# It's Not You, It's Me: Using Self-Determination Theory to Explore Personal Contributions to Relationship Quality Through Relationship Motivation and Behaviours

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## Abstract

Given that lack of support is an often-cited reason for separation and divorce (e.g., Joel et al., 2018), knowing how one's own specific interpersonal behaviours contribute to supporting one's partner may inform avenues to promote relationship satisfaction. Relationship science has mostly focused on broader perceptions of receiving support in romantic relationships without considering how one's own specific behaviours are associated with their relationship satisfaction or may be affected by one's motivation to be in the relationship. Self-determination theory researchers have identified specific behaviours that support or thwart a person's psychological needs. Need-supportive partners offer choice, provide valuable feedback, and communicate interest to their partners, whereas need-thwarting partners limit choice, question their partner's abilities, and do not express care to their partners (Rocchi et al., 2017). Using cross-sectional and prospective methods across two different samples of partnered individuals, I explored whether supporting or thwarting one's partner's psychological needs interacted with one's relationship motivation and was associated with one's own relationship satisfaction. Following this, using dyadic data from community couples, I examined the interdependent associations between supporting and thwarting behaviours and relationship and sexual satisfaction for both partners.

Study 1 enlisted cross-sectional data from partnered individuals to examine how one's own need-supportive and need-thwarting behaviours (e.g., supporting partners' decisions and skill development vs. questioning their decisions and worth) moderated associations between one's relationship motivation and their relationship satisfaction. Autonomous relationship motivation was most positively associated with relationship satisfaction at lower levels of need-supportive behaviours and higher levels of need-thwarting behaviours. Controlled relationship motivation was most negatively associated with relationship satisfaction at lower levels of need-

supportive behaviours and higher levels of need-thwarting behaviours. All pathways were significant for analyses in which participants identified as female except for need-thwarting behaviours moderating the association between controlled motivation and lower relationship satisfaction (which was the only significant pathway for males).

Study 2 assessed whether one's own need-supportive and need-thwarting behaviours mediated the relationship between self-determined motivation for specific relational activities (e.g., niceties, intimacy) and relationship satisfaction reported three months later. When partnered participants reported supporting their partners' basic psychological needs, their need-supportive behaviours mediated the association between their autonomous motivation and their higher relationship satisfaction. Engaging in fewer need-supportive behaviours mediated the association between participants' controlled motivation and lower relationship satisfaction. When partnered participants reported thwarting their partners' basic psychological needs, their need-thwarting behaviours mediated the association between their controlled motivation and their lower relationship satisfaction. Engaging in fewer need-thwarting behaviours mediated the association between participants' autonomous motivation and their higher relationship satisfaction. Mediation findings related to need-supportive behaviours remained significant when controlling for baseline satisfaction.

Finally, Study 3 examined the dyadic associations between one's own need-supportive and need-thwarting behaviours and one's own and one's partner's relationship and sexual satisfaction. When participants engaged in need-supportive behaviours towards their partner, they and their partner reported higher relationship satisfaction. When participants engaged in need-thwarting behaviours towards their partner, they and their partner reported lower relationship satisfaction. One's own need-supportive and need-thwarting behaviours were

positively and negatively associated with their sexual satisfaction, respectively, but not with the sexual satisfaction of their partner. Most actor effects remained significant when controlling for perceptions of partners' behaviours. However, only one's perceptions of their partner's need-thwarting behaviours were associated with their lower sexual satisfaction.

My findings shift self-determination theory's focus from receipt to provision of support for all three basic psychological needs, while also stressing the importance of considering correlates of lower relationship and sexual satisfaction, like need-thwarting behaviours and controlled motivation. My results validate the use of clinical approaches that examine both partners' need-supportive and need-thwarting behaviours and the motivational context in which behaviours occur.

*Keywords:* Self-determination theory, support, motivation, romantic relationships

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## Contributions of Authors

I, Traleena Rouleau, participated in all aspects of study conceptualization, data collection, cleaning, and analysis, and manuscript writing and review. Dr. Serena Corsini-Munt supervised data collection for Study 3 and oversaw manuscript development for all three studies and the final dissertation. For Studies 1 and 2, Dr. Luc Pelletier served as an advisor and guided me on study creation and data collection. Following my transfer to the Relationship and Couple Health Laboratory, he served in an ongoing consultative role and offered feedback on manuscript development for these studies. For all three studies, Erin McClung is listed as an author for her role in assisting with re-running, reviewing, and confirming the accuracy of statistical output and its representation in each manuscript. Erin also reviewed all manuscripts and took an active role in study recruitment and data collection for the larger Motivation and Sexual Health project from which Study 3's data originates. Dr. Pelletier is listed as an author for my first two studies and Dr. Corsini-Munt and Erin McClung are listed as authors for all three studies. Dr. Natalie Rosen and Dr. Amy Muise are listed as authors in Study 3 because they are collaborators on the Motivation and Sexual Health project. During my doctoral research, I received a Social Sciences and Humanities Research Council (SSHRC) Joseph-Armand Bombardier Graduate Scholarship (2018-2019) and Doctoral Fellowship (2019-2023).

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# Chapter 1: General Introduction

In 2020, 5.6 divorces were reported per every 1000 married persons and 25% of marriages ended in divorce by couples' 30th wedding anniversaries in Canada (Statistics Canada, 2022). As divorcing couples' mean relationship duration was only 15.3 years, early exploration and targeting of contributors to relationship dissolution could support relationship satisfaction and associated longevity. Within a sample of dating individuals, people commonly reported lack of support from a partner as a reason to consider separation (Joel et al., 2018). Cross-sectional research has shown that when committed partners reported feel supported, they also reported higher relationship satisfaction (Vanhee et al., 2016) and subjective well-being (Ratelle et al., 2013). Lack of support may lead to less self-determined reasons to remain in the relationship, which may consequently contribute to less support offered to a partner. Understanding individuals' relationship motivation may inform whether they may support (or thwart) their partner's needs within the relationship. Indeed, Blais et al. (1990) demonstrated in a cross-sectional examination that when cohabitating partners had more self-determined reasons to be in their relationship, they were more supportive (showing higher consensus, cohesion, and affection with partners).

Researchers have focused largely on perceptions of partner support to date (Lemay & Neal, 2014) and its association with relationship satisfaction (Reis, 2012). This research focus accompanies similar suggestions from the pop psychology realm that tout the relevance of understanding one's own and one's partner's "love language" for increased relationship satisfaction (e.g., *5 Love Languages: The Secret to Love that Lasts* [Chapman, 2015]) despite mixed empirical support (Bunt & Hazelwood, 2017; Impett et al., 2024). Indeed, researchers have infrequently tested how one's *own* specific supportive behaviours and relationship

satisfaction are related. Given the lack of empirical focus on specific supportive behaviours, available recommendations regarding support have been ambiguous and limited to the general suggestion to "be more supportive" or "learn what your partner needs" in one's relationship. By focusing on one's own supportive behaviours, I aim to identify clear domains in which to focus the support one can provide to a partner and highlight its contributions to one's own relationship satisfaction. This may allow for partners to have greater "buy-in" for behavioural interventions targeting their own behaviours, contributing to relationship satisfaction for both parties. This would validate couples therapy approaches that consider both partners' behaviours (Halford et al., 1994). However, the mere act of providing support may be insufficient if an individual is in a relationship for less self-determined reasons (such as to avoid guilt or fulfill an obligation). If this is the case, encouraging supportive behaviours without taking motivation into account could be futile and inconsistent with the theorizations of Roman philosopher Seneca, who believed that the intention of the giver was more important than the gift itself (Seneca & Basore, 1935). Motivation for relationships can consist of motivation to be in a relationship, as well as motivation for specific relational activities (Gaine & La Guardia, 2009). Thus, the context in which people experience motivation may be relevant for understanding how supportive behaviours affect the relationship satisfaction of both partners.

One model for understanding the components of supportive behaviours involves considering behaviours identified to fulfill the basic psychological needs of autonomy, competence, and relatedness as defined by self-determination theory (Ryan & Deci, 2017). Experiencing higher fulfillment for one's basic psychological needs is associated with relationship satisfaction (Vanhee et al., 2016). However, little is known about the association between supporting one's partner's basic psychological needs (or thwarting them) and effects on

the relationship satisfaction of the supporter (or thwarter). In addition, it is unclear whether just supporting one's partner is enough for higher relationship satisfaction for oneself, or whether only certain kinds of partners (e.g., internally motivated ones) benefit from engaging in supportive behaviours. Considering whether motivation for specific relational activities predicts specific supportive behaviours may also inform whether motivation for couple activities can be cultivated within couples for possible downstream effects on supportive behaviours and satisfaction.

In this thesis, I explored the relational correlates of supporting and thwarting one's partner's basic psychological needs using self-determination theory in three samples. Study 1 occurred between January 2019 to July 2020 and Study 2 took place between January 2020 to June 2022. Study 3 occurred between August 2023 to December 2023. Study 1 tested whether one's motivation was associated with one's own relationship satisfaction and was affected by their need-supportive and need-thwarting behaviours. Study 2 used prospective data to determine whether relationship behaviours mediated the association between one's own motivation and their future relationship satisfaction. Study 3 complemented the purposes of Studies 1 and 2 by using dyadic data to examine the impact of an individual's relationship behaviours on the relationship and sexual satisfaction of both partners.

Determining relational correlates of supporting or thwarting a partner's psychological needs will contribute to the growing body of relationship science rooted in self-determination theory and can inform intervention targets for clinical practice. If one's specific behaviours related to basic psychological needs impact their own relationship satisfaction, therapists may be able to foster improvement of both partners' relationship satisfaction by encouraging each partner to improve support for their partner's autonomy, competence, and relatedness needs.

Knowing whether behaviours are enough for increased personal satisfaction or whether one must remain in their relationship and engage in relationship activities for internalized reasons (i.e., considering the quality of motivation) could identify for which couples behavioural interventions may be especially helpful. This knowledge may also encourage relationship researchers to consider the motivational context in which support is being provided to create a fulsome picture of relationship functioning.

**The Importance of Support in Romantic Relationships**

Feeney and Collins (2015) propose that providing support can reap both intrapersonal and interpersonal benefits in close relationships. When individuals report engaging in more supportive behaviours towards their partner, they are more relationally satisfied. Meta-analytic data has shown that when both partners reported engaging in positive dyadic coping (i.e., communicating about issues, solving problems, providing emotional support), they experienced higher relationship satisfaction (Falconier et al., 2015). In contrast, analyses illustrated that experiencing negative dyadic coping from a partner (i.e., hostile/ambivalent, uninvolved, or overinvolved responses) was related to poorer relationship satisfaction. The negative correlates of engaging in thwarting behaviours (i.e., behaviours that are critical, undermining, and actively harmful) towards a partner have also been verified in a longitudinal analysis of married couples' divorce patterns: spouses who self-reported engaging in destructive behaviours (e.g., yelling, insulting, bringing up past mistakes) had higher divorce rates (Birditt et al., 2010). Experimental data also supports the differential effects of actively receiving support versus not receiving support. In a simulated virtual environment involving a threatening task, dating participants who were presented with an attentive virtual representation of their romantic partner reported greater emotional security and more responsiveness from their partner than those presented with an inattentive virtual partner (Kane et al., 2012).

While this research illustrates the benefits of support (and the pitfalls of not receiving support), it is not grounded in a unifying theory. Currently, researchers are advocating to use organizing themes that consolidate different representations of support into common principles for increased accessibility (Reis, 2012). One integrative model that assesses perceptions of partner support is the perceived partner responsiveness model (Reis, 2012).

**Beyond Perceptions of Support – Perceived Partner Responsiveness**

In the perceived partner responsiveness model (Reis, 2012), perceptions of partner support are the main focus in understanding closeness and relationship satisfaction. Reis (2012) defines perceived partner responsiveness as individuals' perceptions of being valued, understood, and cared for by their partner. He theorizes that perceived partner responsiveness is characterized by interpersonal exchanges that create warmth, acceptance, and belongingness as a contribution to increase couple satisfaction. Individuals come to believe that their partners will be attuned and available to support their needs. Perceived partner responsiveness is related to higher levels of couple satisfaction (Gadassi et al., 2016). Baseline data from a prospective study of cohabitating adults has also found that individuals who perceived their partners as responsive were less likely to report anxiety and depressive symptoms (Selcuk et al., 2017).

While research does suggest that perceived partner responsiveness is related to relationship satisfaction and better mental health, the construct does not include objective behaviours that contribute to feelings of support. Instead, it focuses on perceptions of partner behaviours (e.g., "seeing the 'real' me," "being on the same 'wavelength' as me" [Reis et al., 2017]), which may be skewed by bias, be difficult to assess and target in couples therapy interventions, and be challenging for partners to enact on their own. Considering objective behaviours indicative of support (e.g., supporting a partner's choices, giving valuable feedback [Rocchi et al., 2017]) could have transtheoretical applications for researchers seeking to

incorporate universal measures of supportive behaviours in studies. This practical focus can also have tangible benefits for couples, therapists, and researchers seeking to implement action repertoires that contribute to relationship satisfaction. However, by considering behaviours in isolation, researchers fail to consider why individuals seek and provide support, which may be informed by one's attachment.

**Attachment Theory – A Universal Theory of Adult Love**

Since Hazan and Shaver (1987) validated the generalizability of attachment styles from infancy to adult romantic relationships, attachment theory has been a central framework in understanding romantic relationships. Rooted in early research on adult-child relationships, Hazan and Shaver (1987) conceptualized three attachment styles experienced by adults in romantic relationships. Secure attachments were characterized as those in which individuals can easily pursue closeness with others without fear of abandonment or intimacy. Avoidant attachments were defined as those in which individuals experience discomfort with closeness and a reluctance to rely on partners. Finally, anxious/ambivalent attachments were characterized as those in which individuals desire intense closeness and fear abandonment. Cross-sectional data with committed couples has shown that when partners have more secure attachments and less avoidant and anxious/ambivalent attachments, they reported greater relationship satisfaction (Hammond & Fletcher, 1991). However, relationship researchers argue that the popularity of attachment theory and its focus on intimacy have limited consideration of the importance of autonomy in partner relationships (Anderson, 2020). In addition, while attachment theory is centered on the pursuit or avoidance of closeness, it fails to consider how one's motivation for pursuing closeness may be related to their satisfaction in relationships.

**Considering Motivation – Communal and Exchange Theories**

One model that considers the role of motivation in relationships is the study of communal and exchange motivation (Clark & Mills, 2012). According to Clark and Mills (2012), individuals may possess a) exchange motivation to support others to gain benefits (e.g., status, security) or b) communal motivation to support another person to improve that person's well-being. Clark and Mills (2012) propose that evolutionarily, communal motivation supported survival through ensuring sharing of resources and support, especially in situations in which resources were not freely available or others (such as infants) could not offer support in return. Generally, variation in individuals' endorsement of communal or exchange motivational orientations depends upon the nature of the relationship (e.g., stranger, employer, romantic partner; Clark & Lemay, 2010), with greater communal motivation theorized to exist in close interpersonal relationships (Clark & Mills, 2012). Within romantic relationships, communal motivation has been linked to greater relational and personal well-being (Le et al., 2018). Communal motivation is theorized to foster responsive behaviours towards one's partner, which then increase one's partner's relationship satisfaction and communal motivation in return. However, the study of communal and exchange motivation does not explore to what degree someone possesses higher or lower quality motivation for their relationship nor does it consider in greater detail the contextual conditions in which relationship motivation is facilitated. Further, being motivated for communal purposes may require the sacrifice of one's own needs for their partner, which may have detrimental effects for their own well-being (Ryan & Deci, 2017). One model that examines the behaviours that comprise support and the balance between one's needs for autonomy and connectedness in relationships is self-determination theory.

**Self-Determination Theory and Basic Psychological Needs**

Self-determination theory explores the conditions that contribute to or compromise human growth and well-being (Ryan & Deci, 2017). The theory proposes that individuals have three basic psychological needs: autonomy, competence, and relatedness (Deci & Ryan, 2000). When these three needs are fulfilled, well-being and growth are theorized to follow, and conversely, when these three needs are not fulfilled or are actively thwarted, a lack of growth and ill-being result (Ryan & Deci, 2017). These basic psychological needs can be met through one's relationships and environment (Vansteenkiste & Ryan, 2013). Research using cross-sectional data from four culturally diverse countries found that when individuals perceived that their basic psychological needs were fulfilled, they reported higher vitality and life satisfaction, but that when they experienced their basic psychological needs as being frustrated, they experienced ill-being, such as greater depressive symptoms (Chen et al., 2015). Further, cross-sectional research among Turkish college students demonstrated that when an individual perceived that their basic psychological needs were generally fulfilled in their life, they experienced higher self-esteem (Ümmet, 2015).

The first basic psychological need, autonomy, can be defined as volition and is usually demonstrated through behaviours that reveal an individual's personal values and interests (Ryan & Deci, 2017). Autonomous actions are driven by personal choice, and not by internal or external pressures. The second need, competence, is represented as experiencing mastery or efficacy over one's environment (Ryan & Deci, 2017). Individuals may experience fulfillment of their need for competence when engaging in self-exploration or participating in stimulating tasks (Deci & Moller, 2005). Finally, relatedness is described as a need to experience belonging and social connection (Ryan & Deci, 2017). The need for relatedness may be fulfilled when one experiences others as being understanding and interested in them (Rocchi et al., 2017). Most

self-determination theory research focuses on individuals' perceptions that their needs are fulfilled by measuring their agreement with statements that consider how they feel in the relationship (such as "*feeling* loved and cared about," La Guardia et al., 2000). Cross-sectional research with established couples demonstrated that when individuals perceived their needs as being fulfilled (e.g., they felt closeness and intimacy), they were more relationally satisfied (Patrick et al., 2007; Vanhee et al., 2016). Empirically, perceptions of psychological need fulfillment are highly tied to relationship satisfaction, yet no previous study has examined more concrete behaviours associated with relationship satisfaction (Rocchi et al., 2017). Research may also be less affected by retrospective biases of relationship perceptions if more concrete measures of relationship behaviours were used. Practically, individuals may wish to increase their partners' need fulfillment but be unsure of the behaviours in which to engage to support their partners so that they feel autonomous, competent, and related.

Individuals engage in specific behaviours that can be need-supportive or need-thwarting. Autonomy-supportive behaviours include offering opportunities for free choice, giving rationales for decisions, and conveying understanding of others' perspectives (Mageau & Vallerand, 2003). In contrast, autonomy-thwarting behaviours include offering external rewards for performance, imposing personal opinions, providing conditional regard, and intimidating others (Bartholomew et al., 2009). Competence-supportive behaviours include promoting learning, providing positive feedback, and promoting skill development (Sheldon & Filak, 2008). Competence-thwarting behaviours include highlighting mistakes, discouraging engagement in difficult tasks, and questioning one's capacity for success (Sheldon & Filak, 2008). Finally, relatedness-supportive behaviours entail showing interest, care, and support to another (Rocchi et al., 2017). In contrast, relatedness-thwarting behaviours promote disinterest, disconnection, and a lack of understanding

(Sheldon & Filak, 2008). To date, a primary focus to understanding romantic relationships has been on perceptions of whether or not one is receiving support for one's needs of if their needs are being thwarted (e.g., Carbonneau et al., 2019; Patrick et al., 2007; Vanhee et al., 2016, 2018), but not on the specific behaviours that contribute to these perceptions in couples. This focus has limited the translation of research findings into specific need-supportive behaviours that partners can adopt to increase relationship satisfaction.

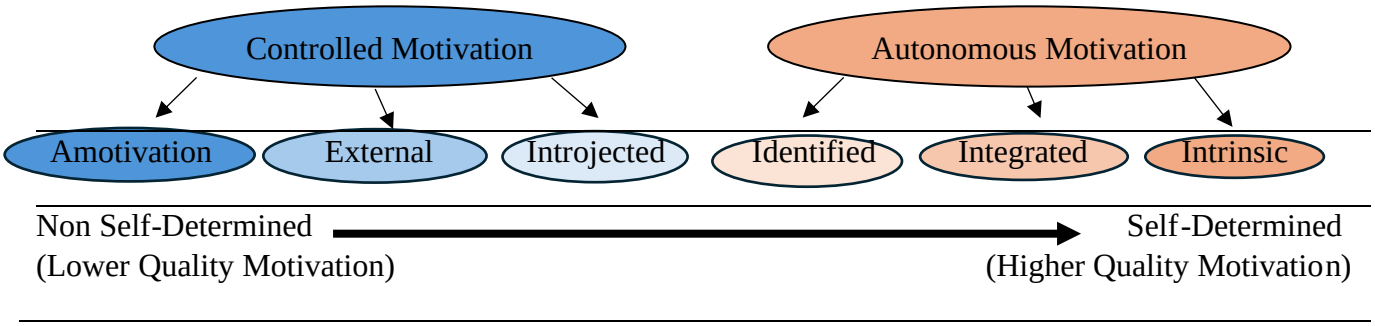
**Self-Determination Theory and Internalization of Motivation**

When people's basic psychological needs are supported by others, they experience greater self-determined motivation; when their basic psychological needs are thwarted, they experience less self-determined motivation (Ryan & Deci, 2017). According to Ryan and Deci (2017), motivation exists on a continuum ranging from less self-determined (controlled motivation) to more self-determined (autonomous motivation). With greater support for basic psychological needs, individuals develop more autonomous motivation that reflects internal values and interests. In order of increasing internalization, autonomous motivation can be further categorized as identified (endorsement of values), integrated (incorporation of values that are consistent with one's self-image), or intrinsic (pursuit of activities for inherent enjoyment and interest). Research has shown that when committed romantic partners were more autonomously motivated to be in the relationship, they also experienced higher relationship satisfaction and self-esteem, and engaged in more supportive behaviours towards their partner (Hadden et al., 2015). In contrast, when basic psychological needs are neglected or actively thwarted by others, individuals develop more controlled motivation that is governed by internal and external pressures. In order of decreasing internalization, controlled motivation can be introjected (based on avoidance of aversive experiences) or external (based on punishments or rewards). In a cross-sectional sample of participants in romantic relationships, when participants experienced

controlled motivation to engage in relationship activities, they reported lower relationship satisfaction (Gaine & La Guardia, 2009). In order of increasing levels of self-determination, motivation can then be classified as external, introjected, identified, integrated, or intrinsic (see Figure 1.1). Amotivation is considered a lack of motivation, in which an individual's volition to act is absent (Ryan & Deci, 2017).

