simultaneously examining the association of an individual's score on a predictor variable with their own score on an outcome variable as well as their partner's score on the outcome variable. The APIM is often used in dyadic data analysis because it can account for some of the reciprocal qualities that may occur in relationships by measuring the associations between the attributes of partners and analyzing the influence that one partner may have on the other (Figure 3). Essentially, APIM analyses allow for the examination of *actor effects* (e.g., whether the loyalty that Friend A perceives from Friend B is associated with Friend A's perceptions of closeness) and *partner effects* (e.g., whether the loyalty that Friend A perceives from Friend B is associated with Friend B's perceptions of closeness).

The results for closeness revealed that for Friend A there was no actor effect ($\beta = -.03, t = -.30, p = .766$) or partner effect ($\beta = .03, t = 0.39, p = .698$) for passive loyalty. However, the results for closeness also revealed that for Friend A there was an actor effect ($\beta = .48, t = 5.65, p < .001$) and partner effect ($\beta = .33, t = 4.03, p = .005$) for active loyalty. Essentially, higher levels of perceived active loyalty by Friend A were associated with higher feelings of closeness for both Friend A and Friend B.

The results for closeness revealed that for Friend B there was no actor effect ($\beta = .10, t = 1.20, p = .232$) or partner effect ($\beta = .07, t = 0.87, p = .385$) for passive loyalty. However, the results for closeness also revealed that for Friend B there was an actor effect ($\beta = .35, t = 4.22, p < .001$) for active loyalty, but the partner effect for active loyalty only approached conventional levels of statistical significance ($\beta = .15, t = 1.81, p = .070$). Higher levels of perceived active loyalty by Friend B were associated with

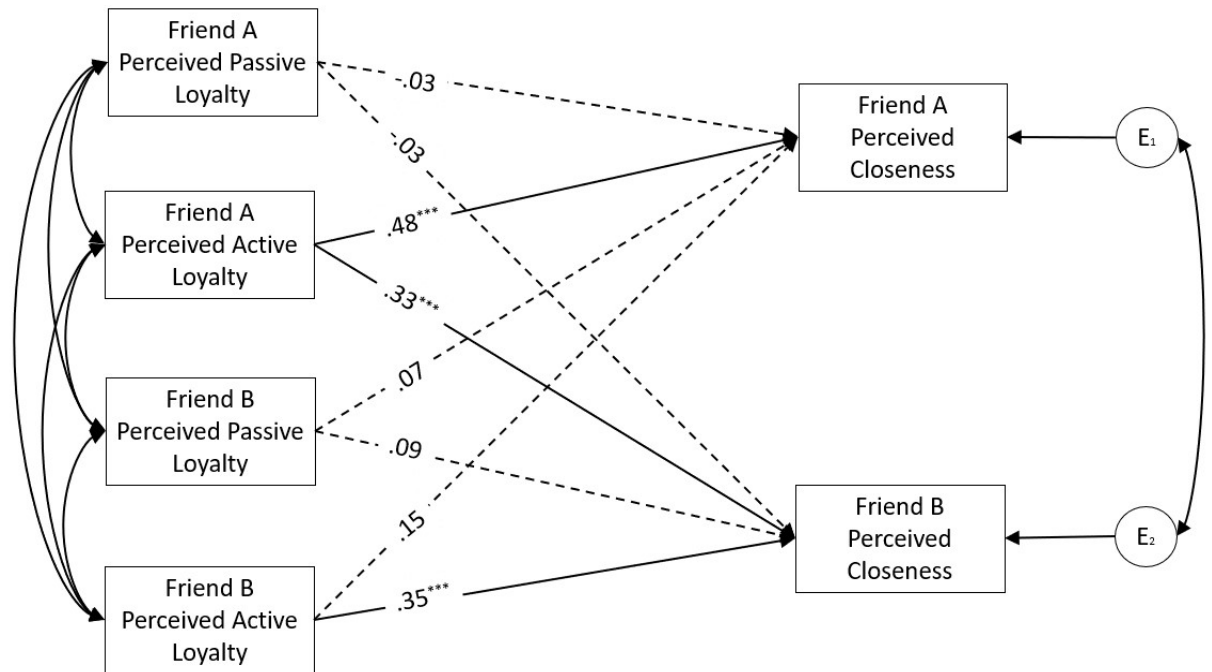


Figure 3. Figure depicting the APIM model that examined the associations between perceptions of passive and active loyalty and friendship closeness. Solid lines indicate significant effects, whereas dashed lines indicate nonsignificant effects.

higher feelings of closeness for Friend B, and although the results for the partner effect on Friend A are nonsignificant, they were also trending in the same direction such that higher perceived levels of active loyalty appear to be associated with higher feelings of closeness.

Discussion

The results of Study 2 provided insights into the association between loyalty and closeness and were somewhat consistent with hypotheses. Although passive loyalty did not display the expected associations, the expected results concerning active loyalty did emerge. It was revealed that perceptions of active loyalty, but not passive loyalty, were generally associated with higher levels of closeness. This finding suggests that actively demonstrating loyalty through concrete actions may be associated with an increased sense of closeness for both members of the friendship. The association for active loyalty that was not statistically significant (Friend B's active loyalty partner effect) was approaching significance in the same direction as the other associations for active loyalty. There were no significant actor or partner effects for perceptions of passive loyalty, although it is possible that perceptions of passive loyalty may be obscured due to the more visible nature of active loyalty. Active loyalty may involve more easily observable, concrete behaviors and these may garner more attention and recognition, thereby overshadowing the potential influence of passive loyalty on closeness within friendships.

These results also suggest that actively demonstrating loyalty through concrete actions may characterize friendships that display a particular closeness. Individuals who actively demonstrated loyalty in a way that was easily perceived by their friend – actions such as defending their friend from insults or reputational damage – generally reported

higher levels of closeness with their friends and their friends reported higher levels of closeness with them. Further research may be necessary to determine a more nuanced understanding, but these results suggest that active loyalty may be especially important for feelings of closeness. Future studies could provide insight into whether feelings of closeness inspire individuals to engage in behaviors characteristic of active loyalty, or whether those behaviors inspire feelings of closeness. As an alternative explanation, it is also entirely possible that individuals who tend to engage in displays of active loyalty more often may also have other traits that make them more desirable as friends.

