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Exploring the links between psychological flexibility, individual well-being, and relationship quality

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Abstract

The ability to engage flexibly with thoughts and behavior in line with the demands of a situation—termed *psychological flexibility*—has been linked to individual well-being. This registered report presents two studies that investigate the links between psychological flexibility, individual well-being, and relationship quality. Using structural equation modeling, Study 1 found that people who were more psychologically flexible reported higher levels of positive affect and lower levels of negative affect, which in turn were associated with higher relationship quality. Using dyadic mediation analysis, Study 2 replicated and extended these findings in a sample of 200 romantic couples, revealing both actor and partner effects. This research offers insight into the implications of psychological flexibility for relationship functioning.

KEYWORDS

Actor–Partner Interdependence Model, affect, psychological flexibility, relationship quality, structural equation modeling

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1 | INTRODUCTION

A wealth of literature testifies to the beneficial links between the positive features of romantic relationships and health and well-being (Holt-Lunstad, 2018; Stanton, Slatcher, & Reis, 2019; Uchino, 2009), with a growing number of studies investigating these benefits at both the individual and couple levels (Debrot, Cook, Perrez, & Horn, 2012; Stanton, Spence, Kähkönen, & Dobson, 2020; Stavrova, 2019). Deepening our understanding of how well-being and relationships are connected is vital to supporting growth in these domains. We argue that potentially important insight into these domains may be afforded by psychological flexibility, a malleable behavioral process known to predict individual well-being (Levin, Hildebrandt, Lillis, & Hayes, 2012). This research explored how psychological flexibility may be associated with romantic relationship quality via positive and negative affect (PA and NA, respectively).

1.1 | Psychological flexibility

The term *psychological flexibility* reflects aspects of cognitive, behavioral, emotional, and physiological functioning (Kashdan & Rottenberg, 2010). As a response style, it is characterized by a *mindful and acceptance* element (i.e., nondefensive awareness of thoughts and feelings in the moment) and a *valued action* element (i.e., persistence or behavior change that enhances the pursuit of one's core values or goals, depending on what the situation affords) (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). Psychological flexibility has been shown to be malleable across a wide range of populations and contexts (Levin et al., 2012). Greater psychological flexibility is associated with an enhanced ability to recognize and adapt to situational demands (Waugh, Thompson, & Gotlib, 2011), shift mindsets and behavior to accommodate social and personal functioning (Kashdan & Rottenberg, 2010), maintain and balance life demands (Gloster, Meyer, & Lieb, 2017), and identify and commit to behaviors congruent with deeply held beliefs (Hayes, Strosahl, & Wilson, 2016), all of which are critical to healthy psychological functioning.

Although there is little direct literature to suggest how psychological flexibility may be important in the relationship context, there is a wealth of evidence that highlights links between the mindfulness component of psychological flexibility and relationship quality. Karremans, Schellekens, and Kappen (2017) proposed a theoretical model highlighting how mindfulness may be related to prorelationship motivation and behavior, coping with relationship distress, and relationship cognition. Karremans et al. also recognized that these processes are contextually bound, dependent on both partners' willingness and capacity to forgive, to sacrifice, to refrain from acting out during conflict, and to value one another (see also Barnes, Brown, Krusemark, Campbell, & Rogge, 2007). We argue that psychological flexibility, a construct that includes elements of mindfulness and also simultaneously encompasses other processes (e.g., acting in accordance with values), should be associated with relationship quality as well.

The acceptance facet of psychological flexibility also has links to relationship processes. For example, Galhardo, Cunha, and Pinto-Gouveia (2011) investigated how couples manage infertility, finding that those who developed higher levels of self-acceptance and more self-compassionate attitudes had more adaptive coping strategies and a better-adjusted marital relationship. Moreover, Pakenham and Samios (2013) explored the dual roles of mindfulness and acceptance in couples coping with multiple sclerosis and found actor effects of both mindfulness and acceptance on relationship satisfaction and partner effects for acceptance on

relationship satisfaction. We believe these studies point to the role psychological flexibility may play within relationships.

Although there are almost no direct studies on the role of valued action within relationships, studies of individual well-being have explored how relatedness is connected to two other fundamental psychological needs: autonomy and competence (cf. Baumeister & Leary, 1995). Close relationships provide an important vehicle through which people satisfy these needs. For example, research on self-expansion processes has demonstrated that partner support of personal growth is linked to relationship quality and goal-related behavior (Aron, Lewandowski, Mashek, & Aron, 2013). This investment in intrinsic goals and the pursuit of personal values are characteristic of the valued action facet of psychological flexibility. Thus, considering prior research collectively, we believe there is strong rationale for investigating the links between psychological flexibility and relationship quality.

1.2 | Individual well-being

Individual well-being can be defined in several ways. In the *hedonic* approach, well-being generally refers to the pursuit of pleasure, satisfaction, and PA (e.g., passion, joy, attraction, excitement, and novelty) and avoidance of pain, dissatisfaction, and NA (e.g., anger or sadness) (Diener et al., 2017). Alternatively, in the *eudaimonic* view, well-being is distinct from general pleasure. Ruini and Ryff (2016) argue that high PA and low NA do not necessarily reflect a high degree of psychological well-being (e.g., in the case of drug taking, Henderson & Knight, 2013). Instead, eudaimonic well-being is conceptualized as successfully meeting challenges and finding meaning in life. Ryff (1989) identified six key components that comprise eudaimonic well-being: self-acceptance, positive relations with others, personal growth, purpose in life, environmental mastery, and autonomy.

Recent research suggests that the combination of hedonic and eudaimonic perspectives provides the most comprehensive conceptualization of well-being, yielding a "full" or "balanced" life (Peterson, Park, & Seligman, 2005; Sirgy & Wu, 2009). Important for our research, positive relationships are consistently theorized as key parts of well-being (Seligman, 2011). Such integrative approaches also recognize a link to life satisfaction (Grimm, Kemp, & Jose, 2015; Park, Peterson, & Ruch, 2009; Peterson et al., 2005) and the idea that satisfaction with life is integral to individual well-being. Thus, individual well-being appears to most frequently be characterized by PA, NA, and life satisfaction. Understanding the role of psychological flexibility in individual functioning therefore requires exploration into which aspects of well-being it is connected.

The relation between psychological flexibility and affect has been examined directly. For example, in one study, psychological flexibility in affective experience predicted better health immediately and over time (Hardy & Segerstrom, 2017). Greater psychological flexibility has also been linked to higher self-awareness of emotions and the benefits of both PA and NA in specific contexts (Kashdan & Rottenberg, 2010). This may be particularly relevant in relationships, where partners must frequently balance their own needs and emotions with their partner's needs and emotions in order to maintain relationship satisfaction over time (Clark & Finkel, 2005; Mills, Clark, Ford, & Johnson, 2004). More broadly, higher PA and lower NA have been related to greater frequency and higher quality of social interaction (Berry & Hansen, 1996; Whelan & Zelenski, 2012), which—theoretically—should also have implications for the overall quality of a relationship. In light of these prior findings, it seems plausible that psychological flexibility may be linked to relationship quality via PA and NA.

Although no research has explicitly tested the associations between eudaimonia and psychological flexibility, there is evidence of links between eudaimonia and relationship quality. For instance, when people focus on important goals, they experience greater eudaimonic well-being, which then has downstream effects on prosocial behavior and relationship functioning (Ryan, Huta, & Deci, 2008). This idea is consistent not only with the purpose in life facet of Ryff's (1989) conceptualization of eudaimonic well-being but also with the valued action component of psychological flexibility. Similarly, the links between social relatedness, autonomy, and competence are also characteristic features of eudaimonia (Reis et al., 2000), serving to highlight the importance of the individual volition. It is also clear how being mindful and acting with awareness might be important in developing environmental mastery or positive relations with others (cf. Karremans et al., 2017). However, this general sense of commonality between different constructs requires more direct research to truly understand the associations between psychological flexibility, individual well-being, and relationship quality.

