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Quality of alternatives positively associated with interest in opening up a relationship

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Abstract

We use the Investment Model framework to examine what relationship features are associated with interest in and positive evaluations of consensual non-monogamy (CNM) among individuals in monogamous relationships. In data sets from the United States (Study 1), Europe (Study 2), and Korea (Study 3; total $N = 886$), perceptions of higher-quality alternatives were consistently associated with more interest in CNM. Further, consistent with previous work on commitment-motivated relationship maintenance processes, we found support for an indirect effect whereby lower commitment was associated with higher perceived attractiveness of alternatives, which in turn was associated with more interest in CNM. The data suggest that the idea of CNM is likely to be most attractive to those who see themselves as having higher-quality relationship options.

1 | INTRODUCTION

In Western societies, monogamy, defined as sexual and emotional exclusivity to one romantic partner, is the most socially practiced and approved form of romantic bonding (Anderson, 2010;

Statement of Relevance: With increasing societal interest in consensually non-monogamous romantic relationships (CNM), currently monogamous couples are becoming increasingly aware of the option of opening up their relationship. This article uses the established framework of the Investment Model to try to understand what couple factors may be associated with interest in CNM.

Conley et al., 2013; Lee & O'Sullivan, 2019), and a vast majority of married and cohabitating couples report expecting sexual exclusivity in their romantic relationships (Treas & Giesen, 2000). Indeed, although monogamy is hardly a cultural universal, it does appear to be a valued feature of many societies, particularly those marked by industrialization (Dow & Eff, 2013; Scheidel, 2009). Recently, alternative relationship structures that fall under the umbrella of consensual non-monogamy (CNM), such as polyamory, swinging, and open or "monogamish" relationships, have received more attention in the media and among academics (Barker & Langdridge, 2010; Conley et al., 2013; Moors et al., 2017). CNM generally refers to any romantic relationship wherein all partners explicitly agree that they may have sexual and/or romantic relationships with other consenting individuals (Conley et al., 2013; Frank & DeLamater, 2010; Mogilski et al., 2017; Moors et al., 2017; Sizemore & Olmstead, 2017).

CNM relationships can be a potential source of a variety of benefits common to monogamous relationships including trust, sex, love, communication, and commitment (Conley et al., 2013) outside of a traditional monogamous framework. Individuals in CNM relationships also report that their relationship structures uniquely allow them to meet a wide variety of emotional and physical needs, to be engaged in a variety of sexual and nonsexual activities with different partners, and to experience greater personal growth and development (Conley et al., 2013; Moors et al., 2017). The only longitudinal study on record of individuals entering CNM relationships does indeed show engagement with CNM was associated with an increase in sexual satisfaction, although relationship satisfaction was not significantly changed (Murphy et al., 2020). Despite the potential benefits, one recognized cost of CNM is social stigma. CNM relationships are consistently devalued on a range of relationship-relevant traits (e.g., trust, intimacy), and are perceived to be less functional and lower in quality compared to monogamous relationships (Burleigh et al., 2017; Conley et al., 2013; Grunt-Mejer & Campbell, 2016; Hutzler et al., 2016; Moors et al., 2013; Rodrigues et al., 2017). Although current data on individuals in CNM relationships do not support these negative views (e.g., Murphy et al., 2020), one might expect monogamous individuals to anticipate engagement with CNM to be a potential threat to relational well-being.

A sizable portion of the population in the United States today report having engaged in CNM relationships at least once in their life (21% among those from the United States in one study; Haupert et al., 2017; 19% among those from a nationally representative sample of Canada in another; Fairbrother et al., 2019). A body of previous research has thus focused on examining individual differences regarding whom is more drawn to CNM and found positive associations with characteristics such as short-term sociosexual orientation (Balzarini et al., 2018), beliefs that love is not zero-sum (Burleigh et al., 2017), and attachment avoidance (although avoidance is negatively related to actually engaging in CNM; Moors et al., 2015). To the extent that CNM becomes better known and more accepted, there are likely to be more couples that consider transitioning their relationships from monogamy to CNM (Murphy et al., 2020). In addressing the question of what predicts interest in CNM among monogamously partnered individuals, it might be useful to consider the characteristics of the relationship in addition to individual differences.

One of the most useful theoretical frameworks for classifying the state of a relationship is Rusbult's Investment Model (Rusbult, 1980, 1983). The Investment Model is premised on the idea that a primary predictor of whether a relationship persists is individuals' commitment to that relationship, or their willingness to construe the relationship as a long-term venture. That is, highly committed individuals experience a transformation of motivation such that they are prone to making decisions that bypass selfish interests in the service of promoting the long-term

viability of the relationship. The theory identifies three key predictors of commitment: satisfaction, investment size, and quality of alternatives. Relationship satisfaction refers to the balance of positive and negative outcomes an individual receives from their relationship, and is determined by current feelings of enjoyment, as well as relative perceptions of enjoyment from comparison with past experiences. Investment size refers to the resources that an individual has contributed to the relationship (e.g., time spent together, financial investments, and emotional investment) that would be lost if the relationship were to end. Finally, quality of alternatives refers to an individual's subjective assessment of the rewards and costs that could be obtained outside the relationship. According to the Investment Model, individuals who are highly satisfied, have made substantial investments, and perceive few attractive alternatives will be more committed to their romantic relationship. The model has held up extremely well in meta-analytic reviews (Le & Agnew, 2003; Tran et al., 2019).

What reasons might emerge from an Investment Model analysis as to why individuals in a currently monogamous relationship may hold interest in transitioning to CNM? A case can be made for each of the Investment Model variables. For example, people may become more interested in CNM when they feel low satisfaction with their current relationships. Some researchers have suggested that opening up the relationship might be a way to "oxygenate" a current relationship that cannot meet all the needs of the partners (Conley & Moors, 2014) and individuals in monogamous relationships who report lower relationship and sexual satisfaction have been shown to be more likely to report engaging in non-monogamous sexual fantasies (Lehmiller, 2020). Low investment in a relationship could conceivably lead to a sense of a weak tie to the current relationship that could promote an openness to exploring other relationships.

However, a rather straightforward Investment Model hypothesis is that more interest in CNM may emerge out of a sense there are alternate relationships that would be interesting to pursue. That is, individuals who perceive themselves as having more attractive alternatives may be more drawn to CNM. Indeed, a number of studies have suggested that stronger perceptions of the availability of attractive alternatives are associated with higher risk of infidelity among monogamous couples, with alternatives presenting a temptation that must be avoided via self-control (e.g., Brady et al., 2019; Pronk et al., 2011). Thus, the literature on infidelity suggests that higher perceived quality of alternatives may also predict interest in CNM, except that pursuit of alternatives via CNM need not involve relationship rule violations such as infidelity. Conversely, CNM may be of relatively little interest to individuals who do not feel that alternative partners are available or worth pursuing.

Although the Investment Model portrays attractiveness of alternatives as a predictor of commitment, considerable research suggests mutual influence between the two variables such that commitment is an important constraint on perceptions of alternatives (e.g., Lydon et al., 2003). One of the argued functions of commitment is the management of threats to the stability of the relationship. That is, the goal of maintaining the relationship long-term creates a state of motivated reasoning such that highly committed individuals process information about potential threats to the relationship in a fashion that derails those threats. Past studies have shown that derogating temptations by evaluating them as less appealing can reduce the temptation's motivational pull (Cole et al., 2016). Taken together, if the attractiveness of CNM hinges on the attractiveness of available alternatives, then more highly committed individuals' tendency to perceive potentially tempting alternatives as less attractive (Lydon et al., 2003) may translate into less interest in CNM.