CHAPTER FOUR

STUDY 3: PERCEIVED LOYALTY AND FRIENDSHIP FUNCTIONING

Although loyalty is often overlooked as a key feature of friendship functioning, commitment is generally considered to be one of the key hallmarks of relationship health (e.g., Florian et al., 2002; Palmatier et al., 2013). This is demonstrated by the importance of commitment in the context of the Investment Model of relationships (Rusbult, 1980). This model has been utilized in detailed examinations of different relationship contexts, including romantic relationships (e.g., Campbell & Foster, 2002; Rusbult et al., 1986), employee-employer relationships (e.g., Eickholt & Goodboy, 2017; Rusbult & Farrell, 1983), and, more rarely, friendships (e.g., Branje et al., 2007; Sauls & Zeigler-Hill, 2020). The Investment Model is intended to predict commitment to some relationship (Rusbult, 1980) and commitment and loyalty are often conceptualized in a similar manner. Additionally, loyalty was found to predict better relationship outcomes (e.g., greater future satisfaction with the relationship and greater future commitment to the relationship) at least under certain conditions (e.g., Rusbult et al., 1986) and this appears to also be true of non-romantic relationships, such as employee-employer relationships (e.g., Farrell & Rusbult, 1992).

Study 3 was intended to examine the associations that perceived loyalty has with friendship functioning as described by the Investment Model (Rusbult, 1980) that includes *satisfaction* with the friendship, *investment* in the friendship, *quality of alternatives* to the friendship, and *commitment* to the friendship. This model suggests that satisfaction, investment, and perceived quality of alternatives each play a role in fostering

commitment to the relationship. Satisfaction generally refers to how pleased an individual is with a relationship or their partner, or how pleasant they may find them – for example, someone may feel content or happy in their current relationship. Investment generally refers to the amount of resources that an individual has committed to the relationship – for example, someone may invest a resource such as time into a relationship and they may then become more committed to the relationship because they do not want to potentially waste that resource. Quality of alternatives generally refers to the perceived quality of the options an individual has as alternatives to a particular relationship – for example, an alternative to spending time with a certain friend may be spending time with a different friend. Satisfaction and investment are positively associated with friendship commitment, whereas perceived quality of alternatives tends to be negatively associated with commitment. Previous research, particularly in the alliance hypothesis literature (e.g., Descioli & Kurzban, 2009), has provided tangential support for the potential link between perceived loyalty and friendship functioning. As such, I proposed the following hypotheses:

Hypothesis 5: Perceived passive and active loyalty will be positively associated with satisfaction with the friendship and investment in the friendship, but negatively associated with perceived quality of alternatives to the friendship.

Hypothesis 6: Perceived passive and active loyalty will be associated with higher commitment to the friendship.

Hypothesis 7: Perceived passive and active loyalty will have positive indirect associations with friendship commitment through satisfaction with the friendship, investment in the friendship, and perceived quality of alternatives to the friendship.

Method

Participants and Procedures

Participants were 535 undergraduate students from two large universities in the Midwestern region of the United States who were enrolled in psychology courses and participated in exchange for partial fulfillment of a research participation requirement. I once again determined sample size by referencing the average effect size in personality psychology in conjunction with guidelines for reducing estimation error, but I deliberately oversampled to ensure adequate statistical power. Participants were asked to consider a particular platonic close friend and friendship as they completed measures of perceived passive and active loyalty, as well as a modified version of the Investment Model Scale – along with other instruments not relevant to the current study (e.g., self-esteem level) and instruments that may be included in supplemental analyses for exploratory purposes (e.g., broad personality traits) – via a secure website. Data were excluded for 33 participants who failed to successfully complete two or more of the directed response items that were included in the instruments to identify inattentive responding (e.g., “Answer this item with ‘Strongly Disagree’”), 13 participants for being univariate outliers, and 15 participants for having invariant response patterns as assessed by long-string analysis (Huang et al., 2012). The final sample consisted of 474 participants (154 males, 302 females, 2 transgender individuals, 12 genderqueer or gender nonconforming individuals, and 4 individuals who identified as ‘other’). The mean age of participants was 19.97 years ($SD = 3.10$), and their racial/ethnic composition was 75% White, 7% Black, 6% Asian, 4% Hispanic, and 8% other.

Measures

Demographics. Participants completed the same broad questionnaire regarding their demographics as in Study 1 and Study 2.

Perceived Passive Loyalty. Perceived passive loyalty was assessed using the same Loyalty Subscale of the Exit-Voice-Loyalty-Neglect Scale (Rusbult et al., 1986) as in Study 1 and Study 2 ($\alpha = .72$).

Perceived Active Loyalty. Perceived active loyalty was assessed using the PAL as in Study 1 and Study 2 ($\alpha = .82$).

Friendship Functioning. Friendship features (i.e., satisfaction with the friendship, investment in the friendship, perceived quality of alternatives to the friendship, and commitment to the friendship) were assessed using a modified version of the Investment Model Scale (Appendix C) intended to reflect general platonic friendships (e.g., Lehmiller & Agnew, 2006; Rodrigues & Lopes, 2013; Rusbult et al., 1998). The Investment Model Scale includes 22 items that address different aspects of friendship functioning: *satisfaction with the friendship* (5 items; e.g., “This friendship makes me very happy” [$\alpha = .86$]), *investment in the friendship* (5 items; e.g., “I have put a great deal into this friendship that I would lose if this friendship were to end” [$\alpha = .70$]), *quality of alternatives to the friendship* (5 items; e.g., “My alternatives to this friendship are attractive to me” [$\alpha = .78$]), and *commitment to the friendship* (7 items; e.g., “I want this friendship to last a very long time” [$\alpha = .87$]). Participants were asked to rate their level of agreement for each item on scales ranging from 0 (*do not agree at all*) to 8 (*agree completely*).

