Keeping the Romance Alive (and Well): Sense of Purpose as a Predictor of Relationship Quality and Dissolution

Gabrielle N. Pfund
Washington University in St. Louis

Follow this and additional works at: https://openscholarship.wustl.edu/art_sci_etds

Part of the Personality and Social Contexts Commons

Recommended Citation

This Thesis is brought to you for free and open access by the Arts & Sciences at Washington University Open Scholarship. It has been accepted for inclusion in Arts & Sciences Electronic Theses and Dissertations by an authorized administrator of Washington University Open Scholarship. For more information, please contact digital@wumail.wustl.edu.
Keeping the Romance Alive (and Well):
Sense of Purpose as a Predictor of Relationship Quality and Dissolution
by
Gabrielle N. Pfund

A thesis presented to
The Graduate School
of Washington University in
partial fulfillment of the
requirements for the degree
of Master of Arts

January 2021
St. Louis, Missouri
# Table of Contents

List of Figures ................................................................................................................................. iv
List of Tables ........................................................................................................................................ v
Acknowledgments ................................................................................................................................ vi
Abstract ........................................................................................................................................... vii

1. Introduction .................................................................................................................................... 1
   1.1 Conceptualizing Purpose ........................................................................................................ 2
   1.2 Purpose and Personality ......................................................................................................... 3
       1.2.1 Neo-Socioanalytic Model of Personality ......................................................................... 4
       1.2.2 Five Principles of Personality Psychology ......................................................................... 7
   1.3 Personality Psychology and Romantic Relationships ............................................................... 8
   1.4 Sense of Purpose and Relationship Quality ........................................................................... 10
   1.5 The Current Study .................................................................................................................. 11

2. Methods ....................................................................................................................................... 14
   2.1 Procedures ............................................................................................................................. 14
   2.2 Participants ............................................................................................................................. 15
   2.3 Measures ................................................................................................................................ 16
       2.3.1 Relationship Quality Indicators ........................................................................................ 17
       2.3.2 Potential Mediators ........................................................................................................... 20
   2.4 Data Analytic Plan .................................................................................................................. 21

3. Results ........................................................................................................................................ 23
   3.1 Descriptive Statistics and Basic Correlations ......................................................................... 23
   3.2 Binary Logistic Regression ...................................................................................................... 25
   3.3 Latent Cross-Lagged Panel Model .......................................................................................... 25
   3.4 Mediation Analyses ................................................................................................................. 27
       3.4.1 Factor Analysis for Purpose Invalidation ......................................................................... 27
       3.4.2 Mediation Analysis with Purpose Invalidation ................................................................... 32
       3.4.3 Mediation Analysis with Affective Well-being .................................................................. 33
       3.4.4 Mediation Analysis with Perceived Partner Responsiveness ........................................... 34
       3.4.5 Mediation Analysis with All Mediators ............................................................................. 35
3.5 Exploratory Analyses ........................................................................................................... 37
  3.5.1 Bifactor Model ................................................................................................................. 37
  3.5.2 Moderation Analyses ....................................................................................................... 38
4. Discussion ............................................................................................................................... 40
  4.1 Implications and Future Directions for Purpose Research .................................................. 41
  4.2 Implications and Future Directions for Relationship Research ......................................... 45
  4.3 Limitations ......................................................................................................................... 47
  4.4 Conclusions ....................................................................................................................... 50
References .................................................................................................................................... 52
Appendix ...................................................................................................................................... 59
List of Figures

Figure 3.1: Factor Loadings and Estimates for Latent Cross Lagged Panel Model with Time 1 and Time 2 Sense of Purpose and Relationship Quality .................................................27
Figure 3.2: Parallel Analysis Scree Plots for Thirteen Purpose Invalidation Items ..................28
Figure 3.3: Parallel Analysis Scree Plots for Thirteen Purpose Invalidation Items and Three Perceived Partner Responsiveness Items ........................................................................30
Figure 3.4: Theoretical Model of Purpose Invalidation as a Mediator between Latent Sense of Purpose and Latent Relationship Quality ...............................................................32
Figure 3.5: Theoretical Model of Positive Affect and Negative Affect as Mediators between Latent Sense of Purpose and Latent Relationship Quality ........................................33
Figure 3.6: Theoretical Model of Perceived Partner Responsiveness as a Mediator between Latent Sense of Purpose and Latent Relationship Quality ........................................35
Figure 3.7: Theoretical Model of Purpose Invalidation, Positive Affect, and Perceived Partner Responsiveness as Mediators between Latent Sense of Purpose and Latent Relationship Quality .........................................................36
Figure 3.8: Factor Loadings and Estimates for Bifactor Model with Subjective Well-being and Relationship Quality as Non-covarying Subfactors of General Well-being as well as Subjective Well-being and Sense of Purpose Predicting Relationship Quality ..........38
List of Tables

Table 2.1: Participant Age, Gender, Ethnicity, and Sexuality Information ............................................. 16
Table 3.1: Descriptive Statistics and Correlations for Variables of Interest ................................................. 24
Table 3.2: Factor Loadings for Purpose Invalidation Questionnaire ......................................................... 29
Table 3.3: Factor Loadings for Purpose Invalidation Questionnaire and Perceived Partner Responsiveness Measure .......................................................................................................................... 31
Table 3.4: Mediating Effect of Purpose Invalidation on the Association between Latent Sense of Purpose and Latent Relationship Quality .................................................................................................. 33
Table 3.5: Mediating Effect of Positive Affect and Negative Affect on the Association between Latent Sense of Purpose and Latent Relationship Quality ................................................................. 34
Table 3.6: Mediating Effect of Perceived Partner Responsiveness on the Association between Latent Sense of Purpose and Latent Relationship Quality ................................................................. 35
Table 3.7: Mediating Effect of Purpose Invalidation, Positive Affect, and Perceived Partner Responsiveness on the Association between Latent Sense of Purpose and Latent Relationship Quality ................................................................. 36
Table 3.8: Multiple Regression Results for Change in Relationship Quality with Sense of Purpose and Gender, Age, and Relationship Duration as Individual Moderators ................................. 39
Acknowledgments

First and foremost, thank you to my wonderful advisor, Patrick Hill, for challenging me to be a better researcher, supporting me when I need it, but also giving me enough independence to learn, grow, and overcome. I would also like to thank my thesis committee members, Tammy English and Randy Larsen, for expanding both the breadth and depth of my knowledge throughout the initial development and the conclusion of this project. Thank you to Shelly Cooper and Patrick Cruitt for helping me with my code, listening to me talk through my ideas, and allowing me to take over every dry erase board in the lab. Thank you to my family and friends for loving me and supporting me throughout the entirety of this journey, as well as tolerating my disappearance from the physical and virtual realms for hours and sometimes days at a time. Finally, thank you to my recliner for being a safe space to escape to, my stickie notes for being a colorful way to stay on track, and my dry erase board for being the only way I can make sense of the chaos in my head.

Gabrielle Pfund

Washington University in St. Louis

January 2021
ABSTRACT
Keeping the Romance Alive (and Well):
Sense of Purpose as a Predictor of Relationship Quality and Dissolution
by
Gabrielle Pfund

Master of Arts in Psychological and Brain Sciences
Social and Personality Psychology
Washington University in St. Louis, 2021
Patrick L. Hill, Chair

Sense of purpose, or the extent to which one feels that they have personally meaningful goals and a direction guiding them through life, has consistently predicted a variety of desirable well-being, health, and social outcomes. However, work has been limited with respect to evaluating it as a predictor and promoter of social relationships, especially romantic ones. With existing cross-sectional evidence showing sense of purpose is positively related to romantic relationship outcomes like commitment and satisfaction, the current study expanded on past findings by using longitudinal data to evaluate whether sense of purpose predicted relationship dissolution, change in relationship quality, and potential mechanisms that might explain these associations (Wave 1: \( n = 2243, M_{age} = 54.5, 42.6\% \) Female; Wave 2: \( n = 1200, M_{age} = 54.8, 40.7\% \) Female). Results showed that greater sense of purpose predicted maintaining a romantic relationship and higher
romantic relationship quality predicted an increase in sense of purpose. Furthermore, purpose invalidation, positive affect, and perceived partner responsiveness partially mediated the associations between sense of purpose and relationship quality, while sense of purpose still showed a direct effect on relationship quality. Findings are discussed regarding how these results add to the previous literature and future research endeavors to further explore these associations.
1. Introduction

Part of the journey of life is figuring out goals to guide us and a direction to follow. However, life is not something that occurs in a vacuum, and the individuals who take it on with us may be a huge support, or potentially hindrance, in pursuing these goals—especially our intimate relationships, such as a romantic partner. Furthermore, these romantic relationships could be shaped and influenced by how purposeful we feel, with purposeful individuals possibly enacting more productive relationship maintenance behaviors or having more future-oriented mindsets that are helpful in overcoming relationship obstacles. With various studies showing that a higher sense of purpose is associated with more positive relations with others (Ryff & Keyes, 1995), and some initial cross-sectional work indicating that sense of purpose is also positively associated with romantic relationship satisfaction and commitment (Pfund, Brazeau, Allemand, & Hill, 2020), there is preliminary evidence to suggest that one’s sense of purpose and one’s romantic relationship quality are positively associated. The current study builds on past findings by using a longitudinal approach to understand whether and why sense of purpose and relationship quality are associated overtime, if one is more likely to predict change in the other, and if sense of purpose itself predicts relationship dissolution.

The current paper will begin by defining purpose and describing how it is measured. It will then discuss how sense of purpose fits into personality science, an area that has used a variety of individual differences to predict both cross-sectional and longitudinal romantic relationship outcomes, while also considering how relationships can influences one’s personality. After reviewing papers discussing the nature of the associations between individual differences and romantic relationship outcomes, the introduction will conclude with an integration of
Purpose into the romantic relationship literature using personality science as a framework, and a review of how these previous findings inform the current hypotheses.

1.1 Conceptualizing Purpose

Purpose is a multifaceted construct that has previously displayed its aptitude to promote desirable outcomes, as well as to mitigate negative effects. In order to understand its predictive abilities, it is first important to understand the nature of it as a construct. Purpose is composed of two main components: sense of purpose and purpose in life. *Sense of purpose* can be understood as the extent to which an individual feels that they have personally meaningful goals and directions guiding them through life (Ryff, 1989). It is often assessed via self-report, using scales such as Ryff’s (1989) Purpose in Life subscale or Scheier and colleagues’ (2006) Life Engagement Test. Individuals respond the extent of their agreement to items such as “I have a sense of direction and purpose in my life” (Ryff, 1989), or “To me, the things I do are worthwhile” (Scheier et al., 2006). Because of the concise manner in which this construct can be assessed, sense of purpose is often the focal point of research evaluating the implications of purpose and different outcomes it may promote.

*Purpose in life* is often more challenging for both individuals to articulate and for researchers to empirically evaluate. One’s purpose in life can be understood as the large-scale goal or goals that generate an individuals’ sense of purpose. Put more concretely by McKnight and Kashdan (2009), “Purpose [in life] is a central, self-organizing life aim that organizes and stimulates goals, manages behaviors, and provides a sense of meaning” (p. 242). Researchers can investigate purpose in life by simply asking participants for its presence or absence, or they can take a more qualitative approach by focusing on the content of one’s purpose in life. In this regard, some have suggested that purpose in life should not be a goal which one can accomplish,
leading to one being without a purpose, but rather more of a general orientation, with this broader purpose guiding and directing smaller goals as one pursues it (Damon, Menon, & Bronk, 2003; McKnight & Kashdan, 2009). While the assessment approaches and nature of these constructs differ, both components of purpose have consistently predicted desirable well-being, health, and social outcomes throughout the lifespan (see Pfund & Hill, 2018 for review). In light of this, the current study sought to expand on previous work investigating sense of purpose and social outcomes by exploring the co-occurrence of sense of purpose and romantic relationship quality over two waves of data. To understand why sense of purpose is important for romantic relationships, we turn to personality science—a field with a prominent niche in the research of close relationships.