1.1 | The present research

In the present research, we conducted exploratory studies to investigate the relation of investment model variables to interest in and attitudes toward CNM. Study 1 involved post hoc analysis of data collected from the United States that had originally been collected for other purposes. Although our primary interest is in personal attraction to CNM, for the sake of completeness we report additional variables from this research assessing evaluations of CNM more broadly. Study 2 involved the collection of a (predominantly) European sample specifically for attempting to replicate the findings of Study 1. Study 3 involved the extension of the research question to a cultural context in which CNM is particularly nonnormative, Korea. Despite the growing body of research on CNM, there is almost no empirical investigation into the correlates of interest in or attitudes toward CNM outside of Western countries (Barker & Langdridge, 2010). Given the central role culture plays in shaping the way people think and behave in sexual/romantic relationships (Hatfield & Rapson, 1996), we examined if any effect found in Studies 1 and 2 (among samples mostly living in the United States and Europe) can be generalized to a region where we expected to see more conservative attitudes toward and less average interest in CNM: East Asia (Brotto et al., 2005; Higgins et al., 2002; Laumann et al., 2005). Besides higher levels of sexual conservatism (which might be changing with Asian cultures becoming more sexually permissive; Lee et al., 2010), countries such as Korea are considered to be high in "tightness"—that is, there are stronger norms governing behaviors and lower tolerance toward norm-deviating individuals relative to Western countries (Gelfand et al., 2011). It is possible then that psychological processes involving interest in a culturally atypical relationship arrangement, CNM, might not operate the same way in Korea as opposed to the West due to stronger influence of social norms.

2 | STUDY 1

2.1 | Participants

Participants were recruited online through CloudResearch (formerly TurkPrime). To be eligible for the study, participants were required to be over the age of 18, currently in a romantic relationship, and a resident of the United States. CloudResearch workers were required to have completed between 100 and 1,000,000 HITs and to have a 95–100% HIT approval rating in order to participate. A total of 511 participants completed the study. We excluded seven participants who did not provide a unique ID, 46 participants who did not describe their romantic relationship at the time of the study as monogamous (i.e., chose a different option including polyamorous, open, monogamish, other, or preferred not to say), 192 participants who did not pass our strict manipulation check (i.e., accurately writing in freeform the content of the version of the manipulation they received), and 10 participants who expressed suspicion of the manipulation. The final sample consisted of 256 participants (132 male, 122 female, 1 transgender, 1 nonbinary, and 1 no response). Because this study was not designed for the present purpose, we conducted a post hoc power analysis to examine whether we had enough power to detect misspecifications of the estimated model (corresponding to RMSEA = .05 on alpha = .05). Results showed that this sample size provided adequate power (>99%) to detect global misspecifications (not any specific effect of interest).

Participants were 39.51 years on average ($SD = 11.61$) and the majority ($n = 203$) identified as Caucasian, 15 as African American, 11 as East Asian, 8 as Southeast Asian, 8 as mixed, 7 as Latin American, 2 as South Asian, and 2 as others or did not provide information. The majority of the sample identified as heterosexual ($n = 241$); seven participants identified as bisexual, six as gay/lesbian, one as queer, and one as other. Participants had been in the current relationship for an average of 9 years and 5 months (range = 6 months to 55 years, $SD = 9$ years and 8 months); 86 participants were dating, 49 were living together, and 120 were married or remarried.

2.2 | Procedure

Participants were randomly assigned to one of three conditions: a CNM increasing condition (i.e., CNM is an increasing practice in your state; $n = 86$), a CNM decreasing condition (i.e., CNM is a waning practice in your state; $n = 74$), or a control condition (i.e., no additional information; $n = 96$).[1] However, because the manipulation was unsuccessful and did not appear to meaningfully or consistently affect the dependent variables (Fs < 0.83, ps > .36), it will not be discussed further and all analyses collapse across condition. After consenting to participate in the study, participants completed the demographic and Investment Model measures (satisfaction, quality of alternatives, investment, and commitment) detailed below. After the manipulation and manipulation check, participants responded to the remaining questionnaires regarding attraction to CNM, willingness to engage in CNM, perceptions of CNM, and attitudes toward CNM. The study took an average of 16.6 min to complete, and participants were compensated $2.00 USD for their time. All studies were approved by the University of Toronto Research Ethics Board. The data for this study were collected in 2018.

2.3 | Measures

2.3.1 | Investment model constructs

Participants responded to the Investment Model Scale (Rusbult et al., 1998) designed to measure four constructs: satisfaction, which was measured with five items (e.g., "I feel satisfied with our relationship", $\alpha = .96$), quality of alternatives measured with five items (e.g., "The people other than my partner with whom I might become involved are very appealing", $\alpha = .91$), investment measured with five items (e.g., "Many aspects of my life have become linked to my partner, and I would lose all of this if we were to break up", $\alpha = .87$), and commitment measured with six items (e.g., "I am committed to maintaining my relationship with my partner", $\alpha = .97$).[2] All items were rated on nine-point scales ranging from 0 (*do not agree at all*) to 8 (*agree completely*).

2.3.2 | Attraction to CNM

Attraction to CNM was measured with two face valid items, designed for this study, to roughly mirror measures of physical attractiveness used in research on commitment and attractiveness (e.g. Johnson & Rusbult, 1989; Lydon et al., 1999): "How attracted are you to having a relationship in which you could have multiple sexual partners?" and "How attracted are you to having

a relationship in which you could have multiple close emotional and romantic connections?" (r_{sb} = .91). Items were rated on scales ranging from 1 (*Extremely unattracted*) to 7 (*Extremely attracted*).

2.3.3 | Willingness to engage in CNM

Willingness to engage in CNM was assessed using a six-item scale (Moors et al., 2015) in which participants indicated to what extent they were willing to engage in various CNM activities (e.g., "You and your partner may have sex and romantic relationships with whomever they want, but there must be no secrets between you."; α = .95). These items were measured on a seven-point Likert scale (1 = *Very unwilling*, 7 = *Very willing)*.

2.3.4 | Attitudes toward CNM

Attitudes toward CNM were assessed using a seven-item scale modified from Johnson et al.'s (2016) Attitudes Toward Polyamory Scale (e.g., "If people want to be in a consensually non-monogamous relationship, they should have the legal protection to do so"; α = .87). These items were measured on a seven-point Likert scale (1 = *Strongly disagree*, 7 = *Strongly agree*) and were coded such that higher values indicate more favorable attitudes toward CNM.

2.3.5 | Perceptions of CNM relationship quality

Perceptions of relationship quality in CNM relationships were assessed using eight items[3] (α = .93; Conley et al., 2013). Participants rated their perceptions of CNM relationships compared to monogamous relationships on a number of qualities and characteristics. Ratings were made using six-point semantic differential scales (e.g., "Compared to monogamous relationships, a consensually non-monogamous relationship is: *less trusting—more trusting*").

2.3.6 | Perceptions of CNM sexual satisfaction

Perceptions of sexual satisfaction in CNM relationships were assessed using seven items (Conley et al., 2013). Participants rated their perceptions of sexual satisfaction in CNM relationships compared to sexual satisfaction in monogamous relationships on a number of qualities and characteristics (e.g., "*less exciting sex—more exciting sex*"). Ratings were made using six-point scales. One item ("*more intimate sex—less intimate sex*") was dropped due to its low corrected item total correlation (.16; Nunnally & Bernstein, 1994) and the final set of items showed good internal reliability (α = .75).

2.3.7 | Arbitrary benefits of CNM

Participants compared CNM relationships to monogamous relationships on a set of three arbitrary traits irrelevant to one's relationship status using six-point scales (e.g., "encourages taking

a daily vitamin—does not encourage taking a daily vitamin"; α = .91).[4] These items were included to assess the extent to which participants' perceptions of CNM and monogamy were about real perceived benefits or drawbacks of CNM rather than a positive or negative halo effect that would extend even to areas seemingly unrelated to CNM.