1.3 | The present research

The significance of psychological flexibility at the dyadic level—beyond specific component studies exploring mindfulness and acceptance—has yet to be investigated systematically. In this registered report, we explore these ideas in two cross-sectional studies. Study 1 investigated the correlations between psychological flexibility, individual well-being, and relationship quality in individuals. The results of this initial analysis offered insight into the complexity of these associations, particularly in terms of overlap between operationalizations of eudaimonia and psychological flexibility. Following the initial round of the review process, we reconceptualized hedonic well-being into separate components of life satisfaction, PA, and NA and examined whether these components mediated the association between psychological flexibility and relationship quality. In Study 2, we sought to replicate the key findings from Study 1 in a sample of romantic couples.

In our studies, we controlled for factors identified in the literature that covary with individual well-being and/or relationship quality. Specifically, in Study 1, we included perceived partner responsiveness (PPR) as a covariate as it is consistently associated with the downregulation of NA, enhancement of relationship security, and eudaimonia (Reis, Clark, & Holmes, 2004; Selcuk, Gunaydin, Ong, & Almeida, 2016; Slatcher & Selcuk, 2017). We also considered participants' age as a covariate because, as people grow older, close relationships become more important and central to their experience of well-being (Gillanders & Laidlaw, 2014), which may have implications for how psychological flexibility is related to individual well-being and relationship quality. Similarly, relationship length and a couple's cohabitation arrangements may also influence relationship quality (Lavner & Bradbury, 2019), and thus, we also considered these variables in analyses as well. In Study 2, we included self-determination variables as covariates as they have similarly been linked to individual well-being and health (Deci & Ryan, 2008a; Ryan et al., 2008), and its focus on motivation shares many similarities with the valued action aspect of psychological flexibility.

2 | STUDY 1

Study 1 was exploratory, investigating the strength of associations between psychological flexibility, hedonic and eudaimonic well-being, life satisfaction, and relationship quality. Following

the initial review process, our original analyses were supplemented by an exploratory factor analysis (EFA) that explored potential overlap between constructs. This analysis then guided the use of structural equation modeling (SEM) to determine the model of best fit for the data.

2.1 | Method

2.1.1 | Study preregistration and ethics

Data reported here were drawn from a larger project available on the Open Science Framework, available at https://osf.io/5tsh2/. All study procedures were approved by the Psychology Research Ethics Committee at the University of Edinburgh. A previous iteration of this article is also available at https://osf.io/2xmyk/, outlining its development following the initial review process.

2.1.2 | Participants

Data were collected via Amazon's Mechanical Turk (MTurk). Across the two relevant samples, 1,591 individuals began the study ($N_{\text{Sample A}} = 830$, $N_{\text{Sample B}} = 761$), and 1,194 completed it ($N_{\text{Sample A}} = 617$, $N_{\text{Sample B}} = 577$). Participants were excluded from analyses if they left one or more entire questionnaires blank ($N = 297$) or failed at least one of three attention checks ($N = 107$). All remaining participants met the age criteria and were in a romantic relationship. The resulting two samples were compared for equivalence, and no significant differences were found based on demography or for the constructs of psychological flexibility, eudaimonic well-being, PA, or life satisfaction. Significant differences were noted between groups for relationship quality ($t(1174) = 4.24$, $p = .04$) and NA ($t(1173) = 4.58$, $p = .03$). Groups were therefore analyzed separately, and as a combined sample, to check for equivalence. The results were the same across samples, and as such, we present the findings from the combined dataset.

The final sample used in analyses comprised 1,176 romantically involved individuals (678 women, 495 men, 2 genderqueer, 1 unreported) who participated in the study in exchange for USD $0.75. Participants were 18–76 years of age ($M_{\text{years}} = 36.13$, $SD_{\text{years}} = 11.39$) and were in romantic relationships lasting 1 month to 54 years ($M_{\text{years}} = 8.82$, $SD_{\text{years}} = 9.14$). Approximately 39% reported casually or exclusively dating their romantic partner, and 61% reported being common-law, engaged, or married. The majority were cohabiting with their current romantic partner (82%) and identified as heterosexual (88%) and Caucasian (78%).

2.1.3 | Materials and procedure

Participants completed all parts of the study online. They first provided demographic information, after which they answered a battery of questionnaires (full study measures are listed at https://osf.io/uhnyt/). The order of measures, and items within measures, was randomized and counterbalanced. The subset of scales used for the present analyses are described below. After completion of all study questionnaires, participants viewed a debriefing screen and were compensated. The full study took approximately 20–25 minutes to complete.

2.1.4 | Primary measures

Psychological flexibility

Participants rated their psychological flexibility using the CompACT (Francis, Dawson, & Golijani-Moghaddam, 2016), which conceptualizes psychological flexibility in line with a three-factor structure, due to its focus on conceptual alignment with the processes underpinning psychological flexibility. The CompACT is a 23-item measure rated on a 7-point scale (0 = *strongly disagree*, 6 = *strongly agree*) containing 10 items that assess *openness to experience* (e.g., "I can take thoughts and feelings as they come, without attempting to control or avoid them"), 5 items that assess *behavioral awareness* (e.g., "I rush through meaningful activities without being really attentive to them," reverse-scored), and 8 items that assess *valued action* (e.g., "I behave in line with my personal values"). Overall psychological flexibility scores were computed by averaging responses across all items, with higher scores indicating greater psychological flexibility ($M = 3.78$, $SD = 0.91$, $\omega = 0.91$). Mean scores were also generated for each of the individual three factors, in a similar manner, allowing for a more precise exploratory analysis of the relationship of flexibility to other key constructs.

Hedonic well-being

To gauge affect, participants completed the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), a 20-item measure rated on a 5-point scale (1 = *very slightly/not at all*, 5 = *extremely*) containing 10 items that assess PA (e.g., "enthusiastic," "proud") and 10 items that assess NA (e.g., "hostile," "guilty"). Following prior recommendation (Diener et al., 2017), PA and NA were explored separately, enabling the researchers to analyze the contribution of each element to individual well-being ($M_{PA} = 3.27$, $SD_{PA} = 0.87$, $\omega = 0.92$; $M_{NA} = 1.87$, $SD_{NA} = 0.85$, $\omega = 0.93$).

Life satisfaction

To gauge life satisfaction, participants completed Diener, Emmons, Larsen, and Griffin's (1985) Satisfaction with Life Scale, a five-item measure rated on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*) that assesses how happy individuals are with their life in general (e.g., "In most ways my life is close to my ideal"; $M = 4.79$, $SD = 1.51$, $\omega = 0.93$).

Eudaimonic well-being

Participants rated their eudaimonic well-being using 24 items from Ryff's (1989) Psychological Wellbeing Scale. Items were rated on a 6-point scale (1 = *strongly disagree*, 6 = *strongly agree*); four items assess *self-acceptance* (e.g., "I like most aspects of my personality"), four items assess *autonomy* (e.g., "I'm not afraid to voice my opinions, even when they are in opposition to the opinions of most people"), four items assess *environmental mastery* (e.g., "I am quite good at managing the many responsibilities of my daily life"), four items assess *purpose in life* (e.g., "I enjoy making plans for the future and working to make them a reality"), four items assess *personal growth* (e.g., "I think it is important to have new experiences that challenge how you think about yourself and the world"), and four items assess *positive relations with others* (e.g., "I enjoy personal and mutual conversations with family members or friends"). Overall eudaimonic well-being scores were computed by averaging responses across all items, with higher scores indicating greater eudaimonic well-being ($M = 4.27$, $SD = 0.88$, $\omega = 0.93$). Mean scores were also generated for each of the six subfactors, in a similar manner, allowing for a more precise exploratory analysis of the relationship of eudaimonia to other key constructs.