1.2 Purpose and Personality

Due to the self-report nature of sense of purpose, it shows similarities to constructs in personality psychology. Personality science focuses on the study of individual differences, and how these differences in tendencies toward certain thoughts, feelings, and behaviors promote outcomes throughout the lifespan. By understanding the ways in which purpose fits into personality science theory and methodology, the previous literature on romantic relationships can be extended to give context to purpose research. When considering the Neo-Socioanalytic Model of Personality, the way in which purpose fits into personality psychology is quite dynamic. This model posits that there are four unique domains that capture the main aspects of our individual differences. Though these four domains of personality are generally argued to be separate entities (Roberts & Nickel, 2017), purpose finds a place in each of them. When discussing each of these components, I will mention how purpose conceptually fits into it, how purpose connects to constructs typically assessed in that domain, and how it predicts related outcomes.
1.2.1 Neo-Socioanalytic Model of Personality

**Traits.** The first domain in this theory focuses on traits. *Traits* are dispositional characteristics that maintain relative consistency of thoughts, feelings, and behaviors throughout similar situations across time (Roberts & Nickel, 2017, 2017; Roberts, 2009). Sense of purpose is a trait-like disposition that promotes unique thoughts, feelings, and behaviors dependent on one’s level of purposefulness. Regarding thoughts, people with a higher sense of purpose generally feel greater hope (Bronk, Hill, Lapsley, Talib, & Finch, 2009), which is comprised of individuals thinking of clearer pathways to overcome obstacles as well as believing that they have the agency to take those pathways (Snyder, 2005). Furthermore, the affective nature of purpose is captured by work that has found individuals who report a higher sense of purpose feel more positive affect, less negative affect, and are also less stress reactive (Bronk et al., 2009; Hill, Sin, Turiano, Burrow, & Almeida, 2018). Fewer studies have evaluated the behavioral nature of sense of purpose, though theory has suggested that purposeful individuals may be more effective in organizing their daily and long-term activities than their less purposeful counterparts (McKnight & Kashdan, 2009). Sense of purpose finds its niche in the personality science literature due to its dispositional nature.

**Motives.** Purpose also finds a natural categorization in the domain for *motives*, or the things we want to do, pursue, and have (Roberts & Nickel, 2017). Purpose in life is not simply a goal; it also “provides a broader motivational component that stimulates goals and influences behavior” (McKnight & Kashdan, 2009, p. 243). If individual differences in motives are captured by the things we desire to do and have, purpose in life is a direct influencer of an individual’s motives, guiding their short-term goals as they follow their long-term desires. The role of purpose on motives can also be understood through purpose orientations, which reflect the general nature of one’s purpose in life. Purpose orientations are defined as the broader
content of one’s purpose in life. Examples include having a *prosocial orientation*, which focuses on helping others, or a *personal recognition orientation*, which emphasizes the desired to be recognized and respected by others (Hill, Burrow, Brandenberger, Lapsley, & Quaranto, 2010). Purpose influences motives both narrowly, in the daily goals one sets as they pursue their purpose, as well as broadly, in the large purpose orientations one has.

**Abilities.** The third domain of the Neo-Socioanalytic Model is *abilities*, or our cognitive, physical, and emotional aptitudes (Roberts & Nickel, 2017). While purpose itself is not an ability, previous research has found associations between purpose and different kinds of abilities. For example, a higher sense of purpose is positively associated with better memory, executive functioning, and general cognitive ability in adults (Lewis, Turiano, Payne, & Hill, 2017). Furthermore, when considering adolescence, some work has shown higher cognitive ability in adolescence to be associated with a higher sense of purpose (Minehan, Newcomb, & Galaif, 2000), while other work has found that differences in purpose relating to ability are rooted in an adolescent’s purposeful goals, not whether they have a purpose. In particular, while ability did not predict the presence of a purpose, high ability youth, defined as adolescents attending schools that required students to score two standard deviations about the mean on the WISC-IV, have been more likely to subscribe to a more other-focused purpose than adolescents tending non-selective schools (Bronk, Finch, & Talib, 2010). Though neither purpose in life or sense of purpose are an ability, research has indicated that sense of purpose is associated with better cognitive functioning, and one’s purpose orientation may differ based on one’s abilities.

**Narratives.** Purpose can also fit into the fourth domain of the Neo-Socioanalytic Model. *Narratives* are rooted in how someone authors and understands their own life story (Roberts & Nickel, 2017), a part of which is determining the events that someone defines as significant and
important (McAdams, 2013). There is a foundation of literature showing that sense of purpose is related to individuals’ narratives (Bauer, McAdams, & Sakaeda, 2005; McAdams & Guo, 2015), with the kinds of memories people express relating to sense of purpose differently. For example, memories that reflect experiences that are more personally meaningful to an individual are more strongly associated with a higher sense of purpose than memories focusing on integrating one’s life experiences (Bauer et al., 2005). The kind of narrative one creates may influence how purposeful one is.

**Bringing the domains together.** Each of these domains influence, and are also influenced by, our *identity* (how we see ourselves) and our *reputation* (how others see us). To have an identity, one goes through an identity development process, through which they explore different aspects of themselves before committing to the personal and social identities that they feel best describes them (Brewer & Gardner, 1996; Kroger & Marcia, 2001; Sim, Goyle, McKedy, Eidelman, & Correll, 2014). Working and developing alongside this process is the purpose development process, wherein individuals explore goals and causes that are important to them before narrowing in on and committing to their specific purpose in life (Bronk et al., 2009; Sumner et al., 2015). Research has illustrated that these processes co-occur, and individuals who are high on purpose commitment also report being more committed to their identity (Hill & Burrow, 2012). In fact, some preliminary findings have shown that state-level purpose may be higher on days in which individuals participate in activities related to their identities (Kiang, 2011). The structure of the Neo-Socioanalytic Model provides a valuable reference to understand how and why purpose predicts life outcomes.
1.2.2 Five Principles of Personality Psychology

While purpose fits well into the Neo-Socioanalytic Model of Personality, it is important to consider other models utilized in personality science. Another theory of personality to consider is the Five Principles of Personality Psychology (McAdams & Pals, 2006). This model contains two of the same components as the previous one: *dispositional traits*, which maps onto traits, and *life narratives*, which maps onto narratives. In addition, the model mentions *characteristic adaptions*, which envelope individual differences like goals and motives, as well as an individual’s plans. This extends beyond the motives piece captured in the previous model and considers how an individual characteristically interacts with their environment in their strategies, efforts, and pursuits. This principle integrates well with McKnight and Kashdan’s (2009) description of a purpose in life as something that directs behaviors and may influence the organization of one’s day-to-day life.

Another principle proposed by McAdams and Pals (2006) focuses on *human nature*, which posits that we share a basic human design that has experienced slight variations throughout evolution. When discussing evolutionary needs that individuals share, McAdams and Pals (2006) mention innate desires such as getting along with others as well a basic need to get ahead. Previous theory has connected the purpose literature to evolutionary work by suggesting that purpose may promote more effective resource allocation (McKnight & Kashdan, 2009), which may be supported by other work that finds that earlier sense of purpose is positively associated with income and net worth later on (Hill, Turiano, Mroczek, & Burrow, 2016). Finally, the fifth principle is the *differential role of culture*, which elaborates on the impact culture can have on the manifestation of these other principles (McAdams & Pals, 2006). With a growing literature on the cross-cultural context of purpose, there is accruing evidence that both the development and manifestation of purpose can differ across countries, but having a purpose
is not bound to the culture from which one is (Damon & Malin, 2020). The purpose literature can be integrated into multiple components of two of the most salient models in personality science.

For the sake of the current study, we will be evaluating the more trait-like nature of sense of purpose. It is important to note two limitations before reviewing some of the personality and romantic outcomes literature. First, though conceptually sense of purpose appears to be fairly trait-like (Ko, Hooker, Geldhof, & McAdams, 2016; Pinquart, 2002), future research endeavors are necessary to investigate the extent to which sense of purpose is, in fact, a trait. Second, purpose is a dynamic construct that can fit into a variety of components of personality theories. Because of this, handling it solely as a trait may be too simplistic of a perspective in understanding the role it plays in romantic relationships, as well as the way romantic relationships may shape or change it. Within personality psychology, though, traits are the most studied construct of the various personality models and predict a variety of outcomes. In the romantic relationship literature, personality traits have predicted relationship outcomes ranging from general satisfaction with one’s relationship to whether someone will get divorced.

1.3 Personality Psychology and Romantic Relationships

Personality traits predict whether an individual will stay in a relationship. According to a systematic review, personality traits like neuroticism and conscientiousness were actually more strongly associated with divorce than other demographic variables, like socioeconomic status (Roberts, Kuncel, Shiner, Caspi, & Goldberg, 2007). These associations are not only concurrent—individuals’ past reports of their personality traits predict future relationship dissolution as well (Solomon & Jackson, 2014). Personality traits can predict whose romantic relationships may end, as well as general relationship quality for romantic relationships. In a large meta-analysis with 19 studies evaluating the associations between the Big Five personality
traits and relationship satisfaction, high neuroticism predicted lower relationship satisfaction, while high agreeableness and high conscientiousness predicted greater relationship satisfaction (Malouff, Thorsteinsson, Schutte, Bhullar, & Rooke, 2009). High neuroticism, low agreeableness, and low conscientiousness are consistent predictors of lower marital quality, relationship satisfaction, intimacy, and even greater insecurity with one’s partner, in the case of neuroticism (Barelds, 2005; Neyer & Voigt, 2004; Schaffhuser, Allemand, & Martin, 2014; Watson, Hubbard, & Wiese, 2000; White, Hendrick, & Hendrick, 2004). Both concurrently and longitudinally, personality traits reliably predict important components of relationship quality.

Narrower traits beyond the Big Five traits also predict aspects of relationship quality. For example, those who are higher in narcissism are less committed to their partners and less satisfied in their relationships than their low narcissism peers (Foster, 2008). Another noteworthy and narrow trait that predicts relationship quality is optimism; those who were higher on optimism reported being in happier and more satisfying relationships, and actually experienced an increase in relationship satisfaction two years following the initial survey (Assad, Donnellan, & Conger, 2007). These findings highlight the need for researching traits beyond the Big Five as potential variables important for relationship quality.

However, there has been a call to consider a more transactional model between personality traits and relationships, wherein an individual’s personality influences their relationship, and one’s relationship could shape or change an individual’s personality (Mund, Finn, Hagemeyer, & Neyer, 2016). In a multi-wave study examining the transactional nature of personality traits and relationship quality, researchers looked at change in personality trajectories across four relationship status groups: those who were in relationship at both waves (committed continuers), those who started out in a relationship but were not in one at the second wave
(discontinuers), those who were single at the first wave but in a relationship at the second 
(beginners), and those who were never in a relationship (single continuers). While personality 
traits were generally more predictive of relationship quality than relationship quality was 
predictive of changes in personality traits, entering into a relationship had a larger effect on 
personality trait development for comparing beginners than single continuers (Neyer & 
Asendorpf, 2001). Furthermore, other research has shown that personality traits and relationship 
quality can change together, such as the positive correlated change in agreeableness and 
relationship satisfaction and the negative correlated change in neuroticism and relationship 
security across a three-wave study (Lehnart & Neyer, 2006). Accordingly, it is important to 
utilize longitudinal work that evaluates directionality and correlated change in these 
relationships.