2.4 | Data analysis

We first examined descriptive statistics and bivariate correlations between all study variables. Given the intercorrelations between the investment model variables and between the CNM-related variables, structural equation modeling (SEM) analyses were conducted to simultaneously examine the links between variables. All SEM analyses were conducted using the lavaan package (Rosseel, 2012) in R (R Core Team, 2015). We used robust maximum likelihood estimation, which produces standard errors robust against violations of normality assumptions. Prior to examining the links between the investment model and CNM-related variables, we evaluated the measurement models of each set of constructs. The overall fit of the models was considered to be acceptable based on the following cutoff values (Awang, 2015; Marsh et al., 2005): comparative fit index (CFI > 0.90) and root mean square error of approximation (RMSEA < 0.08). Of course, these cutoff values are not golden rules, and we carefully examined the measurement quality of the items in each model.[5] After ensuring that the measurement models demonstrate acceptable fit, we proceeded to examining the structural model in which regression paths were estimated from the investment model variables to CNM-related variables.

Lastly, although our data were correlational and cannot speak to any specific order of the variables, we tested an indirect effect based on a theoretically driven hypothesis, which is that commitment is associated with CNM variables via quality of alternatives (Lydon, 2010). We examined a model specifying indirect pathways between the latent variables; the effects of commitment on the CNM variables were allowed to operate directly and indirectly via quality of alternatives. Bootstrapping was used to estimate the standard error and 95% bias-corrected confidence intervals were calculated for the indirect effects.

2.5 | Results

Examination of the correlation table (Table 1) suggested possible associations between interest in CNM and each of the investment model variables. To gain clarity on the uniqueness of the associations, we conducted SEM analyses. We ran two separate measurement models, one with the investment model variables and another with the CNM-related variables. Items showing acceptable factor loadings (>.40) were retained and the final measurement models are reported in Table 2. Both the measurement model with the investment model variables (CFI = 0.95; RMSEA = 0.08, 90% CI [0.07, 0.09]) and with the CNM variables showed good fit (CFI = 0.96; RMSEA = 0.05, 90% CI [0.04, 0.06]).

Next, we ran a full model with the CNM-related variables regressed onto the investment model variables. The model demonstrated acceptable fit, CFI = 0.93, RMSEA = 0.05, 90% CI = [0.05, 0.06]. The standardized regression coefficients without covariates (see below) are shown in the top half of Table 3. As shown by the significant *b*s in Table 3 (in bold), people reporting higher-quality alternatives to the current relationship were more attracted to and willing to engage in CNM, thought CNM relationships provide higher sexual satisfaction, and also

TABLE 1 Correlations between the study variables in Study 1

	1	2	3	4	5	6	7	8	9	10
Investment model variables										
1. Satisfaction	—									
2. Investment	.49**	—								
3. Alternatives	−.30**	−.31**	—							
4. Commitment	.75**	.56**	−.45**	—						
CNM-related variables										
5. Attraction to CNM	−.20**	−.08	.41**	−.29**	—					
6. Willingness to engage in CNM	−.18**	−.11	.42**	−.31**	.79**	—				
7. Attitudes toward CNM	−.15*	−.10	.14*	−.19**	.34**	.39**	—			
8. Perceived relationship quality	−.24**	−.12	.19**	−.28**	.55**	.58**	.57**	—		
9. Perceived sexual satisfaction	−.19**	−.01	.19**	−.11	.38**	.30**	.29**	.31**	—	
10. Arbitrary benefits of CNM	−.05	−.02	.17**	−.02	.22**	.28**	.20**	.32**	.27**	—
M	7.25	7.02	4.16	7.91	2.22	1.92	3.52	2.11	3.98	2.74
(*SD*)	(1.68)	(1.49)	(2.10)	(1.57)	(1.63)	(1.40)	(1.30)	(1.11)	(0.95)	(1.36)

Note: All Investment model variables had a possible range of 1–9. Attraction to CNM, willingness to engage in CNM, and attitudes toward CNM had a possible range from 1 to 7, the other three CNM from 1 to 6.

*$p < .05$.

**$p < .01$.

TABLE 2 The measurement models in Study 1

IMS variables model			CNM variables model		
Construct	**Item**	**Loading**	**Construct**	**Item**	**Loading**
Satisfaction	Item 1	.93	Attraction to CNM	Item 1	.94
	Item 2	.81		Item 2	.89
	Item 3	.91	Willingness to engage in CNM	Item 1	.91
	Item 4	.94		Item 2	.82
	Item 5	.93		Item 3	.70
Investment	Item 1	.85		Item 4	.49
	Item 2	.74		Item 5	.74
	Item 3	.88		Item 6	.78
	Item 4	.73	Attitudes	Item 1	.82
Alternatives	Item 1	.81		Item 2	.70
	Item 2	.77		Item 3	.49
	Item 3	.71		Item 4	.74
	Item 4	.92		Item 5	.74
	Item 5	.82		Item 6	.75
				Item 7	.69
Commitment	Item 1	.96	Perceived relationship quality	Item 1	.77
	Item 2	.94		Item 2	.88
	Item 3	.37		Item 3	.84
	Item 4	.89		Item 4	.78
	Item 5	.94		Item 5	.90
	Item 6	.92		Item 6	.88
				Item 7	.77
			Perceived sexual satisfaction	Item 1	.58
				Item 2	.85
				Item 3	.86
				Item 4	.64
			Arbitrary traits	Item 1	.90
				Item 2	.78
				Item 3	.97

thought CNM practitioners would be better off on seemingly unrelated traits such as taking daily vitamins. In addition, the more satisfied people were in the current relationship, the less sexually satisfying they perceived CNM relationships to be. We also ran the same model controlling for gender (male vs. female), age, marital status (married or not), and relationship length.[6] The only difference that emerged was that the link between commitment and sexual satisfaction (which was not significant at $p = .06$) emerged as significant, $b = .29$, $SE = 0.16$, $p = .04$.

TABLE 3 Standardized estimates of the structural model in Studies 1 and 2

	Attraction			Willingness			Attitudes			Relationship quality			Sexual satisfaction			Arbitrary benefits		
	b	***SE***	***P***	***B***	***SE***	***p***	***b***	***SE***	***p***	***b***	***SE***	***p***	***b***	***SE***	***p***	***b***	***SE***	***p***
Study 1																		
Satisfaction	−.06	0.12	.61	−.00	0.11	.93	.06	0.12	.63	−.05	0.14	.70	**−.41**	**0.11**	**<.001**	−.09	0.12	.41
Investment	.04	0.11	.73	.05	0.11	.62	.03	0.12	.77	.01	0.13	.93	.12	0.11	.25	−.06	0.10	.57
Alternatives	**.42**	**0.10**	**<.001**	**.39**	**0.09**	**<.001**	.06	0.08	.43	.09	0.09	.29	**.26**	**0.11**	**.01**	**.23**	**0.09**	**.01**
Commitment	−.04	0.16	.76	−.14	0.16	.31	−.27	0.17	.09	−.21	0.20	.28	.27	0.16	.06	.20	0.16	.21
Study 2																		
Satisfaction	−.11	0.10	.19	.07	0.08	.30	.10	0.08	.21	−.08	0.10	.38	−.06	0.11	.55	.02	0.09	.85
Investment	.12	0.10	.14	−.01	0.09	.85	**−.19**	**0.08**	**.02**	.03	0.08	.65	.13	0.12	.29	−.13	0.09	.13
Alternatives	**.50**	**0.10**	**<.001**	**.35**	**0.07**	**<.001**	.14	0.08	.09	**.37**	**0.09**	**<.001**	**.45**	**0.11**	**<.001**	.13	0.07	.09
Commitment	−.08	0.12	.42	−.19	0.11	.06	−.00	0.09	.99	−.01	0.11	.91	−.06	0.12	.53	.06	0.10	.57

Note: Significant estimates ($p < .05$) are indicated in bold.

The initial analyses suggested that when accounting for the variance shared across the Investment Model variables, quality of alternatives was a consistently strong predictor of interest in CNM. These results suggest the possible validity of the motivated reasoning hypothesis whereby commitment may have an indirect effect on interest in CNM in conjunction with the effect of alternatives. We thus tested this hypothesis by examining a model specifying indirect pathways between the latent variables (commitment, quality of alternatives, and CNM variables; measurement model: CFI = 0.93, RMSEA = 0.05, 90% CI = [0.05, 0.06]).