**Figure 1.1**

*Internalization of Motivation as Proposed by Self-Determination Theory*

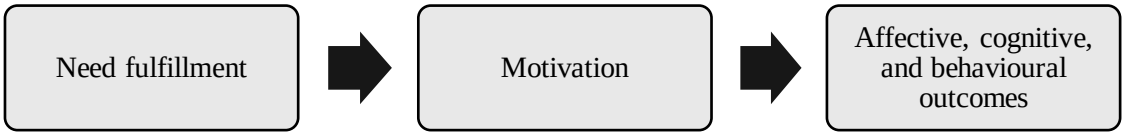



*Note.* Adapted from "Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-being," by R. M. Ryan, and E. L., Deci, 2000, *American Psychologist, 55*(1), p. 72. Copyright 2000 by the American Psychological Association.

The facilitation of motivation through need support and related outcomes is captured in the hierarchical model of intrinsic and extrinsic motivation (Vallerand, 1997). The hierarchical model of intrinsic and extrinsic motivation suggests that social factors can contribute to the fulfillment and frustration of basic psychological needs for autonomy, competence, and relatedness. According to the model (Vallerand, 1997), autonomous motivation contributes to more positive affective, cognitive, and behavioural outcomes whereas controlled motivation leads to more negative consequences (refer to Figure 1.2).

**Figure 1.2.**

*Proposed Model of Internalization of Motivation According to Vallerand (1997)*




The hierarchical model of intrinsic and extrinsic motivation proposes that motivation can exist at three different levels: global, contextual, and situational. It also suggests that factors at one level of specificity have the strongest relationships. That is, motivation and outcomes in a specific context should be most related to the supporting or thwarting of basic psychological needs in that context. In the area of romantic relationships, it would follow that if a person's basic psychological needs are supported, they would experience more autonomous motivation to be in the relationship and report higher levels of relational satisfaction. In contrast, if a person's basic psychological needs are thwarted in their relationship, they would be theorized to experience more controlled motivation to be in the relationship and report lower levels of relational satisfaction. Thus, the specific motivation for one's romantic relationship would be more closely related to their relational relationship satisfaction than the global motivation they experience generally for life activities.

The relationships motivation theory, a sub-theory of self-determination theory, integrates the concepts of basic psychological needs and internalization of motivation to explain relational outcomes in close relationships (Deci & Ryan, 2014). This theory suggests that higher quality relationships are related to support for all three basic psychological needs in the relationship whereas dysfunctional relationships are characterized by thwarting of basic psychological needs (Ryan & Deci, 2017). Using Vallerand's (1997) hierarchical model of intrinsic and extrinsic motivation as a model, *relationship* factors that promote satisfaction of autonomy, competence, and relatedness would then contribute to autonomous *relationship* motivation, which would then

contribute to positive *relational* outcomes. In contrast, *relationship* factors that thwart autonomy, competence, and relatedness would be theorized to contribute to controlled *relationship* motivation, which would then lead to detrimental *relational* outcomes. According to relationships motivation theory, both the receipt and provision of need support within a relationship are central to that relationship's quality (Deci & Ryan, 2014).

**Self-Determination Theory and Romantic Relationships**

The main tenets of self-determination theory, the hierarchical model of intrinsic and extrinsic motivation, and relationships motivation theory have been validated in several studies focused on romantic relationships. Research using cross-sectional methods and daily diary methods has demonstrated associations between need fulfillment and relationship motivation, satisfaction, and commitment in partnered participants (Patrick et al., 2007). Cross-sectionally, perceptions of need fulfillment from romantic partners and attachment security are positively related (La Guardia et al., 2000). In contrast, perceptions of need thwarting from romantic partners are cross-sectionally related to reduced relationship satisfaction and increased conflict (Vanhee et al., 2016; 2018). Further, while some dyadic research conducted with established couples has shown that one's relationship satisfaction can be predicted by both partners' relationship autonomy (Knee et al., 2005) and perceptions of need fulfillment (Patrick et al., 2007), no research has considered how self-reported need-supportive and need-thwarting behaviours may relate to the relationship motivation and satisfaction of both oneself and one's partner. Consideration of one's own contributions to their relationship success would build on the importance of autonomy in self-determination theory (Ryan et al., 2015), as well as relationship science's suggestions to incorporate autonomy in conceptualizations of relationship functioning (Anderson, 2020).

In addition to a reduced focus on the individual and dyadic effects of one's own specific relationship behaviours, research has less thoroughly examined the effects of need thwarting in one's relationship, with some notable exceptions. Among a sample of established heterosexual couples, there was an association between need thwarting and higher relationship dissatisfaction and conflict cross-sectionally (Vanhee et al., 2018). In this study, one's relationship dissatisfaction and conflict were related to one's own and one's partner's higher perceptions of need thwarting in the relationship. While these results highlight the detrimental correlates associated with perceptions of need thwarting in romantic relationships, research has mostly ignored correlates of relational need thwarting (Vansteenkiste & Ryan, 2013), as well as the specific behaviours that comprise perceptions of both need support and need thwarting (Rocchi et al., 2017). This limited focus has prevented researchers from creating a detailed profile of the behaviours that characterize certain kinds of relationships, including distressed ones.

**Autonomous and Controlled Motivation**

In addition to need fulfillment, one's relationship motivation is an integral component of one's relationship satisfaction. Autonomous relationship motivation entails remaining in a relationship due to connections with personal values or pleasure, whereas controlled relationship motivation involves remaining in a relationship because of guilt or external rewards. Autonomous relationship motivation is related to positive relational outcomes whereas controlled motivation for relationship activities is linked to negative relational outcomes (Gaine & La Guardia, 2009). Further, autonomous relationship motivation has been found to mediate the relationship between need fulfillment and positive relational outcomes, such as relationship satisfaction (Patrick et al., 2007). This is consistent with the hierarchical model of intrinsic and extrinsic motivation (Vallerand, 1997). Cross-sectional data has shown that when committed partners were autonomously motivated in their relationships, they experienced greater positive

affect, psychological well-being, sexual satisfaction, relationship satisfaction, and life satisfaction, as well as less negative affect and sexual distress (Gravel et al., 2019). In contrast, partners with controlled relational motivation have been found to experience less sexual, relational, and global well-being (Gravel et al., 2019). In a sample of dating participants, autonomous motivation for specific couple activities (e.g., physical intimacy, social support, and niceties) positively predicted relationship commitment, intimacy, satisfaction, and vitality whereas controlled motivation for relationship activities predicted less relationship satisfaction (Gaine & La Guardia, 2009).

Applied to behaviours, autonomous relationship motivation has been related to self-reported and observed positive relationship behaviours in dyadic research using established couples (Knee et al., 2005). Across two studies that used cross-sectional and prospective data, when individuals were more autonomously motivated to be in their relationship, they felt as though they provided greater support (Hadden et al., 2015). As an extension, Hadden et al.'s (2015) third dyadic study showed that when participants were autonomously motivated to be in the relationship, their partners perceived greater need fulfillment from them. However, available research does not explore associations between autonomous and controlled relationship motivation and specific self-reported need-supportive and need-thwarting behaviours. A nuanced understanding of the relationship between motivation and behaviours may inform whether all couples may benefit from behavioural interventions targeted at increasing support or if only certain couples may benefit, such as autonomously motivated partners. This information would contextualize documented associations between support provision and positive relationship outcomes. It would also inform whether relationship science should consider motivation in

conjunction with perceptions of supportiveness (Hazan & Shaver, 1987; Le et al., 2018; Reis, 2012).

**Support Provision and Outcomes**

Supportive partners have been reported to experience several individual and relational benefits themselves, such as greater self-compassion (K. D. Neff & Beretvas, 2013) and commitment to the relationship (Hadden et al., 2015). Individuals who reported supporting others also tended to believe that their own needs were being supported in close relationships (van der Kaap-Deeder et al., 2017). Consistent with the hierarchical model of intrinsic and extrinsic motivation (Vallerand, 1997), cross-sectional research with young adults has found that when individuals perceived that their needs were fulfilled in a friendship, they provided greater autonomy support to that friend and that when they perceived that their needs were thwarted in a friendship, they engaged in more psychologically controlling behaviours towards that friend (van der Kaap-Deeder et al., 2017). The positive correlates of providing need support have been documented in several studies. In the area of romantic relationships, Carbonneau et al. (2019) found that providing autonomy support to a partner for a vicarious goal (i.e., a goal created by the support-provider) was related to their partner's relationship satisfaction. Similarly, Rochette et al. (2022) found that autonomy-supportive partnered individuals reported greater satisfaction. However, these researchers did not examine perceptions of support related to relatedness and competence, the other basic psychological needs described in self-determination theory. In a daily diary study of dog owners, providing support for pets' three basic psychological needs was related to greater closeness to the pet, improved personal well-being, as well as reduced psychological distress (Kanat-Maymon et al., 2021). Within self-determination theory, research has shown that providing support contributes to the support-provider's relationship satisfaction over and above the effects of receiving support from the other member of the dyad (Carbonneau

et al., 2019; Deci et al., 2006; Kanat-Maymon et al., 2021). This illustrates the importance of one's own behaviours for higher relationship satisfaction.

While these studies have validated some of the tenets of relationships motivation theory, none have considered the degree to which all three of the basic psychological needs are supported and thwarted in relationships. It is unclear whether couples should focus on cultivating only autonomy-supportive behaviours for relationship satisfaction, as indicated by previous work (Carbonneau et al., 2019; Deci et al., 2006; Rochette et al., 2022), or whether cultivation of all three basic psychological needs would be beneficial, as suggested by Kanat-Maymon et al.'s (2021) work on pet relationships. Thus, couples therapists may be unsure whether to advocate for supporting only autonomy in relationships (Anderson, 2020), or if they should also advocate for interventions that target increased support of a partner's needs for competence and relatedness, as advocates of relationships motivation theory suggest but have not comprehensively tested with couples (Ryan & Deci, 2017). A lack of focus on the effects of need thwarting in this line of research also limits our understanding of what contributes to conflictual relationship patterns, which is a commonly cited reason for entering couples therapy (Doss et al., 2004). Further, the specific actions that constitute both need-supportive and need-thwarting behaviours have not been thoroughly explored within romantic relationships, as most research has focused on general perceptions of support. This has led to difficulties conceptualizing and replicating romantic relationships research with consistent measures of supportiveness. Finally, a failure to consider both partners in dyadic analyses of couples' need-supportive and need-thwarting behaviours has reduced replicability of self-determination theory models that suggest reciprocity of behaviours and motivation within relationships (Pelletier & Rocchi, 2016). A sole focus on one person's

perceptions of their behaviours also has reduced applicability for couples therapy approaches that target relational cycles involving both partners (Johnson et al., 2023).

In addition, despite the adage that motivations and intentions are important, research to date has not examined how the reasons for support provision may amplify or dampen the effects of supporting and thwarting relationship behaviours. For example, if an individual supports their partner's basic psychological needs but does so out of obligation or for external rewards, they may experience less relationship satisfaction, as they are not acting consistently with their values (Ryan & Deci, 2017). If only certain kinds of partners (e.g., autonomously motivated ones) derive relationship satisfaction from supporting their partners' needs, it would be empirically and clinically beneficial to determine whether supportive behaviours are the integral mediator between motivation and satisfaction. Exploring the differential effects of motivation to maintain a relationship and motivation for specific relational activities on support and satisfaction may also help clinicians decide whether to cultivate motivation that is more generalized (motivation to be in the relationship) or specific (motivation for specific relational activities) for improved couple functioning. If these kinds of motivation share differential relationships with support and satisfaction, researchers may further operationalize the type of motivation they wish to explore in their research questions and measures.

**A Note on Gender Differences and Self-Determination Theory**

Ryan and Deci (2017) propose that self-determination theory's tenets are universal and remain unaffected by sociodemographic variables. However, some gender differences regarding endorsement of relationship motivation and general supportiveness do exist. Interestingly, cross-sectional research with partnered participants has demonstrated that in comparison to men, women reported higher levels of autonomous relationship motivation and lower levels of controlled relationship and sexual motivation (Gravel et al., 2019). However, the structural

models that tested the antecedents and consequences of motivation in partnered participants in that same study demonstrated measurement invariability between men and women. In the area of supportiveness, some researchers suggest that women's behaviours contribute more to the relationship satisfaction of the couple (Blais et al., 1990; Rusbult et al., 1986). No research to date has evaluated gender differences or differences amongst couples that do not identify as mixed-gender in self-reported provision of need-supportive and need-thwarting behaviours in couples. However, dyadic research with cohabitating couples has demonstrated that women self-reported providing more directive support to partners (such as giving reminders and advice; Carbonneau et al., 2019) while observational and daily diary data from married spouses has found that wives were better able to support their husbands when their husbands were feeling stressed (L. A. Neff & Karney, 2005). Because available data and theory do not suggest that the processes inherent to self-determination theory are affected by gender, I examined gender differences on an exploratory basis in this thesis.

**The Current Project**

Grounded in theory and supported by empirical findings, my thesis includes three studies that examined whether self-reported need-supportive and need-thwarting behaviours were associated with relationship satisfaction. In Study 1, I tested whether need-supportive and need-thwarting behaviours moderated the relationship between one's own relationship motivation and their relationship satisfaction. I sought to determine whether need-supportive behaviours were associated with relationship satisfaction on their own, or whether one's own motivation also needed to be considered. In Study 2, I assessed whether one's own motivation for relational activities predicted future relationship satisfaction and whether their need-supportive and need-thwarting behaviours mediated this relationship. I adopted this focus to evaluate whether a more contextualized form of relationship motivation could serve as a predictor of future relationship

satisfaction and whether behaviours were central to this process. In Study 3, I used a dyadic method of study for both design and analysis to explore the effects of one's own need-supportive and need-thwarting behaviours on both partners' relationship and sexual satisfaction. Study 3's methodology extended that of Studies 1 and 2 by considering the interdependence of reporting from both members of the couple, as well as how behaviours were associated with sexual satisfaction. Overall, my three studies add to a growing body of literature that is considering one's own provision of support and the motivational and relational context in which support is experienced. By adopting this focus, I hope to contribute to a more contextualized and empowering approach to understanding couple functioning.

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# Chapter 2: Wanting is not enough: An examination of how need-supportive and need-thwarting behaviours moderate the association between relationship motivation and satisfaction (Study 1)

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## Abstract

Experiencing high quality relationship motivation and engaging in need-supportive behaviours towards a partner are correlates of relationship satisfaction. Pressure and lack of support are common reasons for romantic relationship dissolution. We examined if need-supportive and need-thwarting behaviours moderated the association between relationship motivation and relationship satisfaction. Partnered university students ($n$ = 454) completed online questionnaires assessing demographic characteristics, relationship motivation, self-reported need-supportive and need-thwarting behaviours towards their partner, and their own relationship satisfaction. Autonomous motivation had a stronger positive effect on relationship satisfaction at lower levels of need-supportive behaviours and higher levels of need-thwarting behaviours. Controlled motivation also had a stronger negative effect on relationship satisfaction at lower levels of need-supportive behaviours and higher levels of need-thwarting behaviours. Overall, need-supportive and need-thwarting behaviours influenced relationship satisfaction the most when participants reported low quality motivation to be in the relationship (i.e., low autonomous motivation and high controlled motivation). Research and clinical practice implications include the consideration of how one's own need-supportive *and* need-thwarting behaviours moderate associations between motivation to be in the relationship and one's own relationship satisfaction. Wanting is not enough – one's own engagement in need-supportive and need-thwarting behaviours contributes significant variance to the association with relationship satisfaction.


*Keywords:* support, romantic relationships, relationship satisfaction, self-determination theory, relationship motivation, basic psychological needs.

## Introduction

Pursuing a relationship "for the right reasons" is a concept that has been popularized by dating coaches, social media, podcasts, and shows like *The Bachelor* (Us Weekly [n.d.]). Research validates the importance of experiencing high quality (i.e., autonomous) motivation for one's relationship: partners who reported feeling more autonomous motivation to be in a relationship reported greater sexual, relational, and global well-being while partners with lower quality (i.e., controlled) motivation reported the opposite (Gravel et al., 2019). Partners with autonomous motivation have also reported engaging in more positive and supportive relationship behaviours (Hadden et al., 2015; Knee et al., 2005).

When individuals support others' needs, they themselves feel more relationally satisfied (Carbonneau et al., 2019; Deci et al., 2006; Kanat-Maymon et al., 2021; Rochette et al., 2022). While it has been proposed that giving support to partners is more beneficial for relationship satisfaction than receiving support (Ryan & Deci, 2017), it is unclear how supporting or thwarting a partner's needs interacts with one's motivation for the relationship when considering relationship satisfaction. First, it is unclear whether giving support may add to the relationship satisfaction of partners who already have high quality motivation or, partners who have low quality motivation and consequently, low satisfaction. The potentially detrimental effects of thwarting a partner's needs may also be different based on a partner's motivation, but these questions have not yet been explored. In this study, we tested whether one's relationship motivation was independently associated with relationship satisfaction and whether one's own need-supportive or need-thwarting behaviours towards their partner moderated this well-documented association (Blais et al., 1990; Gravel et al., 2019; Patrick et al., 2007).

**Autonomous and Controlled Motivation in Relationships**

An integral component of one's relationship satisfaction is high quality motivation, conceptualized as autonomous relationship motivation within self-determination theory. Autonomous relationship motivation entails having and remaining in a relationship by choice and due to connections with personal values or pleasure, whereas controlled relationship motivation (lower quality relationship motivation) involves having and remaining in a relationship because of guilt, external pressure, or external rewards (Ryan & Deci, 2017). Cross-sectional data have found that when committed partners were autonomously motivated in their relationships, they reported better positive affect, psychological well-being, sexual satisfaction, relationship satisfaction, and life satisfaction, as well as less negative affect and sexual distress (Gravel et al., 2019). Partners with controlled relational motivation reported less sexual, relational, and global well-being (Gravel et al., 2019). Autonomous motivation for specific relationship activities (e.g., physical intimacy, social support, and niceties) positively predicted relationship commitment, intimacy, satisfaction, and vitality in a sample of dating participants, whereas controlled motivation for relationship activities predicted lower relationship satisfaction (Gaine & La Guardia, 2009). Despite the illustrated importance of considering motivation and behaviours in tandem, models within self-determination theory research have not yet bridged the gap between one's own motivation and their engagement in specific behaviours that support or thwart their partner's needs.

**Support Provision and Relationship Satisfaction**

While there exists a robust literature regarding receiving support (Reis, 2012), research has often neglected how giving support may correlate with the support-provider's well-being and relationship maintenance (Feeney & Collins, 2015). Some of the studies examining support provision have shown that it is associated with several personal benefits, including lower

mortality for older married spouses (Brown et al., 2003), fewer symptoms of anxiety and depression and higher self-esteem and vitality in close friend dyads (Deci et al., 2006), and higher positive affect and lower negative affect in romantic relationships (Berli et al., 2021). Providing support to others is also related to the support-provider's own relationship satisfaction, over and above the effects of receiving support. Specifically, research using daily diaries from inactive and overweight couples found that the effects of providing emotional and practical support for a partner to do physical activities contributed more to one's own relationship satisfaction than receiving support (Berli et al., 2021). It has been suggested that providing support contributes to thriving relationships through intrapersonal and interpersonal pathways (Feeney & Collins, 2015). Giving support to others increases positive emotions and feelings of social connection for the support-provider (Feeney & Collins, 2015). It also often contributes to receipt of support in return, thereby fostering a mutually beneficial cycle of support and positivity for both provider and recipient (Canevello & Crocker, 2010). For these reasons, self-reported support provision may be more closely linked to relationship satisfaction and is beginning to be explored in the context of relationship motivation and need-supportive and need-thwarting behaviours, as defined by self-determination theory.