Results

Descriptive statistics and zero-order correlations are presented in Table 3.

Perceived passive loyalty was positively correlated with perceived active loyalty.

Perceived passive loyalty was positively correlated with satisfaction with the friendship and commitment to the friendship. Perceived active loyalty was positively correlated with satisfaction with the friendship, investment in the friendship, and commitment to the friendship, but negatively correlated with perceived quality of alternatives to the friendship.

My hypotheses are consistent with an indirect effects model such that the association between perceived loyalty and friendship commitment is believed to be a function, at least in part, of the maintenance mechanisms of satisfaction with the friendship, investment in the friendship, and perceived quality of alternatives to the friendship (Figure 4). I employed a parallel multiple mediation analysis using model four of the PROCESS macro developed by Hayes (2018) to determine whether the associations between perceived loyalty from a friend and commitment to the friendship display indirect associations through the friendship features of satisfaction with the friendship, investment in the friendship, and perceived quality of alternatives to the friendship. PROCESS uses a resampling process that repeats 10,000 times to generate a 95% percentile confidence interval (CI). Indirect effects were considered significant if the CIs did not contain zero. That is, CIs that did not contain zero indicated significant mediation.

Perceived passive loyalty did not have significant associations with satisfaction with the friendship, investment in the friendship, or perceived quality of alternatives to

Table 3*Study 3: Intercorrelations and Descriptive Statistics*

	1	2	3	4	5	6
1. Perceived Passive Loyalty	—					
2. Perceived Active Loyalty	.14*	—				
3. Satisfaction with the Friendship	.13*	.63**	—			
4. Investment in the Friendship	.08	.31**	.52**	—		
5. Quality of Alternatives	.05	-.20**	-.13*	-.03	—	
6. Commitment to the Friendship	.11*	.68**	.76**	.47**	-.24**	—
<i>Mean</i>	4.69	6.04	5.92	5.00	3.96	6.13
<i>Standard Deviation</i>	0.87	0.87	0.93	1.05	1.14	0.83

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

the friendship. Perceived active loyalty had positive associations with satisfaction with the friendship and investment in the friendship, but a negative association with perceived quality of alternatives to the friendship.

Satisfaction with the friendship and investment in the friendship were positively associated with commitment to the friendship, whereas perceived quality of alternatives to the friendship was negatively associated with commitment. Perceived passive loyalty did not have a significant association with commitment to the friendship. Perceived active loyalty had a significant positive association with commitment to the friendship.

Perceived passive loyalty did not display significant indirect associations with commitment to the friendship through satisfaction with the friendship ($a_1b_1 = 0.02$, $SE = 0.02$, $z = 1.14$, $p = .256$, $CI_{95\%} [-0.02, .06]$), investment in the friendship ($a_2b_2 = 0.00$, $SE = 0.01$, $z = 0.69$, $p = .493$, $CI_{95\%} [-0.01, .02]$), or the perceived quality of alternatives to the friendship ($a_3b_3 = -0.01$, $SE = 0.01$, $z = -1.52$, $p = .130$, $CI_{95\%} [-0.02, .00]$). In contrast, tests of mediation showed that perceived active loyalty had indirect associations with commitment through satisfaction with the friendship ($a_4b_1 = 0.29$, $SE = 0.03$, $z = 10.27$, p

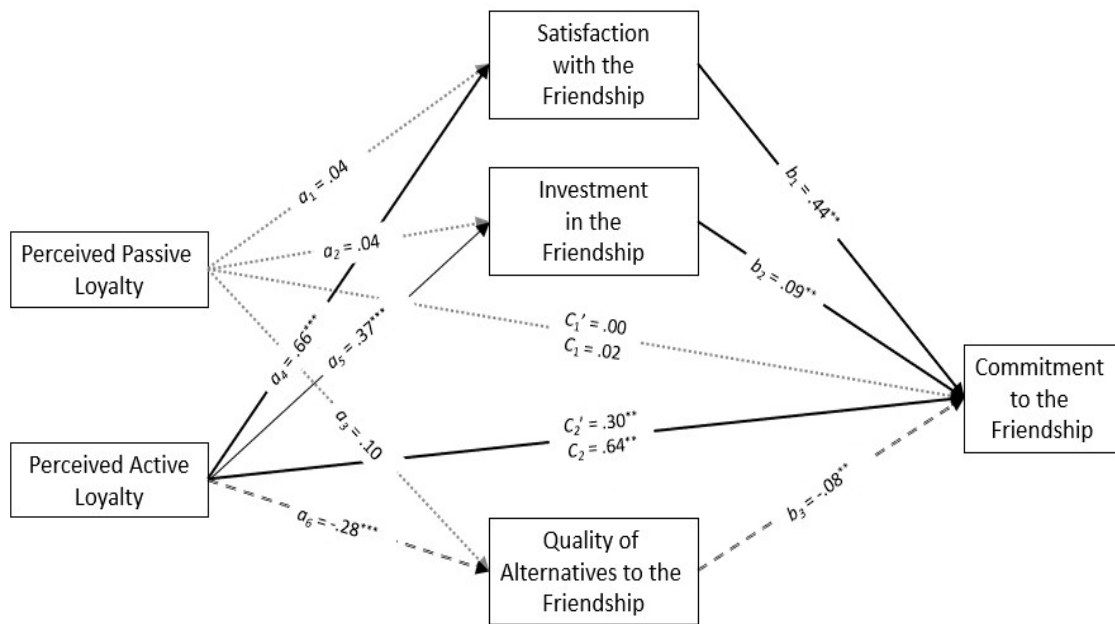


Figure 4. *Study 3.* The results of the multiple mediation analysis with satisfaction with the friendship, investment in the friendship, and quality of alternatives to the friendship mediating the association that perceived passive loyalty and perceived active loyalty had with commitment. Note: The significant positive associations are indicated by solid black arrows. The significant negative associations are indicated by dashed black arrows. The dotted grey lines represent nonsignificant associations.