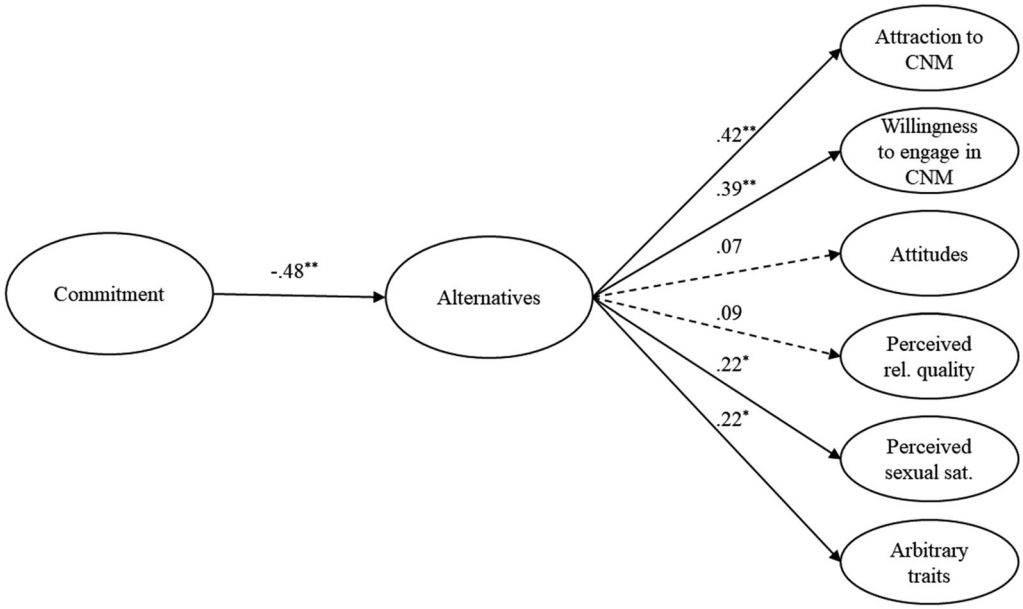

FIGURE 1 A structural model with standardized estimates showing hypothesized relations among commitment, quality of alternatives, and CNM variables (Study 1). Dashed lines indicate nonsignificant paths. Alternatives, quality of alternatives; Rel., relationship; Sat., satisfaction. $^{*}p < .05$, $^{**}p < .01$

TABLE 4 Standardized estimates of the indirect effects (commitment → quality of alternatives → CNM variables) in Studies 1 and 2

	Study 1			Study 2		
Dependent variables	***Estimate***	***SE***	**95% CI**	***Estimate***	***SE***	**95% CI**
Attraction	−0.20**	0.05	[−0.31, −0.12]	−0.21**	0.06	[−0.43, −0.20]
Willingness	−0.17**	0.04	[−0.26, −0.09]	−0.16**	0.04	[−0.23, −0.10]
Attitudes	−0.03	0.03	[−0.10, 0.03]	−0.08*	0.04	[−0.15, −0.01]
Relationship quality	−0.03	0.03	[−0.11, 0.03]	−0.16**	0.03	[−0.22, −0.07]
Sexual satisfaction	−0.05*	0.02	[−0.10, −0.01]	−0.18**	0.03	[−0.22, −0.07]
Arbitrary benefits	−0.09*	0.04	[−0.17, −0.02]	−0.06	0.04	[−0.15, 0.00]

*$p < .05$.
**$p < .01$.

As illustrated in Figure 1, our results showed that there were significant indirect effects such that commitment was associated with quality of alternatives, which in turn was associated with four of the CNM variables (attraction to CNM, willingness to engage in CNM, evaluation of CNM in terms of sexual satisfaction, and arbitrary traits). Table 4 summarizes the indirect effects across the outcomes. Controlling for gender, age, marital status, and relationship length resulted in only one change—the indirect effect with sexual satisfaction as an outcome dropped in significance, *Estimate* = −0.10, *SE* = 0.02, $p = .06$. Overall, our data suggest that low commitment might play an indirect role in drawing people toward CNM via perceptions of higher-quality alternatives.

2.6 | Discussion

The results from Study 1 suggested that the commitment-fueled motivated reasoning model (Lydon, 2010) was a viable means of understanding the data. When accounting for the variance shared across Investment Model predictors, perceptions of the quality of alternatives appeared to have uniquely strong, direct effects on interest in and willingness to explore CNM as well as perceptions of CNM as higher in sexual quality and more positive arbitrary traits. The data were also consistent with relationship commitment having an indirect effect on interest and willingness (as well as sexual quality and arbitrary traits) that was accounted for by the direct effects of alternatives. Overall, then, Study 1 appeared to support the notion that perceptions of quality of alternatives have a key association with attraction to CNM. The data are further consistent with a model whereby higher levels of commitment lead to derogation of alternatives that result in lower interest in CNM. Of course, we can only suggest our results are consistent with this model as the data are correlational. A major limitation of Study 1 is that the study was designed as an experimental study, and ultimately included a failed manipulation as part of the design. Although there was no evidence that the various experimental conditions affected the dependent variables in any systematic way, it is possible that the receipt of feedback regarding prevalence of CNM in general may have in some way influenced participants' evaluations. Thus, Study 2 was designed to replicate Study 1 but with the removal of the failed manipulation. In addition, the sample of participants recruited in Study 2 was primarily from Europe, providing an opportunity to test the generalizability of the results across different Western regions.

3 | STUDY 2

3.1 | Participants and procedure

A total of 397 participants were recruited online through Prolific. To be eligible for the study, participants were required to be over the age of 18 and currently in a romantic relationship. After excluding those who failed attention checks and those who were not in a monogamous relationship (using the same question as in Study 1), the final sample consisted of 365 participants (182 male, 182 female, and 1 transgender) with an average age of 29.89 (SD = 9.89; range = 18–74). Power analyses were conducted based on the parameter values from Study 1 using pwrSEM (Wang & Rhemtulla, 2021). Results showed that this sample size ensured adequate power (> 90%) to detect each of the four significant paths found in Study 1. Most of the participants (n = 327) identified as Caucasian, 17 as Latin American, 8 as South Asian, 4 as

TABLE 5 Correlations between the study variables in Study 2

	1	2	3	4	5	6	7	8	9	10
Investment model variables										
1. Satisfaction	—									
2. Investment	.36**	—								
3. Alternatives	−.14**	−.19**	—							
4. Commitment	.57**	.44**	−.39**	—						
CNM-related variables										
5. Attraction to CNM	−.18**	−.05	.41**	−.30**	—					
6. Willingness to engage in CNM	−.13*	−.12*	.33**	−.35**	.60**	—				
7. Attitudes toward CNM	−.04	−.17**	.13*	−.11	.27**	.25**	—			
8. Perceived relationship quality	−.14**	−.10	.30**	−.24**	.47**	.45**	.54**	—		
9. Perceived sexual satisfaction	−.07	.01	.31**	−.17**	.37**	.23**	.23**	.32**	—	
10. Arbitrary benefits of CNM	−.01	−.08	.10	−.05	.05	−.02	.11	.15**	.15**	—
M	7.24	6.36	4.29	7.98	2.48	2.91	3.95	2.39	3.79	2.97
(*SD*)	(1.53)	(1.53)	(1.33)	(1.33)	(1.68)	(0.99)	(1.23)	(1.02)	(0.95)	(1.34)

Note: All Investment model variables had a possible range of 1–9. Attraction to CNM, willingness to engage in CNM, and attitudes toward CNM had a possible range from 1 to 7, the other three CNM from 1 to 6.

*$p < .05$.