Relationship quality

Participants rated their overall relationship quality using the Perceived Relationship Quality Components (PRQC; Fletcher, Simpson, & Thomas, 2000), an 18-item measure rated on a 7-point scale (1 = *not at all*, 7 = *extremely*) containing 3 items that assess six aspects of relationship quality: *satisfaction* (e.g., "How satisfied are you with your relationship?"), *commitment* (e.g., "How committed are you to your relationship?"), *intimacy* (e.g., "How close is your relationship?"), *trust* (e.g., "How much do you trust your partner?"), *passion* (e.g., "How passionate is your relationship?"), and *love* (e.g., "How much do you love your partner?"). Participants in Sample A completed the full 18-item PRQC, whereas participants in Sample B completed one item from each subscale, for a total of six items (see above for the selection). Overall relationship quality scores were computed by averaging responses across the six items shared by both samples, with higher scores indicating greater relationship quality ($M = 5.89$, $SD = 1.10$, $\omega = 0.91$).

2.1.5 | Covariates

Demographic variables

Participants reported their, age, relationship status, and relationship length. For ease of interpretation, categorical demographic variables were collapsed into binary variables for analyses (see Table 1 for binary variable breakdowns).

Responsiveness

PPR was included as a potential covariate because of its links with hedonic and eudaimonic well-being (Selcuk et al., 2016), as well as relationship quality (Reis et al., 2004). It was therefore important to rule out the possibility that any associations between psychological flexibility and those variables could be accounted for by responsiveness (e.g., individuals who perceive their partner as more responsive reporting greater eudaimonic well-being). Participants completed Reis, Crasta, Rogge, Maniaci, and Carmichael's (2017) Perceived Partner Responsiveness Scale, an 18-item measure rated on a 9-point scale (1 = *not at all true*, 9 = *completely true*) that assesses how much participants believe their partner cares about, understands, and validates them (e.g., "My current romantic partner really listens to me," "My current romantic partner values and respects the whole package that is the 'real' me"). PPR scores were calculated by averaging responses across all items, with higher scores indicating greater PPR ($M = 6.97$, $SD = 1.67$, $\omega = 0.98$).

2.2 | Results

Table 1 displays the correlations among study variables. A more detailed breakdown of correlations between subscales for key constructs may be viewed at https://osf.io/cvtqr/.

Associations were explored between variables by conducting an EFA with principal axis factoring and direct oblimin rotation due to the anticipated correlations between factors. Following recommendations of parallel analysis (Horn, 1965), a refined six-factor solution offered the most interpretable factoring in this study (see Table 2). Item loadings below 0.3 were suppressed, and weightings over 0.5 are presented in bold in order to highlight the pattern of items that made the most meaningful contribution to factors (Gaskin, Lambert, Bowe, & Orellana, 2017). The rotated solution explained 50.18% of the variance in the data.

TABLE 1 Correlations between key study measures, including covariates

	Correlations									
Variable	**PF**	**PA**	**NA**	**SWL**	**EW**	**RQ**	**Age**	**PPR**	**RS**	**RL**
PF	—	**0.33****	**−0.54****	**0.40****	**0.80****	**0.36****	0.26**	**0.41****	0.08**	0.17**
PA		—	−0.13**	**0.51****	**0.48****	**0.36****	0.05	**0.40****	0.03	0.02
NA			—	**−0.31****	**−0.55****	−0.26**	**−0.30****	−0.26**	−0.12**	−0.24**
SWL				—	**0.61****	**0.46****	−0.01	**0.47****	0.20**	0.08*
EW					—	**0.47****	0.20**	**0.52****	0.11**	0.14**
RQ						—	−0.02	**0.75****	0.07*	0.03
Age							—	0.02	0.23**	**0.64****
PPR								—	0.04	0.02
RS									—	**0.50****
RL										—

Note: Bolded font indicates a correlation of over 0.30, following Cohen's (1992) recommendation that effect sizes below 0.30 represent small effects in samples of this size.
Abbreviations: EW, eudaimonic well-being; NA, negative affect; RL, relationship length; RS, relationship status; PA, positive affect; PF, psychological flexibility; PPR, perceived partner responsiveness; RQ, relationship quality; SWL, satisfaction with life.
*$p < .05$.
**$p < .01$.

The EFA identified that eudaimonia loads onto the same factors as psychological flexibility and satisfaction with life. We therefore chose to remove eudaimonia from our subsequent SEM analyses. We used SEM to test models where psychological flexibility was associated with relationship quality and individual well-being, operationalized in terms of PA, NA, and life satisfaction scores. A range of models was explored in line with the findings from the EFA (see Table 3). Notably, these exploratory analyses revealed that similarly high levels of fit could be achieved using affect to mediate the relation between psychological flexibility and relationship quality and also when affect mediated the relationship from relationship quality to psychological flexibility. Life satisfaction did not contribute to any good-fitting models.

There were two models that offered a good fit for the data. Using SEM to test a serial mediation model with two mediators, we found that Model 1 indicated that greater psychological flexibility had both a direct association with higher relationship quality as well as an indirect link through higher PA ($\beta = .11$, $SE = 0.01$, 95% CI [0.08, 0.14]) and lower NA ($\beta = .07$, $SE = 0.02$, 95% CI [0.03, 0.12]) (see Figure 1).

We also found that Model 2, where the predictor and outcome variables were reversed, also demonstrated good fit. Using the same analysis strategy as Model 1, results revealed that higher relationship quality was directly linked to greater psychological flexibility, as well as indirectly linked via higher PA ($\beta = .06$, $SE = 0.01$, 95% CI [0.04, 0.08]) and lower NA ($\beta = .10$, $SE = 0.01$, 95% CI [0.08, 0.13]) (see Figure 2).

In comparing the two models, NA was more strongly linked to psychological flexibility than relationship quality, whereas PA had similar levels of associations with both psychological flexibility and relationship quality. Both PA and NA mediated the associations between psychological flexibility and relationship quality in a manner consistent with prior literature.

2.2.1 | Auxiliary analyses

When introducing covariates to the two models, PPR and age particularly reduced the model fit (Table 4). We therefore ran our models with age and PPR as covariates and determined that the links in our models still emerged (Figures 1 and 2, Model b) with the exception of the direct relationship between psychological flexibility and relationship quality.

2.3 | Discussion

Study 1 demonstrated moderate to large correlations between psychological flexibility, various facets of individual well-being, and relationship quality. An EFA identified that substantial overlap existed between the eudaimonic well-being and psychological flexibility measures, with items from both measures loading onto the same factors. Subsequent SEM analyses suggested that one model which explained the data involved psychological flexibility being associated with higher relationship quality through higher PA and lower NA. Although some covariates (e.g., PPR, age) reduced the fit of the model, controlling for them in our models did not remove the mediation effect. We therefore elected to remove them from our further analyses in this article.