$< .001$, $CI_{95\%} [.23, .36]$), investment in the friendship ($a_5b_2 = 0.03$, $SE = 0.01$, $z = 3.06$, $p = .002$, $CI_{95\%} [.01, .06]$), and the perceived quality of alternatives to the friendship ($a_6b_3 = 0.02$, $SE = 0.01$, $z = 2.95$, $p = .003$, $CI_{95\%} [.01, .04]$).

Discussion

These analyses allowed for an increased understanding of the role that loyalty may play in friendship functioning and commitment. The results were somewhat consistent with the hypotheses, such that perceived active loyalty displayed indirect associations with commitment to the friendship through the different friendship maintenance mechanisms. However, perceived passive loyalty did not display the expected direct or indirect associations with commitment or the friendship functioning mechanisms. Of note, perceived passive loyalty did display significant associations; however, these associations did not persist when perceived active loyalty was included as a covariate in the model. In contrast, perceived active loyalty continued to display strong and significant associations when perceived passive loyalty was also included in the model.

Taken together, these results suggest that perceived active loyalty plays a more important role in friendship functioning than perceived passive loyalty. Perceived passive loyalty may play a role in friendship functioning, but this appears to be overshadowed by the overlap between perceived passive loyalty and perceived active loyalty. Essentially, it appears that perceptions of loyalty matter for friendship functioning, but active loyalty (e.g., defending a friend) appears to matter more than passive loyalty (e.g., patiently waiting for conditions to improve).

CHAPTER FIVE

GENERAL DISCUSSION

Platonic friendships, characterized by non-romantic affection and companionship, are a common form of social relationship that typically provide an individual with various resources, support, and a sense of belonging (e.g., DeScioli et al., 2011; Tooby & Cosmides, 1996). Despite, or because of, the common nature of this relationship, research concerning friendships has largely been overshadowed by research in other domains, such as romantic relationships. This lack of emphasis on friendships has limited our understanding of the complexities and dynamics inherent in these relationships. The current research was intended to help bridge this gap by examining the potential role of different forms of loyalty in various friendship dynamics.

Some research concerning friendship suggests that loyalty may be an important feature of the relationship dynamics, especially with regard to the health of the relationship (e.g., Parker & de Vries, 1993; Savin-Williams & Berndt, 1990), but this research does not often delve deeper into the possible connections that loyalty has with different aspects of friendship functioning (e.g., whether a friendship dissolves when undergoing conflict). Loyalty, in this context, refers to the commitment and dedication that individuals demonstrate toward their friends. Although loyalty is often associated with romantic relationships or familial bonds, its significance in platonic friendships should not be undervalued, despite receiving little attention so far. Understanding how loyalty manifests in a friendship and how loyalty may impact various friendship dynamics can provide insights into the mechanisms that sustain and strengthen these

relationships and may allow us to begin taking more deliberate steps to foster healthy and fulfilling friendships.

Examining different forms of loyalty within friendships can contribute to a more comprehensive understanding of the factors that influence their stability and longevity. Understanding friendship may be a difficult endeavor, given that they often involve fewer concrete expectations or boundaries than other forms of relationships. For example, someone may ask a romantic partner to be their spouse, but they are unlikely to ask a platonic individual to be their friend. Friendships can vary greatly in terms of their levels of emotional intimacy, trust, and mutual support and as such, it is important to begin distinguishing which factors may be contributing to these variations. The presence or absence of a sense of loyalty in these friendships may shape the extent to which individuals are willing to invest time, effort, and other concrete resources into maintaining and nurturing these intimate social connections.

The current work hypothesized that what may matter more than how loyal our friends are is how loyal we perceive them to be. Our understanding of friendships, what they entail, and how they function has evolved and may continue to evolve as the nature of the friendships themselves changes in our increasingly connected social world. Expanding our understanding of the relationships between friendship health and perceptions of passive and active loyalty may be beneficial for fostering supportive social networks and promoting healthy social interactions.

The current research revealed intriguing patterns in the associations between perceptions of both passive and active loyalty, friendship closeness, and various aspects of friendship functioning. The results were somewhat consistent with the hypotheses such

that perceptions of active loyalty displayed several strong associations with different aspects of friendship functioning. However, perceptions of passive loyalty generally failed to display the expected associations with closeness and indicators of friendship functioning. Taken together, these results suggest that perceptions of active loyalty may be more important for friendships than perceptions of passive loyalty.

Study 1 found that current friendships were associated with higher levels of both kinds of loyalty, as well as friendship closeness. Interestingly, the results concerning active loyalty were generally significant but those regarding passive loyalty were not. This suggests that the more visible active loyalty behaviors, such as defending a friend or working to actively maintain the friendship, may contribute to a sense of trust, support, and reciprocation – which, in turn, may impact the sense of closeness in the friendship. Additionally, active loyalty displayed a particularly strong association with closeness for current (rather than former) friends. This suggests that any potential impact of active loyalty on friendship closeness is more pronounced when the friendship is ongoing. One possible explanation for this is that active loyalty behaviors have a cumulative effect over time. Continuously engaging in supportive actions and actively maintaining the friendship may strengthen the bond and trust between individuals, leading to increased closeness.

Study 1 showed that perceptions of active loyalty had a significant positive association with friendship closeness. This suggests that active loyalty, characterized by intentional behaviors, plays a crucial role in predicting and potentially fostering friendship closeness. These findings begin to highlight the importance of active loyalty in developing and maintaining strong and close friendships. These findings provide valuable

insights for individuals seeking to cultivate and deepen their friendships and begins to hint at why some friendships fail. By engaging in active loyalty, individuals can contribute to a sense of trust, emotional support, and reciprocation within their friendships, ultimately enhancing the closeness and quality of these relationships. It is also entirely possible that failing to engage in or demonstrate these behaviors may detract from the quality or health of the friendship. Moreover, the results highlight the need for further exploration of different dimensions of loyalty so that we can contribute to a more nuanced understanding of the multifaceted nature of friendships and inform strategies for building and sustaining meaningful social relationships.