**Self-Determination Theory and Support Provision**

Consistent with the relationships motivation theory proposed by Deci and Ryan (2014), the ways that support is provided may be especially important. Available research suggests that providing support for basic psychological needs contributes to one's own relationship satisfaction (Carbonneau et al., 2019; Rochette et al., 2022) and is associated with experiencing autonomous motivation for the relationship (Hadden et al., 2015). Deci and Ryan (2000) propose that humans possess basic psychological needs for autonomy (agency), competence (mastery or effectiveness over one's environment), and relatedness (experiencing social connection and

belonging; Ryan & Deci, 2017). In romantic relationships, partners can engage in behaviours to support these needs. For example, individuals could provide positive feedback to support their partner's need for competence (Sheldon & Filak, 2008) and communicate care and interest to promote their partner's need for relatedness (Rocchi et al., 2017).

Supporting a partner's need for autonomy (giving choice, options, and value to a partner's ideas) is associated with higher relationship satisfaction (Carbonneau et al., 2019; Rochette et al., 2022). The same pattern has been illustrated in friend dyads (Deci et al., 2006) and pet-owner relationships (Kanat-Maymon et al., 2021), highlighting how autonomy support is a potent correlate of relationship satisfaction. However, no research has explored whether engaging in behaviours that support *each* of a partner's basic psychological needs is also associated with the support-provider's relationship satisfaction. While daily diary research with dog owners has found that providing support for all three needs was related to closeness with one's pet (Kanat-Maymon et al., 2021), no model with human couples or partnered individuals has ever been tested. This lack of research limits our understanding of any possible correlates of one's own need-supportive behaviours in the relationship and how it may moderate the association between one's relationship motivation and their satisfaction.

**Thwarting Basic Psychological Needs**

According to self-determination theory, individuals can also engage in behaviours that thwart basic psychological needs, although this is an area that has not been explored until relatively recently. Within romantic relationships, individuals can thwart needs for autonomy (e.g., intimidating and providing conditional regard; Bartholomew et al., 2009), competence (e.g., highlighting mistakes, questioning one's skills), and relatedness (communicating disinterest and disconnection; Sheldon & Filak, 2008). Cross-sectional research has found that when individuals in established couples experienced need thwarting from their partner, they were less

satisfied and experienced more conflict (Vanhee et al., 2018). However, less research on experiencing need thwarting or engaging in need-thwarting behaviours exists (Vansteenkiste & Ryan, 2013). Unfortunately, most research has only considered the associates of general feelings of need thwarting from a partner, not the correlates of actively engaging in behaviours that thwart all three of a partner's needs, which could be a strong correlate of relationship dissatisfaction. When considering relationship satisfaction, the link between autonomous and controlled relationship motivation and one's own engagement in need-thwarting behaviours has not been thoroughly explored, which leaves unanswered questions about whether need-thwarting behaviours interact with motivation to moderate the association between motivation and relationship dissatisfaction.

**Gender Differences**

Ryan and Deci (2017) suggest that self-determination theory's tenets are universal and are not influenced by sociodemographic variables. However, socialization processes may influence how self-determination theory principles affect men and women differently, specifically within gendered relational domains (Umberson et al., 2015). Interestingly, some gender differences regarding endorsement of relationship motivation and general supportiveness do exist. Cross-sectional research with partnered participants has found that in comparison to men, women reported higher levels of autonomous relationship motivation and lower levels of controlled relationship and sexual motivation (Gravel et al., 2019). However, the structural models that examined the antecedents and consequences of motivation in that same study demonstrated measurement invariability between genders. Related to supportiveness, some researchers propose that women's behaviours contribute more to the couple's relationship satisfaction (Blais et al., 1990; Rusbult et al., 1986). Research has not yet considered gender differences in self-reported provision of need-supportive and need-thwarting behaviours in

couples. However, dyadic research found that within cohabitating couples, women self-reported providing more directive support to partners (like giving reminders and advice; Carbonneau et al., 2019) while observational and daily diary data from married couples has illustrated that wives supported their husbands better when they were feeling stressed (Neff & Karney, 2005). The existence of these gender differences suggests the relevance of including gender as an exploratory variable when examining motivation and relationship satisfaction and the possible moderating role of need-supportive and need-thwarting behaviours. As gender was an exploratory variable, we did not create specific hypotheses.

**The Current Study**

Communication researchers argue that support-providers' intentions should be considered when studying support provision (MacGeorge et al., 2011). Yet, no research has considered the degree to which an individual's supporting and thwarting of all three of their partner's basic psychological needs is associated with relationship satisfaction, *and* if that association may moderate already documented links between motivation and relationship satisfaction. By ignoring the behavioural context in which motivation occurs, researchers and clinicians may inadvertently recommend that individuals foster higher quality motivation to be in a relationship for improved satisfaction, without considering possible interactive effects of that individual engaging in behaviours to support or thwart their partner's needs. Further, while research has shown that providing support for basic psychological needs is associated with one's own relationship satisfaction (Carbonneau et al., 2019; Deci et al., 2006; Kanat-Maymon et al., 2021; Rochette et al., 2022), it is unknown whether *both* supporting and thwarting needs for autonomy, competence, and relatedness in romantic relationships may be associated with one's own relationship satisfaction. We chose to address this gap by measuring the degree to which participants reported supporting and thwarting their partners' basic psychological needs.

This study used a cross-sectional design to test whether autonomous and controlled relationship motivations were associated with relationship satisfaction and whether these associations were moderated by one's engagement in need-supportive or need-thwarting behaviours. We hypothesized that the association between autonomous motivation and relationship satisfaction would be positively moderated by one's own need-supportive behaviours. We also hypothesized that need-thwarting behaviours would negatively moderate the association between autonomous motivation and relationship satisfaction, due to deleterious effects of need thwarting in romantic relationships (Vanhee et al., 2016, 2018). In the context of controlled motivation, we hypothesized that need-supportive behaviours would weaken the negative association between controlled motivation and relationship satisfaction by serving as a protective factor. As there is a negative association between controlled motivation and relationship satisfaction reported by Gravel et al. (2019), we also hypothesized that need-thwarting behaviours would strengthen or intensify the negative association between controlled motivation and relationship satisfaction.

Despite the universality of self-determination theory, research has demonstrated gender differences related to relationship motivation, as well as general levels of supportiveness. This information led to an exploratory consideration of gender.

## Method

### Participants

This study recruited undergraduate participants from the University of Ottawa Integrated System of Participation in Research's student pool from January 2019 to July 2020. Participants were enrolled to receive course credit. The data was originally collected as part of another research project. To be eligible, participants had to be enrolled in a first-year psychology course and be fluent in English. To ensure that only participants in long-term dating relationships were

included, participants had to be dating their romantic partner for at least three months. This number is consistent with a recent meta-analysis of partnered participants that assessed mean relationship duration starting at three months (Bühler et al., 2021). Participants were instructed that the study would examine perceptions of behaviours in romantic relationships. The sample initially consisted of 605 participants who consented to having their data used for research purposes. Consistent with recommendations by Meade and Craig (2012), three "bogus" items with seven response options were included to reduce the presence of insufficient effort responding (careless responding due to inattention). After removing participants who failed three attention check questions (125 participants) and those missing more than 20% of data on a subscale (26 participants), 454 participants remained. This proportion of insufficient effort responding is consistent with the university pool's previously established rates (Cheung, 2019). A priori power analysis using G*Power version 3.1.9.7 indicated that for a small effect to be conservative ($f^2$ = .02), 395 participants would be needed for a power of $\alpha$ = .08 for main analyses (moderation analysis considering one predictor variable, one moderating variable, and one interaction term). The sample had a mean age of 19.95 years (*SD* = 4.21) and a mean relationship duration of 22.13 months (*SD* = 28.23). Participants mostly identified as female (339; 74.7%) with 113 (24.9%) and 2 (0.4%) identifying as male and non-binary, respectively. Non-binary participants were excluded from gender analyses. Most participants reported being in a heterosexual relationship (422; 93%).

**Procedure**

Data were collected each semester from January 2019 to July 2020. All procedures for this study were approved by the University of Ottawa Research and Ethics Board (REB# H-12-18-1299). After registering for the study, participants answered demographic questions and completed a series of online questionnaires hosted on Qualtrics. Study information was provided

to participants outlining the anonymous and confidential nature of the study, their ability to withdraw at any point without consequence, and a list of psychological resources in case psychological distress was experienced. For participation in the study, participants received one credit towards their course (equivalent of a grade percent).

## Measures

### *Demographic Information*

Participants were asked to provide their age, gender, gender of their partner, and length of current romantic relationship. Participants indicated whether they identified as female, male, or another gender identity. Only female and male-identifying participants were included in analyses run to consider gender differences. For these reasons, we use the terms "female" and "male" to describe participants. See Table 1.1 for demographic characteristics.

### *Need-Supportive and Need-Thwarting Behaviours*

Participants' perceptions of their provision of need-supportive and need-thwarting behaviours were measured through the self-focused version of the IBQ (hereafter referred to as the IBQ-Self; Rocchi et al, 2017). The IBQ-Self is a 24-item measure that assesses participants' perceptions of their own engagement in need-supportive or need-thwarting behaviours towards others. The IBQ-Self uses a seven-point scale ranging from *1 (do not agree at all)* to *7 (completely agree),* with sample items including "When I am with my partner, I give them the freedom to make their own choices." The average of reported autonomy-supportive, competence-supportive, and relatedness-supportive behaviours constituted the measure of need-supportive behaviours whereas the average of reported autonomy-thwarting, competence-thwarting, and relatedness-thwarting behaviours constituted the measure of need-thwarting behaviours. The IBQ-Self subscale has demonstrated good internal consistency and convergent validity with related measures (Rocchi et al., 2017). In the current sample, reliabilities for the

IBQ-Self Support and IBQ-Self Thwarting subscales were acceptable (α = .89 and .78, respectively [α = .87 and .75 respectively for females; α = .92 and .80 respectively for males]).

***Relationship Motivation***

Relationship motivation was assessed using the 21-item version of the Couple Motivation Questionnaire (CMQ; Blais et al., 1990). The CMQ measures individuals' relationship autonomy within their specific relationship. Responses are rated on a Likert scale ranging from *1 (does not correspond at all)* to *7 (corresponds exactly).* Participants respond to the question prompt, "Why are you having a relationship with your partner?" by rating their agreement with statements such as "Because I need to be in a relationship with my partner to feel important." We conducted an exploratory factor analysis to examine the two-factor structure of autonomous and controlled motivation previously used by Gravel et al. (2019) as the original CMQ used a relative autonomy index (Blais et al., 1990). Following guidelines from Costello and Osborne (2005) and Sakaluk and Short (2017), common factors were extracted using maximum likelihood estimation and parallel analysis, with direct oblimin (oblique) rotation and two factors manually specified. Results indicated adequate fit, $\chi^2(103) = 342.14$, $p < .001$, RMSEA = 0.07 (90% CI 0.06-0.08), CFI = 0.90, SRMR = 0.05, with all but one item demonstrating loadings of above 0.4 on their expected factor. Subsequently, composites of autonomous and controlled relationship motivation were calculated by averaging all autonomous items and controlled items as previously performed by Gravel et al. (2019). As amotivation is considered a lack of motivation, we followed previous researchers' approaches (Gravel et al., 2019) and did not include it in the composite. Internal consistency for the CMQ has been acceptable and convergent validity has been established between the CMQ and indices of relationship satisfaction (Blais et al., 1990). In the current

sample, reliability was α = .84 for autonomous motivation and α = .75 for controlled motivation (α = .82 and .72 respectively for females; α = .87 and .78 respectively for males).

### *Relationship Satisfaction*

Relationship satisfaction was measured using the seven-item Relationship Assessment Scale (RAS; Hendrick, 1988). The RAS measures general relationship satisfaction using a Likert scale ranging from *1 (Low)* to *5 (High).* Sample items include "How well does your partner meet your needs?" and "How often do you wish you hadn't gotten into this relationship?" The RAS has demonstrated good internal consistency, predictive validity, and strong correlations with other measures of relationship functioning, including relationship commitment, investment, consensus, cohesion, and affection (Hendrick, 1988). In the current sample, a total score was calculated, and internal reliability was acceptable (α = .88 for all participants; α = .87 for females; α = .89 for males).

### *Covariates*

Demographic variables that are related to the dependent variable theoretically or empirically were considered as potential covariates to ensure specificity of findings. Age and relationship duration were considered as potential covariates if they shared a correlation of $r \geq .30$ with the dependent variable of relationship satisfaction. This is consistent with Frigon and Laurencelle's (1993) recommendations for covariate selection. While satisfaction is initially high at the beginning of relationships, it reliably waxes and wanes over following years (Bühler et al., 2021).

## Data Analysis

All data were screened for outliers and missing values. Due to the facilitation of linear tests, data were examined for necessary assumptions, including normality, linearity, multicollinearity, homoscedasticity, and independence of errors, which were found to be within

an acceptable range following winsorization. In total, 151 cases that failed three attention checks and/or had more than 20% of data on a subscale were removed. Expectation maximization method was used to replace missing values in one case (Enders, 2003). Zero-order correlations were calculated between all variables. Four separate models of moderation analyses were examined using Model 1 of the PROCESS macro version 4.0 developed for SPSS, with 5000 bootstrapped samples (Hayes, 2022). First, two moderation analyses tested whether need-supportive and need-thwarting behaviours, respectively, moderated the association between autonomous motivation and relationship satisfaction. Second, two more moderation analyses tested whether need-supportive and need-thwarting behaviours, respectively, moderated the association between controlled motivation and relationship satisfaction. Additionally, separate exploratory analyses were conducted for participants who identified as males and females to examine gender differences in the proposed models. Predictor variables were mean-centered prior to moderation analysis. The Benjamini-Hochberg procedure was enlisted to account for multiple comparisons (Benjamini & Hochberg, 1995). This procedure decreases the false discovery rate (i.e., incorrectly rejecting the null hypothesis due to an effect happening by chance) by adjusting the overall critical value based upon the rankings of significance levels from the findings.

## Results

### Preliminary Analyses

We conducted bivariate correlations between demographic, motivational, behavioural, and satisfaction variables (Table 1.2). None of the potential covariates met the threshold for inclusion and were not incorporated in subsequent analyses. See Tables 1.3 and 1.4 for correlations specific to gender.

**Model 1 Autonomous Motivation and Need-Supportive Behaviours**

To investigate whether need-supportive behaviours moderated the association between autonomous motivation and relationship satisfaction, a moderation analysis was performed. The outcome variable for analysis was relationship satisfaction, the predictor variable was autonomous motivation, and the moderator variable was need-supportive behaviours (Figure 2.1). The overall model was statistically significant, with almost half of variance in relationship satisfaction explained by the model, constituting a medium to large effect size, $F(3, 450) = 115.53$, $p < .001$, $R^2 = .44$. The Benjamini-Hochberg procedure was not used due to the overall significance level ($p < .001$) of the findings. There was a medium significant effect of autonomous motivation ($b = 1.52$, $\beta = .38$, 95% C.I. [1.20, 1.83], $t = 9.43$, $p < .001$) and need-supportive behaviours ($b = 2.29$, $\beta = .34$, 95% C.I. [1.72, 2.86], $t = 7.92$, $p < .001$). The effects between autonomous motivation and relationship satisfaction were significantly moderated by need-supportive behaviours, specifically low levels of need-supportive behaviours ($b = -.66$, 95% C.I. [-1.09, -.23], $t = -3.04$, $p = .003$). The moderation was small, but significant, $F[1, 450] = 9.22$, $p = .003$, $R^{2\text{change}} = .01$. The simple slope coefficients for autonomous motivation at lower, moderate, and higher levels of one's own need-supportive behaviours were all significantly different from zero ($b = 1.95$, 95% C.I. [1.53, 2.37], $t = 9.10$, $p < .001$; $b = 1.46$, 95% C.I. [1.14, 1.78], $t = 8.99$, $p < .001$; $b = 1.12$, 95% C.I. [.71, 1.53], $t = 5.36$, $p < .001$). However, the conditional effect of autonomous motivation at lower levels of need-supportive behaviours was the strongest (see Figure 2.1).

Gender analyses indicated that for both females and males, the overall models were statistically significant, with a medium to large amount of variance explained by the model for both groups, $F(3, 335) = 79.22$, $p < .001$, $R^2 = .42$; $F(3, 109) = 32.73$, $p < .001$, $R^2 = .47$, respectively. The Benjamini-Hochberg procedure was not used to adjust for multiple

comparisons due to the significance level of the overall model findings. In both models, there was a significant effect of autonomous motivation and need-supportive behaviours. However, the interaction between need-supportive behaviours and autonomous motivation was statistically significant for females only ($b$ = -.67, 95% C.I. [-1.20, -.15], $t$ = -2.51, $p$ = .01) across all levels of need-supportive behaviours.

**Model 2 Autonomous Motivation and Need-Thwarting Behaviours**

Need-thwarting behaviours significantly moderated the association between autonomous motivation and relationship satisfaction, with over one-third of variance attributable to relationship satisfaction explained by the model, which constituted a medium to large effect, $F$(3, 450) = 105.01, $p$ < .001, $R^2$ = .41. The Benjamini-Hochberg procedure was not needed to account for multiple comparisons. There was a medium significant effect of autonomous motivation ($b$ = 1.75, β = .44, 95% C.I. [1.44, 2.05], $t$ = 11.25, $p$ < .001) and a small significant effect of need thwarting-behaviours ($b$ = -2.05, β = -.27, 95% C.I. [-2.63, -1.46], $t$ = -6.83, $p$ < .001). The interaction between autonomous motivation and need-thwarting behaviours was statistically significant ($b$ = .82, 95% C.I. [.36, 1.28], $t$ = 3.48, $p$ = .001). Specifically, the interaction was small, but significant, $F$[1, 450] = 12.12, $p$ = .001, $R^{2\text{change}}$ = .02. The simple slope coefficients for autonomous motivation at lower, moderate, and higher levels of one's own need-thwarting behaviours were all significantly different from zero ($b$ = 1.34, 95% C.I. [.93, 1.75], $t$ = 6.40, $p$ < .001; $b$ = 1.68, 95% C.I. [1.36, 1.99], $t$ = 10.52, $p$ < .001; $b$ = 2.22, 95% C.I. [1.85, 2.60], $t$ = 11.70, $p$ < .001). However, the conditional effect of autonomous motivation at higher levels of need-thwarting behaviours was the strongest (see Figure 2.2).

Gender analyses indicated that for both females and males, the overall models were statistically significant, with a medium to large proportion of variance explained by both models, $F$(3, 335) = 78.67, $p$ < .001, $R^2$ = .41; $F$(3, 109) = 24.03, $p$ < .001, $R^2$ = .40, respectively. The

Benjamini-Hochberg procedure was not applied due to the significance level of the findings. There was a significant effect of autonomous motivation and need-thwarting in both models. The interaction between autonomous motivation and need-thwarting behaviours was statistically significant for females only ($b$ = .90, 95% C.I. [.38, 1.42], $t$ = 3.39, $p$ = .001) across all levels of need-thwarting behaviours.

**Model 3 Controlled Motivation and Need-Supportive Behaviours**

Need-supportive behaviours significantly moderated the association between controlled motivation and relationship satisfaction, with the model accounting for a medium proportion of variance $F(3, 450) = 84.87$, $p < .001$, $R^2 = .36$. Due to the significance level of the model findings, the Benjamini-Hochberg procedure was not used. There was a small, significant effect of controlled motivation ($b$ = -.81, β = -.21, 95% C.I. [-1.12, -.50], $t$ = -5.15, $p < .001$) and a medium, significant effect of need supportive-behaviours ($b$ = 3.03, β = .45, 95% C.I. [2.46, 3.60], $t$ = 10.43, $p < .001$). The interaction between controlled motivation and need-supportive behaviours was statistically significant ($b$ = .59, 95% C.I. [.16, 1.02], $t$ = 2.68, $p$ = .008). Specifically, the interaction was small, but significant, $F[1, 450] = 7.18$, $p$ = .008, $R^{2\text{change}} = .01$. The simple slope coefficients for controlled motivation at lower, moderate, and higher levels of one's own need-supportive behaviours were all significantly different from zero ($b$ = -1.20, 95% C.I. [-1.61, -.79], $t$ = -5.76, $p < .001$; $b$ = -.76, 95% C.I. [-1.07, -.45], $t$ = -4.76, $p < .001$; $b$ = -.46, 95% C.I. [-.87, -.04], $t$ = -2.17, $p$ = .03). However, the conditional effect of controlled motivation at lower levels of need-supportive behaviours was the strongest (see Figure 2.3).

Gender analyses indicated that for both females and males, the overall models were statistically significant, with a medium proportion of variance observed in the female model and a medium to large proportion of variance observed in the male model, $F(3, 335) = 60.39$, $p < .001$, $R^2 = .35$; $F(3, 109) = 24.18$, $p < .001$, $R^2 = .40$, respectively. The Benjamini-Hochberg

procedure was not needed. There was a significant effect of need-supportive behaviours in both models and controlled motivation in the females' model only. The interaction between need-supportive behaviours and controlled motivation was statistically significant for females only ($b$ = .62, 95% C.I. [.08, 1.17], $t$ = 2.27, $p$ = .02) across all levels of need-supportive behaviours.