1.4 Sense of Purpose and Relationship Quality
The previous literature has consistently shown that personality traits are valuable 
predictors for the kind of relationship they are in, as well as what can come of their relationship. 
Sense of purpose, as a currently understudied construct in the relationship literature, may have 
predictive value in understanding one’s relationship outcomes. However, before discussing how 
sense of purpose fits into a romantic relationship context, we must first consider how sense of 
purpose is associated with general social outcomes.

Individuals with a higher sense of purpose experience desirable outcomes across a variety 
of social domains. For example, those with a higher sense of purpose often experience less 
loneliness and generally feel a greater sense of belongingness (Bondevik & Skogstad, 2000; 
Pfund & Miller-Perrin, 2019; Stavrova & Luhmann, 2015). Sense of purpose is also positively 
associated with having better personal relations with others (Ryff & Keyes, 1995). Moreover,
emerging adults who have a higher sense of purpose report having better and healthier attachments to their parents (Hill, Burrow, & Sumner, 2016). This past work creates a foundation in depicting the importance of sense of purpose for social outcomes, as well as why social outcomes might be relevant for sense of purpose. This research provides a valuable foundation for the current question, but it does not give insight into what this construct means for romantic relationships.

Initial efforts have been made to explore whether sense of purpose and romantic relationship quality are associated. Across two large, cross-sectional studies, sense of purpose was positively correlated with relationship satisfaction and commitment, with these associations holding regardless of age or gender (Pfund, Brazeau, Allemand, & Hill, 2020). In fact, the magnitude of these associations remained consistent even when controlling for the Big Five personality traits. When considering potential explanations, affective well-being did explain part of the association between these two variables, indicating it should be a mechanism for consideration. Because this work is only cross-sectional in nature, more research is needed to understand the dynamic nature of these associations as well as the pathways that bring them together.

1.5 The Current Study

Evaluating sense of purpose and romantic relationship quality utilizing multiple waves of data is necessary for a few reasons. First, it allows for greater clarity into the direction of this association. Previous work has shown that personality traits and relationship quality hold bidirectional relationships (Lehnart & Neyer, 2006; Neyer & Asendorpf, 2001; Neyer et al., 2013). Individuals with a lower sense of purpose may exhibit poorer relationship maintenance behaviors, which could lead to worse relationship quality, just like low agreeableness leads to
greater conflictual behaviors, harming relationship satisfaction (Ozer & Benet-Martinez, 2006). In other words, those with a higher sense of purpose could be enacting better relationship behaviors, which could be increasing their relationship quality. In addition, those who have more satisfied relationships may feel more comfortable to explore and pursue their goals, in turn increasing their sense of purpose. These two possibilities would suggest that greater sense of purpose could be leading to better relationship quality, or better relationship quality may lead to a higher sense of purpose. Moreover, given evidence suggesting correlated change between personality traits and relationship quality (Lehnart & Neyer, 2006), sense of purpose and relationship quality may change together, or perhaps there are other variables at work that explain to these correlated changes.

A second reason for the current study is to better explore potential mechanisms that may explain these associations. Regarding this gap, the current study will evaluate a new construct called *purpose invalidation*, which can be understood as the perception that one’s partner does not care about or support an individual’s goals for life. Purpose invalidation will be considered alongside perceived partner support and affective well-being as potential mechanisms for the association between sense of purpose and relationship quality. The current study will evaluate what sense of purpose means for relationship status, whether sense of purpose and relationship quality co-occur longitudinally, and the mechanisms that may explain these associations).

*Hypothesis 1*: Initial sense of purpose will predict whether individuals are committed continuers, discontinuers, beginners, or single continuers.

*Hypothesis 2a*: For committed continuers, initial sense of purpose will predict change in relationship quality, wherein those with a higher sense of purpose will experience an increase in relationship quality from Wave 1 to Wave 2.
Hypothesis 2b: For committed continuers, initial relationship quality will also predict change in sense of purpose, wherein those who have a higher relationship quality will experience an increase in sense of purpose from Wave 1 to Wave 2.

Hypothesis 3: For committed continuers, affective well-being, purpose invalidation, and perceived partner support will explain the association between sense of purpose and relationship quality, and it will be explored whether they each explain a unique part of the association
2. Methods

2.1 Procedures

The current study was conducted as a follow-up to previous cross-sectional work on sense of purpose and relationship quality, and findings using the first wave of data have been published (Pfund et al., 2020). Participants (Wave 1: \( n = 2,243 \); Wave 2: \( n = 1,284 \)) were recruited through Qualtrics Panel Service as part of a two-wave study. To participate, individuals had to be at least 18 years old. After consenting to the study, participants completed an initial 15-minute survey, and were followed up approximately three months later to fill out a nearly identical survey. In the middle of the survey, participants were directed to select “strongly agree” to an item as an attention check; those who did not follow instructions were excluded from the study. All participants responded to questions about their demographics, sense of purpose, personality traits, and affective well-being.

Depending on their current or previous relationship status, participants responded to different questions. Those who were in a serious relationship responded to items about their current relationship quality and their perception of their partner’s purpose. Those who were not in a serious relationship but had previously been in one responded to items about their break-up and previous partner. Those who had never been in a serious relationship responded to items about their closest friend.

For the second survey, participants were asked if they were in the same serious relationship that they had been in three months ago. Using the same terminology as Neyer and Asendorpf (2001), those who were in a serious relationship at both waves were considered
“committed continuers,” and responded to the same items about their partner in the second survey \((n = 874)\); some participants said they were not in the same romantic relationship before \((n = 2)\) or did not respond to the item \((n = 26)\), so their data was excluded from the committed continuers’ analyses. Those who were in a serious relationship for the initial survey but were no longer in a serious relationship were considered “discontinuers,” and responded to questions about their break-up and their previous partner \((n = 20)\). Those who were not in a relationship for the initial survey but had since started one were considered “beginners,” and responded to questions about their new partner \((n = 30)\). Finally, those who were not in a serious relationship at either time point were considered “single continuers,” and responded to questions about their last serious relationship if they had one \((n = 248)\), or about their closest friend if they had not had ever been in a serious relationship \((\text{Wave 1: } n = 80, \text{Wave 2: } n = 22)\). Some participants did not report their relationship status at either wave of data collection \((n = 2)\).\(^1\) All participants were compensated for participating in this study through Qualtrics Panel Services.

### 2.2 Participants

Demographic information for the entire Wave 1 sample \((n = 2,243)\), those who responded to Wave 2 excluding those who had never been in a relationship \((n = 1,200)\), as well as the committed continuers \((n = 874)\) can be found in Table 2.1. To be a committed continuer, one had to be in the same relationship at Wave 1 and Wave 2 of data collection. Gender, ethnicity, and age breakdowns were fairly similar across each group. Of those in a serious relationship, 81% were married and 11.9% were not married but lived together.

\(^1\)Two other individuals reported being single but having previously been in a romantic relationship at Wave 1 then reported being single but never having been in a romantic relationship at Wave 2. Due to the lack of consistency in the chronology of their responses, they were not placed in any of the main relationship status categories.
Table 2.1: Participant Age, Gender, Ethnicity, and Sexuality Information for Entire Wave 1 Sample, for Wave 2 Sample†, and for Committed Continuers.

<table>
<thead>
<tr>
<th></th>
<th>Wave 1 Sample (n = 2,243)</th>
<th>Wave 2 Sample† (n = 1,200)</th>
<th>Committed Continuers (n = 874)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>18 – 91</td>
<td>20 – 88</td>
<td>20 – 86</td>
</tr>
<tr>
<td>Mean</td>
<td>54.46</td>
<td>54.81</td>
<td>55.07</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>18.79</td>
<td>17.27</td>
<td>17.14</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>42.6%</td>
<td>40.7%</td>
<td>40.8%</td>
</tr>
<tr>
<td>Male</td>
<td>56.4%</td>
<td>58.8%</td>
<td>58.9%</td>
</tr>
<tr>
<td>Other</td>
<td>0.8%</td>
<td>0.6%</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American/Black</td>
<td>5.8%</td>
<td>5.3%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Asian American/Asian</td>
<td>5.4%</td>
<td>4.6%</td>
<td>5.2%</td>
</tr>
<tr>
<td>European American/White</td>
<td>78.3%</td>
<td>81.2%</td>
<td>82.0%</td>
</tr>
<tr>
<td>Latinx-American/Hispanic</td>
<td>3.6%</td>
<td>2.8%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>0.4%</td>
<td>0.4%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Multiracial</td>
<td>0.8%</td>
<td>1%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Other/Free Responses</td>
<td>4.2%</td>
<td>4.1%</td>
<td>3.6%</td>
</tr>
<tr>
<td>rather not say</td>
<td>1.1%</td>
<td>0.5%</td>
<td>0.6%</td>
</tr>
<tr>
<td><strong>Sexual Orientation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusively heterosexual</td>
<td>89.4%</td>
<td>91.8%</td>
<td>94.2%</td>
</tr>
<tr>
<td>More heterosexual than homosexual</td>
<td>3.2%</td>
<td>2.3%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Bisexual</td>
<td>2.4%</td>
<td>1.1%</td>
<td>0.6%</td>
</tr>
<tr>
<td>More homosexual than heterosexual</td>
<td>0.7%</td>
<td>0.7%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Homosexual</td>
<td>4.4%</td>
<td>4.1%</td>
<td>2.8%</td>
</tr>
<tr>
<td><strong>Relationship Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In a relationship</td>
<td>71.2%</td>
<td>77.8%</td>
<td>100%</td>
</tr>
<tr>
<td>Single but previously in a relationship</td>
<td>22.1%</td>
<td>22.4%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Never been in a relationship</td>
<td>6.7%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

2.3 Measures

Hypotheses and analytic plan were pre-registered prior to data analysis:

(https://osf.io/ypkb9/?view_only=d26935cb80084430ae38377d8498c898).²

Sense of purpose. Sense of purpose was assessed using the 6-item Life Engagement Test (Scheier et al., 2006). All participants responded to each item on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree), with example items including “To me, the things I do

²Based on the small number of participants that were categorized as discontinuers and beginners, the original plan to conduct a multinomial logistic regression had to change due to lack of power. The same logistic regression was conducted with sense of purpose predicting relationship status, though only committed continuers and single continuers were used in the analyses.
are worthwhile” and “There is not enough purpose in my life” (reverse score). Items were averaged together, and higher scores represented a higher sense of purpose. This measure displayed good reliability at both waves of data collection (Wave 1: $\alpha = .86 [.85, .87]$; Wave 2: $\alpha = .87 [.86, .88]$).

**Life satisfaction.** Life satisfaction was assessed using the 5-item Life Satisfaction Questionnaire (Diener et al., 1985). All participants responded to each item on a 7-point Likert scale from 1 (strongly disagree) to 5 (strongly agree), with example items including “In most ways, my life is close to my ideal,” and “The conditions of my life are excellent.” Items were averaged together, and higher scores indicated greater satisfaction with one’s life. This measure displayed good reliability at both waves of data collection (Wave 1: $\alpha = .92 [.92, .93]$; Wave 2: $\alpha = .92 [.91, .93]$).