Study 2 examined the potential interplay of actor and partner effects of perceived loyalty and friendship closeness. Interestingly, one's own increased perceptions of active loyalty were associated with increased feelings of closeness for both themselves and their friend. This suggests that when individuals perceive their friends as actively demonstrating loyalty through supportive and dedicated behaviors, it enhances their own subjective experience of closeness in the friendship and their friend's perception of closeness. This reciprocal association highlights the mutual influence and interconnectedness of perceived active loyalty and friendship closeness. Passive loyalty did not display either actor or partner effects in Study 2.

The results concerning active loyalty largely reiterate the findings from Study 1 – it would appear that active loyalty is beneficial for a friendship such that it is associated with an increased sense of closeness. However, it is particularly interesting that this appears to be true for both members of a friendship dyad. This suggests that there may be a positive feedback loop in the friendship – believing that your friend is loyal may make

you feel closer to that friend, which may inspire more active loyalty behaviors, which would then be likely to have an impact on the friend's feelings of closeness, and the cycle would then repeat. This would be in line with the findings from Study 1 that suggest active loyalty may be more impactful on current friendships – essentially, it is entirely possible that these positive forces in the friendship have a kind of cumulative, building effect. Friendships that have lasted for extended periods of time may tend to build both feelings of loyalty and closeness. These results emphasize the significance of active loyalty in fostering mutual feelings of closeness in friendships and highlight the need for further research to unravel the exact mechanisms and directionality of these associations.

Study 3 found that perceptions of active loyalty were directly and indirectly associated with commitment to the friendship. When individuals perceived their friends as actively demonstrating loyalty through supportive and dedicated behaviors, it positively influenced their own commitment to the friendship. However, this active loyalty also appeared to be associated with commitment indirectly, particularly through satisfaction and investment. Perceiving active loyalty in a friendship may contribute to higher satisfaction with the relationship, as individuals feel supported and valued by their friends. Perceptions of active loyalty may also lead individuals to invest more time, effort, and resources into the friendship, further enhancing their commitment to its maintenance and health. This indirect pathway highlights the role of satisfaction and investment as important mechanisms through which active loyalty influences commitment in friendships. Interestingly, passive loyalty once again did not display any significant associations with indicators of friendship functioning. This suggests that passive loyalty, characterized by less visible or overt behaviors, may have limited

influence on commitment. Although passive loyalty may still be relevant in friendships, its potential impact on commitment may be less pronounced compared to active loyalty.

The findings from Study 3 have implications for individuals seeking to cultivate and maintain strong and lasting friendships. This work underscores the importance of active loyalty in fostering commitment to friendships. Active loyalty behaviors appear to create an environment of trust, support, and reciprocity, which may contribute to higher satisfaction and investment in the relationship, ultimately strengthening the commitment of both friends to maintaining the friendship. Understanding the role of active loyalty in friendship commitment may be beneficial for individuals interested in prioritizing behaviors that actively demonstrate their dedication, support, and reliability to their friends – which, in turn, may promote the health and longevity of the friendship. It is also important to acknowledge that the reverse may also be true – that is, friendships that do not present opportunities for displays of active loyalty may be less likely to continue. This raises the intriguing possibility that deliberately introducing tests of loyalty could be beneficial for some friendships under certain conditions.

The results demonstrated that perceptions of active loyalty played a significant role in shaping the dynamics of friendships, particularly in relation to aspects of friendship functioning such as satisfaction and commitment. On the other hand, passive loyalty did not typically show a significant association with the examined aspects of friendship, at least when it was included in the same model as active loyalty. However, it is important to note that this does not necessarily mean that passive loyalty does not play a role in friendship dynamics. Instead, it suggests that the role of passive loyalty may be overshadowed by the somewhat more visible nature of active loyalty, which is especially

interesting given the tendency for the research literature to characterize loyalty in relationships as a somewhat passive phenomenon.

Although passive loyalty may still have smaller associations with different aspects of friendship functioning, the lack of a significant association between perceptions of passive loyalty and different friendship outcomes does suggest that solely relying on passive displays of loyalty may not be sufficient to foster a sense of deeper connection and intimacy with the friend. Passive loyalty may involve less visible behaviors, such as being there for a friend in a time of need or not holding onto past conflicts. While these actions are certainly important and may warrant a sense of appreciation, they may not have as strong of an influence as actively loyalty behaviors, such as defending a friend. The positive associations between active loyalty and various friendship outcomes highlight the potential importance of actively investing in friendships and actively showing loyalty in friendships. Showing loyalty through actions and clear efforts to maintain the friendship or support the friend may positively contribute to the overall quality and health of the friendship.

Although both forms of loyalty likely have their merits in the context of a variety of different kinds of relationships, it is possible that active loyalty may play a more impactful and visible role in fostering and maintaining strong friendships. Loyalty may be a fundamental aspect of a variety of different relationships, whether they are romantic, familial, or platonic friendships. While loyalty, in general, conveys a sense of steadfastness and commitment – especially in the face of conflict or adversity – active loyalty may be a form of loyalty that allows relationships to take on even greater depth and connection. Active loyalty refers to consistently demonstrating dedication, support,

and devotion to a relationship or an individual through tangible actions. It is possible that these tangible actions serve as evidence of an individual's active participation in the relationship, such that their relationship partner may feel validated by the visible effort being put into the relationship, and they may, in turn, be more willing to also put significant effort into the relationship.