These findings suggest that psychology flexibility plays a role within intimate relationships. This idea is theoretically consistent with prior studies demonstrating that NA and inflexibility go hand in hand, whereas PA broadens the array of thoughts and feelings a person may

TABLE 2 Exploratory factor analysis, refined six-factor solution

	Factor					
	Life sat	Rel qual	Pos aff	Valued action	Mind Accept	Neg aff
Cronbach's alpha >	**0.923**	**0.960**	**0.917**	**0.897**	**0.896**	**0.928**
Psychological flexibility						
Openness to experience						
I tell myself that I shouldn't have certain thoughts#					**0.591**	
I try to stay busy to keep thoughts or feelings from coming#					**0.653**	
One of my big goals is to be free from painful emotions#					**0.534**	
I go out of my way to avoid situations that might bring difficult thoughts, feelings or sensations#					**0.598**	
Even when something is important to me, I'll rarely do it if there is a chance it will upset me#					**0.532**	
I work hard to keep out upsetting feelings#					**0.613**	
I can take thoughts and feelings as they come, without attempting to control or avoid them.						
I am willing to fully experience whatever thoughts, feelings and sensations come up for me, without trying to change or defend against them.						
I get so caught up in my thoughts that I am unable to do the things that I most want to do#					**0.575**	
Thoughts are just thoughts – they don't control what I do.						
Behavioural awareness						
It seems that I am "running on automatic" without much awareness of what I'm doing#					**0.640**	
Even when doing the things that matter to me, I find myself doing them without paying attention#					**0.661**	
I rush through meaningful activities without being really attentive to them#					**0.505**	
I do jobs or tasks automatically, without being aware of what I'm doing#					**0.575**	
I find it difficult to stay focused on what's happening in the present#					**0.592**	
Valued action						
I make choices based on what is important to me, even if it is stressful.				**0.684**		
My values are really reflected in my behaviour.				**0.575**		
I am able to follow my long term plans including times when progress is slow.				**0.518**		

(Continues)

TABLE 2 (Continued)

	Factor					
Cronbach's alpha >	**Life sat** 0.923	**Rel qual** 0.960	**Pos aff** 0.917	**Valued action** 0.897	**Mind Accept** 0.896	**Neg aff** 0.928
I can keep going with something when it's important to me.				**0.721**		
I behave in line with my personal values.				**0.609**		
I undertake things that are meaningful to me, even when I find it hard to do so.				**0.662**		
I act in ways that are consistent with how I wish to live my life.				**0.530**		
I can identify the things that really matter to me in life and pursue them.				**0.647**		
Positive affect						
Interested			**0.753**			
Alert			**0.582**			
Excited			**0.784**			
Inspired			**0.778**			
Strong			**0.744**			
Determined			**0.706**			
Attentive			**0.645**			
Enthusiastic			**0.819**			
Active			**0.698**			
Proud			**0.680**			
Negative affect						
Irritable						**0.646**
Distressed						**0.776**
Ashamed						**0.701**
Upset						**0.834**
Nervous						**0.717**
Guilty						**0.664**
Scared						**0.872**
Hostile						**0.686**
Jittery						**0.672**
Afraid						**0.838**
Perceived relationship quality						
Satisfaction						
How satisfied are you with your relationship?		**0.839**				
How content are you with your relationship?		**0.813**				
How happy are you with your relationship?		**0.828**				

TABLE 2 (Continued)

	Factor					
Cronbach's alpha >	**Life sat 0.923**	**Rel qual 0.960**	**Pos aff 0.917**	**Valued action 0.897**	**Mind Accept 0.896**	**Neg aff 0.928**
Commitment						
How committed are you to your relationship?		**0.811**				
How dedicated are you to your relationship?		**0.832**				
How devoted are you to your relationship?		**0.808**				
Close						
How intimate is your relationship?		**0.671**				
How close is your relationship?		**0.870**				
How connected are you to your partner?		**0.811**				
Trust						
How much do you trust your partner?		**0.678**				
How much can you count on your partner?		**0.728**				
How dependable is your partner?		**0.675**				
Passion						
How passionate is your relationship?		**0.615**				
How lustful is your relationship?		0.489				
How sexually intense is your relationship?		0.450				
Love						
How much do you love your partner?		**0.840**				
How much do you adore your partner?		**0.866**				
How much do you cherish your partner?		**0.862**				
Life satisfaction						
In most ways my life is close to my ideal.	**0.743**					
The conditions of my life are excellent.	**0.696**					
I am satisfied with my life.	**0.715**					
So far I have gotten the important things I want in life.	**0.614**					
If I could live my life over, I would change almost nothing.	**0.645**					
Eudaimonia						
Autonomy						
I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people.				0.305		
I tend to worry about what other people think of me#					0.487	
I tend to be influenced by people with strong opinions#					0.489	
I judge myself by what I think is important, not by the values of what others think is important.				0.380		

(Continues)

TABLE 2 (Continued)

	Factor					
Cronbach's alpha >	**Life sat 0.923**	**Rel qual 0.960**	**Pos aff 0.917**	**Valued action 0.897**	**Mind Accept 0.896**	**Neg aff 0.928**
Environmental mastery						
In general, I feel I am in charge of the situation in which I live.	0.448			0.350		
The demands of everyday life often get me down#	0.313				0.456	
I am quite good at managing the many responsibilities of my daily life.				0.454		
I have difficulty arranging my life in a way that is satisfying to me#	0.314				0.426	
Positive relationships with others						
Most people see me as loving and affectionate.						
I enjoy personal and mutual conversations with family members or friends.				0.400		
Maintaining close relationships has been difficult and frustrating for me#					0.359	
I have not experienced many warm and trusting relationships with others#					0.329	
Self-acceptance						
When I look at the story of my life, I am pleased with how things have turned out.	**0.641**					
I like most aspects of my personality.	0.311					
In many ways, I feel disappointed about my achievements in life#	0.404				0.361	
My attitude about myself is probably not as positive as most people feel about themselves#					**0.510**	
Personal growth						
I think it is important to have new experiences that challenge how you think about yourself and the world.				0.426		
When I think about it, I haven't really improved much as a person over the years.					0.368	
For me, life has been a continuous process of learning, changing, and growth.				**0.506**		
I gave up trying to make big improvements or changes in my life a long time ago.					0.361	
Purpose in life						
I have a sense of direction and purpose in life.	0.404			0.370		
My daily activities often seem trivial and unimportant to me#					0.401	

TABLE 2 (Continued)

	Factor					
Cronbach's alpha >	**Life sat 0.923**	**Rel qual 0.960**	**Pos aff 0.917**	**Valued action 0.897**	**Mind Accept 0.896**	**Neg aff 0.928**
I don't have a good sense of what it is I'm trying to accomplish in life#					0.368	
I enjoy making plans for the future and working to make them a reality.				0.475		

Note: # indicates a reverse coded item, bold and italics indicate an item that failed to load onto any factor, bold indicates a correlation >0.5, and underlining indicates a subscale.
Abbreviations: Life sat, life satisfaction; mind accept, mindful acceptance; neg aff, negative affect; op to exp, openness to experience; pos aff, positive affect; Rel qual, perceived relationship quality.