**General relationship satisfaction.** General relationship satisfaction was assessed using a modified version of the 4-item Domain Specific Relationship Satisfaction measure (Oishi & Diener, 2001). All participants responded to each item on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), indicating how satisfied they felt with each of these social relationships: family, friends, romantic relationship, and roommate(s). Participants were prompted to skip items that were not relevant to them (e.g. skip the item for roommate(s) if they did not have a roommate). The items were average together, and higher scores indicated greater satisfaction across relationship domains. This measure displayed good reliability for each trait at both waves of data collection (Wave 1: $\alpha = .72 [.69, .74]$; Wave 2: $\alpha = .71 [.68, .74]$).

### 2.3.1 Relationship Quality Indicators

**Relationship satisfaction.** Romantic relationship satisfaction was assessed using the 5-item Relationship Satisfaction subscale from the Investment Model Scale (Rusbult, Martz, &
Agnew, 1998). Participants in a relationship responded to each item on a 9-point Likert scale ranging from 0 (do not agree at all) to 8 (agree completely), with example items including “I feel satisfied with our relationship,” and “My relationship is close to ideal.” Items were averaged together, and higher scores indicated greater satisfaction with one’s romantic relationship. This measure displayed good reliability at both waves of data collection (Wave 1: $\alpha = .95 [.95, .96]$; Wave 2: $\alpha = 95 [.95, .96]$).

**Commitment.** Romantic relationship commitment was assessed using the 7-item Relationship Commitment subscale from the Investment Model Scale (Rusbult, Martz, & Agnew, 1998). Participants in a relationship responded to each item on a 9-point Likert scale ranging from 0 (do not agree at all) to 8 (agree completely), with example items including “I want our relationship to last for a very long time,” and “I am committed to maintaining my relationship with my partner.” Items were averaged together, and higher scores indicated greater commitment to one’s romantic partner. This measure displayed good reliability at both waves of data collection (Wave 1: $\alpha = .83 [.81, .85]$; Wave 2: $\alpha = .84 [.82, .86]$).

**Perceived quality of alternatives.** Perceived quality of alternatives was assessed using the 5-item Perceived Quality of Alternatives subscale from the Investment Model Scale (Rusbult, Martz, & Agnew, 1998). Participants in a relationship responded to each item on a 9-point Likert scale ranging from 0 (do not agree at all) to 8 (agree completely), with example items including “Our relationship does a good job of fulfilling my needs for intimacy, companionship, etc.” (reverse scored), and “The people other than my partner with whom I might become involved are very appealing.” Items were averaged together, and higher scores indicated greater preference for alternative potential partners. This measure displayed good reliability at both waves of data collection (Wave 1: $\alpha = .83 [.81, .85]$; Wave 2: $\alpha = .83 [.81, .85]$).
**Investment Size.** Investment size was assessed using the 5-item Investment Size subscale from the Investment Model Scale (Rusbult, Martz, & Agnew, 1998). Participants in a relationship responded to each item on a 9-point Likert scale ranging from 0 (do not agree at all) to 8 (agree completely), with example items including “I have put a great deal into our relationship that I would lose if the relationship were to end,” and “Many aspects of my life have become linked to my partner (recreational activities, etc.), and I would lose all of this if we were to break up.” Items were averaged together, and higher scores indicated greater investment in one’s romantic relationship. This measure displayed good reliability at both waves of data collection (Wave 1: $\alpha = .77 [.75, .80]$; Wave 2: $\alpha = .79 [.76, .81]$).

**Relationship trust.** Relationship trust was assessed using the 3-item Trust subscale from the Perceived Relationship Quality Components measure (Fletcher et al., 2000). Participants in a relationship responded to each item on a 7-point Likert scale ranging from 1 (not at all) to 7 (extremely), with example items including “How much do you trust your partner?” and “How much can you count on your partner?”. Items were averaged together, with higher scores indicating greater trust in one’s relationship. This measure displayed good reliability at both waves of data collection (Wave 1: $\alpha = .92 [.91, .93]$; Wave 2: $\alpha = .92 [.91, .93]$).

**Relationship intimacy.** Relationship intimacy was assessed using the 3-item Intimacy subscale from the Perceived Relationship Quality Components measure (Fletcher et al., 2000). Participants in a relationship responded to each item on a 7-point Likert scale ranging from 1 (not at all) to 7 (extremely), with example items including “How intimate is your relationship?” and “How connected are you to your partner?”. Items were averaged together, with higher scores indicating greater intimacy in one’s relationship. This measure displayed good reliability at both waves of data collection (Wave 1: $\alpha = .91 [.89, .92]$; Wave 2: $\alpha = .91 [.90, .92]$).
2.3.2 Potential Mediators

**Affective well-being.** Affective well-being was assessed using the 15-item Circumplex Model of Affect (Posner, Russell, & Peterson, 2005). All participants responded to each item on a 5-point Likert scale, indicating, on average, how frequently they feel each emotion, from 1 (very slightly or not at all) to 5 (extremely), with example positive emotions including “excited,” “calm,” and “happy,” and example negative emotions including “sad,” “upset,” and “tense.” Eight items were averaged together to represent positive affect, and seven items were averaged together to represent negative affect. Higher scores indicated more frequently experience positive emotions and negative emotions, respectively. This measure displayed good reliability for positive and negative affect at both waves of data collection (PA Wave 1: $\alpha = .90 \ [.89, .91]$; PA Wave 2: $\alpha = .90 \ [.89, .91]$; NA Wave 1: $\alpha = .90 \ [.90, .91]$; NA Wave 2: $\alpha = .91 \ [.90, .92]$).

**Perceived partner responsiveness.** Perceived partner responsiveness was assessed using the 3-item Perceived Partner Responsiveness measure (Selcuk et al., 2016). Participants in a relationship responded to each item on a 4-point Likert scale ranging from 1 (a lot) to 4 (not at all), with example items including “Please indicate the extent to which your partner cares about you,” and “Please indicate the extent to which your partner understands the way you feel about things.” All items were reverse scored then averaged together, with higher scores indicating greater perceived partner responsiveness. This measure displayed good reliability at both waves of data collection (Wave 1: $\alpha = .88 \ [.86, .89]$; Wave 2: $\alpha = .89 \ [.88, .90]$).

**Purpose invalidation.** Purpose invalidation reflects the extent to which one believes that their partner does not care about or support their goals. The 13-item Purpose Invalidation Questionnaire is in the process of being developed through the current study. Participants in a relationship responded to each item on a 5-point Likert-scale, with example items including “My partner thinks my goals for life are not worthwhile,” and “My partner ignores me when I talk...
about my goals.” All items were averaged together, with higher scores indicating greater perceived purpose invalidation from one’s partner. This measure displayed good reliability at both waves of data collection (Wave 1: $\alpha = .94 \ [.94, .95]$; Wave 2: $\alpha = .93 \ [.94, .95]$).

### 2.4 Data Analytic Plan

All data wrangling and analyses were conducted using Rstudio (R Core Team, 2019); SEM models were constructed with the lavaan package (Rosseel, 2012), while mediation analyses and factor analyses were conducted with the psych package (Revelle, 2019). Before conducting analyses to address the aforementioned hypotheses, correlations were calculated for the variables of interest at each wave of data collection. To address Hypothesis 1, we conducted a logistic regression to see whether one’s initial sense of purpose predicted one’s relationship status across both waves of data collection. To address Hypothesis 2 and 3, a latent cross-lagged panel model was conducted to determine whether sense of purpose predicted change in relationship quality above and beyond initial relationship quality, and whether initial relationship quality predicted change in sense of purpose above and beyond initial sense of purpose. The indicators for each latent variable (sense of purpose and relationship quality) loaded freely onto the construct, but their loadings were fixed per indicator across the two waves of data. The indicators for sense of purpose were the six items from Scheier and colleagues’ (2006) Life Engagement Test, and the indicators for relationship quality were the manifest means for each of the romantic relationship variables (e.g. relationship satisfaction, commitment).

As a precursor to Hypothesis 4, we conducted a factor analysis with the 13 items developed for the Purpose Invalidation Questionnaire to determine whether all of the items held together. Following this, we conducted another factor analysis with the items that loaded onto the purpose invalidation construct and the items from the perceived partner responsiveness measure
to examine whether purpose invalidation was its own unique construct. Results were considered by looking at eigenvalues greater than 1.00 and parallel analysis (Lautenschlager, 1989). After determining the items that loaded onto purpose invalidation uniquely from perceived partner support, we were able to run our final analysis. To address Hypothesis 4, we conducted mediation analyses with affective well-being, purpose invalidation, and perceived partner support separately to see whether they explained the variance for the associations between sense of purpose and relationship quality. We then included the significant mediators simultaneously in a final mediation analysis to determine whether they uniquely explained this association.

Finally, to determine whether sense of purpose explained variance of relationship quality unique from general well-being, a bi-factor model was used. This model analyzed whether sense of purpose as a latent variable predicted any unique variance in relationship quality after accounting for the shared variance across indicators of general well-being (specifically, manifest means for life satisfaction, social domain satisfaction, positive affect, negative affect, and the factor scores for the latent relationship quality).
3. Results

3.1 Descriptive Statistics and Basic Correlations

Measurement information (means, standard deviations, and ranges) for the committed continuers as well as basic correlations for Time 1 and Time 2 can be found in Table 3.1. Sense of purpose at Time 1 and Time 2 showed strong positive correlations with relationship quality, positive affect, life satisfaction, relationship domain satisfaction, and partner responsiveness ($r$ ranged from .42 to .67, $p < .001$). It showed a strong negative correlation with negative affect and purpose invalidation ($r$ ranged from -.53 to -.59, $p < .001$), and a weak positive correlation with age at both time points. Relationship quality showed similar patterns as sense of purpose at both time points.
Table 3.1: Time 1 Means, Standard Deviations, and Correlations with 95% Confidence Intervals for Committed Continuers (n = 874) below the Diagonal and Time 2 Associations with 95% Confidence Intervals above the Diagonal.