The visible and tangible acts characteristic of active loyalty may help establish positive sentiments such as trust, reciprocity, and emotional support within the friendship, possibly leading to a deeper sense of connection. When individuals consistently show loyalty through their actions, they reinforce their dependability and reliability. This consistency builds a sense of predictability and reliability, which are essential components of trust. This alignment between words and actions reinforces the belief that the person can be trusted to follow through on their intentions. Essentially, if someone can clearly see the motivations of an individual through that individual's actions, they may feel an increased sense of familiarity and trust because they are able to rely on their relationship partner with more confidence. It is important to note that the development of trust does often involve several stages (e.g., Rempel et al., 1985), and active loyalty may play an especially important role in the early stages of trust development because this is when the individuals involved are less familiar with one another. It may be interesting for future research to examine the role of active loyalty in trust development, particularly with regards to the rebuilding of the relationship after a breach of trust.

Active loyalty may also foster a sense of emotional validation or security, which likely plays a crucial role in the intimacy of close relationships. If active loyalty behaviors are in response to some need from the friend, they may represent a greater

sense of empathy or validation beyond the original support offered. Active loyalty creates a sense of emotional safety, where individuals feel confident that their needs and concerns will be valued and addressed. This security allows for vulnerability and authenticity, facilitating a deeper closeness and emotional connection between individuals. This emotional validation may further strengthen the bond between friends. Active loyalty may address needs for closeness, intimacy, and support by fulfilling the desire for emotional connection and responsiveness. When these attachment needs are met, and met consistently, emotional security likely thrives, and individuals may feel more confident in and satisfied with the relationship.

Interestingly, it is also possible that the more concrete behaviors associated with active loyalty may foster an expectation of reciprocity in the friend. Active loyalty likely creates a strong foundation for the norm of reciprocity to operate within the relationship such that when one individual perceives loyalty through consistent actions, they may feel a natural inclination to reciprocate the same level of care and commitment. Social exchange theory (e.g., Emerson, 1976, 1990) posits that individuals engage in relationships based on the perceived costs and benefits. Active loyalty may contribute to the perceived benefits of a relationship, potentially increasing the value an individual believes a relationship contains. This perception of benefits may create a sense of mutual obligation to reciprocate, leading to a more balanced and equitable relationship – essentially, if a friend appears to be especially valuable, their partner may be motivated to try and demonstrate that same value. When individuals actively engage in supportive behaviors toward each other, they create a reciprocal connection. If each friend offers support to the other, which, in turn, fosters an expectation of providing support in the

future, then this mutual obligation may contribute to the potential longevity and functioning of the friendship. For example, seeing your friend clearly demonstrate their continued loyalty may encourage a healthy give-and-take dynamic, ensuring that both individuals feel valued and appreciated. By consistently demonstrating loyalty and support, an individual may create a reciprocal and balanced relationship dynamic, where each person feels obligated to care for and support the other, leading to a stronger and more fulfilling bond.

The differential effects of active and passive loyalty highlight the importance of understanding and distinguishing between various dimensions of loyalty in the context of friendships. Although passive loyalty may still play a role in friendship maintenance and health, its impact may potentially be more limited compared to that of active loyalty. It is possible that passive loyalty alone may not demonstrate an active investment in the relationship or create a sense of reciprocal support, which could explain the lack of observed effects. It is also important to note that the relative importance or impact of active and passive loyalty may vary based on individual preferences, personal backgrounds, and cultural contexts. Different friendships may require or encourage different forms of loyalty depending on the needs and dynamics of the individual friendship. These different forms of loyalty may, in turn, be associated with a wide variety of friendship outcomes. Research in this domain may shed light on why some friendships end while others persist.

It is also important to note that the current work treated active and passive loyalty as divergent manifestations of a single underlying concept. Essentially, active and passive loyalty may present as related but distinct constructs because at their core they are both

forms of interpersonal loyalty. Interpersonal loyalty can be seen as a spectrum with active loyalty and passive loyalty representing different levels or manifestations of commitment and dedication in the context of a close personal relationship. One feature that may be important in distinguishing between active and passive loyalty is the *direction* of the loyalty – that is, whether the loyalty surrounds and protect the friendship from outside forces (i.e., active loyalty) or whether the loyalty exists within the friendship itself as a tool to manage internal conflict (i.e., passive loyalty). However, it is also possible that loyalty in a relationship may shift from passive to active as the bond deepens or as a response to meaningful events and shared experiences. Conversely, active loyalty might diminish into a state of passive loyalty or even disengagement if trust is broken, needs are not met, or interests diverge. Future research in this area should attempt to further disentangle the intimately intertwined natures of these divergent forms of loyalty, and this may provide further insight into how loyalty can contribute to building stronger and more enduring friendships.

Active loyalty appears to be intimately linked with an array of friendship dynamics. The potential influence of active loyalty may extend beyond the boundaries of the individual, contributing to a shared sense of identity and purpose within the relationship. The value of active loyalty lies not only in its immediate impact, but also in its potential for an enduring legacy. As individuals actively demonstrate loyalty, they sow the seeds for growth, connection, and lasting bonds that stand resilient against the trials of time. However, the exact nature of these dynamics and relationship features is likely extremely complicated given the ambiguity that often surrounds friendships (e.g., they often do not have a clear start date). There are several avenues through which behaviors

characteristic of active loyalty may be related to patterns of relationship functioning, such as through the cultivation of trust or reciprocity. Although the exact nature of these associations has yet to be revealed, the results of the current work do indicate that active loyalty may be an important part of relationship functioning, and as such it warrants further investigation in the research literature.

There are several additional promising avenues for future research, particularly in the domain of active loyalty. Active loyalty refers to the intentional behaviors that individuals may choose to engage in to demonstrate their commitment and dedication to their friends. One potential direction for future investigation regarding active loyalty could involve examining the specific strategies and actions employed by individuals to actively express loyalty within their friendships. This would allow us to gain insight into which behaviors are effective for fostering different kinds of loyalty, which will be beneficial for any efforts to deliberately improve friendships. This may involve studying behaviors such as providing emotional support during challenging times, advocating for a friend's well-being and interests, or engaging in acts of kindness and altruism. A research question of this nature would be well suited to be an observational study, allowing us to gain an objective insight into the nature and prevalence of certain behaviors.