**$p < .01$.

TABLE 6 The measurement models in Study 2

IMS variables model			CNM variables model		
Construct	**Item**	**Loading**	**Construct**	**Item**	**Loading**
Satisfaction	Item 1	.92	Attraction to CNM	Item 1	.93
	Item 2	.65		Item 2	.79
	Item 3	.81	Willingness to engage in CNM	Item 1	.84
	Item 4	.92		Item 2	.82
	Item 5	.84		Item 3	.78
Investment	Item 1	.73		Item 4	.85
	Item 2	.66		Item 5	.81
	Item 3	.87		Item 6	.62
	Item 4	.64	Attitudes	Item 1	.65
Alternatives	Item 1	.63		Item 2	.64
	Item 2	.71		Item 3	.72
	Item 3	.55		Item 4	.56
	Item 4	.82		Item 5	.63
	Item 5	.63		Item 6	.71
Commitment	Item 1	.92	Perceived relationship quality	Item 1	.64
	Item 2	.81		Item 2	.80
	Item 3	.83		Item 3	.70
	Item 4	.93		Item 4	.78
	Item 5	.92		Item 5	.57
				Item 6	.81
				Item 7	.73
			Perceived sexual satisfaction	Item 1	.64
				Item 2	.62
				Item 3	.61
				Item 4	.64
			Arbitrary traits	Item 1	.92
				Item 2	.79
				Item 3	.83

mixed, 3 as East Asian, 2 as Southeast Asian, and 4 as other. Most participants ($n = 343$) were currently living in Europe, with a few living in North America ($n = 15$), South America ($n = 3$), Africa ($n = 2$), and Asia ($n = 2$). The majority ($n = 318$) identified as heterosexual, 29 as bisexual, 8 as gay or lesbian, 1 as queer, and there were 9 people reporting being uncertain/questioning or did not list an identification. Participants had been in the current relationship for an average of 7 years and 6 months ($SD = 8$ years; range = 6 months to 60 years); 137 participants were dating, 125 were living together, and 103 were married or remarried.

Participants completed the same demographic and Investment Model measures as in Study 1. They then read the description of CNM used in Study 1 and were asked to provide a summary of the societal trend they had read about to ensure that they understood the definition of CNM. Following this attention check, participants responded to the remaining questionnaires that included the same set of CNM-related measures as in Study 1. Participants were compensated £2.10 GBP for participation. The data for this study were collected in 2019.

3.2 | Measures

The measures were identical to Study 1. Reliabilities for the Investment Model Scales were as follows: satisfaction (α = .92), alternatives (α = .79), investment (α = .79), and commitment (α = .89). For the CNM-related variables, the reliabilities were attraction to CNM (r_{sb} = .85), willingness to engage in CNM (α = .91), global attitudes toward CNM (α = .81), CNM relationship quality (α = .88), CNM sexual satisfaction (α = .70), and arbitrary benefits of CNM (α = .88). Correlations between all variables are shown in Table 5.

3.3 | Results

As in Study 1, we first examined the correlation table, which suggested that investment model variables each had significant associations with attraction to CNM. We then examined a SEM to determine which variables were uniquely related to attraction to CNM. Both a measurement model with investment model variables, CFI = 0.93, RMSEA = 0.08, 90% CI = [0.07, 0.09], and

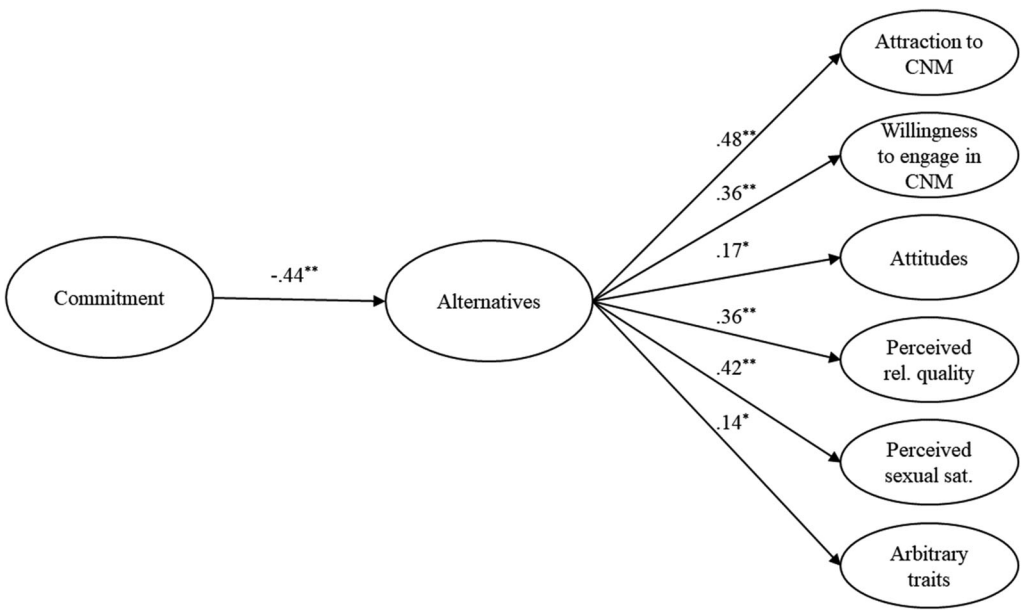

FIGURE 2 A structural model with standardized estimates showing hypothesized relations among commitment, quality of alternatives, and CNM variables (Study 2). Alternatives, quality of alternatives; Rel., relationship; Sat., satisfaction. $^{*}p < .05$, $^{**}p < .01$

with the CNM variables showed an acceptable fit to the data, CFI = 0.93, RMSEA = 0.05, 90% CI = [0.05, 0.06]. Factor loadings for both measurement models are presented in Table 6. We then added a structural part of the model in which we regressed the CNM-related variables onto the investment model variables. The model fit the data well, CFI = 0.91, RMSEA = 0.05, 90% CI = [0.05, 0.05]. Full regression results are shown in the bottom half of Table 3. As in Study 1, perceiving better alternatives to the current relationship was associated with greater attraction to and willingness to engage in CNM as well as more favorable evaluation of the sexual quality and (unlike Study 1) relational quality in CNM relationships.

As in Study 1, we further tested the indirect effects whereby commitment is associated with the CNM variables via perceptions of alternatives. The measurement model with the relevant variables showed a good fit, CFI = 0.91, RMSEA = 0.05, 90% CI = [0.05, 0.06]. As illustrated in Figure 2, commitment was associated with quality of alternatives, which in turn was associated with all the CNM variables. As shown by the parameter estimates of the strength of the indirect effect on the right half of Table 4, our data provided support for significant indirect effects of commitment with all CNM variables other than evaluation on the arbitrary traits. All the results remained the same when controlling for gender, age, marital status, and relationship length.

3.4 | Discussion

In Study 2, the commitment and motivated reasoning model was again supported. There was strong evidence of a direct relation between perceptions of more attractive alternatives and attraction to CNM. Further, an indirect effect of commitment was consistent with the notion that commitment has a potential restraining effect on attraction to CNM through perceptions of less attractive alternatives. Overall, then, with both US and European data, the data suggest that the draw to opening up a relationship is lower for individuals who perceive lower-quality alternatives to their current relationship. An indirect effect is consistent with a model wherein higher levels of commitment spur the derogation of alternatives, resulting in lower interest in CNM. However, it is not clear the extent to which this pattern of data may be uniquely Western. In East Asian cultures, where social constraints are stronger and norms govern one's behaviors to a greater degree (Roccas & Sagiv, 2010), it is possible that interest in CNM may not emerge out of the perception of available romantic alternatives if strong social prescriptions weaken the tendency to consider CNM as a possible response to such alternatives. Thus, in Study 3, we attempted to replicate our findings in one East Asian culture: Korea.