**Model 4 Controlled Motivation and Need-Thwarting Behaviours**

Need-thwarting behaviours significantly moderated the association between controlled motivation and relationship satisfaction, with a small proportion of variance observed in the model, $F$[3, 450] = 52.32, $p$ < .001, $R^2$ = .26. The Benjamini-Hochberg procedure was not needed. There was a small, significant effect of controlled motivation ($b$ = -.80, β = -.20, 95% C.I. [-1.15, -.44], $t$ = -4.40, $p$ < .001) and a medium, significant effect of need thwarting behaviours ($b$ = -2.47, β = -.33, 95% C.I. [-3.17, -1.77], $t$ = -6.94, $p$ < .001). The interaction between controlled motivation and need-thwarting behaviours was statistically significant ($b$ = -.59, 95% C.I. [-1.10, -.09], $t$ = -2.31, $p$ = .02). Specifically, the interaction was small, but significant, $F$[1, 450] = 5.33, $p$ = .02, $R^{2\text{change}}$ = .01. The simple slope coefficients for controlled motivation at lower, moderate, and higher levels of one's own need-thwarting behaviours were all significantly different from zero ($b$ = -.50, 95% C.I. [-.97, -.02], $t$ = -2.06, $p$ = .04; $b$ = -.75, 95% C.I. [-1.11, -.38], $t$ = -4.01, $p$ < .001; $b$ = -1.14, 95% C.I. [-1.56, -.73], $t$ = -5.43, $p$ < .001). However, the conditional effect of controlled motivation at higher levels of need-thwarting behaviours was the strongest (see Figure 2.4).

Gender analyses indicated that for both females and males, the overall models were statistically significant, with small proportions of variance observed, $F$(3, 335) = 38.31, $p$ < .001, $R^2$ = .26; $F$(3, 109) = 15.08, $p$ < .001, $R^2$ = .29, respectively. The Benjamini-Hochberg procedure was not needed due to the significance level of the overall model findings. There was a significant effect of need thwarting-behaviours in both models and controlled motivation for

females only. The interaction between controlled motivation and need-thwarting behaviours was statistically significant for males only ($b$ = -1.44, 95% C.I. [-2.42, -.46], $t$ = -2.91, $p$ = .004). Controlled motivation only had a significantly negative effect on males' relationship satisfaction at higher levels of need-thwarting behaviours.

## Discussion

In this study, we examined how one's own reported engagement in need-supportive and need-thwarting behaviours respectively moderated associations between one's autonomous and controlled relationship motivation and relationship satisfaction. When participants reported engaging in lower need-supportive and higher need-thwarting behaviours, their autonomous motivation was more strongly related to their higher relationship satisfaction. Similarly, when participants reported lower need-supportive and higher need-thwarting behaviours, their controlled motivation was most strongly related to their lower relationship satisfaction. The moderation models explained a large proportion of variance attributable to relationship satisfaction, with need-supportive and need-thwarting behaviours contributing more variance to the explanation of relationship satisfaction than motivation. Additionally, we found gender differences across these moderations. All aforementioned moderation pathways were significant for female-identifying participants except for need-thwarting behaviours moderating the association between controlled motivation and relationship satisfaction for male-identifying participants with higher levels of need-thwarting behaviours, which was the only significant pathway for males.

Consistent with past research (Gravel et al., 2019; Hadden et al., 2015), we found that participants who were autonomously motivated to be in their relationship were more relationally satisfied, more likely to engage in need-supportive behaviours towards their partner, and less likely to engage in need-thwarting behaviours. Similarly, participants with higher levels of

controlled motivation to be in the relationship were less satisfied, less likely to engage in need-supportive behaviours towards their partner, and more likely to engage in need-thwarting behaviours. Our work uniquely connects levels of motivation for a relationship with self-reported engagement in behaviours that support or thwart a partner's three basic psychological needs. Research has demonstrated that experiencing support for basic psychological needs from a partner facilitates autonomous motivation (Patrick et al., 2007). This study shows that autonomous *and* controlled motivation are also associated with the kinds of support (or thwarting) we offer our partners in return.

Consistent with our predictions, participants who were more likely to support their partners' basic psychological needs reported higher relationship satisfaction in themselves. This is consistent with previous findings demonstrating positive associations between closeness and supporting all three of a pet's basic psychological needs (Kanat-Maymon et al., 2021) and offering autonomy support to a friend or romantic partner (Carbonneau et al., 2019; Deci et al., 2006). Our results are also aligned with suggestions that providing support contributes to thriving relationships through interpersonal and intrapersonal pathways (Feeney & Collins, 2015).

Our study established that one's own thwarting of their partner's basic psychological needs is associated with their own lower relationship satisfaction. The association between consistent harmful relationship behaviours and poor relationship satisfaction has been documented in daily diary and observational research (Gottman, 1994; Overall, 2020). Engaging in need-thwarting behaviours may create a reciprocal environment of negativity within the relationship and limit opportunities to derive personal benefits from one's partner's supportive behaviours (Feeney & Collins, 2015). Specifically, an individual's need-thwarting behaviours (e.g., limiting a partner's choices and doubting their ability to improve) may contribute to

dissatisfaction in one's partner, which can reduce the likelihood of their partner being responsive and supportive to them in return. Thus, an individual's need-thwarting behaviours may contribute reciprocally to dissatisfaction in one's partner and subsequent dissatisfaction in that individual due to reduced availability of support (Feeney & Collins, 2015).

When it comes to understanding the moderating effect of behaviours on the association between motivation and relationship satisfaction, we confirmed the presence of several interactions between motivation and need-supportive and need-thwarting behaviours. Contrary to our hypotheses, need-supportive behaviours at higher levels rendered the association between one's autonomous relationship motivation and relationship satisfaction smaller. Our results speak to the powerful effect of one's own autonomous motivation when one is engaging in lower need-supportive and higher need-thwarting behaviours but suggest that it is less relevant when one is already engaging in higher need-supportive and lower need-thwarting behaviours, which are already positively associated with relationship satisfaction. Due to autonomous motivation's strong association with relationship satisfaction (Gravel et al., 2019), it may also exert a "ceiling effect" at high levels (see Figures 2.1 and 2.2). This could mean that very autonomously motivated individuals that actively support (and do not thwart) their partners' basic psychological needs do not see additional benefits as supportive partners have been documented to already report high levels of autonomous relationship motivation (Hadden et al., 2015), which has been strongly associated with relationship satisfaction (Gravel et al., 2019). In the presence of lower need-supportive behaviours and higher need-thwarting behaviours which are harmful to one's relationship (Vanhee et al., 2016, 2018), autonomous motivation appears to be an important buffer against low relationship satisfaction. As autonomously motivated partners are more likely to have positive perceptions of the relationship (Blais et al., 1990), they may be less

likely to interpret their more negative relationship behaviours as representative of low satisfaction but instead representative of situational and external circumstances. It should be noted that due to the sample's high level of relationship satisfaction, terms like "higher" and "lower" may not actually reflect high and low levels of behaviours or motivation, but *relatively* higher and lower levels, compared to the overall sample's mean levels.

Controlled motivation had a stronger negative effect on relationship satisfaction for participants with lower levels of need-supportive behaviours. When participants reported engaging in more need-supportive behaviours, controlled motivation had less of a negative effect on their overall relationship satisfaction. In the context of controlled motivation for a relationship, higher levels of need-supportive behaviours may provide positive confirmation of one's self-worth as a partner which may have corresponding correlates with relationship satisfaction. As those with controlled motivation may be driven by external rather than internal factors, outward need-supportive behaviours may be even more important if they are interpreted as representative of one's desire to be in the relationship. While having controlled motivation for a relationship has been associated with lower levels of relationship satisfaction (Gravel et al., 2019), engaging in need-supportive behaviours may foster a reciprocal environment of support in the relationship, with corresponding effects for relationship satisfaction (Feeney & Collins, 2015).

Finally, we found a significant negative moderation that suggested that controlled motivation had a stronger negative effect on relationship satisfaction for participants with higher levels of need-thwarting behaviours. Experiencing less sustainable motivation for a relationship and actively engaging in harmful relationship behaviours may be especially damaging for relationship satisfaction. For individuals endorsing controlled relationship motivation, need-

thwarting behaviours may also serve as a representation of their perceptions of the relationship, which could be further negatively associated with relationship satisfaction. It has been proposed that individuals with controlled motivation engage in more need-thwarting behaviours (Pelletier & Rocchi, 2016), which could cultivate an environment of reduced support between partners. While outside of the scope of the current study, future research may examine whether controlled relationship motivation contributes to need-thwarting behaviours and subsequently, need frustration of one's partner which has been negatively associated with relationship satisfaction (Vanhee et al., 2016, 2018). This possible pathway could limit availability of support from one's partner in return (Feeney & Collins, 2015), with possible implications for one's own relationship satisfaction.

Although self-determination theory is proposed to be universal (Ryan & Deci, 2017), socialization processes may affect how its tenets differentially apply to men and women, especially within gendered relational contexts (Umberson et al., 2015). In our study, only one moderation pathway was significant for male-identifying participants (and not female-identifying participants). Specifically, for males, higher levels of need-thwarting behaviours made the negative association between their controlled motivation and relationship satisfaction larger. In contrast, significant interactions for all other models existed for females specifically in the direction of the previously presented models including both males and females. Just as gender differences exist regarding men and women's relationship motivation and support provision, men and women tend to use different emotion regulation strategies such as cognitive reappraisal, which is associated with relationship satisfaction (Kardum et al., 2021). As men are less likely to engage in cognitive reappraisal as an emotion regulation strategy (Nolen-Hoeksema & Aldao, 2011), they may have fewer tools to reframe the meaning of their engagement in need-thwarting

behaviours when they occur. Instead, they may interpret them as being consistent with controlled motivation to be in the relationship. Women's greater use of cognitive appraisal and availability of emotion regulation strategies (Goubet & Chrysikou, 2019) may enable them to reframe their own need-thwarting behaviours, thereby protecting against the harmful effects of need-thwarting behaviours for satisfaction. However, these interpretations are speculative and may need to be replicated as the number of female-identifying participants in our study was much higher that the number of male participants. It is important to note that participants were requested to indicate whether they identified as female, male, or another identity. Our research laboratory has since updated our practice to present a diverse range of gender identities and to update our language to more clearly differentiate the difference between gender and sex (Canadian Institute for Health Information, n.d.).

To our knowledge, this study is the first to examine relationship satisfaction's association with motivation while considering need-supportive and need-thwarting behaviours' role as a possible moderator. However, some limitations exist. The cross-sectional nature of this study can only confirm the existence of moderating relationships, not the trajectories or mechanisms behind relationship satisfaction that have been suggested by other researchers. Prospective and longitudinal research will be better positioned to determine the behavioural and relational correlates that follow from one's motivation for the relationship. Specifically, prospective designs could consider whether one's own need-supportive and need-thwarting behaviours serve as the mechanism that mediates the association between one's own motivation for the relationship and their subsequent relationship satisfaction. The focus on the individual's experience in their relationship also limits our understanding of the interdependence of need-supportive and need-thwarting behaviours within the whole couple. Dyadic research would also

provide a more comprehensive understanding of a couple's reciprocal cycle of motivation, need-supportive and need-thwarting behaviours, and satisfaction.

In the current study, participants mostly identified as female and as being in heterosexual relationships. Future work should make targeted recruitment efforts to recruit traditionally underrepresented groups and query and report on racial identity (Canadian Institute for Health Information, 2022; Williamson et al., 2022), which was not done in the current study. While there was a variability of relationship durations within our sample, findings from our undergraduate sample may not generalize to more established couples within the community. Greater representation of ages and relationship durations in community samples would enable conclusions regarding the generalizability of our work and the possibility of demographic characteristics serving as moderating variables. In this study, most participants reported relatively high levels of their own relationship satisfaction, need-supportive behaviours, and autonomous motivation, as well as low levels of their own need-thwarting behaviours and controlled motivation. More satisfied partners have been theorized to engage in greater positive biases regarding their relationship (Fletcher, 2015), which may have been represented in the current study. Because of the sample's high level of relationship satisfaction, "higher" levels of need-thwarting behaviours and controlled motivation and "lower" levels of need-supportive behaviours and autonomous motivation may still be relatively lower and higher, respectively, compared to the general population, which has a greater proportion of dissatisfied couples. Therefore, our findings may best capture the experiences of highly satisfied partners and shed light on correlates of satisfaction as opposed to dissatisfaction. Research with both distressed and satisfied couples would enable greater generalizability.

Notwithstanding these limitations, this project's large sample size and exploratory comparison of gender differences are methodological strengths. In addition, its theoretical focus on self-reported behaviours and consideration of the "dark side" of human functioning (i.e., controlled motivation, need-thwarting behaviours) are consistent with recent advancements and proposed future directions in self-determination theory research (Vansteenkiste et al., 2020). Our focus on individuals' own need-supportive and need-thwarting behaviours in relationships is also consistent with clinical approaches that target the individual's contributions to their couple's relational cycle (Furrow et al., 2022). Our documented associations between one's own support and thwarting of basic psychological needs and their relationship satisfaction support researchers' calls for interventions that strengthen autonomy support within couples (Anderson, 2020), while also considering the contribution of relationship motivation.

Overall, our research underscores the importance of considering interpersonal behavioural variables that moderate the influence of one's motivation to be in a relationship on satisfaction. Autonomous and controlled motivation appear to more strongly influence relationship satisfaction in the presence of harmful relationship behaviours (i.e., fewer need-supportive behaviours and higher need-thwarting behaviours) and be less influential when individuals are already engaging in positive relationship behaviours (i.e., greater need-supportive behaviours and fewer need-thwarting behaviours). Autonomous motivation's strong association with relationship satisfaction may mean that at higher levels, it exerts a ceiling effect in which engaging in greater need-supportive and fewer need-thwarting behaviours does not necessarily confer many additional benefits to relationship satisfaction. In the presence of lower quality motivation for a relationship (i.e., lower autonomous and higher controlled motivation), fostering

need-supportive behaviours and reducing need-thwarting behaviours may improve relational satisfaction for couples.

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## Tables and Figures

### Table 1.1

*Study 1 Descriptive Statistics for Demographic Variables and Variables of Interest*

| Variable | *M or n with %* | *SD* | *Reliability (α)* |
|---|---|---|---|
| Age | 19.95 | 4.21 | |
| Relationship duration (months) | 22.13 | 28.23 | |
| Sex | | | |
| Female | 339 (74.7%) | | |
| Male | 113 (24.9%) | | |
| Non-binary | 2 (0.4%) | | |
| Relationship type | | | |
| Mixed-sex | 422 (93%) | | |
| Same-sex (female) | 23 (5.1%) | | |
| Same-sex (male) | 7 (1.5%) | | |
| Non-binary with male partner | 2 (0.4%) | | |
| Own need-supportive behaviours | 6.24 | .62 | .89 (.87, .92) |
| Own need-thwarting behaviours | 1.67 | .56 | .78 (.75, .80) |
| Autonomous relationship motivation | 5.12 | 1.05 | .84 (.82, .87) |
| Controlled relationship motivation | 2.23 | 1.08 | .75 (.72, .78) |
| Relationship satisfaction | 30.44 | 4.22 | .88 (.87, .89) |

*Note. Reliability indices for females and males indicated in parentheses, respectively.*

### Table 1.2

*Study 1 Correlations Between Potential Covariates, Motivation and Behaviour Variables, and Relationship Satisfaction for All Participants*

| Variable | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1. Own need-supportive behaviours | | | | | | |
| 2. Own need-thwarting behaviours | -.57** | | | | | |
| 3. Autonomous relationship motivation | .47** | -.33** | | | | |
| 4. Controlled relationship motivation | -.35** | .44** | -.09 | | | |
| 5. Relationship satisfaction | .56** | -.46** | .56** | -.38** | | |
| 6. Relationship duration | .00 | .04 | .03 | .11* | .04 | |
| 7. Age*** | -.03 | .06 | -.03 | .13** | -.07 | .58** |

*Note.* $N = 454$. *$p < 0.05$ level (2-tailed). ** $p < 0.01$ level (2-tailed). *** $N = 452$.

**Table 1.3**

*Study 1 Correlations Between Potential Covariates, Motivation and Behaviour Variables, and Relationship Satisfaction for Females*

| Variable | *M* | *SD* | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|
| 1. Own need-supportive behaviours | 6.31 | .58 | | | | | | |
| 2. Own need-thwarting behaviours | 1.60 | .53 | -.51** | | | | | |
| 3. Autonomous relationship motivation | 5.20 | 1.02 | .45** | -.29** | | | | |
| 4. Controlled relationship motivation | 2.08 | 1.00 | -.33** | .43** | -.10 | | | |
| 5. Relationship satisfaction | 30.66 | 4.08 | .53** | -.44** | .56** | -.41** | | |
| 6. Relationship duration | 21.40 | 26.83 | -.02 | .01 | .01 | .16** | -.05 | |
| 7. Age*** | 19.74 | 3.84 | -.06 | .03 | -.09 | .16** | -.13* | .53** |

*Note.* $N = 339$. *$p < 0.05$ level (2-tailed). **$p < 0.01$ level (2-tailed). *** $N = 338$.

**Table 1.4**

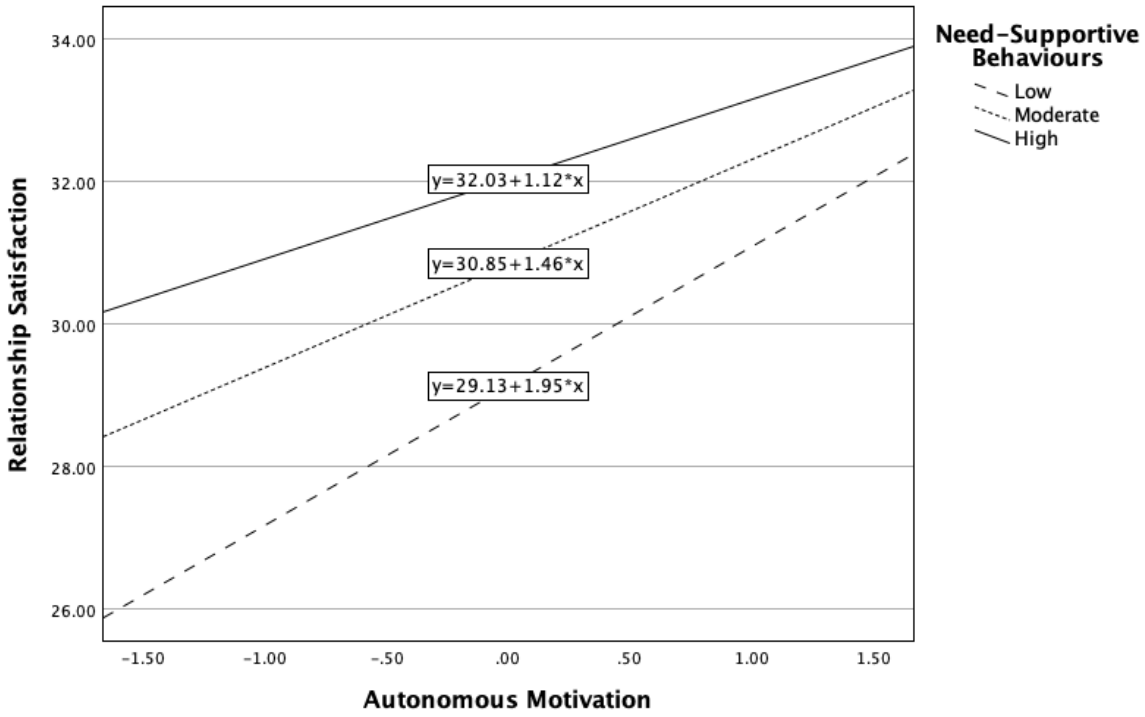
*Study 1 Correlations Between Potential Covariates, Motivation and Behaviour Variables, and Relationship Satisfaction for Males*

| Variable | *M* | *SD* | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|
| 1. Own need-supportive behaviours | 6.03 | .68 | | | | | | |
| 2. Own need-thwarting behaviours | 1.88 | .60 | -.62** | | | | | |
| 3. Autonomous relationship motivation | 4.88 | 1.12 | .48** | -.35** | | | | |
| 4. Controlled relationship motivation | 2.69 | 1.19 | -.30** | .37** | .05 | | | |
| 5. Relationship satisfaction | 29.75 | 4.59 | .61** | -.47** | .55** | -.28** | | |
| 6. Relationship duration | 23.81 | 31.77 | .06 | .10 | .08 | .01 | .23* | |
| 7. Age*** | 20.47 | 5.06 | .05 | .08 | .12 | .06 | .07 | .67** |

*Note.* $N = 113$. * $p < 0.05$ level (2-tailed). ** $p < 0.01$ level (2-tailed). *** $N = 112$.