Additionally, future research could explore the myriad of factors that likely influence the development and maintenance of active loyalty within friendships, such as the role of personality traits, empathy, selflessness, and emotional intelligence. The current studies focused on perceptions of loyalty within friendships to establish the potential importance of these perceptions, and as such the scope of the current research is necessarily somewhat limited. Although this research does provide notable insights into

the role of active loyalty in friendships, it is important to keep in mind that the functioning of social relationships is rarely simple and it is likely the case that active loyalty may play a different role in certain kinds of relationships, especially under certain conditions. For example, it is possible that false feelings of active loyalty – i.e., perceptions of active loyalty that are either entirely self-generated or deliberately cultivated by the impure motivations of a deceptive relationship partner – may contribute to unhealthy relationship functioning (e.g., being overly invested in a relationship) or undesirable individual behaviors (e.g., inappropriately pursuing a certain relationship). Although the current work largely assumed that active loyalty would be beneficial for a relationship, it is important to note that perceptions are often inaccurate, and it is entirely possible for these relationship features to become maladaptive in their expression. Future research could delve further into understanding the specific active loyalty behaviors that are most influential in shaping friendship functioning and explore additional factors that may moderate these associations. It would be especially interesting to examine whether certain circumstances may lead to false feelings of active loyalty, and what the potential outcomes of this dissonance may be.

Although it is important to gain insight into how and why feelings of active loyalty may develop, it is also essential for future work in this area to gain more perspective regarding the importance and potential influence of active loyalty. Future research should seek to understand the full scope of the role that active loyalty may play in friendships, but it is also important to expand this work to consider other types of relationships. Active loyalty may play a role in various types of relationships, including personal, professional, and consumer relationships. The current work examined one area

where active loyalty may be impactful for personal relationship functioning – namely, friendships. Active loyalty may also be relevant in professional relationships, such as between colleagues, team members, or employers and employees. Workplace loyalties may function differently than relationship loyalty, but it would stand to reason that fostering a sense of active loyalty in an employer/employee may have some association with a variety of different outcomes. For example, fostering a sense of active loyalty in the workplace may be uniquely beneficial for increasing the retention of certain employees. Additionally, active loyalty may play an especially interesting role in consumer relationships. Research in this area should focus on how active loyalty develops and what the potential associated outcomes are – for example, if a brand is able to make their consumers feel as if they are loyal to them, their consumers may in turn be more loyal to the brand.

Another limitation to the current work is that the direction of causality cannot be determined due to the correlational nature of the data. Although my underlying model assumes that perceptions of loyalty are contributing to the different aspects of closeness and friendship functioning, it is entirely possible that there are other explanations for the observed associations. For example, someone with a trusting nature may perceive higher levels of loyalty and friendship health regardless of the specific friendship. In addition, it is possible that another variable may have influenced both the development of perceptions of loyalty and friendship functioning, such as friendship longevity. It is possible that with time, friends develop a deeper understanding of each other's values, beliefs, or behaviors and this may be explained, at least in part, by their shared experiences. This increased familiarity and comfort may nurture trust, and as friends

become more confident in each other and their relationship, they may begin to feel an increased sense of loyalty. Future research would benefit from investigating the causal links between these different relationship features using experimental designs or longitudinal studies. For example, a longitudinal study may examine whether feelings of loyalty tend to increase over time and whether this association is further moderated by the amount or kind of shared experiences the friends may engage in together.

It is also important to note that the current work instructed participants to consider a platonic friend but did not directly address whether the friend was the same-sex or opposite-sex. As there has been a robust body of literature on the divergent patterns and functioning of these relationships (e.g., Bleske & Shackelford, 2001; Shackelford & Buss, 1996) this may be considered to be a limitation in the current work and future research should focus directly on these issues. By exploring the ways that active and passive loyalty may develop or manifest in different kinds of friendships, we can gain better insight and a more nuanced understanding of how societal attitudes, gender norms, and cultural contexts influence the formation, maintenance, and perception of friendships. Of course, much of the research surrounding these issues does assume that participants are heterosexual, and therefore not romantically or sexually attracted to their same-sex friends. As issues related to sexuality and gender identity continue to gain attention from both the greater public and researchers alike, it may become increasingly vital to investigate how these factors influence the dynamics, formation, and sustainability of friendships.

Finally, the current findings rely primarily on self-reported measures, which may be subject to biases or individual differences in interpretation. Although Study 2 is

intended to prevent some of this distortion through the use of dyadic pairs, it is still entirely possible that there is a bias in the responses of participants. As Friend B was nominated by Friend A, it is possible there is a form of selection bias present. Additionally, it is entirely possible that a friend who is willing to complete a set of surveys for no compensation simply because their friend asked them to may represent a uniquely close or positively oriented friendship. Future research may benefit from the use of observational studies intended to present an unbiased picture of a friendship. It is also important to note that despite the significant results and apparent reliability associated with the PAL measure, this was an instrument that I developed and as such it may also be subject to some bias. While creating a unique measure allowed for a tailored approach to assessing active loyalty, it introduces certain shortcomings. The PAL originally included 24 items but was reduced to 6 items for the purposes of the current research, and as such it is possible that some dimensions of active loyalty were unintentionally excluded from the final measure. Moreover, the fact that the measure was developed specifically for this research may limit its generalizability to other contexts or populations.

The present studies found that perceptions of active loyalty were associated with increased feelings of closeness, especially for current friends (Study 1), associated with increased feelings of closeness for both members of a friendship dyad (Study 2), and directly and indirectly associated with friendship commitment (Study 3). This research highlights the distinct roles of active and passive loyalty in friendship functioning and contributes to our understanding of the complex nature of friendship dynamics. Further research is needed to understand the full implications of active loyalty, and this research may then be useful in informing interventions and strategies aimed at promoting

healthier, more fulfilling friendships by encouraging individuals to display their loyalties more visibly.