<table>
<thead>
<tr>
<th></th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>-</td>
<td>.14</td>
<td>.09</td>
<td>.22</td>
<td>-.25</td>
<td>.18</td>
<td>.10</td>
<td>.09</td>
<td>-.06</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[.08, .20]</td>
<td>[.03, .09]</td>
<td>[.15, .28]</td>
<td>[-.32, -.19]</td>
<td>[.12, .24]</td>
<td>[.03, .16]</td>
<td>[.03, .16]</td>
<td>[-.13, .01]</td>
</tr>
<tr>
<td>2. Latent Purpose</td>
<td>.15</td>
<td>-</td>
<td>.58</td>
<td>.62</td>
<td>-.56</td>
<td>.67</td>
<td>.58</td>
<td>.48</td>
<td>-.59</td>
</tr>
<tr>
<td></td>
<td>[.08, .21]</td>
<td></td>
<td>[.53, .64]</td>
<td>[.58, .65]</td>
<td>[.61, .50]</td>
<td>[.62, .71]</td>
<td>[.53, .64]</td>
<td>[.42, .54]</td>
<td>[.65, .53]</td>
</tr>
<tr>
<td>3. Latent Rel. Quality</td>
<td>.09</td>
<td>.52</td>
<td>-</td>
<td>.48</td>
<td>-.37</td>
<td>.56</td>
<td>.63</td>
<td>.82</td>
<td>-.75</td>
</tr>
<tr>
<td>4. Positive Affect</td>
<td>.17</td>
<td>.59</td>
<td>.43</td>
<td>-</td>
<td>-.51</td>
<td>.64</td>
<td>.53</td>
<td>.40</td>
<td>-.43</td>
</tr>
<tr>
<td>5. Negative Affect</td>
<td>-.25</td>
<td>-.53</td>
<td>-.34</td>
<td>-.45</td>
<td>-</td>
<td>-.59</td>
<td>-.42</td>
<td>-.31</td>
<td>-.36</td>
</tr>
<tr>
<td>6. Life Satisfaction</td>
<td>.19</td>
<td>.61</td>
<td>.54</td>
<td>.60</td>
<td>-.54</td>
<td>-</td>
<td>.61</td>
<td>.47</td>
<td>-.48</td>
</tr>
<tr>
<td>7. Rel. Domain Satisfaction</td>
<td>.12</td>
<td>.56</td>
<td>.60</td>
<td>.56</td>
<td>-.43</td>
<td>.62</td>
<td>-</td>
<td>.54</td>
<td>-.53</td>
</tr>
<tr>
<td>8. Partner Responsiveness</td>
<td>.09</td>
<td>.42</td>
<td>.79</td>
<td>.34</td>
<td>-.29</td>
<td>.43</td>
<td>.47</td>
<td>-</td>
<td>-.73</td>
</tr>
<tr>
<td>9. Purpose Invalidation</td>
<td>-.08</td>
<td>-.53</td>
<td>-.76</td>
<td>-.40</td>
<td>.34</td>
<td>-.48</td>
<td>-.52</td>
<td>-.73</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>[-.14, -.01]</td>
<td>[-.58, -.48]</td>
<td>[-.78, -.73]</td>
<td>[-.45, -.34]</td>
<td>[.28, .40]</td>
<td>[-.53, -.43]</td>
<td>[-.56, -.47]</td>
<td>[-.76, -.70]</td>
<td>-</td>
</tr>
</tbody>
</table>

Time 1 Range
- 20 – 86
- 21 – 87
- 55.07
- 55.36
- 17.14
- 17.09

Time 2
- -3.2 – 1.0
- -3.4 – 0.9
- 0.0
- 0.0
- 0.74
- 0.75

Time 1 Mean
- 6.9 – 1.9
- 1 – 5
- 3.45
- 3.45
- 1.81
- 1.81

Time 1 Std. Dev.
- 5.06
- 5.11
- 0.88
- 0.89
- 0.67
- 0.67

Time 2
- 1 – 5
- 1 – 5
- 1.93
- 1.92
- 0.77
- 0.73

Note. All correlations greater than |.08| have a p < .01.
3.2 Binary Logistic Regression

A logistic regression was conducted to address Hypothesis 1, which posited that initial sense of purpose would predict whether individuals are committed continuers, discontinuers, beginners, or single continuers. While the pre-registration originally stated a multinomial logistic regression would be conducted, a binary logistic regression was utilized due to the small sample sizes for the discontinuers \((n = 20)\) and the beginners \((n = 30)\). The binary logistic regression was conducted to investigate whether Time 1 sense of purpose predicted whether one would be a committed continuer \((n = 874)\) or a single continuer \((n = 248)\). Sense of purpose did predict relationship status for both waves of data, where a one unit increase in purpose predicted a .41 log odd increase of being a committed continuer \((b = .41 [.22, .60], SE = .10, p < .001)\), indicating that a higher sense of purpose predicted greater likelihood of being in a relationship across both waves of data. Transitioning from logit into odds ratio terminology, for a 1-unit increase in sense of purpose, an individual was 1.51x more likely to be a committed continuer than a single continuer \((OR = 1.51 [1.25, 1.83])\). As posited in Hypothesis 1, sense of purpose did predict relationship status, with a higher sense of purpose predicting greater likelihood of staying in a relationship at both waves of data collection than being single at both waves of data collection.

3.3 Latent Cross-Lagged Panel Model

Using the lavaan package (Rosseel, 2012), a latent cross-lagged panel model was conducted through a structural equation modeling framework to address Hypothesis 2 and 3, which predicted that greater initial sense of purpose would predict positive change in relationship quality and that greater initial relationship quality would predict positive change in sense of purpose. Only data from committed continuers were used for this analysis \((n = 874)\). Because
only complete cases \((n = 873)\) could be used in the analyses, maximum likelihood estimates were used to handle missing observations. The six items from the Life Engagement Test loaded freely onto the sense of purpose latent variable, but their loadings were fixed by indicator across both waves of data. This same strategy was used for the relationship quality latent variable, with the mean scores for relationship satisfaction, commitment, perceived quality of alternatives, investment size, trust, and intimacy each being used as indicators. All indicators fit well onto the latent variables, excluding perceived quality of alternatives for relationship quality. Specific factor loadings for each indicator can be found in Figure 3.1.

The model showed an adequate fit regarding RMSEA and SRMR \((\chi^2(256) = 14493.23, p < .001; \text{RMSEA} = .106 [.102 .110], p < .001; \text{SRMR} = .065)\), but a poor fit according to CFI (CFI = .82). One reason could be due to the perceived quality of alternatives being a poor indicator for relationship quality \((b = -.14, SE = .03, p < .001; R^2 = .016)\), with latent relationship quality only explaining 1.6% of the variable’s variance. With that in mind, the results of the latent cross-lagged panel model should be interpreted with caution.

Initial sense of purpose \((b = .03, SE = .06, p = .459; \text{std. } b = .01)\) did not predict later relationship quality above and beyond initial relationship quality \((b = .92, SE = .02, p < .001; \text{std. } b = .92)\), providing initial evidence that sense of purpose may not actually promote better relationship quality in romantic relationships. It should be noted that the autoregressive pathway for Wave 1 and Wave 2 relationship quality were extremely high, indicating strong rank-order stability and also limiting sense of purpose’s ability to predict change. Though a small effect, initial relationship quality \((b = .04, SE = .01, p = .002; \text{std. } b = .09)\), however, did predict later sense of purpose above and beyond initial sense of purpose \((b = .85, SE = .03, p < .001; \text{std. } b = .82)\). There was also evidence that purpose and relationship quality directly changed together.
$(r(874) = .12, SE = .02, p < .001; \text{std. } b = .47)$. These findings provide initial evidence that there may be correlated change over time with these variables, and that relationship quality could potentially be the impetus of this change.

**Figure 3.1**: Factor Loadings and Estimates for Latent Cross Lagged Panel Model with Time 1 and Time 2 Sense of Purpose ($pT1; pT2$) and Relationship Quality ($rT1; rT2$) for Committed Continuers.

### 3.4 Mediation Analyses

The following factor analyses and mediation analyses were conducted using only Wave 1 data from the committed continuers ($n = 874$). Each analysis was run using the *psych* package (Revelle, 2019).

#### 3.4.1 Factor Analysis for Purpose Invalidation

Before analyzing purpose invalidation as a potential mediator between sense of purpose and relationship quality, an exploratory factor analysis was conducted to determine its factor structure and consider the best loading items. Using the *psych* package, a parallel analysis was
conducted using the factoring method of “minres” to minimize residuals. This parallel analysis revealed eigenvalues of approximately 7.40 for the first factor and approximately 0.93 for the second factor (Figure 3.2), so the two factor solution falling below the previously set eigenvalue preference of 1.00 or above. Two confirmatory factor analyses were conducted to evaluate both a one factor and two factor solution (Table 3.2).

Figure 3.2: Parallel Analysis Scree Plots for Thirteen Purpose Invalidation Items.

The first confirmatory analysis was conducted setting the number of factors at two, using the rotation method of “oblimin” because it was believed that the two factors were correlated. The two factors in this model showed a correlation of .74. Furthermore, when looking at the individual items that were separated based on this factor model, it became clear that they were factors based on response valence, with the items that were reverse-scored (e.g. “My partner actively supports my goals for life”) mapping onto a separate factor from non-reverse scored items (e.g. “My partner thinks my goals for life are not worthwhile”). Because of the strong correlation and apparent method-biased factors, a confirmatory factor analysis was conducted.
with number of factors set at one, once again using the rotation method of “oblimin” and factoring method of “minres.” One factor appeared to be sufficient, with factor loadings for each item displayed in Table 3.2. Because of the strong factor loadings and interitem correlations, each of the purpose invalidation items were maintained.

**Table 3.2:** Factor Loadings for Purpose Invalidation with One Factor and Two Factor Solutions with the 13 Purpose Invalidation Questionnaire Items.

<table>
<thead>
<tr>
<th>Purpose Invalidation Item</th>
<th>One Factor</th>
<th>Two Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My partner knows my goals for life. <em>(reverse score)</em></td>
<td>0.75</td>
<td>-0.03</td>
</tr>
<tr>
<td>2. My partner thinks my goals for life are important. <em>(reverse score)</em></td>
<td>0.83</td>
<td>0.06</td>
</tr>
<tr>
<td>3. My partner is unconcerned with my goals for life.</td>
<td>0.74</td>
<td>0.59</td>
</tr>
<tr>
<td>4. My partner disagrees with my goals for life.</td>
<td>0.74</td>
<td>0.78</td>
</tr>
<tr>
<td>5. My partner thinks my goals for life are not worthwhile.</td>
<td>0.70</td>
<td>0.83</td>
</tr>
<tr>
<td>6. My partner actively supports my goals for life. <em>(reverse score)</em></td>
<td>0.79</td>
<td>0.12</td>
</tr>
<tr>
<td>7. My partner views my goals as less important than theirs.</td>
<td>0.70</td>
<td>0.76</td>
</tr>
<tr>
<td>8. My partner ignores me when I talk about my goals.</td>
<td>0.78</td>
<td>0.77</td>
</tr>
<tr>
<td>9. My partner encourages me when I encounter an obstacle while pursuing my goal. <em>(reverse score)</em></td>
<td>0.78</td>
<td>0.06</td>
</tr>
<tr>
<td>10. My partner appreciates how hard I work to reach my goals. <em>(reverse score)</em></td>
<td>0.81</td>
<td>0.08</td>
</tr>
<tr>
<td>11. My partner thinks my goals are a waste of time.</td>
<td>0.82</td>
<td>0.88</td>
</tr>
<tr>
<td>12. My partner asks me about my goals for life. <em>(reverse score)</em></td>
<td>0.62</td>
<td>-0.16</td>
</tr>
<tr>
<td>13. My partner thinks my goals for life are unimportant.</td>
<td>0.75</td>
<td>0.75</td>
</tr>
</tbody>
</table>

*Note.* Bolded factor loadings represent items that loaded onto the specific factor.

Before conducting the mediation analysis with purpose invalidation, it was also necessary to determine whether this construct was unique from perceived partner responsiveness, a conceptually similar variable. A parallel analysis was conducted using the three perceived partner responsiveness items and the 13 purpose invalidation items, revealing a two-factor
solution with an eigen value of 8.89 for one factor, 1.00 for two factors, and 0.42 for three factors (Figure 3.3).

**Figure 3.3:** Parallel Analysis Scree Plots for Thirteen Purpose Invalidation and Three Perceived Partner Responsiveness Items.

When conducting a confirmatory factor analysis with number of factors set to three, using the rotation method of “oblimin” and factoring method of “minres,” the items were separated into three groups: perceived partner responsiveness items, purpose invalidation items that had been reverse scored, and purpose invalidation that had not been reverse scored (Table 3.3). They were all strongly associated with each other, with the negatively-valenced purpose invalidation items showing a correlation of -.66 with the responsiveness factor and .72 with the reverse scored purpose invalidation items. The responsiveness factor had a correlation of -.76 with the positively-valenced purpose invalidation items. When conducting a confirmatory factor analysis with number of factors set to two, the items were separated into another positive versus negative factor, and the correlation between these two factors was .75 (Table 3.3). Because of the valence-
based separation of the items, they were entered into the mediation analyses separately then
together in order to determine whether they explained the same variance in the associations
between sense of purpose and relationship quality.