**Figure 2.1**

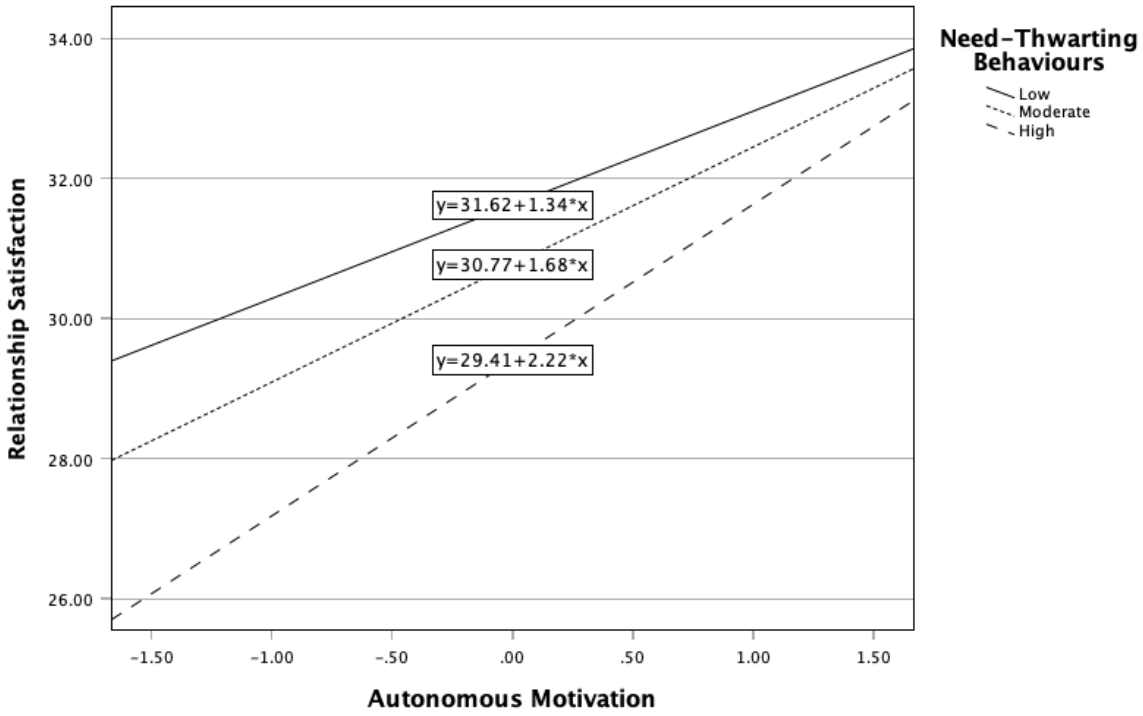
*Study 1 Model 1: Autonomous Motivation and Need-Supportive Behaviours*




*Note*. $N$ = 454.

**Figure 2.2**

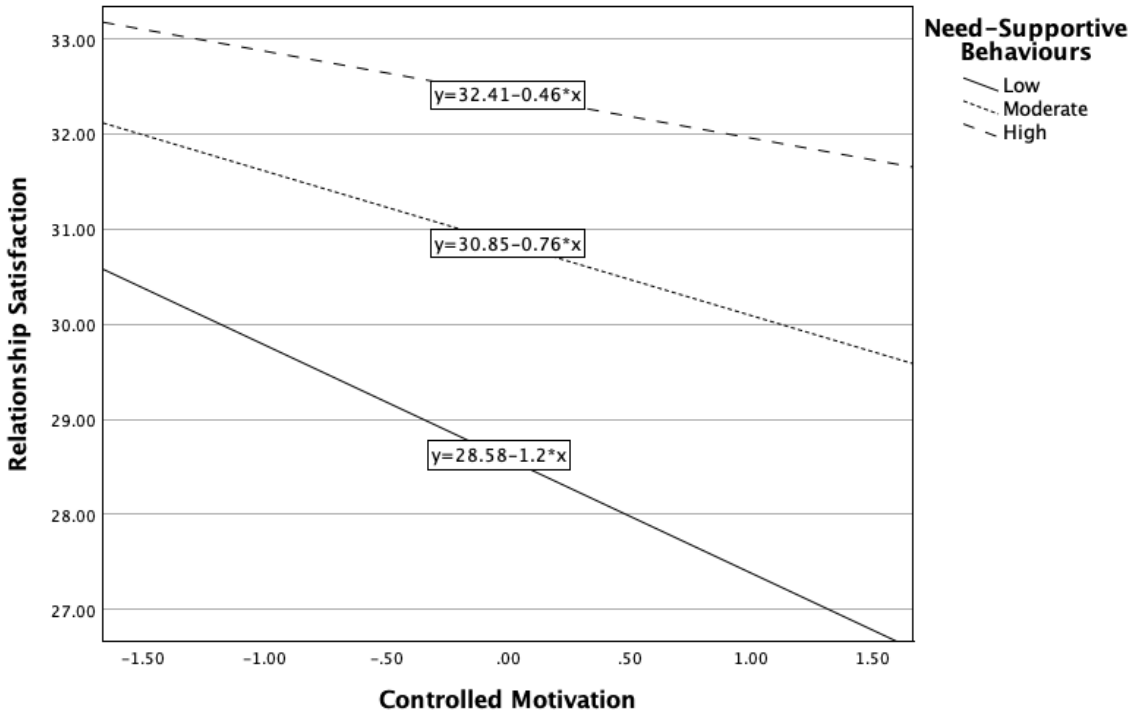
*Study 1 Model 2: Autonomous Motivation and Need-Thwarting Behaviours*




*Note*. $N$ = 454.

**Figure 2.3**

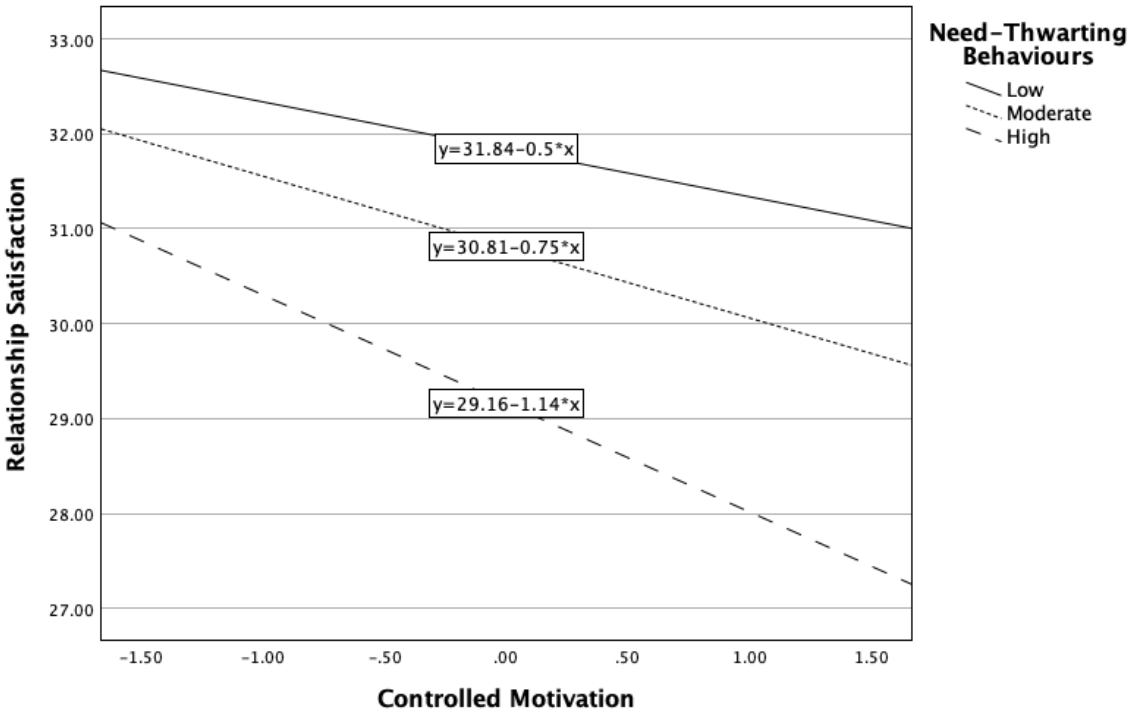
*Study 1 Model 3: Controlled Motivation and Need-Supportive Behaviours*




*Note*. $N$ = 454.

**Figure 2.4**

*Study 1 Model 4: Controlled Motivation and Need-Thwarting Behaviours*




*Note*. $N$ = 454.

# Chapter 3: Paved with good intentions: Need-supportive and need-thwarting behaviours as mediators between motivation for relational activities and satisfaction (Study 2)

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In Study 1, we used a cross-sectional design to demonstrate that one's own relationship motivation and need-supportive and need-thwarting behaviours interacted to explain their relationship satisfaction at one timepoint. In Study 2, we used a prospective design with an undergraduate sample of partnered individuals to examine the trajectory between one's motivation within the relationship, their need-supportive and need-thwarting behaviours, and their relationship satisfaction and a change in relationship satisfaction over time. Through using a prospective design in Study 2, we were able to expand upon previous moderation analysis results and test claims that motivation is associated with future need-supportive and need-thwarting behaviours (Pelletier & Rocchi, 2016). The adoption of prospective methods in Study 2 permitted consideration of whether need-supportive and need-thwarting behaviours serve as a behavioural mechanism through which motivation is associated with relationship satisfaction, as was demonstrated in Study 1.

## Abstract

Autonomous motivation within a relationship is consistently associated with higher relationship satisfaction whereas controlled motivation is connected to worse relationship satisfaction. We considered whether motivation for relational activities (such as intimacy, niceties, and problem-solving) longitudinally predicted future relationship satisfaction or whether subsequent engagement in need-supportive or need-thwarting behaviours following motivation helped to explain relationship satisfaction. Partnered university students ($n$ = 155) completed questionnaires considering demographic characteristics, motivation for relational activities, self-reported need-supportive and need-thwarting behaviours, as well as relationship satisfaction measured three months apart. Higher need-supportive behaviours and fewer need-thwarting behaviours mediated the association between autonomous motivation and higher relationship satisfaction. Fewer need-supportive behaviours and higher need-thwarting behaviours mediated the association between controlled motivation and lower relationship satisfaction. Need-supportive behaviours towards one's partner also helped to explain associations between motivation for relational activities and a change in relationship satisfaction. Targeting relationship motivation and need-supportive and need-thwarting behaviours together may foster greater relationship satisfaction.


*Keywords:* self-determination theory, basic psychological needs, relationship motivation, romantic relationships

## Introduction

*"A good intention is like an idea that you keep to yourself. If you don't do something with it, it's like it never existed." ― Frank Sonnenberg.*

Wanting to remain in a romantic relationship for autonomous reasons (due to pleasure, interest, or meaning) is a potent correlate of relationship satisfaction (Hadden et al., 2015) and results from having one's basic psychological needs for autonomy, competence, and relatedness fulfilled in the relationship (Deci & Ryan, 2000). Indeed, more internal reasons for being in a relationship (including being satisfied, being in love, and being friends with one's partner) have been endorsed most often by partnered participants who wish to stay in their relationship (Machia & Ogolsky, 2021). Relatedly, staying in a relationship for controlled reasons (due to internal or external pressure) has been associated with poor relationship satisfaction (Gravel et al., 2019). However, until recently, less attention has been paid to the mechanism through which autonomous and controlled motivation in relationships affects relationship satisfaction.

While self-determination theory proposes that motivation contributes to subsequent behaviours that support or thwart others' basic psychological needs (Pelletier & Rocchi, 2016), no research has tested whether engagement in subsequent need-supportive behaviours (i.e., offering choice, communicating connection) and need-thwarting behaviours (i.e., criticizing, being distant) serves as a mechanism through which motivation affects relationship satisfaction. Available cross-sectional and daily diary research has shown that partnered individuals who were autonomously motivated in their relationships were more responsive, available, encouraging, and less intrusive towards their partners (Hadden et al., 2015). Study 1's findings also showed that autonomously motivated partners are more likely to report engagement in need-supportive behaviours. Need-supportive behaviours can facilitate a reciprocal need-supportive environment (Pelletier & Rocchi, 2016), foster feelings of social connection (Feeney & Collins, 2015), and

communicate to the support-provider their perceptions about the relationship, with possible implications for relationship satisfaction. In this study, we examined whether need-supportive *and* need-thwarting behaviours mediated previously established associations between motivation and relationship satisfaction (Blais et al., 1990; Gaine & La Guardia, 2009; Gravel et al., 2019) to provide information about the mechanism through which motivation affects relationship satisfaction.

**Motivation and Relationship Satisfaction**

Consistently, cross-sectional, prospective, and dyadic research has found that autonomous motivation in relationships is positively associated with relationship satisfaction (Blais et al., 1990; Hadden et al., 2015, 2018; Knee et al., 2005; Patrick et al., 2007), just as Study 1's findings demonstrated. Similarly, cross-sectional research has established a negative association between controlled relationship motivation and relationship satisfaction (Gravel et al., 2019). It is still unclear whether one's motivation to be in a relationship automatically fosters relationship satisfaction or whether that motivation contributes to one's own subsequent behaviours that are associated with relationship satisfaction. Interestingly, research finds that providing support to others contributes uniquely to one's own relationship satisfaction, even when considering support received (Carbonneau et al., 2019; Deci et al., 2006; Kanat-Maymon et al., 2021). In this study, we considered whether one's relationship motivation contributes to subsequent supportive or thwarting behaviours towards one's partner that are associated with one's own relationship satisfaction. By examining motivation along with need-supportive and need-thwarting behaviours, we hoped to offer a nuanced understanding of the contributions to relationship satisfaction.

Gaine and La Guardia (2009) propose that broader conceptualizations of relationship motivation should consider general motivation for involvement in the relationship, as well as

motivations for specific relational activities (i.e., intimacy, niceties, providing instrumental support), which may differ from one's general relationship motivation. In addition, partners may find that considering their motivation for specific relational activities is more accessible than considering their general motivation for the relationship, which may be abstract and unreflective of one's motivation across domains. Interestingly, motivation for *specific* relational activities contributes additional variance to relationship satisfaction and shares different associations with relationship processes than general measures of relationship motivation (Gaine & La Guardia, 2009). The motivations behind specific relational behaviours may also be more tangible and susceptible to analysis than one's general motivation to be in the relationship. While general relationship motivation is an important correlate of relationship satisfaction and support provision, we hoped to increase accessibility, representativeness, and specificity by examining how motivation for *specific* relational activities affects relationship satisfaction through behavioural mechanisms.

**Motivation and Support Provision**

Engaging in supportive behaviours has been associated with higher relationship satisfaction for the support-provider (Berli et al., 2021) and personal benefits, such as lower mortality, fewer signs of anxiety and depression, and higher self-esteem and vitality (Brown et al., 2003; Deci et al., 2006). Cross-sectional, prospective, and dyadic research has established that autonomously motivated partners engage in greater positive relationship behaviours such as supportiveness, responsiveness, constructive responses to partner conflict, and forgiveness of partner transgressions (Hadden et al., 2015, 2018). However, no research has considered whether autonomous and controlled relationship motivation are associated with future behaviours that support or thwart all three basic psychological needs as conceptualized by self-determination

theory. This oversight limits conclusions about the temporal trajectory of motivation and support in relationships through the lens of need-supportive and need-thwarting behaviours.

In addition to receiving support, providing support for basic psychological needs in relationships contributes to relationship satisfaction (Carbonneau et al., 2019; Deci et al., 2006; Kanat-Maymon et al., 2021). Efforts to understand the mechanism through which motivation affects relationship satisfaction from an individual perspective could help identify why individuals' own behaviours are a consistent correlate of relationship satisfaction. As couples therapy is inaccessible for many due to logistical and relational barriers (Hubbard & Anderson, 2022), considering the role of one's own behaviours may be a valuable consideration for those entering individual therapy to better understand their relational dynamic. Indeed, greater ownership of one's own relationship behaviours is theorized to foster couple functioning through supporting openness, curiosity, and self-reflection, all integral components when encountering discord in relationships (Anderson, 2020).

**Need-Supportive and Need-Thwarting Behaviours as a Mechanism**

Self-determination theory proposes that the fulfillment of basic psychological needs for autonomy, competence, and relatedness contributes to higher quality relationships as well as improved satisfaction, attachment security, and well-being (Ryan & Deci, 2017). In a relationship, offering choice and valuing a partner's ideas support the need for autonomy whereas intimidating and offering conditional regard thwarts this need (Bartholomew et al., 2009). Similarly, a partner's need for competence can be supported by providing positive feedback and thwarted by emphasizing one's mistakes and doubting one's skills (Sheldon & Filak, 2008). Finally, the need for relatedness can be supported through communicating care and interest (Rocchi et al., 2017) and thwarted through expressing disinterest and disconnection (Sheldon & Filak, 2008). When the relationship context fulfills both partners' basic

psychological needs, autonomous motivation and relationship satisfaction follow (Knee et al., 2013). Thus, the measurement of the fulfillment and frustration of basic psychological needs provides useful information about couple functioning.

While most research has focused on the effects of receiving support for relationship satisfaction, providing support for basic psychological needs may also foster relationship satisfaction. Self-determination theory suggests that when individuals engage in need-supportive behaviours, they foster need fulfillment and higher quality motivation in those around them, with subsequent effects for the support-provider's own motivation (Pelletier & Rocchi, 2016). Supporting a partner's basic psychological needs may increase the availability of support offered in return by a partner (Feeney & Collins, 2015) and increase mutuality of support in the relationship (Deci et al., 2006), with associated benefits for relationship satisfaction. Research with friend dyads has found that mutuality in the level of support for basic psychological needs offered by each friend is associated with relationship satisfaction for both friends in the dyad (Deci et al., 2006). This research highlights how engaging in need-supportive behaviours can cultivate a reciprocal environment of supportiveness and satisfaction (Feeney & Collins, 2015).

Interpersonally, observing a partner's positive experience of receiving support can also facilitate positive emotions, self-concept, and meaning for the support-provider, and strengthen processes involved in social connection (Feeney & Collins, 2015). Behaviourally, engaging in need-supportive and need-thwarting behaviours may create feelings that provide information to the actor about how much one values their relationship (Bem, 1972; Laird, 2007). That is, if an individual observes themselves supporting their partner's need for autonomy by offering them choice, they may infer that they value their partner and their relationship. Similarly, if an individual observes themselves thwarting their partner's autonomy by criticizing them, they may

infer that they do not value the relationship and become dissatisfied. Thus, engagement in need-supportive and need-thwarting behaviours may serve as the mechanism through which satisfaction is strengthened by increasing availability of support in return, fostering connection, and providing information to the support-provider about their experiences of relationship satisfaction and dissatisfaction.

**Predicting the Dark Side of Relationship Functioning**

Existing relationship research within self-determination theory has mostly focused on partners' experiences of relationship satisfaction instead of their dissatisfaction. In addition, most relationship research has focused on individuals' autonomous relationship motivation despite the qualitative differences between autonomous and controlled motivation (Gaine & La Guardia, 2009; Gravel et al., 2019). In contrast to autonomous relationship motivation, controlled relationship motivation has been negatively associated with relationship satisfaction, sexual well-being, and global well-being (Gravel et al., 2019). According to Pelletier and Rocchi (2016), controlled motivation fosters need-thwarting, which is associated with partners' relationship dissatisfaction and conflict in dyadic research (Vanhee et al., 2018). Considering both controlled motivation and need-thwarting behaviours contributes to an understudied "dark side" of self-determination theory research that considers how relationship well-being and ill-being are associated with basic psychological needs and motivation (Vansteenkiste et al., 2020).

**The Current Study**

In this study, we sought to determine if engagement in need-supportive and need-thwarting behaviours was a mechanism through which motivation for relational activities is associated with relationship satisfaction. To accomplish this, we assessed mediation through two timepoints that were spaced three months apart in the current study. To increase specificity, we focused on specific need-supportive and need-thwarting behaviours and motivation for specific

relational activities. To capture the experiences of partners with low relationship satisfaction, we also examined variables associated with relationship dissatisfaction, including controlled motivation and need-thwarting behaviours (Gravel et al., 2019; Vanhee et al., 2016). We hypothesized that higher autonomous motivation at Time 1 would be associated with greater relationship satisfaction at Time 2 three months later to the extent that partners reported higher need-supportive and lower need-thwarting behaviours at Time 2 (Hypotheses 1a and 1b, respectively). We also hypothesized that higher controlled motivation at Time 1 would be associated with poorer relationship satisfaction at Time 2 to the extent that participants reported lower need-supportive and higher need-thwarting behaviours at Time 2 (Hypotheses 2a and 2b, respectively). We also tested these hypotheses while controlling for previous relationship satisfaction to examine whether behaviours at Time 2 mediated associations between motivation at Time 1 and a change in relationship satisfaction from Time 1 to Time 2 by controlling for relationship satisfaction at Time 1 (Hypotheses 3a and 3b for need-supportive and need-thwarting behaviours' respective roles as mediators between autonomous motivation and change in relationship satisfaction; Hypotheses 4a and 4b for need-supportive and need-thwarting behaviours' respective roles as mediators between controlled motivation and change in relationship satisfaction).