Appendix A

Modified loyalty subscale from the Exit-Voice-Loyalty-Neglect scale. Participants were asked to rate how often something occurs on a scale ranging from 1 (*never does this*) to 9 (*always does this*).

1. When we have problems in our friendship, my friend patiently waits for things to improve.
2. When my friend is upset about something in our friendship, they wait awhile before saying anything to see if things will improve on their own.
3. When I hurt my friend, they say nothing and simply forgive me.
4. When my friend and I are angry with each other, they give things some time to cool off on their own rather than take action.
5. When there are things about me that my friend doesn't like, they accept my faults and weaknesses and don't try to change me.
6. When I am inconsiderate, my friend gives me the benefit of the doubt and forgets about it.
7. When we have troubles, no matter how bad things get, my friend is loyal to me.

Appendix B

Perceived active loyalty scale. Participants were asked to rate their agreement on a scale ranging from 1 (*never*) to 7 (*always*).

1. My friend would defend me if someone said something bad about me.
2. My friend would say good things about me to other people.
3. My friend would often choose to spend time with me over other people.
4. My friend would not tell other people my secrets.
5. My friend probably wouldn't say anything to defend me if someone said something bad about me (reverse-scored).
6. My friend would stab me in the back if they thought they could get away with it (reverse-scored).

Appendix C

Modified form of the Investment Model Scale. Participants were asked to rate their level of agreement for each item on scales ranging from 0 (*do not agree at all*) to 8 (*agree completely*).

1. I want this friendship to last a very long time.
2. I am committed to maintaining this friendship.
3. I would feel very upset if this friendship was to end in the near future.
4. It is likely that I will have a different close friendship within the next year.
5. I feel very attached to this friendship.
6. I want this friendship to last forever.
7. I am oriented toward the long-term future of this friendship.
8. I feel satisfied with this friendship.
9. This friendship is much better than others' friendships.
10. This friendship is close to ideal.
11. This friendship makes me very happy.
12. This friendship does a good job of fulfilling my needs for intimacy,
companionship, etc.
13. I have many other options for good friends.
14. My alternatives to this friendship are close to ideal.

15. If I weren't spending time with this friend, I would do fine.
16. My alternatives to this friendship are attractive to me.
17. My needs for connection could easily be fulfilled by an alternative friendship.
18. I have put a great deal into this friendship that I would lose if this friendship were to end.
19. Many aspects of my life have become linked to my friend (e.g., recreational activities), and I would lose all of this if we were to go separate ways.
20. I feel very involved in our friendship.
21. My relationships with other friends and family members would be complicated if this friendship were to end (e.g., my friend is also friends with other people I care about).
22. Compared to other people I know, I have invested a great deal in this friendship.

Appendix D

The pool of items that the PAL measure was derived from. Items included in the final PAL measure are marked with an asterisk.

1. My friend would defend me if someone said something bad about me.*
2. My friend would back me up if I got into an argument with someone.
3. My friend would try to cheer me up if I were upset.
4. My friend would say good things about me to other people.*
5. My friend wants to continue to be friends with me.
6. My friend would often choose to spend time with me over other people.*
7. My friend makes me a priority in their life.
8. My friend would often choose plans with me over plans with someone else.
9. My friend would be there for me if I needed help.
10. My friend is honest with me.
11. My friend is someone that I can depend on.
12. My friend accepts me for who I am.
13. My friend values our friendship.
14. My friend is loyal to me.
15. My friend supports me.

16. My friend would not tell other people my secrets.*
17. My friend is only willing to continue our friendship as long as they get something out of it. (R)
18. My friend probably wouldn't say anything to defend me if someone said something bad about me. (R)*
19. My friend often prefers to spend time with other people instead of me. (R)
20. My friend rarely has time for me. (R)
21. My friend would not check on me if they knew I was upset. (R)
22. My friend would stab me in the back if they thought they could get away with it. (R)*
23. My friend would treat me poorly if they thought they could get away with it. (R)
24. My friend would reveal my secrets to other people. (R)

Appendix E



Date: September 7, 2022

Study #: IRB-FY2023-42

Study Title: Social Relationships and Perceptions (F22)

Submission Type: Initial

IRB Decision: Exempt

Research Team:

Destaney Sauls

Virgil Zeigler-Hill

Based on applicable federal regulations, the above referenced study has been determined to be Exempt, with the following categories:

Category 2.(ii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).

Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation.

Notes for Researcher(s):

This submission includes the following approved documents:

- Study 1 SONA Advertisement
 - Study 2 SONA Advertisement
 - Study 1 Information Sheet for OU Students Date-Stamped V 9/7/22
 - Study 2 Information Sheet for Friend A (OU Student) Date-Stamped V 9/7/22
 - Study 2 Information Sheet for Friend B Date-Stamped V 9/7/22
 - Survey 1 for OU Students
 - Survey 2 For
 - Friend A (OU
 - Student) Survey 2
- for Friend B

Letter and Consent Document:

This letter along with the IRB approved (date-stamped) consent document can be found in Cayuse in the Submission Details page under Letters and Attachments, respectively. Please make sure to use the most recent IRB approved version of the consent form in consenting participants.

Permission from

Research Site(s):

Please note the following:

- This IRB exemption determination letter means that this research has met one or more of the federal criteria for exemption per 45 CFR 46.104- Exempt Research.
- Before the research is initiated, permission to conduct research at a given site must be obtained from all research locations listed in the IRB submission. You must keep copies of all such permission letters for your files.
- It is the responsibility of each researcher to follow all applicable policies and procedures of any outside institution where the research will be conducted.

Modifications:

Any changes to this exempt project must be reviewed by the IRB prior to initiation by submitting a MODIFICATION request. Do not collect data while the changes are being reviewed. Data collected during this time cannot be used in research.

Record Retention:

Exempt projects will be retained by the IRB office for three years after the last action on the project.

You are approved to start the research. Please retain a copy of this notification for your records.

If you have any questions, please contact the IRB office.

Thank you.

The Oakland University IRB

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