**Table 3.3**: Factor Loadings for 13 Purpose Invalidation Questionnaire Items and Three
Perceived Partner Responsiveness Items with Two Factor and Three Factor Solutions.

<table>
<thead>
<tr>
<th>Purpose Invalidation Item</th>
<th>Three Factors</th>
<th>Two Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factor A</td>
<td>Factor B</td>
</tr>
<tr>
<td>1. Please indicate the extent to which your partner cares about you. *</td>
<td>-0.02 0.07 <strong>0.87</strong></td>
<td>0.63 0.08</td>
</tr>
<tr>
<td>2. Please indicate the extent to which your partner understands the way you feel about things. *</td>
<td>0.08 0.19 <strong>0.71</strong></td>
<td>0.71 0.04</td>
</tr>
<tr>
<td>3. Please indicate the extent to which your partner appreciates you. *</td>
<td>-0.05 0.00 <strong>0.88</strong></td>
<td>0.77 0.11</td>
</tr>
<tr>
<td>4. My partner knows my goals for life. <em>(reverse score)</em></td>
<td>-0.02 <strong>0.84</strong> 0.01</td>
<td><strong>0.83</strong> 0.04</td>
</tr>
<tr>
<td>5. My partner thinks my goals for life are important. <em>(reverse score)</em></td>
<td>0.07 <strong>0.82</strong> -0.02</td>
<td><strong>0.83</strong> 0.05</td>
</tr>
<tr>
<td>6. My partner is unconcerned with my goals for life.</td>
<td><strong>0.59</strong> 0.22 0.01</td>
<td>0.20 <strong>0.58</strong></td>
</tr>
<tr>
<td>7. My partner disagrees with my goals for life.</td>
<td><strong>0.78</strong> 0.04 0.03</td>
<td>0.00 <strong>0.79</strong></td>
</tr>
<tr>
<td>8. My partner thinks my goals for life are not worthwhile.</td>
<td><strong>0.83</strong> -0.05 0.03</td>
<td>0.09 <strong>0.84</strong></td>
</tr>
<tr>
<td>9. My partner actively supports my goals for life. <em>(reverse score)</em></td>
<td>0.13 <strong>0.71</strong> -0.03</td>
<td>0.74 0.10</td>
</tr>
<tr>
<td>10. My partner views my goals as less important than theirs.</td>
<td><strong>0.74</strong> -0.01 -0.03</td>
<td>0.00 <strong>0.75</strong></td>
</tr>
<tr>
<td>11. My partner ignores me when I talk about my goals.</td>
<td>0.75 0.05 -0.06</td>
<td>0.08 <strong>0.76</strong></td>
</tr>
<tr>
<td>12. My partner encourages me when I encounter an obstacle while pursuing my goal. <em>(reverse score)</em></td>
<td>0.08 <strong>0.74</strong> -0.04</td>
<td>0.78 0.05</td>
</tr>
<tr>
<td>13. My partner appreciates how hard I work to reach my goals. <em>(reverse score)</em></td>
<td>0.09 0.77 -0.02</td>
<td>0.79 0.07</td>
</tr>
<tr>
<td>14. My partner thinks my goals are a waste of time.</td>
<td><strong>0.87</strong> -0.01 -0.03</td>
<td>0.00 <strong>0.88</strong></td>
</tr>
<tr>
<td>15. My partner asks me about my goals for life. <em>(reverse score)</em></td>
<td>-0.15 <strong>0.82</strong> -0.02</td>
<td><strong>0.83</strong> 0.18</td>
</tr>
<tr>
<td>16. My partner thinks my goals for life are unimportant.</td>
<td><strong>0.73</strong> 0.03 -0.07</td>
<td>0.07 <strong>0.74</strong></td>
</tr>
</tbody>
</table>

* indicates a perceived partner responsiveness item.

*Note*: Bolded factor loadings represent items that loaded onto the specific factor.
3.4.2 Mediation Analysis with Purpose Invalidation

After conducting factor analyses to determine whether all of the purpose invalidation measures loaded onto the same construct, mediation analyses were conducted to evaluate whether purpose invalidation, affective well-being, and perceived partner responsiveness uniquely mediated the association between sense of purpose and relationship quality. Latent sense of purpose scores, latent relationship quality scores, and mean purpose invalidation scores were all standardized. Figure 3.4 displays a theoretical model of the analyses, with path c representing sense of purpose predicting relationship quality, path a representing sense of purpose predicting purpose invalidation, path b representing purpose invalidation predicting relationship quality, and path c’ the direct effect of sense of purpose on relationship quality after accounting for the indirect effect of purpose invalidation.

Figure 3.4: Theoretical Model of Purpose Invalidation as a Mediator between Latent Sense of Purpose and Latent Relationship Quality.

Results for the mediation analysis are displayed in Table 3.4. There was evidence of both a direct effect of sense of purpose on relationship quality and an indirect effect through purpose invalidation ($b = .16$, $df = 871$, $SE = .03$, $p < .001$; mean bootstrapped indirect effect: $b = .36 [.29, .42], SE = .03$). Sense of purpose and purpose invalidation explained a large proportion of the variance in relationship quality ($R^2 = .58; F(2, 871) = 624.10, p < .001$).
Table 3.4: The Association Between Latent Sense of Purpose and Latent Relationship Quality with Purpose Invalidation as a Mediator.

<table>
<thead>
<tr>
<th>Steps in Mediation Model</th>
<th>B</th>
<th>SE B</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1 (path c)</td>
<td>0.52</td>
<td>0.03</td>
<td>17.93</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Predictor: sense of purpose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome: relationship quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2 (path a)</td>
<td>-0.53</td>
<td>0.03</td>
<td>-18.65</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Predictor: sense of purpose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome: purpose invalidation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3 (path b &amp; c’)</td>
<td>0.16</td>
<td>0.03</td>
<td>6.31</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Predictor: sense of purpose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mediator: purpose invalidation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>total effect</td>
<td>-0.67</td>
<td>0.03</td>
<td>-26.03</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>bootstrapped indirect effect</td>
<td>0.36</td>
<td>0.03</td>
<td></td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Outcome: relationship quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. All estimates were significant at a $p < .001$ level.

3.4.3 Mediation Analysis with Affective Well-being

Mean scores for positive affect and negative affect were also standardized. Figure 3.5 displays a theoretical model of the analysis, with positive affect and negative affect acting as potential mediators for the association between sense of purpose and relationship quality.

Figure 3.5: Theoretical Model of Positive Affect and Negative Affect as Mediators between Latent Sense of Purpose and Latent Relationship Quality.
Results for the mediation analysis are displayed in Table 3.5. There was evidence of both a direct effect of sense of purpose on relationship quality and an indirect effect through positive affect, but not negative affect ($b = .39$, $df = 870$, $SE = .03$, $p < .001$; mean bootstrapped indirect effect: $b = .13$ [.08, .19], $SE = .03$). Sense of purpose and positive affect explained a moderate proportion of the variance in relationship quality ($R^2 = .29$; $F(3, 870) = 121.34$, $p < .001$).

**Table 3.5:** The Association Between Latent Sense of Purpose and Latent Relationship Quality with Positive Affect and Negative Affect as Mediators.

<table>
<thead>
<tr>
<th>Steps in Mediation Model</th>
<th>$B$</th>
<th>$SE$</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1 (path c)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predictor: sense of purpose</td>
<td>0.52</td>
<td>0.03</td>
<td>17.93</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Outcome: relationship quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2 (path a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predictor: sense of purpose</td>
<td>0.59</td>
<td>0.03</td>
<td>21.55</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Outcome 1: positive affect</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome 2: negative affect</td>
<td>-0.53</td>
<td>0.03</td>
<td>-18.65</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Step 3 (path b &amp; c’)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predictor: sense of purpose</td>
<td>0.39</td>
<td>0.04</td>
<td>10.20</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Mediators</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total effect of PA</td>
<td>0.18</td>
<td>0.04</td>
<td>5.01</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Total effect of NA</td>
<td>-0.05</td>
<td>0.03</td>
<td>-1.46</td>
<td>.144</td>
</tr>
<tr>
<td>Bootstrapped indirect effect</td>
<td>0.13</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome: relationship quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3.4.4 Mediation Analysis with Perceived Partner Responsiveness

Mean scores for perceived partner responsiveness were standardized as well. Figure 3.6 displays a theoretical model of the analysis, with perceived partner responsiveness acting as potential mediators for the association between sense of purpose and relationship quality. Results for the mediation analysis are displayed in Table 3.6. There was evidence of both a direct effect of sense of purpose on relationship quality and an indirect effect through perceived partner responsiveness ($b = .23$, $df = 871$, $SE = .02$, $p < .001$; mean bootstrapped indirect effect: $b = .29$ [.23, .35], $SE = .03$). Sense of purpose and perceived partner responsiveness explained a
moderate proportion of the variance in relationship quality ($R^2 = .67; F(2, 871) = 889.18, p < .001$).

**Figure 3.6:** Theoretical Model of Perceived Partner Responsiveness as a Mediator between Latent Sense of Purpose and Latent Relationship Quality.

Table 3.6: The Association Between Latent Sense of Purpose and Latent Relationship Quality with Perceived Partner Responsiveness as a Mediator.

<table>
<thead>
<tr>
<th>Steps in Mediation Model</th>
<th>$B$</th>
<th>$SE$</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1 (path c)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predictor: sense of purpose</td>
<td>0.52</td>
<td>0.03</td>
<td>17.93</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Outcome: relationship quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Step 2 (path a)          |     |      |     |     |
| Predictor: sense of purpose | 0.42 | 0.03 | 13.60 | < .001 |
| Outcome: responsiveness |     |      |     |     |

| Step 3 (path b & c')     |     |      |     |     |
| Predictor: sense of purpose | 0.23 | 0.02 | 10.61 | < .001 |
| Mediator: responsiveness |     |      |     |     |
| total effect | 0.70 | 0.02 | 32.63 | < .001 |
| bootstrapped indirect effect | 0.29 | 0.03 |     | < .001 |
| Outcome: relationship quality |     |      |     |     |

*Note.* All estimates were significant at a $p < .001$ level.

**3.4.5 Mediation Analysis with All Mediators**

Figure 3.7 displays a theoretical model of the analysis, with the previous significant mediators, purpose invalidation, positive affect, and perceived partner responsiveness, being simultaneously entered as potential mediators.
**Figure 3.7:** Theoretical Model of Purpose Invalidation, Positive Affect, and Perceived Partner Responsiveness as a Mediator between Latent Sense of Purpose and Latent Relationship Quality.

**Table 3.7:** The Association Between Latent Sense of Purpose and Latent Relationship Quality with Purpose Invalidation, Positive Affect, and Perceived Partner Responsiveness as Mediators.