TABLE 3 Results of structural equation modeling without covariates

Model	Predictor	Mediator(s)	Outcome(s)	χ^2(df), p	CFI	RMSEA
1	**PF**	**PA, NA**	**RQ**	**3.71(1), $p = .054$**	**>0.99**	**0.05**
2	**RQ**	**PA, NA**	**PF**	**2.23(1), $p = .135$**	**>0.99**	**0.03**
3	PF	RQ	PA, NA	395.06(3), $p < .001$	0.50	0.33
4	RQ	PF	PA, NA	100.50(3), $p < .001$	0.88	0.17
5	PF	LS	RQ	58.80(1), $p < .001$	0.30	0.22
6	PF	RQ	LS	97.26(1), $p < .001$	0.82	0.29
7	RQ	PF	LS	165.68(1), $p < .001$	0.69	0.37
8	RQ	LS	PF	58.80(1), $p < .001$	0.89	0.22
9	PF	PA, NA, LS	RQ	316.83(4), $p < .001$	0.77	0.26
10	RQ	PA, NA, LS	PF	322.68(4), $p < .001$	0.78	0.26
11	PF	RQ	PA, NA, LS	703.83(6), $p < .001$	0.49	0.32
12	RQ	PF	PA, NA, LS	477.68(6), $p < .001$	0.65	0.26

Note: Bold indicates a good fitting model. Model fit was determined to be good where CFI > 0.95, RMSEA < 0.06, and the p-value was nonsignificant (Hu & Bentler, 1999).
Abbreviations: LS, life satisfaction; NA, negative affect; PA, positive affect; PF, psychological flexibility; RQ, relationship quality.

experience (Kashdan & Rottenberg, 2010; Stange, Alloy, & Fresco, 2017). Combined with studies demonstrating robust associations between affect and close relationship processes (Berry & Hansen, 1996), our findings provide direct evidence that PA and NA may be key mediators when examining how psychological flexibility and relationship quality are linked. Notably, however, our sample involved only romantically involved individuals, which did not allow us to understand how both partners' reports of psychological flexibility and individual well-being may predict relationship quality. In Study 2, we sought to replicate our findings in a sample of couples.

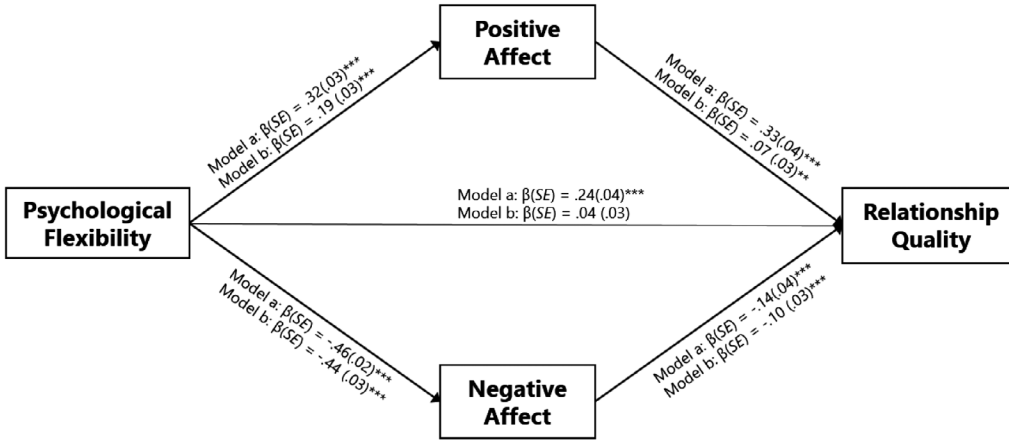

FIGURE 1 Relations between psychological flexibility and relationship quality via affect. $^{**}p < .01$, $^{***}p < .001$

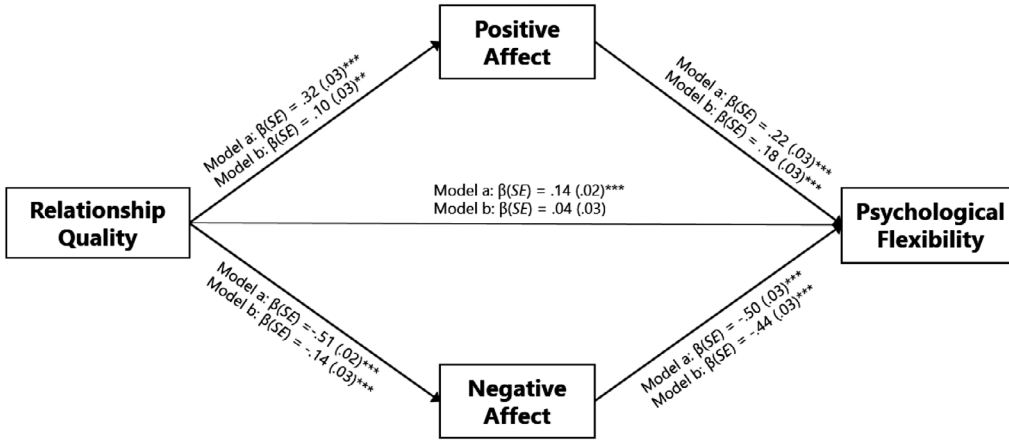

FIGURE 2 Relations between relationship quality and psychological flexibility via affect. $^{**}p < .01$, $^{***}p < .001$

TABLE 4 Effect of covariates on best-fitting models

	Model 1				Model 2			
	CFI	RMSEA	χ^2(df)	*p*	CFI	RMSEA	χ^2(df)	*p*
PPR	0.54	0.42	850.67(4)	<.001	0.95	0.14	98.75(4)	<.001
Age	0.93	0.12	70.30(4)	<.001	0.85	0.18	147.76(4)	<.001
Relationship status	0.99	0.05	15.15(4)	.004	0.99	0.05	16.19(4)	.003
Relationship length	0.96	0.09	42.54(4)	<.001	0.92	0.12	74.93(4)	<.001

Abbreviation: PPR, perceived partner responsiveness.

3 | STUDY 2

The interdependence inherent in intimate relationships means that partners influence each other's cognition, affect, and behavior (Agnew, Rusbult, Van Lange, & Langston, 1998). Existing dyadic literature suggests that there may be cross-partner associations in individual well-being and relationship quality (Bodenmann, Meuwly, & Kayser, 2011). Because psychologically flexible individuals engage in valued action and approach the experience of emotions with mindfulness and acceptance of those feelings, this presumably gives them an advantage in a variety of situations they may encounter with a romantic partner. In other words, when one partner values his or her relationship and is committed to its continuation and quality, he or she may be more likely to seek meaningful ways to maintain the relationship (e.g., resolving potentially harmful conflict, capitalizing on good events). This idea provides insight into why psychological flexibility should play a role at the dyadic level.

Study 2 examined how one's *own* psychological flexibility (i.e., actor psychological flexibility) and one's *partner's* psychological flexibility (i.e., partner psychological flexibility) are associated with actor and partner PA and NA and, in turn, actor and partner relationship quality. We anticipated that we would replicate the links that emerged in Study 1 for actors, that is, our confirmatory hypothesis was that greater actor psychological flexibility will be associated with higher actor relationship quality via higher actor PA and lower actor NA. We also took advantage of the dyadic nature of our data in Study 2 to explore the potential cross-partner effects (e.g., whether one's *partner's* psychological flexibility predicted one's *own* PA) but made no firm a priori predictions about partner effects.

Finally, in Study 2, we tested auxiliary exploratory analyses with self-determination variables (i.e., impersonal, control, and autonomous orientations toward life) in response to recommendations that arose during the review process of this registered report. Self-determination theory (SDT; Deci & Ryan, 2008b) proposes that these variables have implications for both individual and relationship functioning. For instance, Patrick, Knee, Canevello, and Lonsbary (2007) found that those who experience greater need fulfillment went on to experience higher levels of relationship quality following a disagreement, and this was linked to higher levels of intrinsic motivation and autonomous reasons for being in a relationship. SDT variables have also been linked to mindfulness (Roth, Vansteenkiste, & Ryan, 2019), lending further rationale for their inclusion as covariates in this study.