4 | STUDY 3

4.1 | Participants and procedure

We collected data through Embrain, a professional research company with more than 1 million nationwide panelists in Korea. To be eligible for the study, participants were required to be over the age of 18 and currently in a romantic relationship. We aimed to collect an equal number of participants in three age ranges: 20s, 30s, and 40s. Power analyses were conducted based on the parameter values from Study 2 using pwrSEM (Wang & Rhemtulla, 2021). Results showed that a sample of 300 would ensure adequate power (> 96%) to detect each of the significant links

TABLE 7 Correlations between the study variables in Study 3

	1	2	3	4	5	6	7	8	9	10
Investment model variables										
1. Satisfaction	—									
2. Investment	.39**	—								
3. Alternatives	−.12*	−.20**	—							
4. Commitment	.67**	.65**	−.35**	—						
CNM-related variables										
5. Attraction to CNM	−.15**	.00	.34**	−.15**	—					
6. Willingness to engage in CNM	−.15**	−.09	.22**	−.21**	.52**	—				
7. Attitudes toward CNM	−.18**	−.16**	.35**	−.23**	.44**	.43**	—			
8. Perceived relationship quality	−.15**	−.10	.31**	−.19**	.58**	.45**	.61**	—		
9. Perceived sexual satisfaction	−.01	.06	.24**	.02	.46**	.30**	.28**	.41**	—	
10. Arbitrary benefits of CNM	−.19**	−.02	.06	−.15**	.22**	.29**	.25**	.23**	.21**	—
M	7.51	6.64	5.84	7.90	2.57	2.06	2.43	2.23	3.73	3.23
(*SD*)	(1.84)	(1.76)	(1.77)	(1.63)	(1.85)	(1.34)	(1.08)	(0.99)	(1.20)	(1.32)

Notes: All Investment model variables had a possible range of 1–9. Attraction to CNM, willingness to engage in CNM, and attitudes toward CNM had a possible range from 1 to 7, the other three CNM from 1 to 6.

*$p < .05$.

**$p < .01$.

TABLE 8 The measurement models in Study 3

IMS variables model			CNM variables model		
Construct	**Item**	**Loading**	**Construct**	**Item**	**Loading**
Satisfaction	Item 1	.91	Attraction to CNM	Item 1	.91
	Item 2	.93		Item 2	.93
	Item 3	.92	Willingness to engage in CNM	Item 1	.68
	Item 4	.92		Item 2	.70
	Item 5	.89		Item 3	.73
Investment	Item 1	.79		Item 4	.64
	Item 2	.81		Item 5	.73
	Item 3	.83		Item 6	.82
	Item 4	.53	Attitudes	Item 1	.59
	Item 5	.78		Item 2	.74
Alternatives	Item 1	.65		Item 3	.61
	Item 2	.78		Item 4	.55
	Item 3	.75		Item 5	.64
	Item 4	.87	Perceived relationship quality	Item 1	.63
	Item 5	.71		Item 2	.69
Commitment	Item 1	.88		Item 3	.54
	Item 2	.79		Item 4	.83
	Item 3	.51		Item 5	.85
	Item 4	.88		Item 6	.87
	Item 5	.91		Item 7	.69
	Item 6	.89	Perceived sexual satisfaction	Item 1	.56
				Item 2	.86
				Item 3	.90
				Item 4	.70
			Arbitrary traits	Item 1	.80
				Item 2	.79
				Item 3	.79

related to the quality of alternatives found in Study 2. Given this targeted sample size, a total of 355 participants were recruited. After excluding people who failed an attention check ($n = 26$), who indicated at the end of the survey that their response was not completely honest ($n = 9$), and who said they had experience with a CNM relationship ($n = 3$), the final sample consisted of 317 participants (141 men, 176 women, $M_{age} = 35.17$, $SD_{age} = 8.00$). The majority ($n = 284$) identified as heterosexual, 9 as bisexual, 4 gay/lesbian, 4 as other, 3 uncertain/exploring, and 13 were unwilling to disclose. On average, participants had been in their current relationship for 8 years and 4 months ($SD = 7$ years and 4 months; range = 1 month to 28 years). More than half the participants were married ($n = 190$), 123 were dating, and there were 4 people who indicated engaged.

TABLE 9 Standardized estimates of the structural model in Study 3

	Attraction			Willingness			Attitudes			Relationship quality			Sexual satisfaction			Arbitrary benefits		
	b	***SE***	***P***	***b***	***SE***	***P***	***b***	***SE***	***p***	***b***	***SE***	***p***	***b***	***SE***	***p***	***b***	***SE***	***p***
Satisfaction	−.20	0.12	.07	−.03	0.11	.79	−.13	0.14	.31	−.12	0.11	.24	−.10	0.11	.38	−.15	0.11	.18
Investment	.11	0.13	.36	.15	0.12	.20	.00	0.12	.99	.06	0.12	.62	.09	0.12	.48	.18	0.12	.12
Alternatives	**.38**	**0.07**	**<.001**	**.22**	**0.08**	**.002**	**.36**	**0.08**	**<.001**	**.32**	**0.07**	**<.001**	**.27**	**0.08**	**<.001**	.03	0.08	.65
Commitment	.04	0.17	.79	−.25	0.17	.13	−.06	0.20	.75	−.03	0.17	.83	.15	0.16	.33	−.19	0.16	.24

Note: Significant estimates ($p < .05$) are indicated in bold.

To explore Korean participants' prior knowledge on CNM relationships, upon completion of the survey, we asked how much participants had knowledge of CNM relationships before they began our study. About half of the participants ($n = 151$) indicated that they had never heard of the concept, 31% ($n = 97$) indicated they had heard of it but had no knowledge on it, 20% ($n = 62$) indicated that they had heard of it and had some knowledge on it, and only seven participants indicated that they already knew what it was.

4.2 | Measures

We used the same set of measures as in Studies 1 and 2. All instruments were translated into Korean by an experienced bilingual translator, a research assistant, and the second author.

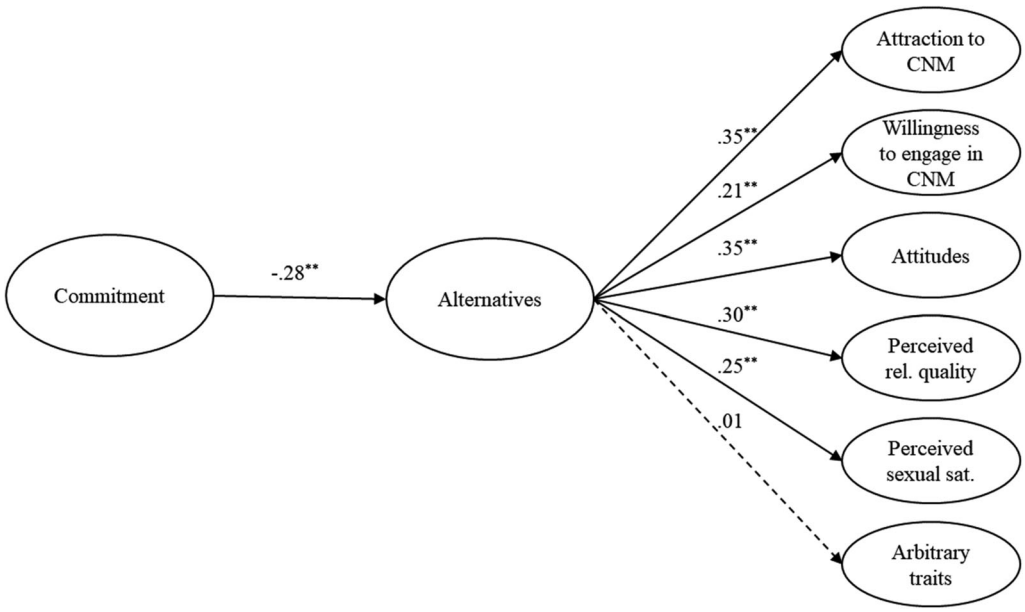

FIGURE 3 A structural model with standardized estimates showing hypothesized relations among commitment, quality of alternatives, and CNM variables (Study 3). The dashed line indicates a nonsignificant path. Alternatives, quality of alternatives; Rel., relationship; Sat., satisfaction. $^{*}p < .05$, $^{**}p < .01$

TABLE 10 Standardized estimates of the indirect effects (commitment → quality of alternatives → CNM variables) in Study 3

Dependent variables	Estimate	*SE*	95% CI
Attraction	−0.11**	0.03	[−0.18, −0.05]
Willingness	−0.04*	0.02	[−0.08, −0.01]
Attitudes	−0.05**	0.02	[−0.08, −0.02]
Relationship quality	−0.04**	0.02	[−0.08, −0.02]
Sexual satisfaction	−0.04**	0.01	[−0.06, −0.02]
Arbitrary benefits	−0.00	0.02	[−0.05, 0.03]

$^{*}p < .05$.
$^{**}p < .01$.