## Method

### Participants

Data was originally collected as part of a different research project. We recruited undergraduate participants from the University of Ottawa Integrated System of Participation in Research's student pool from January 2020 to July 2022. To ensure recruitment of participants in committed relationships, we required that participants be in a romantic relationship for at least three months and be in the same relationship at follow-up three months later. This length is

consistent with meta-analyses of relationship lengths that start measurement of relationship duration at three months (Bühler et al., 2021). Participants had to be English-speaking and enrolled in a course registered with the university's participation pool. Participants ranged in age from 17 to 56 years.

Originally, 959 participants who had completed the questionnaires at Time 1, consented to data use, and passed a sufficient number of attention checks (i.e., at least 5 out of 6) expressed interest in participating in the follow-up study and provided their email address. Of those participants, 179 participants also completed the questionnaires at Time 2. One participant expressed that they were not able to participate in the second part of the study because their relationship had terminated. Consistent with recommendations by Meade and Craig (2012), each timepoint included three “bogus” questions with seven response options to reduce the presence of insufficient effort responding (careless responding due to inattention). We removed participants who did not pass at least 5/6 attention checks across both timepoints. After removing 16 participants who failed attention check questions, four participants who did not consent to data use, and four participants who were missing more than 20% of data on a subscale, 155 participants remained. Investigation of Study 1’s individual regression coefficients and model indices indicated the presence of medium to large effects. Considering our existing results, we anticipated a medium or moderate effect in the current study. Fritz and MacKinnon’s (2007) recommendations for mediation indicated that 78 to 162 participants would be needed for sufficient power. Our final number of 155 participants was within the range of most commonly reported sample sizes for mediation (Fritz & MacKinnon, 2007) and was also consistent with past regression research within self-determination theory (Hadden et al., 2015; Vanhee et al., 2016). For sample characteristics, see Table 2.1.

## Procedure

All procedures were approved by the University of Ottawa's Research and Ethics Board (REB# H-10-19-5022). Participants were originally informed that the study would explore needs and social relationships. At Time 1, participants completed questionnaires and provided demographic information. Three months after participation in the survey, interested participants received an email from Qualtrics inviting them to participate in Time 2 if they were still in the same romantic relationship from Time 1 for a chance to win $100. While all measures were completed as baseline measures for Time 1, only need-supportive and need-thwarting behaviours and relationship satisfaction were assessed three months later at Time 2.

## Measures

### *Demographic Information*

Participants provided their age, gender, gender of their partner, and length of their current romantic relationship.

### *Motivations for Relational Activities*

Motivations for relational activities were measured with the Motivations for Relational Activities (MRA) Scale developed by Gaine and La Guardia (2009). The MRA is an 118-item measure that assesses individuals' quality of motivation for relational activities using a seven-point Likert scale that ranges from *1 (not at all true)* to *7 (very true)*. Relational activity domains include sexual intimacy, physical intimacy, self-disclosure of feelings, self-disclosure of thoughts, social support, instrumental support of partner's problems and to reduce stress for partner, niceties, and support for partner's life goals. Participants record the degree to which they identify with reasons for engaging in an activity (such as engaging in sexual activity "because I expect it to be interesting and exciting"). Following Gaine and La Guardia's (2009) approach to composite calculation, we created two means for autonomous and controlled motivation for

relational activities by averaging identified and intrinsic motivation items as well as introjected and external items, respectively. The MRA has demonstrated adequate internal consistency and convergent validity with related measures of motivation and relationship well-being (Gaine & La Guardia, 2009). Both autonomous and controlled motivation composites demonstrated excellent internal reliability of $\alpha = .95$.

### *Need-Supportive and Need-Thwarting Behaviours*

We measured participants' self-reported engagement in need-supportive and need-thwarting behaviours through the self-focused version of the IBQ (hereafter referred to as the IBQ-Self). The IBQ-Self is a 24-item measure that examines perceptions of one's own need-supportive or need-thwarting behaviours towards others. The IBQ-Self enlists a seven-point scale ranging from *1 (do not agree at all)* to *7 (completely agree).* Sample items include, "When I am with my partner, I give them the freedom to make their own choices." The IBQ-Self has shown good internal consistency and convergent validity with related measures (Rocchi et al., 2017). Consistent with the approach used by Rocchi et al. (2017), we averaged all autonomy-supportive, competence-supportive, and relatedness-supportive items to make the need-supportive behaviours composite ($\alpha = .80$ at Time 1 and .78 at Time 2). We also averaged all autonomy-thwarting, competence-thwarting, and relatedness-thwarting items to create the need-thwarting behaviours composite ($\alpha = .73$ at Time 1 and .74 at Time 2).

### *Relationship Satisfaction*

Relationship satisfaction was assessed at Time 1 and Time 2 using a brief version of the original Dyadic Adjustment Scale (DAS; Spanier, 1976) entitled the DAS-4 to reduce participant burn-out (Sabourin et al., 2005). The DAS-4 is a four-item measure that assesses relationship satisfaction as measured through frequency of conversations about separation, positive

relationship judgements, confiding in one's partner, and general relationship happiness. Participants respond to the first three items on a Likert scale from *0 (never)* to *5 (all the time)* and to the last item on a Likert scale ranging from *0 (extremely unhappy)* to *6 (perfect).* Sample items include "How often do you discuss or have you considered divorce, separation, or terminating your relationship?" The DAS-4 has demonstrated good internal consistency and predictive validity related to relationship dissolution (Sabourin et al., 2005). Internal reliability at Times 1 and 2 was acceptable (α = .71 and .61, respectively). As the DAS-4 only includes four items, it is possible that the small number of questions contributed to this lower value, which is frequently observed with shorter scales (Ziegler et al., 2014). Fewer items contribute to the violation of the assumption of tau-equivalence and an underestimate of reliability (Graham, 2006).

***Global Motivation***

At Time 1, global motivation (i.e., motivation experienced generally in one's life) was measured with the Global Motivation Scale (GMS; Pelletier et al., 2016). The GMS is an 18-item measure that assesses global quality of motivation through use of a seven-point Likert scale ranging from *1 (Do not agree at all)* to *7 (Completely agree).* Participants record the degree to which they identify with statements that measure why they do things generally (e.g., "In general, I do things in order to help myself become the person I aim to be"). The GMS has demonstrated adequate internal consistency and convergent validity with similar measures of motivation (Pelletier et al., 2016). We averaged all intrinsic, integrated, and identified items to form an autonomous motivation composite (α = .89) and all introjected and external items to form a controlled motivation composite (α = .83).

**Analyses**

Data were screened for outliers and missing values. Necessary assumptions for linear regression were also tested including linearity, homoscedasticity, normality, and independence of errors, which were found to be within an acceptable range after winsorization. Cases with more than 20% of data missing on a subscale were removed. Remaining missing values were replaced using expectation maximization method in 31 cases (Enders, 2003). Zero-order correlations were calculated between all variables. We used PROCESS macro version 4.0 for SPSS (Model 4) to conduct four mediation analyses with both types of motivation measured at Time 1 as predictor variables, need-supportive and need-thwarting behaviours measured at Time 2 as separate mediating variables in each model, and relationship satisfaction measured at Time 2 as a dependent variable. Percentile bootstrapped confidence intervals were reported using 5000 samples. To examine the capacity to predict a change in relationship satisfaction, we also reran analyses controlling for Time 1 relationship satisfaction. As autonomous and controlled motivation are theorized to co-occur (Ryan & Deci, 2017), we included both autonomous and controlled motivation for relational activities as separate independent variables in the same model. Need-supportive and need-thwarting behaviours were included separately in each model due to their strong correlation and related multicollinearity concerns. All predictor variables were mean-centered before analysis. The Benjamini-Hochberg procedure was selected to account for multiple comparisons (Benjamini & Hochberg, 1995). This procedure lowers the false discovery rate (i.e., chances of incorrectly rejecting the null hypothesis due to an effect happening by chance) by adjusting the overall critical value using the rankings of significance levels from the findings.

Consistent with Frigon and Laurencelle's (1993) recommendations for covariate selection, theoretically relevant demographic variables (i.e., age, relationship duration) were

considered as covariates if they shared a correlation of $r \geq .30$ with the dependent variable of relationship satisfaction. As previous cross-sectional research has found a moderate relationship between global motivation and relationship motivation (Gravel et al., 2019), global motivation was also assessed as a potential covariate.

## Results

### Preliminary Analyses

We calculated bivariate correlations between demographic, motivational, behavioural, and dependent variables (see Table 2.1). No potential covariates met the threshold for inclusion. Given the large number of participants lost to follow-up, we ran t-tests to compare participants that completed Time 1 without completing Time 2 (despite expressing interest) versus those that completed both Time 1 and Time 2. There were no significant differences between the groups on age ($t$ = .76, $p$ = .45) or relationship duration ($t$ = -.41, $p$ = .68).

### Mediation Analyses Predicting Time 2 Satisfaction

#### *Need-Supportive Behaviours*

We first considered whether need-supportive behaviours (T2) significantly mediated associations between both kinds of motivation (T1) and relationship satisfaction (T2). When autonomous motivation, controlled motivation, and need-supportive behaviours were included in the model, they explained 16% of the variance associated with relationship satisfaction, constituting a small effect size, $F(3, 151) = 9.59$, $p < .001$. As overall model findings were $p < .001$, the Benjamini-Hochberg procedure was not needed. Most pathway coefficients were considered small to medium. We found a significant total effect of autonomous motivation on relationship satisfaction ($b$ = 1.29, 95% C.I. [.55, 2.03], $t$ = 3.45, $p$ = .001), but not a significant direct effect ($b$ = .77, 95% C.I. [-.02, 1.57], $t$ = 1.93, $p$ = .06). There was a significant indirect effect of autonomous motivation on relationship satisfaction through need-supportive behaviours

(*b* = .51, β = .11, *t* = 2.64, 95% bootstrapped confidence interval .17 to .92), demonstrating mediation. When it comes to controlled motivation, we found a significant total effect on relationship satisfaction (*b* = -.76, 95% C.I. [-1.24, -.28], *t* = -3.12, *p* = .002) and an insignificant direct effect (*b* = -.48, 95% C.I. [-.98, .01], *t* = -.1.92, *p* = .06). There was a significant indirect effect of controlled motivation on relationship satisfaction through need-supportive behaviours (*b* = -.27, β = -.09, *t* = -2.42, 95% bootstrapped confidence interval -.53 to -.08), demonstrating mediation. See Figure 3.1.

### *Need-Thwarting Behaviours*

Next, we considered need-thwarting behaviours' role as a mediator. When autonomous motivation, controlled motivation, and need-thwarting behaviours were included in the model, they explained 14% of the variance attributable to relationship satisfaction, constituting a small effect $F(3, 151) = 8.40$, $p < .001$. The Benjamini-Hochberg procedure was not needed. Most pathway coefficients were considered small to medium. In addition to the previously found total effect of autonomous motivation on relationship satisfaction, we found a significant direct effect of autonomous motivation on relationship satisfaction when considering need-thwarting behaviours as a mediator (*b* = .98, 95% C.I. [.22, 1.75], *t* = 2.53, *p* = .01). We found evidence for a significant indirect effect (*b* = .31, β = .06, *t* = 2.03, 95% bootstrapped confidence interval .05 to .64), indicating a mediation effect. See Figure 3.2. In addition to the total effect previously found between controlled motivation and relationship satisfaction, we found a non-significant direct effect when need-thwarting behaviours were considered (*b* = -.50, 95% C.I. [-1.02, .01], *t* = -1.94, *p* = .05) and a significant indirect effect (*b* = -.25, β = -.08, *t* = -2.44, 95% bootstrapped confidence interval -.46 to -.06), which indicated mediation. See Figure 3.2.

## Mediation Analyses Predicting Change in Satisfaction

### *Need-Supportive Behaviours*

We also controlled for T1 relationship satisfaction to test the above paths when it comes to predicting changes in relationship satisfaction. The overall model including autonomous motivation, controlled motivation, baseline relationship satisfaction, and need-supportive behaviours accounted for over a third (38%) of variance, constituting a medium effect, $F(4, 150) = 22.96$, $p < .001$. The Benjamini-Hochberg procedure was not used due to the significance of the overall model findings. Pathway coefficients were considered small to medium. When T1 relationship satisfaction was included, we did not find a significant direct effect of autonomous motivation on relationship satisfaction ($b = -.10$, 95% C.I. [-.83, .62], $t = -.28$, $p = .78$). However, we did find a significant indirect effect of need-supportive behaviours ($b = .42$, $\beta = .09$, $t = 2.33$, 95% bootstrapped confidence interval .08 to .80). See Figure 3.1. Similarly, we did not find a significant direct effect of controlled motivation on relationship satisfaction ($b = -.18$, 95% C.I. [-.62, .26], $t = -.82$, $p = .41$). We did once again find a significant indirect effect of controlled motivation through need-supportive behaviours ($b = -.22$, $\beta = -.07$, $t = -2.14$, 95% bootstrapped confidence interval -.45 to -.05). See Figure 3.1.

***Need-Thwarting Behaviours***

The overall model of autonomous motivation, controlled motivation, baseline relationship satisfaction, and need-thwarting behaviours accounted for over a third (36%) of variance, constituting a medium effect, $F(4, 150) = 21.32$, $p < .001$. The Benjamini-Hochberg procedure was not used due to the significance level of the overall model findings. When it comes to need-thwarting behaviours, we also did not find a significant direct effect of autonomous motivation on changes in relationship satisfaction ($b = .10$, 95% C.I. [-.61, .80], $t = .28$, $p = .78$) nor did we find a significant indirect effect ($b = .21$, $\beta = .04$, $t = 1.80$, 95% bootstrapped confidence interval -.0019 to .46). See Figure 3.2. We also did not find a significant

direct effect of controlled motivation on changes in relationship satisfaction ($b$ = -.23, 95% C.I. [-.68, .22], $t$ = -.99, $p$ = .32) nor a significant indirect effect ($b$ = -.18, β = -.06, $t$ = -1.86, 95% bootstrapped confidence interval -.36 to .0057). See Figure 3.2.

## Discussion

In this study, we considered whether self-reported engagement in need-supportive and need-thwarting behaviours explained associations between autonomous motivation and controlled motivation for relational activities and future relationship satisfaction. Consistent with our hypotheses, higher need-supportive behaviours mediated the association between autonomous motivation and higher relationship satisfaction. Similarly, fewer need-supportive behaviours mediated the association between controlled motivation and lower relationship satisfaction. Further, fewer need-thwarting behaviours mediated the association between autonomous motivation and higher relationship satisfaction. Greater need-thwarting behaviours mediated the association between controlled motivation and lower relationship satisfaction. Mediation models accounted for a moderate to large amount of variance attributable to relationship satisfaction. In addition, alternative analyses that controlled for the influence of relationship satisfaction at Time 1 demonstrated that higher need-supportive behaviours explained the association between autonomous motivation and *an increase* in relationship satisfaction. Fewer need-supportive behaviours also explained the association between controlled motivation and *a decrease* in relationship satisfaction. Need-thwarting behaviours did not explain the association between autonomous and controlled motivation, respectively, and a change in relationship satisfaction. Overall, findings from models that included prior relationship satisfaction accounted for a large amount of variance attributable to relationship satisfaction. Our findings underscore how motivation for relational activities can predict behaviours and that these behaviours can explain future relationship satisfaction and a change in relationship satisfaction.

This research is the first to link one's own autonomous and controlled motivation for relational activities to their own subsequent behaviours that support or thwart their partner's basic psychological needs in a romantic relationship. In the education context, autonomous motivation for teaching has been associated with autonomy-supportive teaching behaviours (Slemp et al., 2020), as have autonomous motivation for coaching and autonomy-supportive coaching behaviours (Rocchi et al., 2013). The observed prospective associations between one's own motivation and subsequent need-supportive and need-thwarting behaviours is consistent with models that propose that motivation contributes to later behavioural outcomes (Pelletier & Rocchi, 2016; Vallerand, 1997). If motivation for relational activities predicts relationship behaviours, couples therapists may wish to focus on fostering higher quality motivation, such as autonomous motivation. By cultivating autonomous motivation, it may be possible to contribute to subsequent positive relationship behaviours (i.e., need-supportive behaviours) and associated relationship satisfaction (Falconier et al., 2015). This study also builds on emerging work that emphasizes the importance of measuring correlates of ill-being, like controlled motivation and need thwarting (Vansteenkiste et al., 2020). We were able to show that controlled motivation predicts future need-thwarting behaviours, which adds to our understanding of the developmental trajectory of lower quality forms of motivation and their capacity to predict later behaviours. Similarly, couples therapists may wish to consider ways to diminish controlled motivation in the hopes of reducing future need-thwarting behaviours, which are harmful for relationship satisfaction (Vanhee et al., 2016, 2018).

In this study, greater need-supportive behaviours mediated the association between autonomous motivation for relational activities and higher relationship satisfaction, as well as an increase in relationship satisfaction. Autonomous motivation for relational activities has been

associated with higher relationship satisfaction (Gaine & La Guardia, 2009) and our research suggests that motivation may exert its effects on relationship satisfaction through a behavioural mechanism: subsequent need-supportive behaviours. By supporting a partner's basic psychological needs, individuals may experience greater positive emotions and connection towards their partner (Feeney & Collins, 2015) and increased availability of support (Canevello & Crocker, 2010), with corresponding benefits for relationship satisfaction. The intrapersonal benefits that come from engaging in supportive behaviours may be why providing basic psychological need support is closely associated with relationship satisfaction, even when considering receipt of support (Carbonneau et al., 2019; Deci et al., 2006; Kanat-Maymon et al., 2021).

Mediation analyses suggested that the harmful effects of controlled motivation on relationship satisfaction and a decrease in relationship satisfaction were in part due to a reduction of need-supportive behaviours. This illustrates the importance of one's own need-supportive behaviours for relationship satisfaction. Individuals with controlled motivation for relational activities pursue relational activities (like helping solve problems and engaging in niceties) to gain external benefits and to avoid negative outcomes (Gaine & La Guardia, 2009). It makes sense that these partners would be less likely to engage in need-supportive behaviours (like offering choice, giving positive feedback) as they bolster a partner's well-being but do not provide obvious external rewards to a support-provider. As well-being is more closely related to experiences of need fulfillment than frustration (Vansteenkiste & Ryan, 2013), fewer need-supportive behaviours and a reduced likelihood of experiencing mutuality of need fulfillment in the relationship (Ryan & Deci, 2017) in the presence of controlled motivation may also help to explain poor relationship satisfaction.

This research is the first to establish that autonomous motivation can predict fewer need-thwarting behaviours and that this reduction in harmful relationship behaviours helps to explain higher relationship satisfaction. Autonomous relationship motivation may be so consistently associated with relationship satisfaction (Blais et al., 1990; Gaine & La Guardia, 2009; Gravel et al., 2019; Patrick et al., 2007) because it contributes to fewer harmful and destructive relationship behaviours that have traditionally been associated with poor relationship satisfaction and divorce (Birditt et al., 2010; Falconier et al., 2015). When individuals pursue couple activities like self-disclosing thoughts, helping their partner attain goals, and engaging in intimacy because these activities are inherently pleasurable or meaningful to them, it makes sense that they would be less likely to engage in harmful behaviours that would compromise the relational benefits of their involvement in these activities. The fostering of higher quality motivation for relational activities may have subsequent effects for relationship satisfaction through not only increasing support but limiting the presence of negative relationship behaviours, which have been established as a more potent predictor of relationship dissolution than positive relationship behaviours (Kanter et al., 2022).

As predicted, greater need-thwarting behaviours helped to explain the association between controlled motivation and lower relationship satisfaction. It is understandable that individuals who pursue relational activities to gain benefits for themselves or to avoid negative outcomes would be more likely to engage in behaviours that thwart basic psychological needs in comparison to individuals who have higher quality motivation for relational activities. As controlled motivation is not intrinsic and values-based, relationship behaviours may be focused on satisfying one's own needs or avoiding guilt, which may concurrently thwart a relationship partner's basic psychological needs for autonomy, competence, and relatedness. As controlled

partners may see less intrinsic value in their relational activities, they may act in ways that confirm their lower quality motivation, which for them provides information about their own lower relationship satisfaction. When individuals thwart others' basic psychological needs, they can create controlled motivation in others and an increased likelihood that others will engage in need-thwarting behaviours towards them in return (Pelletier & Rocchi, 2016). When individuals engage in need-thwarting behaviours in relationships, they likely contribute to increased controlled motivation in their partner and an increased likelihood that their partner will engage in need-thwarting behaviours towards them, which will further increase their own controlled motivation. Couples therapy approaches that consider the cyclical nature of relationship interactions and that restructure couple interactions to be more accessible, responsive, and engaged (Furrow et al., 2022) may alter the trajectory of controlled motivation and need-thwarting behaviours in couples with corresponding effects for relationship satisfaction.