3.1 | Method

3.1.1 | Study preregistration and ethics

Study 2's methods and measures were registered on the Open Science Framework, available at https://osf.io/bt64q/. All study procedures were approved by the Psychology Research Ethics Committee at the University of Edinburgh.

3.1.2 | Participants

The original sample consisted of 215 couples recruited via Qualtrics Panel. However, three couples were removed prior to analyses—two because one or both partners did not consent to participate in the study and one because the partners' reported relationship length differed by

more than 50 years. The final sample comprised 212 American couples (244 female, 170 male, 6 genderqueer, 4 unreported). Participants were 18–83 years of age ($M = 45.23$, $SD = 15.10$) and were in romantic relationships lasting 1–65 years ($M = 15.06$, $SD = 14.09$). The majority (93%) were cohabiting with their partner, identified as heterosexual (98%), and were Caucasian (75%). Sampling continued until a representative sample of 200 couples was collected, reflecting a balance of age groups (18–30, 31–40, 41–50, 51–60, 60+).

3.1.3 | Materials and procedure

Participants completed all parts of the study online, with both partners completing the study in a single 30-minute session. They provided demographic information, after which they answered a restricted battery of questionnaires from Study 1, including the CompACT, PANAS, and PRQC. As in Study 1, the order of measures, and items within measures, was randomized and counterbalanced. A new exploratory component in this study involved the inclusion of causality orientation variables inherent in SDT. Causality orientations were measured using the 36-item General Causality Orientations Scale (GCOS-12: Deci & Ryan, 1985), which assesses *autonomy* (reflecting greater self-initiation and responsibility for own behavior), *controlled* (reflecting dependence extrinsic reward or other externally imposed controls) and *impersonal* (reflecting beliefs that desired outcomes are outside their control and dependent on luck). Participants responded on a 7-point Likert scale (1 = *very unlikely*, 7 = *very likely*) across 12 vignettes. After completion of all study questionnaires, participants viewed a debriefing screen and receive compensation.

3.2 | Results

The data analytic approach was guided by the Actor–Partner Interdependence Model (APIM; Kenny, Kashy & Kenny, Kashy, & Cook, 2006). The APIM posits that when individuals are involved in a relationship, their outcomes result not only from their *own* characteristics and inputs but also from their *partner's* characteristics and inputs. Thus, one person's relationship quality may be associated with his or her own degree of psychological flexibility and individual well-being (i.e., an *actor effect*) or may be associated with his or her partner's degree of psychological flexibility and individual well-being (i.e., a *partner effect*). Including partner effects allows for the testing of mutual influence (i.e., interdependence) that occurs between romantic partners and also statistically adjusts for this interdependence. Recent advancements in dyadic data analysis allow for the testing of indirect paths linking predictors and outcomes through other variables using the APIMeM (mediation analysis for APIM; Ledermann & Kenny, 2017; Ledermann, Macho, & Kenny, 2011). The APIMeM uses the Monte Carlo method of bootstrapping for indirect effects and was tested using SEM in MPlus v8.4. To preserve statistical power, PA and NA were tested in separate mediation models. For ease of interpretation and to provide estimates of effect size, continuous predictors and mediators were standardized.

An overview of correlations among study variables is provided at https://osf.io/an4rj/, and correlations between key variables are provided in Table 5. These show high levels of cross-partner correlations for psychological flexibility, affect, and relationship quality. Psychological flexibility was also moderately correlated with NA at both the actor and partner levels, whereas moderate correlation between PA and relationship quality emerged at the actor and partner levels.

TABLE 5 Correlations among study variables

	PF-A	PF-P	PA-A	PA-P	NA-A	NA-P	RQ-A	RQ-P	Imp-A	Imp-P	Con-A	Con-P	Aut-A	Aut-P
PF-A	—	**0.63****	0.22**	0.14**	**−0.54****	**−0.44****	0.12**	0.11*	**−0.51****	**−0.39****	−0.11*	−0.08	0.24**	0.22**
PF-P		—	0.14**	0.22**	**−0.44****	**−0.54****	0.11*	0.12**	**−0.39****	**−0.51****	−0.08	−0.11*	0.22**	0.24**
PA-A			—	**0.71****	−0.14**	−0.07	**0.41****	**0.38****	−0.01	0.03	0.20**	0.17**	**0.30****	0.25**
PA-P				—	−0.07	−0.14**	**0.38****	**0.41****	0.03	−0.01	0.17**	0.20**	0.25**	**0.30****
NA-A					—	**0.82****	−0.16**	−0.12*	**0.56****	**0.51****	0.27**	**0.30****	0.04	0.04
NA-P						—	−0.12*	−0.16**	**0.51****	**0.56****	**0.30****	0.27**	0.04	0.04
RQ-A							—	**0.84****	0.05	0.06	0.16**	0.13**	0.18**	0.17**
RQ-P								—	0.06	0.05	0.13**	0.16**	0.17**	0.18**
Imp-A									—	**0.69****	**0.59****	**0.47****	0.23**	0.15**
Imp-P										—	**0.47****	**0.59****	0.15**	0.23**
Con-A											—	0.60**	0.59**	0.46**
Con-P												—	**0.46****	**0.59****
Aut-A													—	0.63**
Aut-P														—

Note: Bold font indicates a correlation of over 0.30, following Cohen (1992).

Abbreviations: Aut-A, autonomy-actor; Aut-P, autonomy-partner; Con-A, control-actor; Con-P, control-partner; Imp-A, impersonal-actor; Imp-P, impersonal-partner; NA-A, negative affect-actor; NA-P, negative affect-partner; PA-A, positive affect-actor; PA-P, positive affect-partner; PF-A, psychological flexibility-actor; PF-P, psychological flexibility-partner; RQ-A, relationship quality-actor; RQ-P, relationship quality-partner.

*$p < .05$.

**$p < .01$.

Our initial SEM analyses revealed a good fit for models with PA as the mediator (CFI > 0.99, RMSEA < 0.01) and in models with NA as mediator (CFI > 0.99, RMSEA < 0.01). The results of our dyadic mediation models can be seen in Figures 3 and 4.

In PA models, there was no direct effect of psychological flexibility on actor or partner relationship quality. However, actor psychological flexibility was *indirectly* linked to both actor and partner relationship quality via actor PA. In other words, one's *own* greater psychological flexibility was associated with higher levels of one's *own* PA, which in turn predicted higher relationship quality for oneself *and* one's partner.

In NA models, there again was no direct effect of psychological flexibility on actor or partner relationship quality. However, actor psychological flexibility was *indirectly* linked to actor relationship quality via both actor and partner NA. In other words, one's *own* greater psychological flexibility was associated with lower levels of one's own *and* one's partner's NA, which in turn predicted higher relationship quality for oneself.

3.2.1 | Auxiliary analyses

We explored the associations and potential overlap between psychological flexibility and the self-determination variables (i.e., impersonal, control, and autonomous orientations). As seen in Table 5, the strongest correlations between psychological flexibility and self-determination were observed for the impersonal subscale of the GCOS. Here, higher levels of psychological flexibility were associated with lower impersonal orientation scores. This suggests that, when a person reported higher psychological flexibility, he or she *and* his or her partner also reported thinking that desired outcomes are within their control and feel less anxious and ineffective. Table 5 also indicates low to moderate levels of association within and between the GCOS subscales, consistent with prior studies.