Reliabilities for the Investment Model Scales were as follows: satisfaction (α = .96), alternatives (α = .87), investment (α = .86), and commitment (α = .90). For the CNM variables, the reliabilities were attraction to CNM (r_{sb} = .91), willingness to engage in CNM (α = .87), attitudes toward CNM (α = .80), CNM relationship quality (α = .88), CNM sexual satisfaction (α = .86), and arbitrary benefits of CNM (α = .83). The data for this study were collected in 2020.

4.3 | Results

We first examined the correlation tables (Table 7), which again suggested relations between the investment model and CNM-related variables. We then examined measurement models of each set of variables; both the model with investment model variables, CFI = 0.93, RMSEA = 0.08, 90% CI = [0.08, 0.09], and one with CNM variables showed acceptable fit, CFI = 0.93, RMSEA = 0.06, 90% CI = [0.05, 0.07] (after allowing the residuals of items with a similar Korean word ["믿음" and "신뢰"] to correlate). Table 8 presents the factor loadings. We then regressed the CNM-related variables onto the investment model variables. The model fits the data well, CFI = 0.91, RMSEA = 0.05, 90% CI = [0.05, 0.06]. Full regression results are shown in Table 9. Quality of alternatives was significantly associated with all but one CNM-related variable (evaluation of CNM relationships on arbitrary traits) such that perceiving good alternatives to the current relationship was related to more favorable views about and interest in CNM relationships. No effects changed with control variables (gender, age, marital status, and relationship length) added to the model.

Next, we went on to test the indirect effects and first ran the measurement model, which showed a good fit, CFI = 0.92, RMSEA = 0.05, 90% CI = [0.05, 0.06]. As illustrated in Figure 3, commitment was associated with quality of alternatives, which in turn was associated with all but one CNM variable (evaluation on the arbitrary traits). Table 10 shows that except for evaluation on the arbitrary traits, the indirect effects of commitment on all CNM variables via perceptions of alternatives were significant. All the effects remained the same, controlling for gender, age, marital status, and relationship length.

4.4 | Discussion

Overall, the results from our Korean sample were highly similar to those from the United States and Europe. The central findings showing a strong direct association between perceptions of higher-quality alternatives and attraction to CNM as well as the suggestion of an indirect effect of commitment replicated. This was true despite the fact that CNM appears to be considerably more unfamiliar to Korean participants than to our US and European participants. These data suggest strongly that the link between alternatives and interest in CNM is, at the very least, not strictly bound to Western culture.

5 | GENERAL DISCUSSION

Our three studies provide consistent evidence that among individuals in monogamous relationships, those who have stronger perceptions of available romantic alternatives are more attracted to CNM. Further, there was correlational evidence consistent with a motivated reasoning effect

such that commitment demonstrated an indirect, negative association with attraction to CNM that was accounted for by lower perceived quality of alternatives. Thus, these data, although correlational, are consistent with past work that has shown commitment leading to a devaluation of alternatives (e.g., Lydon et al., 2003) that, in this case, may translate into less attraction to CNM. Further, this pattern was evident across three different world regions.

As we hope we have emphasized strongly enough, the data we collected are purely correlational and as such we cannot confidently draw causal conclusions. It seems to us to be unlikely (but not impossible) that more interest in CNM is what is causing lower commitment and perception of higher-quality romantic alternatives in our data. We hold this position because our Korean data suggest there is relatively little public awareness regarding CNM in that country, and so it seems unlikely that there is enough pre-existing interest in CNM to be driving our effects. Our bigger concern in evaluating the direction of effects suggested by the motivated reasoning hypothesis is for unmeasured third variables. For example, lower attachment avoidance (e.g., Moors et al., 2015), less short-term sociosexual orientation (Balzarini et al., 2018; Lehmiller, 2020), lower openness to experience, as well as higher conscientiousness (Moors et al., 2017) are all variables that may simultaneously promote higher commitment, perceptions of lower quality of alternatives, and less interest in CNM. Thus, although there is theoretical grounding and empirical precedent that higher commitment drives perceptions of lower quality available alternatives, which could then translate into less attraction to CNM, the available data are not able to speak to what extent each of these causal explanations is more or less true (indeed, all may be simultaneously true). Thus, future research should consider how much our results can be attributed to investment model dynamics above and beyond individual differences associated with investment model variables (e.g., Mattingly et al., 2011). Further, it is also important to note that our data on the draw toward CNM only involve self-reports of interest in/attraction to CNM and thus cannot speak to whether this interest may actually translate into engagement in CNM (Moors et al., 2015).

Nevertheless, the data are quite clear on the notion that, from an Investment Model perspective, the most proximal variable for understanding attraction to CNM is the perceived availability of alternatives. This finding points to the notion that the draw to CNM, although it involves important societal and moral considerations (Moors et al., 2013), may also involve an important practical constraint—the availability of others with whom one is interested in engaging in relationships. Indeed, many individuals struggle to find available partners (e.g., Schacht & Smith, 2017), attract available partners (e.g., Apostolou et al., 2019), or to maintain relationships they do start (e.g., Pepping et al., 2018), and as such CNM is not an experience equally available to all. It seems reasonable that individuals who are not confident in the availability of attractive (or any) alternative relationships may see little personal draw to CNM, and may even see opening up the relationship as introducing a state of imbalance in which their partner will have opportunities through CNM that they themselves may not. As such, future research at the couple level examining interest and engagement in CNM among couples who are balanced versus not balanced in their perceptions of attractive alternatives would be of interest.

However, it is an open question what role perceptions of alternatives would have in attraction to CNM if the Investment Model scale had been developed with consideration of CNM in mind. For example, items such as "My alternatives to our relationship are close to ideal" imply that those other relationships can only be accessed by going outside of the current relationship (i.e., reference to those relationships as "alternatives"). Although not all items in the alternatives scale embody this issue, implicit framing in measurement of alternatives that signifies that

other relationships can only be pursued by ending the current relationship may indeed activate defensive processes against those other relationships. Among individuals in CNM relationships, traditional measures of alternatives have been shown to be weak predictors of commitment (Balzarini et al., 2018), suggesting that the meaning and role of alternatives change among those open to multiple simultaneous relationships. It is possible that items written to reflect the perspective that other relationships could be accessed while keeping the current relationship intact (e.g., "Relationships that I could have in addition to my current relationship are close to ideal") may not activate commitment related defenses aimed at protecting the current relationship and thus lessen the role of commitment in attraction to CNM. However, it seems to us to be unlikely that this change in focus of the wording of alternatives items would weaken the relation between perceptions of available alternatives and interest in CNM. Instead, it would lessen the motivation to defend against perceiving those relationships as high in quality.

Our studies may be useful in helping to understand the internal and relational bargaining that may be part of the dissolution consideration stage that often accompanies lower commitment (VanderDrift et al., 2009). When individuals experience the lowered motivation to persist in a relationship that is a signature of lower commitment (Rusbult, 1980), the future state of being without their current partner should become increasingly salient (VanderDrift et al., 2009). Thinking about a future without one's partner can bring to mind a variety of prospects. One prospect is the ability to pursue attractive alternatives. Indeed, ahead of a breakup, the monitoring of potential alternatives increases (Ritchie et al., 2020), suggesting increased salience of this aspect of one's future self without the current partner. However, within monogamous relationship structures, seriously considering the approach of these alternatives necessarily will activate consideration of dissolving ties with the current partner (VanderDrift et al., 2009), and thus a future that involves ending the current relationship and being without the current partner.