<table>
<thead>
<tr>
<th>Steps in Mediation Model</th>
<th>B</th>
<th>SE B</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1 (path c)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predictor: sense of purpose</td>
<td>0.52</td>
<td>0.03</td>
<td>17.93</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Outcome: relationship quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2 (path a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predictor: sense of purpose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome 1: purpose invalidation</td>
<td>0.53</td>
<td>0.03</td>
<td>-18.65</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Outcome 2: positive affect</td>
<td>0.59</td>
<td>0.03</td>
<td>21.55</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Outcome 3: responsiveness</td>
<td>0.42</td>
<td>0.03</td>
<td>13.60</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Step 3 (path b &amp; c’)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predictor: sense of purpose</td>
<td>0.10</td>
<td>0.02</td>
<td>3.98</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Mediators</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total effect of purpose invalidation</td>
<td>-0.30</td>
<td>0.03</td>
<td>-10.62</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Total effect of PA</td>
<td>0.08</td>
<td>0.02</td>
<td>3.67</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Total effect of responsiveness</td>
<td>0.50</td>
<td>0.03</td>
<td>18.96</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Bootstrapped indirect effect</td>
<td>0.42</td>
<td>0.03</td>
<td></td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Outcome: relationship quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* All estimates were significant at a *p* < .001 level.
There was still a direct effect of sense of purpose on relationship quality, as well as an indirect effect \( (b = .10, df = 869, SE = .02, p < .001; \text{mean bootstrapped indirect effect: } b = .42 [.36, .49], SE = .03, p < .001) \), with each of the mediators acting as unique predictors for the association between sense of purpose and relationship quality. The association between sense of purpose and relationship quality were partially mediated by three unique variables: purpose invalidation, positive affect, and perceived partner responsiveness. Alongside these partial mediators, sense of purpose explained a large portion of the variance in relationship quality \( (R^2 = .71; F(4, 869) = 543.49, p < .001) \).

### 3.5 Exploratory Analyses

#### 3.5.1 Bifactor Model

Using Time 1 data for those in a romantic relationship and the \textit{lavaan} package (Rosseel, 2012), a bifactor model was constructed to determine whether latent sense of purpose explained unique variance in relationship quality after accounting for the shared variance across indicators of general well-being. Latent sense of purpose and latent relationship quality included the same indicators from the latent cross-lagged panel model, with individual indicators allowed to freely load onto the latent variable. General well-being was composed of subjective well-being and relationship quality. Subjective well-being was composed of mean life satisfaction scores, mean relationship domain satisfaction scores, positive affect, and negative affect. General well-being, subjective well-being, and relationship quality were set to be orthogonal, and sense of purpose was regressed onto each of the variable separately.

The model showed an adequate fit regarding RMSEA, SRMR, and CFI \( (\chi^2(91) = 368.50, p < .001; \text{RMSEA} = .059 [.053, .065], p = .009; \text{SRMR} = .036; \text{CFI} = .96) \). Factor loading and estimate information can be found in Figure 3.8. When regressing sense of purpose onto
relationship quality after the variance explained by well-being had been accounted for, sense of purpose did not predict relationship quality \((b = .13, SE = .13, p = .324; std. \ b = .05)\). These findings indicate the need for further exploration into the extent to which sense of purpose is uniquely associated with relationship quality versus general well-being.

**Figure 3.8:** Factor Loadings and Estimates for Bifactor Model with Subjective Well-being and Relationship Quality as Non-covarying Subfactors of General Well-being (gwb) as well as Subjective Well-being (swb) and Sense of Purpose (prp) Predicting Relationship Quality (rlQ).

### 3.5.2 Moderation Analyses

**Gender.** Difference scores were created for relationship quality by subtracting Wave 2 latent purpose scores from Wave 1 latent purpose scores. Only those who identified as female or male were used in these analyses due to the small number of individuals who identified with the other categories. Gender was dummy coded (female = 0, male = 1). A moderation analysis was
conducted to determine whether the association between sense of purpose and change in relationship quality differed as a function of gender. Sense of purpose, gender, nor the interaction between purpose and gender were significant predictors of change in relationship quality (see Table 3.8). Gender and sense of purpose explained less than 1% of the variance for change in relationship quality ($R^2 = .01; F(3, 868) = 2.94, p = .032$).

**Age.** Age was standardized to help with interpretation. A moderation analysis was conducted to determine whether the association between sense of purpose and change in relationship quality differed as a function of age. Neither sense of purpose, age, nor the interaction between sense of purpose and age predicted change in relationship quality (see Table 3.8). Age and sense of purpose explained less than 1% of the variance for change in relationship quality ($R^2 = .00; F(3, 869) = .43, p = .734$).

**Duration.** Relationship duration was standardized to help with interpretation. A moderation analysis was conducted to determine whether the association between sense of purpose and change in relationship quality differed as a function of relationship duration. Neither sense of purpose, relationship duration, nor the interaction between sense of purpose and relationship duration predicted change in relationship quality (see Table 3.8). Relationship duration and sense of purpose explained less than 1% of the variance for change in relationship quality ($R^2 = .00; F(3, 870) = .13, p = .945$).

**Table 3.8:** Regression Results for Change in Relationship Quality with Interactions for Sense of Purpose and Gender (Model 1), Age (Model 2), and Relationship Duration (Model Three).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1 $B$(SE)</th>
<th>$p$</th>
<th>Model 2 $B$(SE)</th>
<th>$p$</th>
<th>Model 3 $B$(SE)</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-0.05 (0.03)</td>
<td>.922</td>
<td>Intercept</td>
<td>0.05 (0.08)</td>
<td>.509</td>
<td>Intercept</td>
</tr>
<tr>
<td>Purpose</td>
<td>0.07 (0.04)</td>
<td>.106</td>
<td>Purpose</td>
<td>-0.06 (0.11)</td>
<td>.564</td>
<td>Purpose</td>
</tr>
<tr>
<td>Gender</td>
<td>0.09 (0.04)</td>
<td>.244</td>
<td>Age</td>
<td>-0.00 (0.00)</td>
<td>.476</td>
<td>Duration</td>
</tr>
<tr>
<td>Purpose x Gender</td>
<td>-0.10 (0.06)</td>
<td>.074</td>
<td>Purpose x Age</td>
<td>0.00 (0.00)</td>
<td>.448</td>
<td>Purpose x Duration</td>
</tr>
</tbody>
</table>
4. Discussion

The purpose of the current study was to evaluate the connection between an individual’s sense of purpose and their perceived romantic relationship quality. Having a higher sense of purpose may promote mindsets and behaviors that enable purposeful people to be better romantic partners, leading to longer, better quality relationships. Furthermore, romantic partners are in a unique position to potentially influence, challenge, or even harm one’s sense of purpose throughout the course of a relationship. With previous work illustrating a positive correlation between these two variables (Pfund et al., 2020), the current study sought to understand how these associations functioned longitudinally—whether one may be more likely to lead to the other, and, if so, through what mechanisms.

The current study addressed three main research questions. The first hypothesis posited that initial sense of purpose would predict one’s relationship status across both waves of the study. With previous literature indicating that personality traits predict relationship dissolution and divorce (Roberts et al., 2007; Solomon & Jackson, 2014), a logistic regression was conducted to evaluate whether sense of purpose would show similar patterns as well. Unfortunately, due to the small sample size of those who started a relationship and those who ended one between the two waves of data collection, only the committed continuers and single continuers were analyzed. These findings pointed to a higher sense of purpose predicting being in a romantic relationship versus not, with a 1-unit increase in purpose indicating that a person would be 50% more likely to be in a relationship during both wave of data collection. The second hypothesis focused on whether sense of purpose and relationship quality predicted change in each other. Previous work found that one’s personality traits predicted their
relationship quality over time (Karney & Bradbury, 1995), but their relationships can predict how their personality traits change as well (Lehnart & Neyer, 2006). The latent cross-lagged panel model found that initial relationship quality did predict later sense of purpose beyond initial sense of purpose, but initial sense of purpose did not illustrate these same associations with later relationship quality. Furthermore, sense of purpose and relationship quality had correlated change, wherein if one’s sense of purpose increased, their relationship quality did as well. The final hypothesis predicted that affective well-being, perceived partner responsiveness, and purpose invalidation would mediate the association between sense of purpose and relationship quality. Though negative affect was not a mediator, positive affect, responsiveness, and purpose invalidation were each a unique pathway, with sense of purpose still showing a direct effect on relationship quality. Together, these results provide some preliminary evidence that sense of purpose predicts relationship status, relationship quality and sense of purpose change together, and suggest potential pathways to help explain their association. To better contextualize these findings, the discussion will review the implications and future directions for purpose and relationship research separately, acknowledge some limitations of the current study, and then conclude with briefly describing some of the broader impacts of this work.

4.1 Implications and Future Directions for Purpose Research

These findings provide further investigation for the ways in which sense of purpose may function as a personality trait, and how that may look in the context of romantic relationships. Though the current study did not find that sense of purpose predicted change in relationship quality, future research should see if this result replicates. When considering the autoregressive pathway in relationship quality, it is likely that sense of purpose could not predict change in
relationship quality due to the rank order stability in the construct. Furthermore, these constructs show strong correlated change, with positive increases in one variable showing the same pattern in the other. These results indicate that being in a strong, healthy romantic relationship is valuable for one’s sense of direction, and that as one becomes more purposeful, they also become more satisfied in their romantic relationship. Accordingly, I have three main recommendations for future research endeavors based on the framework of sense of purpose being a personality trait, which is comprised by characteristic thoughts, feelings, and behaviors (Roberts, 2009).

The first recommendation focuses on the thoughts that may be innate to one’s sense of purpose level. Past research has found that those with a higher sense of purpose are less reactive to work-stressors than their less purposeful peers (Hill et al., 2018). This finding may connect to the cognitive component of sense of purpose. Sense of purpose is positively correlated with hope (Bronk et al., 2009), wherein purposeful individuals report being more likely to see the pathways to overcome obstacles and believe that they have the agency necessary to do so. With the mediation analyses showing that sense of purpose has a direct effect on relationship quality beyond the other mediators, perhaps sense of purpose enables a calmer mindset in the face of relationship obstacles as well as greater hope that one will overcome them. Furthermore, a purposeful person’s cognitive tendencies may also explain why perceived partner responsiveness and purpose invalidation are unique pathways between sense of purpose and relationship quality. It is possible that those with a higher sense of purpose may be less likely to interpret the actions of their partner as uncaring or unsupportive. Notably, this study provided initial evidence of the unique importance purpose invalidation, or feeling unsupported and misunderstood in one’s goals. Purpose invalidation could also show a similar thought process as perceived partner
responsiveness, wherein an individual with a higher sense of purpose may be less likely to perceive the actions of their partner as being uncaring or invalidating of their goals. Just as they are less likely to be less reactive to work-stressors similarly experienced by their less purposeful peers (Hill et al., 2018), so too may they be less reactive to a romantic relationship event that a less purposeful person may interpret as harmful or uncaring. The pattern of thoughts associated with a sense of purpose may contextualize the direct and indirect effect of sense of purpose on relationship quality.

The second recommendation considers the affective component of sense of purpose. The typical feelings a purposeful person experiences may also help with the interpretation of these findings. People with a higher sense of purpose report greater positive affect (Scheier et al., 2006; Sumner et al., 2015), another mediator between sense of purpose and relationship quality. When considering this purpose pathway to relationship quality, there may be another element that explains this association that has not frequently been considered in the context of purpose research: emotion regulation. Emotion regulation encompasses the strategies an individual uses to change, increase, or decrease the emotions they are experiencing (Gross, 1998), and the strategies one uses are differentially associated with affective well-being outcomes (Gross & John, 2003; Kalokerinos, Greenaway, & Denson, 2016; McRae et al., 2011). One study found that sense of purpose is positively associated with reappraisal, or changing the way one thinks about a situation, and negatively associated with expressive suppression, or hiding one’s emotions (Gross & John, 2003). Reappraisal has been found to be positively associated with positive affect and negatively associated with negative affect (Gross & John, 2003; Kalokerinos et al., 2016; McRae et al., 2011), while expressive suppression has been found to be positively associated with negative affect (Gross & John, 2003; Kalokerinos et al., 2016). With the current
study finding that positive affect is one pathway from sense of purpose to relationship quality, perhaps sense of purpose is predictive of the kinds of emotion regulation strategies one may use, which, in turn may influence one’s romantic relationship outcomes as well as a variety of other affect and well-being outcomes. Future work should consider whether emotion regulation strategies may be a pathway to explain the associations between sense of purpose and well-being and relationship outcomes alike.