The relatively high negative correlation between psychological flexibility and impersonal control and between impersonal control and NA ($r = -0.51$ and -0.56) suggested a strong relation

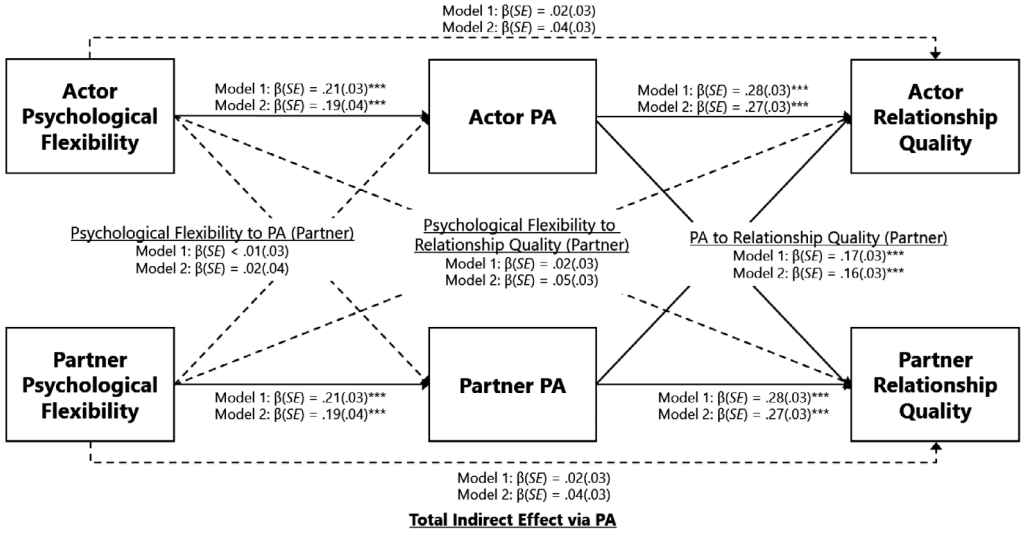

FIGURE 3 Associations between psychological flexibility, PA, and relationship quality. ***$p < .001$

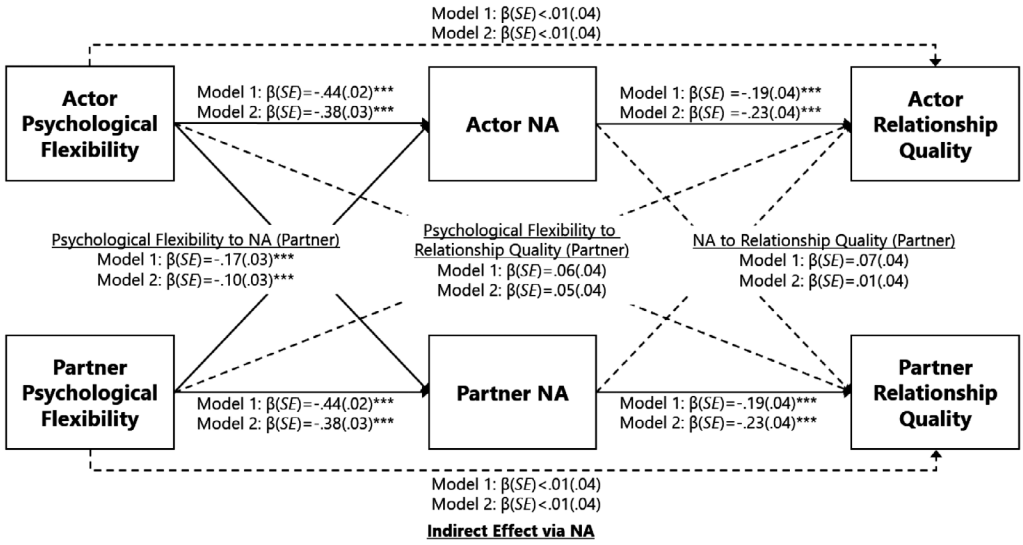

FIGURE 4 Relationships between psychological flexibility, NA, and relationship quality. ***$p < .001$

between these variables, but not so strong as to suggest overlap. The correlation between impersonal control and relationship quality was minimal. Nevertheless, self-determination variables were controlled for to try to isolate the unique mediation effects of psychological flexibility. Despite the inclusion of the subscales somewhat reducing the size of the effect of psychological flexibility on both PA and NA, the key mediation pathways remained robust (Figures 3 and 4, Model 2).

Finally, we explored whether gender moderated the link between psychological flexibility, affect, and relationship quality. Results revealed that the inclusion of a psychological flexibility by gender interaction term in place of psychological flexibility did not alter model fit with PA as mediator (CFI > 0.99, RMSEA < 0.01) or NA as mediator (CFI > 0.99, RMSEA < 0.01). The Gender × Psychological Flexibility interaction was significantly associated with actor NA such that, at low levels of actor psychological flexibility, men experienced higher levels of NA than women ($p = .04$). At high levels of psychological flexibility, there were no gender differences. No other interaction effects emerged.

3.3 | Discussion

The purpose of Study 2 was to explore the dyadic associations among psychological flexibility, PA and NA, and relationship quality. A secondary aim of this study was to discover how psychological flexibility may be related to self-determination variables. Our analyses found that, inconsistent with Study 1, psychological flexibility was not *directly* linked to relationship quality. However, replicating and extending Study 1, we found evidence of *indirect* associations between psychological flexibility and relationship quality via PA and NA. Greater actor psychological flexibility was linked to higher actor PA and lower actor NA and, in turn, higher actor relationship quality. Possibly the most interesting findings from Study 2, however, were that different cross-partner effects appeared for PA versus NA. In the PA models, the cross-partner effect appeared on the path between PA and relationship quality, meaning that actor psychological flexibility was linked only to actor PA but that actor PA, in turn, was linked to both actor

and partner relationship quality. In contrast, in the NA models, the cross-partner effect appeared on the path between psychological flexibility and NA, meaning that actor psychological flexibility was linked to both actor and partner NA, but only actor NA was, in turn, linked to actor relationship quality.

In auxiliary analyses, we found that, although psychological flexibility was correlated with self-determination variables (particularly with lower impersonal orientations), including these variables as covariates in analyses did not remove the mediation paths described above. We also found that, with one exception, gender did not moderate the links between psychological flexibility, affect, and relationship quality. Thus, the findings from Study 2 dovetail with existing research (Berry & Hansen, 1996; Kashdan & Rottenberg, 2010; Stange et al., 2017), simultaneously also offering novel insight as to how an active, flexible response style may predict higher-quality relationships.

4 | GENERAL DISCUSSION

The current studies are among the first to explore the role of psychological flexibility within intimate relationships, testing how individual well-being underlies the links between psychological flexibility and relationship quality in cross-sectional samples of individuals (Study 1) and couples (Study 2). In Study 1, we distilled discrete markers of individual well-being using factor analysis and sought to identify models that best operationalized the relation between psychological flexibility, the markers of individual well-being, and relationship quality. The factor analysis revealed that the hedonic markers functioned best in this context. We found that greater psychological flexibility was associated with both higher PA and lower NA, both of which, in turn, were linked to higher relationship quality. Mediation models that swapped psychological flexibility and relationship quality as outcome and predictor revealed similar effects, but the model where psychological flexibility was the predictor was chosen for follow up in Study 2. We controlled for a range of covariates including age, and PPR, and our models remained robust when accounting for these variables.

In Study 2, we replicated the indirect pathways established in Study 1. Furthermore, we found novel cross-partner effects that varied based on whether the mediator was PA or NA. In PA models, one's *own* greater psychological flexibility was associated with higher levels of one's *own* PA, which in turn predicted higher relationship quality for oneself *and* one's partner; in other words, the cross-partner effect was on the path between PA and relationship quality. Conversely, in NA models, one's *own* greater psychological flexibility was associated with lower levels of one's own *and* one's partner's NA, which in turn predicted higher relationship quality for oneself; that is, the cross-partner effect was on the path between psychological flexibility and NA. We also ruled out the possibility that the associations among psychological flexibility, affect, and relationship quality could be explained by self-determination variables.