While the current study had many methodological strengths and advances our understanding of self-determination theory, some limitations exist. As we recruited from an undergraduate sample, our findings may be most representative of younger, educated participants with shorter relationship durations. In addition, most participants identified as female and as being in a heterosexual relationship. Future research could consider the applicability of these results within a community sample with greater variability of ages, genders, relationship types, education levels, and relationship lengths. Additional efforts to recruit participants from underrepresented groups and to report on racial identity, which was not done in this study (Canadian Institute for Health Information, 2022; Williamson et al., 2022), would improve generalizability of our findings. Finally, internal consistency was lower than expected for the brief DAS-4 when administered at follow-up. While internal consistency is traditionally

underestimated in shorter scales (Graham, 2006; Ziegler et al., 2014), it is possible that a longer scale may have better captured participants' experience of relationship satisfaction. Additionally, there was a large attrition rate between Time 1 and Time 2. Given that there were few discernible differences between those that completed Time 2 and those that did not (i.e., no significant differences in age or relationship duration), it may be that the compensation of course credit may have functioned as a higher incentive than a draw for monetary compensation. With future designs, researchers may wish to test a more equitable and consistent compensation approach across timepoints to reduce attrition in undergraduate samples (Hall & Nishina, 2019).

As this study focused on the influence of one's own motivation, behaviours, and satisfaction, possible partner effects were not explored. Dyadic research could provide more information about reciprocal associations between motivation, need-supportive and need-thwarting behaviours, and relationship satisfaction. Researchers propose that engaging in need-supportive and need-thwarting behaviours fosters autonomous and controlled motivation in others, respectively, with subsequent effects for others' likelihood to engage in these behaviours towards oneself (Pelletier & Rocchi, 2016). Dyadic research could test these reciprocal pathways to inform motivational and behavioural interventions that could alter especially negative trajectories. Specifically, controlled motivation and need-thwarting behaviours may be a focus for clinical intervention so especially negative pathways that are likely to increase need-thwarting behaviours and controlled motivation in both partners are reduced.

Notwithstanding these limitations, our study's longitudinal nature and measurement of changes in relationship satisfaction provide useful predictive information about motivation and need-supportive and need-thwarting behaviours. Our focus on motivation for relational activities builds on researchers' suggestions to consider not only general motivation for a relationship but

the distinct motivations for engaging in couple activities (Gaine & La Guardia, 2009), which are qualitatively different. Inclusion of controlled motivation and need-thwarting behaviours provides useful information about the "dark side of human functioning" within self-determination theory (Vansteenkiste et al., 2020) and may contribute to future research and clinical approaches that explore whether these are risk factors for poor relationship satisfaction and dissolution. Finally, our focus on one's own need-supportive and need-thwarting behaviours validates researchers' calls to prioritize ownership of one's own behaviours for relationship satisfaction and opportunities to increase support for basic psychological needs (Anderson, 2020).

The current study demonstrates that need-supportive and need-thwarting behaviours do explain associations between motivation and future relationship satisfaction. My findings also demonstrate that need-supportive behaviours can help to explain the association between motivation and a change in relationship satisfaction. The identification of a behavioural mechanism through which motivation may influence satisfaction validates clinical approaches that target relationship behaviours. Our findings are consistent with past research that shows that one's own need-supportive behaviours are closely related to one's own relationship satisfaction. Future dyadic research could explore reciprocal cycles that exist between both partners' motivation, behaviours, and relationship satisfaction for a more fulsome understanding of couple functioning. Overall, a sole focus on one's own motivation or "good intentions" without consideration of subsequent behaviours may contribute to a less comprehensive understanding of relationship satisfaction.

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## Tables and Figures

### Table 2.1

*Study 2 Descriptive Statistics for Demographic Variables and Variables of Interest*

| Variable | *M or n with %* | *SD* |
|---|---|---|
| Age | 19.74 | 3.88 |
| Relationship duration (months) | 21.99 | 18.16 |
| Gender identity | | |
| Female | 139 (89.7%) | |
| Male | 15 (9.7%) | |
| Gender-queer | 1 (0.6%) | |
| Relationship type | | |
| Mixed-sex | 145 (93.5%) | |
| Same-sex (female) | 6 (3.9%) | |
| Same-sex (male) | 2 (1.3%) | |
| Relationship in which at least one member does not identify as male or female | 2 (1.3%) | |
| Time 1 Variables | | |
| Own need-supportive behaviours | 6.37 | .44 |
| Own need-thwarting behaviours | 1.57 | .44 |
| Autonomous motivation for relational activities | 6.11 | .57 |
| Controlled motivation for relational activities | 3.0 | .88 |
| Relationship satisfaction | 17.33 | 2.20 |
| Time 2 Variables | | |
| Own need-supportive behaviours | 6.28 | .48 |
| Own need-thwarting behaviours | 1.66 | .49 |
| Relationship satisfaction | 16.62 | 2.75 |

*Note.* $N = 155$.

### Table 2.2

*Study 2 Correlations Between Potential Covariates, Motivation and Behaviour Variables, and Relationship Satisfaction*

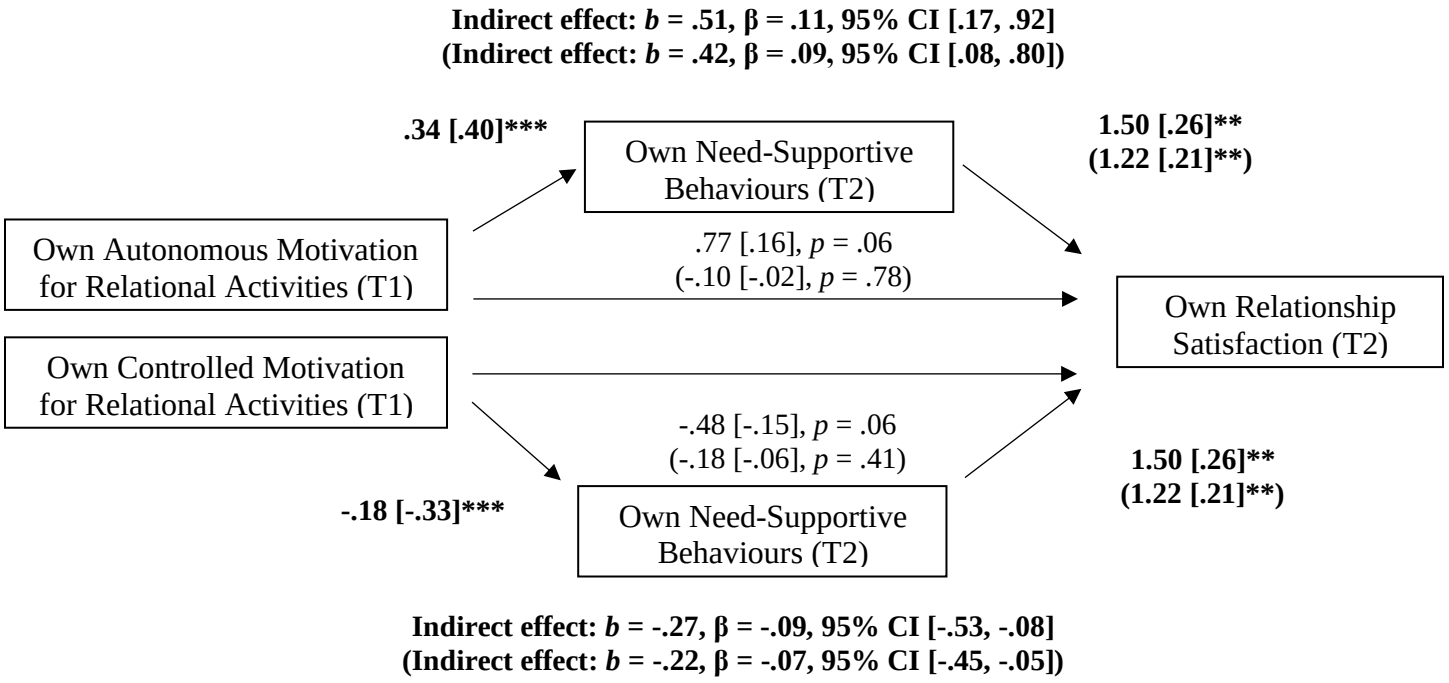
| Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Need-supportive behaviours (T1) | | | | | | | | | | | | |
| 2. Need-supportive behaviours (T2) | .52** | | | | | | | | | | | |
| 3. Need-thwarting behaviours (T1) | -.48** | -.45** | | | | | | | | | | |
| 4. Need-thwarting behaviours (T2) | -.36** | -.57** | .55** | | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5. Autonomous motivation | .51** | .35** | -.20* | -.24** | | | | | | | |
| 6. Controlled motivation | -.19* | -.26** | .29** | .33** | .18* | | | | | | |
| 7. Relationship satisfaction (T1) | .50** | .27** | -.37** | -.27** | .35** | -.15 | | | | | |
| 8. Relationship satisfaction (T2) | .26** | .36** | -.26** | -.31** | .23** | -.20* | .58** | | | | |
| **Potential covariates** | | | | | | | | | | | |
| 9. Global autonomous motivation | .28** | .24** | -.09 | -.20* | .39** | .11 | .06 | .03 | | | |
| 10. Global controlled motivation | -.12 | -.28** | .19* | .31** | .10 | .49** | -.14 | -.16* | .12 | | |
| 11. Relationship duration | -.04 | .02 | .13 | .07 | -.14 | -.18* | -.25** | -.09 | -.15 | -.16* | |
| 12. Age | -.07 | .07 | .04 | -.02 | -.17* | -.09 | -.24** | -.18* | .07 | -.18* | .35** |

*Note.* $N = 155$. *$p < 0.05$ level (2-tailed).**$p < 0.01$ level (2-tailed).

**Figure 3.1**

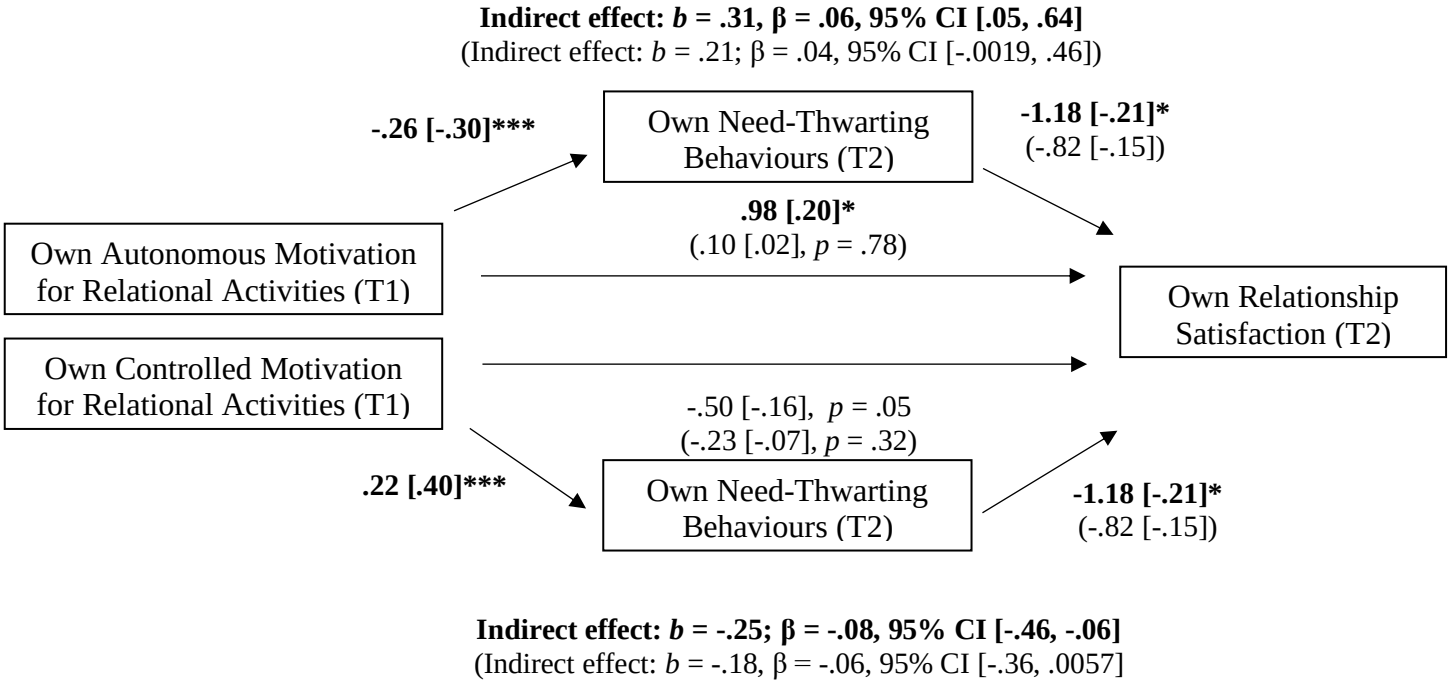
*Study 2 Models 1 and 2: Own Need-Supportive Behaviours as Mediator between Motivation for Relational Activities and Relationship Satisfaction*




*Note.* Unstandardized path coefficients testing whether own need-supportive behaviours mediate between one's own motivation for relational activities and one's own relationship satisfaction. Pathway coefficients in brackets [] represent standardized coefficients. Values in parentheses () represent values when T1 relationship satisfaction was used as a covariate for T2 relationship satisfaction. Significant pathways are bolded. **$p < .01$ level. ***$p < .001$ level.

**Figure 3.2**

*Study 2 Models 3 and 4: Own Need-Thwarting Behaviours as Mediator between Motivation for Relational Activities and Relationship Satisfaction*




*Note.* Unstandardized path coefficients testing whether own need-thwarting behaviours mediate between one's own motivation for relational activities and one's own relationship satisfaction. Pathway coefficients in brackets [] represent standardized coefficients. Values in parentheses () represent values when T1 relationship satisfaction was used as a covariate for T2 relationship satisfaction. Significant pathways are bolded. *$p < .05$ level. ***$p < .001$ level.

# Chapter 4: Everything I do, I do it for us: A dyadic analysis of supporting and thwarting psychological needs among established couples (Study 3)

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Studies 1 and 2 illustrated that one's own need-supportive and need-thwarting behaviours are not only associated with their relationship motivation but also with their relationship satisfaction and a change in relationship satisfaction. In Study 3, using a community sample of couples, we explored whether one's own need-supportive and need-thwarting behaviours were associated with their own relationship satisfaction and that of their partners. In this dyadic study, we sought to build on previous studies by testing whether the observed associations between one's own need-supportive and need-thwarting behaviours and relationship satisfaction remained significant while controlling for behaviours actually reported by partners as well as behaviours that individuals *perceived* receiving from their romantic partner. As sexual satisfaction is an important component of relationship quality and is strongly associated with relationship satisfaction (Byers et al., 1998; Byers, 2005), we also introduced a measure of sexual satisfaction to better understand whether one's own need-supportive and need-thwarting behaviours within one's relationship generally are also associated with satisfaction in separate but related domains, such as sexual well-being (Gravel et al., 2019).

## Abstract

Thriving romantic relationships are characterized not only by receiving support from a partner but giving it in return. In this dyadic study, we considered whether providing support for a partner's basic psychological needs for autonomy, competence, and relatedness was associated with one's own relationship *and* sexual satisfaction, as well as that of their partner. We also considered whether thwarting a partner's basic psychological needs was negatively associated with the relationship and sexual satisfaction of oneself and one's partner. A sample of 105 community couples ($n$ = 210) completed questionnaires considering demographic characteristics, self-reported need-supportive and need-thwarting behaviours, relationship satisfaction, and sexual satisfaction. When individuals reported engaging in need-supportive behaviours towards their partners, they felt more relationally and sexually satisfied and their partners felt more relationally satisfied. When individuals reported engaging in need-thwarting behaviours towards their partners, they felt less relationally and sexually satisfied and their partners felt less relationally satisfied. Even when controlling for individuals' perceptions of their partners' need-supportive or need-thwarting behaviours, individuals' own need-supportive behaviours were associated with their greater relationship and sexual satisfaction and their need-thwarting behaviours were associated with their lower relationship satisfaction. Supporting and not thwarting one's partner's needs is associated with one's own higher relationship satisfaction, even when considering one's partner's behaviours.


*Keywords:* self-determination theory, basic psychological needs, romantic relationships, relationship satisfaction, sexual satisfaction

## Introduction

Mutuality of support is a key feature of healthy relationships (Ryan & Deci, 2017) and contributes to how positively one views a relationship (Deci et al., 2006). When individuals feel supported and not thwarted by their partner, they experience better relationship satisfaction (Vanhee et al., 2016, 2018). Perceiving a partner as supportive is an integral part of relationship satisfaction (Reis, 2012). In fact, a lack of support in romantic relationships is a common reason to consider separation (Joel et al., 2018). Unsurprisingly, supportiveness is a target of evidence-based couples therapy approaches (Wiebe & Johnson, 2016) and individuals with responsive partners (i.e., partners who foster warmth, acceptance, and belongingness; Reis, 2012) have reported greater relationship satisfaction (Gadassi et al., 2016), fewer symptoms of anxiety and depression (Selcuk et al., 2017), and higher levels of emotional expression, which can improve relationship functioning (Ruan et al., 2020). In addition, when partnered individuals have felt that their basic psychological needs were fulfilled in their relationships, they also experienced greater sexual satisfaction (Gravel et al., 2020). Interestingly, emerging research is demonstrating that providing support to a partner may be more closely associated with the support-provider's own relationship satisfaction than the experience of receiving support (Carbonneau et al., 2019; Deci et al., 2006; Kanat-Maymon et al., 2021), yet there has been little examination of effects for *both* the recipient and provider of support. In this study, we examined the associations between each partner's support provision and their own and their partner's relational and sexual well-being.

### Support Provision in Relationships

Most research has considered the beneficial effects of *receiving* support in relationships, not the effects of *providing* it (Feeney & Collins, 2015). Providing support to others may contribute to relationship satisfaction through increasing feelings of connection and mutuality of

support in return. When individuals engage in supportive behaviours, they may infer from their own behaviours (Bem, 1972; Laird, 2007) that they value the relationship and when engaging in need-thwarting behaviours, infer that they do not value the relationship. A meta-analysis of 72 independent samples with cross-sectional or longitudinal data from one or both partners found that supportive coping within the relationship (i.e., problem-focused or emotion-focused support) was associated with higher relationship satisfaction (Falconier et al., 2015). Specific to support provision, daily support provision was associated with improved relationship satisfaction, healthy behaviours, and greater positive and less negative affect in a sample of physically inactive couples (Berli et al., 2021). In one dyadic study, husbands' observed responsive and empathic support in a laboratory task was positively associated with feelings of love towards their spouse and reduced perceptions of conflict in the relationship (Jensen et al., 2013). Taken together, these findings show that one's own supportive behaviours are an important correlate of relationship satisfaction. Self-determination theory posits that support provision is not only an important characteristic of thriving relationships, but may be even more important than receipt of support in predicting well-being (Ryan & Deci, 2017).

**Self-Determination Theory's Conceptualization of Supporting and Thwarting Behaviours**

Ryan and Deci (2017) propose that when individuals are in supportive relationships, they feel as though their basic psychological needs for autonomy (i.e., volition or choice), competence (i.e., mastery or self-efficacy), and relatedness (i.e., social connection) are satisfied and they experience need fulfillment. When individuals' basic psychological needs are thwarted in relationships, they experience need frustration. Experiencing need fulfillment facilitates autonomous (internally-based) motivation, which then facilitates positive affective, behavioural, and cognitive outcomes, whereas need frustration leads to controlled (externally-based) motivation and negative outcomes (Vallerand, 1997). Research validates these propositions: for

example, relationally satisfied participants in a daily experience sampling study were more likely to report that their basic psychological needs were fulfilled by their partners (Patrick et al., 2007). Participants' need fulfillment was also associated with their autonomous relationship motivation.

Self-determination theory and its sub-theory, relationships motivation theory, propose that providing autonomy support may be just as predictive of relationship satisfaction as receiving support. Autonomy-supportive partners fulfill their partners' need for autonomy by doing things like offering choice and respecting their ideas (Mageau & Vallerand, 2003). Offering support for another person's basic psychological need for autonomy has been associated with relationship satisfaction for the support-provider (Carbonneau et al., 2019; Deci et al., 2006; Kanat-Maymon et al., 2021). These effects are over and above the effects of an individual receiving autonomy support themselves. Longitudinal dyadic data has shown that in the context of chronic pain, offering autonomy support was associated with less depression and anxiety and higher life satisfaction and subjective vitality (Ascigil et al., 2019). In a goal-setting study, individuals with an autonomy-supportive interpersonal style reported greater subjective well-being, relationship satisfaction, closeness, and cooperation, and less conflict in their relationships (Rochette et al., 2022). Thus, providing autonomy support in relationships is associated with positive intrapersonal and interpersonal benefits for the support-provider. However, less consideration has been paid to how personally engaging in behaviours that support *all three* basic psychological needs may be associated with relationship satisfaction for the support-provider and recipient.