The third recommendation for future research is rooted in the behavioral signature for sense of purpose. Though the final component of a trait, behaviors, was not assessed in the current study, future research should investigate whether there are certain behaviors that purpose promotes, both within and outside of the context of a romantic relationship. However, there is one specific behavior-related consideration to which the current findings may allude: situation selection. Situation selection can be understood as the way an individual chooses into, or away from, a certain environment (Buss, 1987; Scarr, 1996), which often stems from underlying dispositions like personality traits (Hampson, 2012; McCrae & Costa, 1991). One of the main forms of situation selection is mate selection, or the kind of partner with whom one chooses to be (Buss, 1987). Situation selection can contextualize the mediating effect of purpose invalidation between sense of purpose and relationship quality. People with a higher sense of purpose may be more likely to leave a relationship where their goals are unsupported and treated as less important, or less likely to enter a relationship like that in the first place, which is another explanation for why sense of purpose is associated with greater relationship quality. Future research should consider whether sense of purpose influences the kinds of situations into which an individual selects, as well as the behaviors both within and across situations one’s level of sense of purpose may promote.
4.2 Implications and Future Directions for Relationship Research

The current study also has important implications for close relationship research that can inform future research directions. The first implication regards the conceptualization of relationship quality itself. When constructing a latent variable for relationship quality, it is important to note that perceived quality of alternatives, a main component of the romantic relationship-oriented Investment Model Scale (Rusbult et al., 1998), loaded poorly onto the latent relationship quality variable relative to the other indicators. In fact, barely 1% of the variance in this variable was explained by the broader relationship quality construct overall. Feeling that one’s partner is superior across a variety of domain to other potential partners, does not seem to be vital in having a generally satisfied romantic relationship, as indicated by previous studies (Impett et al., 2001). Furthermore, the prior study that investigated sense of purpose and relationship quality found that perceived quality of alternatives was the only relationship quality indicator with which sense of purpose was not correlated (Pfund et al., 2020). The current findings suggest perceived quality of alternatives again may not be a good indicator of relationship quality, which may have influenced the current findings. Future work may want to move away from utilizing perceived quality of alternatives as an indicator of someone’s general relationship quality.

The current study found that both one’s sense of purpose and perception of purpose invalidation were predictive of their relationship quality. With a large collection of work displaying the predictive ability of personality traits on both relationship quality and relationship dissolution (Karney & Bradbury, 2005; Malouff et al., 2009; Roberts et al., 2007), sense of purpose has emerged as another individual difference for relationship researchers to consider, with past work finding that sense of purpose predicted relationship quality above and beyond the
Big Five (Pfund et al., 2020). One reason for this finding could be related to a construct developed in this study, purpose invalidation. While strongly associated, it appears that purpose invalidation influences relationship quality in a unique way beyond perceived partner responsiveness. This finding illustrates that feeling supported in one’s goals is uniquely important for relationship quality. With past work finding that the supportive behaviors of a partner can actually influence one’s own job satisfaction and likelihood of getting promoted (Solomon & Jackson, 2014), it is plausible that the attitudes and actions one perceives their partner directing at their goals for life can influence their relationship quality overall. Relatedly, to further understand how these variables connect, and the extent to which they do, future research should consider whether having similar goals as one’s partner is important. With work indicating the importance of trait similarity between partners for well-being (van Scheppingen, Chopik, Bleidorn, & Denissen, 2018), perhaps there is even more importance for purpose content similarity for relationship quality. Maybe partners with more similar purposes in life experience greater relationship quality as they can pursue their goals together, and they may also be more effective in actively supporting each other’s purpose and avoiding purpose invalidating behaviors. Future research needs to further investigate what purpose invalidation means for a romantic relationship, and if similarities in partners’ purposes in life are important for relationship quality.

A final consideration for relationship research is to extend beyond romantic relationships when investigating purpose. With past work indicating that those with a higher sense of purpose experience better social outcomes, such as greater belongingness and less loneliness (Pfund & Miller-Perrin, 2018; Stavrova & Luhmann, 2015), as well as better personal relations with other (Ryff & Keyes, 1995), there is a foundation for exploring the role of purpose in close
relationship research. The current study and past work have found that sense of purpose is associated with better romantic relationship quality (Pfund et al., 2020), but work focusing on parental relationships has also indicated that sense of purpose is positively associated with secure parental attachment and that greater parental conflict in childhood predicts lower sense of purpose later (Hill et al., 2016; Hill, Schultz, Jackson, & Andrews, 2019). Bringing these findings together, future work should consider sense of purpose and relationships across a variety of relationship contexts. For example, work could build off of the previous purpose and parental conflict literature by investigating whether purpose invalidation from parents may have a unique influence on sense of purpose, especially when taking into account that much of the purpose development process occurs in adolescence (Bronk et al., 2009; Sumner et al., 2015), a time in which most teens are still living with their parents. Relatedly, perhaps conflict in parent-child relationships could be aided by openly discussing a child’s purpose pursuit, and a parent enacting more supportive and attentive behaviors toward their child’s ongoing purpose development. Future research should explore the influence of purpose invalidating behaviors across a variety of relationships, as well as consider how relationship quality and sense of purpose co-occur outside of solely romantic relationships.

4.3 Limitations

While this study did provide some novel information for both purpose research and relationship research alike, there are a few issues with the current study that limits interpretation of these findings. One of the main limitations of this study was the small number of people who reported being in the relationship discontinuers and relationship beginner groups. Without individuals in these groups, analyses were unable disentangle whether people with a higher sense of purpose are more likely to maintain their romantic relationships or enter into a romantic
relationship if they previously had not been in one. A few different methods could be used to address this. First, a younger sample could be used, with individuals who are younger being more likely to experience relational transitions, such as break ups, while middle and older adults whose relationships end are more likely to be experiencing divorce, or even death of a partner. The context of relationship dissolution in these contexts would likely have different meanings regarding purpose. Second, a longer period of time between data collection could be useful to allow more time for more variability in whether one ends or enters a relationship. The current study found that people with a higher sense of purpose were more likely to be in a relationship than be single over time, but future research is needed to evaluate whether sense of purpose predicts if one will enter or leave a relationship.

Another limitation is the number of waves of data. While cross-sectional mediation can give a first peek into the potential mechanisms linking two variables, they cannot technically be considered mediators given the lack of temporal precedence of the variables of interest (Kenny, 2008). Furthermore, though this study utilized multiple waves of data, three waves of data are necessary to establish that change in sense of purpose leads to change in, for example, purpose invalidation, which then leads to change in relationship quality (Maxwell & Cole, 2007). Because of this limitation, it is important to consider the current mediation analyses in terms of variance explained, rather than one variable leading to another. The analyses established an initial foundation indicating that some of the shared variance in sense of purpose and relationship quality is explained by purpose invalidation, positive affect, and perceived partner responsiveness. However, future work with at least three waves of data is necessary to understand what a change in one variable means for another, such as a higher sense of purpose leading to less purpose invalidation which, in turn, leads to better relationship quality. It is also
possible that purpose invalidation acts on sense of purpose and relationship quality separately, with more purpose invalidation leading to less sense of purpose and less relationship quality. With at least three waves of data, the long-term nature of these associations will become clearer.

The final limitation is related to romantic relationships being dyadic in nature, but this study only captures one side of the dyad. Some of the constructs being assessed, such as purpose invalidation and perceived partner responsiveness, reflect one’s subjective perception of how their partner treats them. Previous work has indicated the discrepancies in partners’ ratings of each other’s personality traits from their own ratings predict relationship satisfaction beyond each partner’s trait level (Schaffhuser, Allemand, Werner, & Martin, 2016), so the incongruence between self- and other-report could have important implications for the current question. If someone believes their partner enacts many purpose invalidating behaviors, though their partner does not have this same perception, there could be a greater gap in each individual’s perception of the general quality of their relationship. Furthermore, a dyadic approach would also allow the evaluation of sense of purpose similarity, or whether having different sense of purpose levels might predict relationship quality. Previous work has indicated that romantic partners’ personality traits have an additive effect on relationship satisfaction, finding that having one emotionally stable partner is better than having none, though it is most predictive of better relationship satisfaction when both partners are emotionally stable (Robins, Caspi, & Moffitt, 2000). However, contrary to this additive effect of personality traits, other work has found that there is an effect of partner trait similarity on partner well-being (van Scheppingen et al., 2018). Having both partners’ sense of purpose would give insight into whether sense of purpose similarity or at least one partner having a higher sense of purpose is preferable. Perhaps partners are better off being more similar; if so, although a higher sense of purpose is associated with
better relationship quality, it is better for both partners to have a lower sense of purpose and be similar. Sense of purpose also may have an additive effect in romantic relationships, insofar a romantic relationship would be better off if one person had a higher sense of purpose, even if the other did not. Dyadic work is an important next step in expanding upon the current research findings and having a more in-depth view of what these variables mean for both sides of a relationship.

4.4 Conclusions
While there were limitations in the current study, these findings lay important groundwork for a breadth of future research endeavors. In a problematic relationship, purpose validating behaviors could be a strategy that relationship counselors propose for their clients to utilize, with clients learning the importance of showing their significant other that they care not just for them, but the goals that they choose to pursue. The unknown harm purpose invalidation may cause for a romantic relationship and an individual alike could be superseded by the potential gain purpose validating words and actions may foster for relationship quality and one’s sense of purpose.

Relatedly, romantic relationships have revealed themselves to be important for one’s sense of purpose. The purpose development process is challenging, and knowing that one may could find solace through the relationship with another as they traverse through their own purpose journey may be what makes the difference in discovering one’s purpose in life and bolstering a high sense of purpose for oneself. With sense of purpose being a consistently relevant part of one’s general well-being, knowing that meaningful and intentional relationships could change the path to purpose provides both hope for the individual as well as a call for purpose and relationship researchers alike to view the relevance of each of these constructs for
the other. The longitudinal associations discovered through this project has opened the door for many future directions, as well as some promising solutions to challenging situations.
REFERENCES


R Core Team. (2019). *R: A Language and Environment for Statistical Computing.* Vienna, Austria.


Appendix

Purpose Invalidation Questionnaire

To what extent do these items describe your partner?

<table>
<thead>
<tr>
<th>1 strongly disagree</th>
<th>2 disagree</th>
<th>3 neutral</th>
<th>4 agree</th>
<th>5 strongly agree</th>
</tr>
</thead>
</table>

1. My partner knows my goals for life. *(reverse score)*

2. My partner thinks my goals for life are important. *(reverse score)*

3. My partner is unconcerned with my goals for life.

4. My partner disagrees with my goals for life.

5. My partner thinks my goals for life are not worthwhile.

6. My partner actively supports my goals for life. *(reverse score)*

7. My partner views my goals as less important than theirs.

8. My partner ignores me when I talk about my goals.

9. My partner encourages me when I encounter an obstacle while pursuing my goal. *(reverse score)*

10. My partner appreciates how hard I work to reach my goals. *(reverse score)*

11. My partner thinks my goals are a waste of time.

12. My partner asks me about my goals for life. *(reverse score)*

13. My partner thinks my goals for life are unimportant.