4.1 | Relational interdependence in affect

These findings dovetail, with research showing that PA and NA have different implications for functioning and behavior (Kashdan & Rottenberg, 2010) and that some of these effects emerge at the interpersonal level (Agnew et al., 1998; Bodenmann et al., 2011). For instance, PA is associated with greater sociability (Berry & Hansen, 1996), which should inform relationship

quality. When individuals are aware of partner expectations and are able to adjust themselves to those expectations, attending to the other's needs, desires, and goals—behaviors that should facilitated by psychological flexibility—they are happier and enjoy better relationships (see Boiger, 2019; Bonanno, Papa, Lalande, Westphal, & Coifman, 2004; Agnew & VanderDrift, 2015). NA, on the other hand, has been related to both internal and social conflict (Diener et al., 2017). Experiencing high NA, then, may undermine relationship quality as partners are perceived as less supportive and, consequently, afford less support themselves. Thus, it is theoretically consistent that psychological flexibility plays a role not only in the experience of PA and NA but also the experience of relationship quality.

In Study 2, in our PA mediation models, we observed cross-partner effects between PA and relationship quality. That is, relationship quality was higher not only when people *themselves* reported higher PA but also when their *partners* reported higher PA. This may occur because the expression of PA is often an outward experience, meaning that it would be easy for partners to feed off of, and capitalize on, each other's PA to enjoy a better relationship (see Gable, Reis, Impett, & Asher, 2004). A possible explanation for why only actor psychological flexibility was related to actor PA (i.e., why cross-partner effects did not emerge psychological flexibility and PA) may be because the individual-level effect of psychological flexibility on PA is of sufficient relative strength that it absorbs the majority of variance within this aspect of our models.

In contrast, in our NA mediation models, the cross-partner effects emerged between psychological flexibility and NA. Thus, our findings suggest that lower NA results not only when people *themselves* score higher on psychological flexibility but also when their *partners* score higher on psychological flexibility. In relation to affect regulation, greater psychological flexibility may facilitate matching NA to emotional cues in an adaptive way (Bonanno et al., 2004; Hardy & Segerstrom, 2017; see also Waugh et al., 2011). Psychological flexibility appears to also confer those benefits to a partner's NA, perhaps because of the component of psychological flexibility related to awareness of the self and others and attuning to another's signaled or communicated needs (cf. Barnes et al., 2007). A possible explanation for why only actor NA was related to actor relationship quality (i.e., why cross-partner effects did not emerge between NA and relationship quality) may be because NA is sometimes a more personal/internal affective experience (Watson & Clark, 1984), which would emerge most strongly as an actor effect when predicting downstream associations with relationship variables. Alternately, partner effects of NA may emerge only in specific relationship contexts (e.g., during conflict).

4.2 | Self-determination and psychological flexibility

Study 2 found that, perhaps unsurprisingly, psychological flexibility was related to causality orientations (and strongly negatively correlated with an impersonal orientation in particular), variables relevant to self-determination and living well. The most salient aspect of our exploration is a within-scale effect, showing that the components of self-determination play a role for both individuals and partners; however, further analysis of these variables and their interplay within relationships is beyond the scope of this article. SDT emphasizes the importance of volition and choice that a person experiences (Roth et al., 2018)—elements inherent to psychological flexibility—and many studies have linked self-determination variables to individual well-being (Emery, Heath, & Mills, 2016; Shields, Cicchetti, & Ryan, 1994). Impersonal causality orientations focus specifically on how much a person feels that desired outcomes are within his or her control versus being luck-dependent. Similarly, people who are more psychologically flexible

perceive that they have greater control in getting what they want and need, including in relationships. As many life goals are relational (Polk, Schoendorff, Webster, & Olaz, 2016), being able to situate the self-determination literature in the context of psychological flexibility aids understanding of how these constructs are connected and opens new doors to future research.

4.3 | The significance of relationship perceptions versus behaviors

Romantic relationships are among the most meaningful sources of individual well-being. However, relationship quality not only reflects perceptions of how rewarding a relationship is but also enacted behaviors that make the relationship likely to succeed or fail. For instance, one study found that perceptions of responsiveness are predicted by enacted responsiveness (i.e., kind, affectionate gestures), and both perceptions and behaviors are meaningful for partners' experience of intimacy (Debrot et al., 2012). Our studies focused on perceptions of relationship quality, providing important initial insight into how psychological flexibility and affect may guide these perceptions; nevertheless, future studies should investigate the behaviors that reflect relationship quality and how they vary based on actor and partner psychological flexibility.

4.4 | Future directions and study limitations

The present findings have important implications for understanding how we may be able to enhance relationship quality in couples. Psychological flexibility is a malleable construct (Levin et al., 2012), meaning that enhancing psychological flexibility could have positive downstream effects on individual well-being, as well as relationship quality. Our research also makes it clear that psychological flexibility does not directly exert effects on relationship quality; rather, it does so via higher PA and lower NA. Thus, this research highlights PA and NA as important mediators in the association between psychological flexibility and relationship quality, which is vital to bear in mind when designing interventions to support healthy relationships. Interventions that increase PA are likely to be beneficial in enhancing perceptions of relationship quality not just for the individual but also for his or her partner, but our research suggests that going one step back and targeting psychological flexibility may be worthwhile. Psychological flexibility-focused interventions may accomplish dual goals of (a) facilitating partners' ability to be mindful, accepting, and committed to shared relationship ideals and (b) promoting PA (and reducing NA), which then enhances the quality of a relationship.

Before concluding, we note that the cross-sectional design of this research has limitations. This means that we are unable to draw causal conclusions about how psychological flexibility, affect, and relationship quality are linked. This is particularly relevant given the modeling of Study 1, which demonstrated a good-fitting model whereby relationship quality is associated with psychological flexibility through affect. It seems likely that these processes are recursive, such that psychological flexibility predicts relationship quality via PA and NA, and relationship quality then feeds back into psychological flexibility. However, further studies—ideally longitudinal studies where all variables are measured at multiple time points (cf. Farrell & Stanton, 2019)—are needed to fully examine this possibility.

5 | CONCLUSION

The two studies presented here have shown that psychological flexibility is associated with relationship quality through PA and NA, with implications for individuals and their romantic partners. The present research raises interesting questions about how psychological flexibility may be enhanced experimentally, with the potential for interventions to promote downstream individual well-being and relationship quality. Although our findings provide an exciting first foray into how psychological flexibility plays a role in the relationships domain, future studies that investigate the longitudinal links between these variables, and establish causality where possible, will continue to advance our understanding of how individuals can maintain happy, fulfilling relationships.

DATA AVAILABILITY STATEMENT

As part of IARR's encouragement of open research practices, the authors have provided the following information: This research was pre-registered. The aspects of the research that were pre-registered were the hypotheses, data and materials. The registration was submitted to: Open Science Framework. The data and materials used in the research are available. These can be obtained at: https://osf.io/5tsh2/?view_only=33c3992a8e064d698e6d4ec852ee2b0c. In addition we have uploaded the following materials: EFA Pattern Matrix – anonymised: https://osf.io/exymv/?view_only=0d9c45be4e164925ad155b3c6190316d. Correlation Matrix – anonymised: https://osf.io/prbn4/?view_only=895ca4be1d0d491a8f24cf1edafa0c9d. Previous version of manuscript: https://osf.io/65n43/?view_only=180912ec5aec4080bfdec918eea9debd.

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