Although people may believe in the abstract that rejecting a romantic partner will be relatively easy, the closer they get to actually initiating the dissolution, the more they are likely to experience discomfort at the prospect of rejecting their partner (Joel et al., 2014), especially when they are aware that their partner is dependent on the relationship and will be hurt by their decision (Joel et al., 2018). Further, despite the presence of reasons to leave a relationship such as the attractiveness of alternatives, many individuals considering ending a relationship simultaneously hold many reasons they might like to stay (e.g., emotional security, family duty, financial benefits; Joel et al., 2018; Machia & Ogolsky, 2020). The conflicting desires to approach alternatives and avoid hurting the partner, as well as the mix of reasons to leave and reasons to stay in the relationship more generally, are associated with ambivalence around the stay/leave decision (Joel et al., 2021).

In this light, the appeal of the idea of CNM among those experiencing low commitment and feeling the pull of attractive alternatives might be seen as a means of managing the discomfort of ambivalence (Newby-Clark et al., 2002). In theory, opening up a relationship could allow access to attractive alternatives while avoiding inflicting the hurt of rejection and avoiding the loss of the current relationship; if workable, this solution would resolve the internal tension of those low in commitment but not yet ready to leave. Thus, as popular awareness of CNM grows, contemplating opening up a relationship may be an increasingly common aspect of navigating the tensions that arise as part of wrestling with lower commitment. However, it is again important to remember that attraction to the idea of a CNM relationship is not the same as actually taking steps to begin a CNM relationship (Moors et al., 2015).

Indeed, given the demonstrated associations between commitment and stability across settings such as school, work, and monogamous relationships (Le & Agnew, 2003), we suspect that individuals who were to enter CNM arrangements with relatively low levels of commitment to their primary partner may have challenges in making those arrangements work successfully. The pro-relationship motivated reasoning fueled by commitment may be useful for multiple aspects of CNM relationships. For example, more committed individuals, who see their partner as more a part of the self (Agnew et al., 1998; Aron et al., 1992), may be more likely to see a partner's other relationships as part of the self as well. In this way, commitment to a CNM relationship may be an important aspect of promoting compersion, or taking pleasure in a partner's other relationships (Balzarini et al., in press), by experiencing a partner's other relationships as more self-relevant.

These considerations suggest that one fruitful avenue of future research may be examining individuals' motives for entering CNM relationships (Wood et al., 2021). In Self-Determination Theory terms (Ryan & Deci, 2000), individuals entering CNM arrangements for their inherent reward and enjoyment should be guided by intrinsic motivation, which is associated with task persistence and success. On the other hand, individuals whose motivation is centered around avoiding ending a current relationship seem less likely to be approaching CNM with intrinsic motivation and thus should be more poorly set up for success. One difficulty with the bulk of current literature regarding CNM relationships is that samples primarily consist of people who are currently in stable, long-term CNM relationships. That is, these studies embody a survivorship bias wherein data are more likely to represent the experiences of those who have tried CNM and made it work (this is not an issue unique to CNM research and is present in other literatures such as that examining potential benefits of marriage; DePaulo & Morris, 2005). Longitudinal studies that identify individuals' motives for entering CNM relationships before the decision to open the relationship is made and are able to track variability in the stability of these relationships from the outset may be valuable for identifying what motives and relationship conditions set couples on a path for sustainable CNM relationships.

Among the limitations of our research, it should be noted that our participants primarily identified as heterosexual, and thus the interpretation of our results should be taken in that light. CNM tends to be more accepted and practiced among some sexual minorities (Rubin et al., 2014; Séguin et al., 2017), and as such the relation of Investment Model variables to interest in CNM may also be different. Our samples did not contain sufficient numbers of sexual minorities for meaningful analysis, although we also did not feel removal of sexual minority participants from analyses was appropriate. Future research focusing more exclusively on sexual minorities may provide important opportunities to examine Investment Model and CNM dynamics in less heteronormative contexts. Similarly, although our research did involve a cross-cultural element, the worldwide variability in practices surrounding monogamy and non-monogamy (e.g., Dow & Eff, 2013) suggests that we should be cautious in considering the generalizability of our results. Further, challenges remain in the measurement of relationship variables in the context of CNM, and our own attraction to CNM measure is more ambiguous than we had intended with regard to whether attraction to multiple simultaneous relationships necessarily includes knowledge and consent of the partner. Indeed, although we have focused on the broadly consistent role of commitment and alternatives across studies and measures as a means to avoid interpreting smaller differences across studies that may well amount to statistical noise, future research would benefit from making more clear distinctions in scale construction between attraction to multiple relationships with and without the primary partner's understanding.

Within these constraints, our research contributes to an understanding of the conditions that may be associated with more openness to the idea of transitioning a monogamous relationship to a CNM relationship. Our data suggest the possibility that initial interest in CNM among individuals currently in monogamous relationships may to some extent stem from the perception that there are other relationships that would be interesting to explore. Further, higher levels of commitment may indirectly contribute to less interest in CNM through the derogation of attractive alternatives.

ENDNOTES

[1] Participants were told that researchers at the University of Toronto and at universities across the United States had collected data on societal trends regarding romantic relationships. Participants were told they would read about one of the three societal trends found in their state of residence, and that they would be asked to evaluate the trend. After indicating their state of residence, participants read the following description of CNM (based on existing work; e.g., Cohen & Wilson, 2016):

> An emerging societal trend that has been found in *[participant's state of residence]* is consensual non monogamy. Consensual non-monogamy is a broad term which refers to a variety of loving and committed relationship arrangements. In consensually non-monogamous relationships, all partners explicitly agree that it is acceptable to have sexual and/or romantic relationships with other consenting individuals. Although all consensually non-monogamous relationships involve a mutual agreement in which alternate relationships are encouraged, the rules/guidelines for how this occurs varies among partners.

Participants in the CNM increasing condition were told that the CNM prevalence rate was 25% of relationships and was becoming increasingly common in their state of residence. Participants in the CNM decreasing condition were told that the CNM prevalence rate was 5% of relationships and was increasingly uncommon in their state of residence. Control participants did not receive information beyond the definition of CNM. After reading about CNM, all participants were asked to provide a written summary of the societal trend they had read about to ensure that they understood the definition of CNM and that they had engaged with the information contained in the manipulation.

[2] One item from the commitment subscale (i.e., "It is likely that I will date someone other than my partner within the next year") was removed from the commitment scale to deconfound our measure of commitment from interest in CNM.

[3] One item ("*more – less lonely*") assessing perceptions of CNM relationship quality and another ("*less – more sexual passion*") assessing the perceptions of CNM sexual relationship consistently showed weak loadings on their respective factor across the three studies (ranging from .16 to .28 for relationship quality and .09 to .35 for sexual satisfaction) and were dropped from all measurement models.

[4] One item from the arbitrary benefits of CNM scale ("*not reliable at daily dog walking—is reliable at daily dog walking*") was inadvertently removed.

[5] Of note, there were several items that did not load very strongly on their retrospective factors in each of the studies (see Tables 2, 5, and 8). Although we were careful with item removal in the primary analyses (Flora & Flake, 2017), we also conducted additional analyses, re-running all the models using a reduced set of items that consistently demonstrated acceptable loadings on their retrospective factors (i.e., only the items that showed loadings greater than .40 in all three studies). All measurement models showed great fit to the data, and the pattern of regression results using this reduced set of items was identical to what we reported in this article.

[6] Given the potential role of relationship length in monogamy maintenance strategies such as derogation of attractive alternatives (Lee & O'Sullivan, 2019), we also explored whether the primary effects we found across the three studies (the associations between quality of alternatives and CNM variables) were moderated by relationship length. However, there was little evidence for the moderating effect of relationship length as only one interaction emerged as significant among 18 possible interactions (six per study).

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request by emailing Geoff MacDonald: gmacdonald@psych.utoronto.ca.

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