Enhancing autonomy support is a current focus for relationship researchers and therapists (Anderson, 2020). However, no research has considered the relational correlates of providing

support for basic psychological needs other than autonomy, despite evidence showing that experiencing fulfillment of the need for relatedness in romantic relationships is especially important (Patrick et al., 2007; Vanhee et al., 2016). Thus, it remains unclear whether providing support for basic psychological needs for competence and relatedness would also be associated with relationship satisfaction for the support-provider. Competence-supportive behaviours include giving positive feedback and encouraging development of skills and goal attainment (Rocchi et al., 2017). Relatedness-supportive behaviours include showing interest in a partner's activities, sharing enjoyment together, and getting to know one's partner (Rocchi et al., 2017). While a pet-owner study did demonstrate that supporting all three basic psychological needs contributed to relationship satisfaction for the owner (Kanat-Maymon et al., 2021), researchers have not examined the same relationships with couples. This research gap leaves unanswered questions about whether collectively supporting each basic psychological need would still be associated with the support-provider's relationship satisfaction. Failing to consider the role of competence-supportive and relatedness-supportive behaviours within couples may limit consideration of all tangible behaviours that are associated with relationship satisfaction.

Relationship quality often includes more general relationship satisfaction as well as sexual satisfaction. In fact, sexual satisfaction has been robustly associated with relationship quality (Byers et al., 1998; Byers, 2005). Within the domain of self-determination theory, sexual motivation has been conceptualized to be strongly related to the relational domain but to function independently from relational factors (Gravel et al., 2019). Sexual well-being is strongly associated with relationship well-being, as well as basic psychological need fulfillment and motivation (Gravel et al., 2019, 2020). In past research, when individuals' basic psychological needs were fulfilled by their partners in relationships, they experienced greater autonomous

sexual motivation and sexual satisfaction (Gravel et al., 2020). In this study, we included a measure of sexual satisfaction to determine whether supporting (and not thwarting) basic psychological needs also contributes to sexual satisfaction of self and partner to investigate another element of relationship quality. By considering provision of need-supportive behaviours, as well as the perspectives of both partners, this study will expand on Gravel et al.'s (2020) study with partnered individual participants that established a relationship between daily basic need fulfillment and daily sexual satisfaction. Specifically, this research will explore whether personally engaging in need-supportive relationship behaviours is associated with one's own and one's partner's sexual satisfaction, both important components of overall relationship quality.

**Self-Determination Theory and the Dark Side of Relationships**

Relationship research has expanded to consider not only the effects of support provision, but also the effects of need-thwarting behaviours, which are distinct from the absence of support. Engaging in thwarting relationship behaviours may cultivate negativity and reduce the availability of support from a partner in return (Feeney & Collins, 2015), with subsequent negative effects for relationship satisfaction. Engaging in negative coping within a relationship (i.e., coping that is hostile/ambivalent or that attempts to shield the partner from the problem) has been related to poor relationship satisfaction (Falconier et al., 2015). Married spouses who self-reported engaging in destructive behaviours (e.g., yelling, insulting, bringing up past mistakes) also had higher divorce rates longitudinally (Birditt et al., 2010). Thus, actively unsupportive relationship behaviours can be a marker of poor relationship satisfaction and longevity. Within self-determination theory, need-thwarting behaviours include limiting choices, questioning a partner's abilities, and being distant when together (Rocchi et al., 2017). Individuals who reported that their needs for autonomy, competence, and relatedness were thwarted in their romantic relationships experienced less satisfaction and more conflict (Vanhee et al., 2016,

2018). However, no research has considered the degree to which personally engaging in behaviours that thwart one's partners' basic psychological needs negatively impacts relationship satisfaction for oneself and one's partner. Overall, it would be helpful to confirm whether both need-supportive *and* need-thwarting behaviours should be targeted in clinical approaches to improve relationship satisfaction.

**The Current Study**

In this dyadic study, we expanded on past research using partnered individual samples by considering the effects of one's own and one's partner's need-supportive and need-thwarting behaviours on the relationship satisfaction of oneself and one's partner. Through examining one's own behavioural contributions to one's own and one's partner's relationship satisfaction, we intended to reflect researchers' calls to consider not only the support one receives in their relationship, but also to examine how their own behaviours may affect satisfaction within the couple (Anderson, 2020). We predicted that when individuals in romantic relationships engaged in more need-supportive behaviours towards their partners, they *and their partners* would report higher relationship satisfaction ($H_1$) and sexual satisfaction ($H_2$). Conversely, we also predicted that when partnered individuals engaged in need-thwarting behaviours towards their partners, they and their partners would report lower relationship satisfaction ($H_3$) and sexual satisfaction ($H_4$). Additionally, we predicted that the degree to which partnered individuals reported engaging in behaviours that supported their partners' basic psychological needs for autonomy, competence, and relatedness would be positively associated with their own relationship ($H_5$) and sexual satisfaction ($H_6$), even when controlling for perceptions of their partners' self-reported engagement in need-supportive behaviours towards them. We also predicted that partnered individuals' self-reported engagement in need-thwarting behaviours would be negatively

associated with their own relationship ($H_7$) and sexual satisfaction ($H_8$) even when controlling for perceptions of their partners' need-thwarting behaviours towards them.

## Method

### Participants

This study's sample included couples recruited from August 2023 to December 2023 as part of a larger dyadic 21-day daily diary study. The larger study was focused on sexual motivation and desire and recruited participants using this focus. The data analyzed in this study originates from the baseline dyadic data collected as part of the larger study. Participants were recruited through community outreach, including posters, social media, and online advertisements. One member of the couple completed a screening form which provided contact information for both partners and also confirmed that the other partner consented to being contacted for the survey. Within couples, each partner was assigned a couple ID code that permitted linking of each partner's data through an embedded code in their individualized survey link. To increase representation of traditionally underrepresented groups, recruitment was extended to online groups whose members mostly identified as non-White, low-income, and/or sexual and gender minorities, in keeping with Williamson et al.'s (2022) observations. To participate in the study, participants needed to be at least 18 years of age, fluent in English, living in Canada, and sexually active in an established relationship for 12 months or longer. Originally, 109 couples were included. Two couples were removed due to insufficient effort responding as measured through a total of at least three failed attention check questions between partners out of a total of six attention check items (Meade & Craig, 2012). Two more couples were removed due to omission of more than 20% of data on individual subscales for each partner. Expectation maximization method was used to replace missing values in two cases (Enders, 2003). The final sample size of 105 dyads is consistent with Kenny et al.'s (2006) estimation that typical sample

sizes for dyadic analyses are 80 dyads, due to difficulties with enrollment of large numbers of dyads. At first, we conducted power analysis using APIMPowerR application (Ackerman & Kenny, 2016) anticipating a small to moderate partner effect and moderate to large actor effect based on the previously established large correlations and medium moderation effects observed in our cross-sectional analyses from Study 1. Estimates ranged between 62 to 156 required participants for sufficient power. Following data collection, power analysis with the current sample conducted using the APIMPowerR application with observed effect sizes determined that $\alpha = 1.0$ for detection of actor effects and $\alpha = .72$ for detection of partner effects. Following the approach outlined by Shoikhedbrod et al. (2023) that corrects for non-independence in dyadic data, sensitivity analyses using G*Power 3.1.9.7 indicated that a sample of 105 couples accommodated the detection of a small to moderate effect ($\rho = .19$). Self-determination theory research examining relationship processes has also included sample sizes with a similar number or fewer dyads (e.g., Blais et al., 1990; Hadden et al., 2015; Knee et al., 2005; Patrick et al., 2007).

Participants ranged in age from 18 to 49 years and had a mean age of 25.74 years (*SD* = 6.01). Couples mostly identified as being unmarried but living together (40.5%) or being in a committed relationship, but not living together (37.6%). Participants' average relationship length (as reported between partners) was 4.5 years (*M* = 53.84 months, *SD* = 53.14). Most participants (71%) reported engaging in partnered sexual activity at least weekly. Participants identified as cisgender (88.1%), transgender (6.2%), or another gender identity (3.8%), while some did not disclose a gender identity (2.0%). When presented with the option to select as many gender identities that applied, most participants identified as women (*n* = 115), followed by men (*n* = 81), then non-binary (*n* = 19). When it comes to sexual orientation, most participants identified

as heterosexual (47.6%), followed by bisexual (15.2%), lesbian (10.5%), queer (8.1%), or another sexual orientation (18.6%; e.g., asexual, gay, mostly heterosexual, pansexual, questioning). For more detailed information, see Table 3.1.

## Procedure

All procedures were approved by the University of Ottawa's Research and Ethics Board (REB# H-06-22-7476). Participants first completed an online screening package to determine their eligibility for the study which was reviewed by the research team. They were then provided with a link to an online consent form and a set of questionnaires through Qualtrics, with accompanying attention check questions. For completion of the survey data used in this study, participants each received $10.

## Measures

### *Need-Supportive and Need-Thwarting Behaviours*

Participants' perceptions of their provision of need-supportive and need-thwarting behaviours were measured through the self-focused version of the IBQ (hereafter referred to as the IBQ-Self; Rocchi et al., 2017). The IBQ-Self is a 24-item measure that assesses participants' perceptions of their own engagement in need-supportive and need-thwarting behaviours using a seven-point scale ranging from *1 (do not agree at all)* to *7 (completely agree).* Sample items from the IBQ-Self adapted for the relationship context include "When I am with my partner, I give them the freedom to make their own choices." The average of reported autonomy-supportive, competence-supportive and relatedness-supportive behaviours constituted the measure of need-supportive behaviours whereas the average of reported autonomy-thwarting, competence-thwarting, and relatedness-thwarting behaviours constituted the measure of need-thwarting behaviours. Reliability was adequate for one's own need-supportive behaviours ($\alpha$ = .78) and one's own need-thwarting behaviours ($\alpha$ = .77). The IBQ also includes an other-focused

version (hereafter referred to as the IBQ-Other) that measures perceptions of others' engagement in need-supportive and need-thwarting behaviours using the same properties as the IBQ-Self. In this study, participants' perceptions of their partners' need-supportive behaviours and need-thwarting behaviours showed acceptable reliability (α = .91 and .84, respectively). The IBQ-Self and IBQ-Other have both historically demonstrated good internal consistency and convergent validity with related measures (Rocchi et al., 2017).

***Relationship Satisfaction***

To assess relationship satisfaction, the Couples Satisfaction Index – 16 item version (CSI-16; Funk & Rogge, 2007) was administered. The CSI-16 requires participants to answer frequency and qualitative questions pertaining to their relationship satisfaction using several Likert scales. Sample items include "How rewarding is your relationship with your partner?" The CSI-16 has demonstrated excellent internal consistency and convergent validity (Funk & Rogge, 2007). Reliability was excellent in the current sample (α = .94).

***Sexual Satisfaction***

Sexual satisfaction was assessed with the Global Measure of Sexual Satisfaction (GMSEX; Lawrance & Byers, 1995). The measure includes five questions that assess participants' satisfaction with their sexual relationship using five different Likert scales. Participants are required to respond to the question "Overall, how would you describe your sexual relationship with your partner?" with a rating from 7 to 1 on the following scales: *good-bad, pleasant-unpleasant, positive-negative, satisfying-unsatisfying, and valuable-worthless.* The GMSEX has shown strong internal consistency and convergent validity among related measures (Mark et al., 2014). Reliability was excellent in the current sample (α = .90).

**Statistical Analyses**

Zero-order correlations were calculated to examine the relationships between actor and partner variables. The actor-partner interdependence model (Kenny et al., 2006) was used to measure the unique contributions of each partner's self-reported need-supportive and need-thwarting behaviours to their own and their partner's relationship satisfaction and sexual satisfaction. By accounting for the covariance between partners, separate measure of actor and partner effects were able to be calculated (Sadler et al., 2011). Partners were nested within dyads (Kenny et al., 2006), with separate intercepts and slopes for each partner. Actor-partner interdependence models were conducted using relationship satisfaction and sexual satisfaction as separate dependent variables, which is consistent with approaches used in dyadic research (Dubé et al., 2019). As many couples in the study did not identify as mixed-gender and not all participants identified as cisgender, dyad members were treated as indistinguishable as defined by the actor-partner interdependence model. This means that gender was not used to differentiate between partners, but was queried as a demographic variable. By not treating gender as a distinguishing variable, we hoped to maximize inclusiveness and generalizability of our research (Williamson et al., 2022). Predictor variables were mean-centered prior to dyadic analyses. Relationship duration and age were originally considered as potential covariates. However, consistent with guidelines by Frigon and Laurencelle (1993), these variables were not included as they did not share a correlation of $r \geq .30$ with dependent variables of relationship and sexual satisfaction, respectively. Analyses were also conducted using one's perception of their partner's need-supportive and need-thwarting behaviours as control variables when considering the effects of one's own need-supportive behaviours and need-thwarting behaviours, respectively, on the dependent variables.

# Results

## Preliminary Analyses

We conducted bivariate correlations for participants' need-supportive and need-thwarting behaviours, perceptions of their partner's need-supportive and need-thwarting behaviours, and relationship and sexual satisfaction (see Table 3.2). We also conducted bivariate correlations between each partner's scores on variables of interest within the couple (see Table 3.3). Within couples, there was mutuality (positive associations between actor and partner variables) for one's own need-supportive behaviours, perceptions of one's partner's need-supportive and need-thwarting behaviours, and relationship and sexual satisfaction. Importantly, there was a positive association between actors' own self-reported need-supportive behaviours and their partners' perceptions of actors' need-supportive behaviours ($r = .25$, $p < .001$), as well as a positive association between actors' self-reported need-thwarting behaviours and their partners' perceptions of actors' need-thwarting behaviours ($r = .27$, $p < .001$). This suggests consistency between both partners' ratings.

## Dyadic Analyses

Table 3.4 and Figures 4.1, 4.2, 4.3, and 4.4 include the actor and partner effects for need-supportive behaviours and need-thwarting behaviours both considered as independent variables, respectively. When it comes to need-supportive behaviours, we found significant actor and partner effects. The overall models for need-supportive behaviours and relationship satisfaction and need-supportive behaviours and sexual satisfaction were statistically significant ($b = 69.65$, $SE = .70$, $p < .001$; $b = 30.75$, $SE = .32$, $p < .001$). When individuals themselves reported engaging in more need-supportive behaviours, they reported higher relationship satisfaction ($b = 9.15$, $\beta = .47$, 95% C.I. [6.90, 11.40], $p < .001$) and sexual satisfaction ($b = 3.10$, $\beta = .37$, 95% C.I. [2.10, 4.13], $p < .001$), with medium effects observed. Their partners reported higher

relationship satisfaction ($b$ = 2.95, β = .15, 95% C.I. [.70, 5.21], $p$ = .01), which constituted a small effect. Partners did not report higher sexual satisfaction ($b$ = .35, β = .04, 95% C.I. [-.68, 1.38], $p$ = .51).

When it comes to need-thwarting behaviours, we also found significant actor and partner effects. The overall models for need-thwarting behaviours and relationship satisfaction and need-thwarting behaviours and sexual satisfaction were statistically significant ($b$ = 69.65, $SE$ = .76, $p$ < .001; $b$ = 30.75, $SE$ = .34, $p$ < .001). When participants engaged in more need-thwarting behaviours towards their partners, they reported less relationship satisfaction ($b$ = -5.94, β = -.33, 95% C.I. [-8.18, -3.70], $p$ <.001), which constituted a medium effect, and less sexual satisfaction ($b$ = -1.26, β = -.17, 95% C.I. [-2.27, -.25], $p$ = .02), which constituted a small effect. Their partners reported lower relationship satisfaction ($b$ = -3.18, β = -.18, 95% C.I. [-5.41, -.94], $p$ = .01), which was considered a small effect. Partners did not report lower sexual satisfaction ($b$ = -.48, β = -.06, 95% C.I. [-1.49, .54], $p$ = .36).

**Addition of Covariates**

As age and relationship duration did not meet criteria for inclusion as covariates (Frigon & Laurencelle, 1993), the only covariate that was included was one's perceptions of their partner's behaviours. Overall models including need-supportive behaviours and one's perceptions of need-supportive behaviours were statistically significant for both relationship satisfaction ($b$ = 69.65, $SE$ = .60, $p$ < .001) and sexual satisfaction ($b$ = 30.75, $SE$ = .32, $p$ < .001). In the first set of analyses examining need-supportive behaviours, we still found significant actor effects. Specifically, one's own self-reported need-supportive behaviours were positively associated with their own relationship satisfaction ($b$ = 4.26, β = .22, 95% C.I. [2.06, 6.46], $p$ <.001) and sexual satisfaction ($b$ = 2.18, β = .26, 95% C.I. [1.03, 3.34], $p$ < .001) with small effects observed, even while controlling for one's perceptions of the support they receive

from their partner ($b$ = 5.91, β = .49, 95% C.I. [4.60, 7.21], $p$ <.001; $b$ = 1.11, β = .22, 95% C.I. [.43, 1.78], $p$ =.002), which was observed to demonstrate a medium effect. Overall models of need-thwarting behaviours and perceptions of one's partner's need-thwarting behaviours were statistically significant for relationship satisfaction ($b$ = 69.65, $SE$ = .68, $p$ <.001) and sexual satisfaction ($b$ = 30.75, $SE$ =.34, $p$ <.001). We found that one's own need-thwarting behaviours towards their partner were associated with their own lower relationship satisfaction ($b$ = -2.27, β = -.13, 95% C.I. [-4.51, -.03], $p$ =.048), with a small effect observed, even while controlling for one's perceptions of thwarting behaviours experienced from their partner ($b$ = -6.42, β = -.44, 95% C.I. [-8.18, -4.66], $p$ <.001), which was observed to demonstrate a medium effect. However, as the significance level of this finding was $p$ = .048, this finding is interpreted with caution. One's own need-thwarting behaviours were not associated with their lower sexual satisfaction ($b$ = -.45, β = -.06, 95% C.I. [-1.56, .67], $p$ =.43), but their perceptions of their partner's need-thwarting behaviours were observed to demonstrate a small effect ($b$ = -1.42, β = -.23, 95% C.I. [-2.28, -.56], $p$ = .001).

## Discussion

In this dyadic study, we examined whether one's own and one's partner's self-reported need-supportive and need-thwarting behaviours were associated with one's own relationship and sexual satisfaction. Consistent with our hypotheses, when participants engaged in need-supportive behaviours towards their partners, they and their partners felt more relationally satisfied. Engaging in need-supportive behaviours towards a partner was also positively associated with one's own sexual satisfaction, but not with the sexual satisfaction of one's partner. In addition, when participants engaged in need-thwarting behaviours towards their partners, they and their partners felt less relationally satisfied. Participating in need-thwarting behaviours was associated with one's own lower sexual satisfaction, but not with the sexual

satisfaction of one's partner. Overall, one's own behaviours were more strongly associated with their own relationship and sexual satisfaction than their partner's reported behaviours. When one's perceptions of support or thwarting experienced from a partner were considered, we also found that significant actor effects were maintained. Specifically, one's own engagement in need-supportive behaviours towards their partner was associated with their own higher relationship and sexual satisfaction, even when controlling for the effect of support perceived from their partner. One's engagement in need-thwarting behaviours towards their partner was also associated with their lower relationship (but not sexual) satisfaction, even when controlling for thwarting perceived from their partner. While the significance level of this finding was $p$ = .048, the adequate sample size, consistency of significant results, and effect size suggest that less caution may be needed in interpretation.

When individuals engaged in need-supportive behaviours towards their partners, they and their partners experienced greater relational satisfaction. These results suggest that it is valuable to not only consider one's engagement in behaviours that support a partner's basic psychological need for autonomy (Carbonneau et al., 2019; Deci et al., 2006; Rochette et al., 2022) but to also assess the degree to which one reports engaging in behaviours that support each basic psychological need when measuring relationship satisfaction of both self and partner. Providing support to one's partner is theorized to contribute to healthy relationships through intrapersonal pathways by increasing positive emotions and social connection for the support-provider and availability of support from a partner in return (Feeney & Collins, 2015). Engaging in need-supportive behaviours may also provide information to the support-provider about how much they value the relationship (Bem, 1972; Laird, 2007), with positive effects for relationship satisfaction.

It is important to note that highly satisfied partners may also be more likely to engage in need-supportive behaviours towards their partners because of their positive impressions towards their partner. Indeed, models within SDT emphasize the reciprocal and interconnected nature of motivation and behaviours between individuals in dyads and in shared contexts (e.g., Pelletier & Rocchi, 2016). In the absence of experimental data, it is challenging to determine whether behaviours alone precede later relationship satisfaction. However, daily diary research has demonstrated that everyday experiences of giving support contribute to one's own relationship satisfaction, over and above the experience of receiving support from a partner (Berli et al., 2021). While limited research exists regarding the prospective correlates of providing support for basic psychological needs, experimental research has shown that receiving active support from a partner contributes to relationship satisfaction in long-term couples (Fivecoat et al., 2015). Provision and receipt of need support are theorized to contribute to relationship satisfaction (Ryan & Deci, 2017); and our findings show that providing support contributes variance to relationship satisfaction even when controlling for support perceived. For these reasons, it is likely that one's own engagement in need-supportive and need-thwarting behaviours does contribute to their own relationship satisfaction, which may then be associated with their own relationship behaviours towards their partner due to the reciprocal nature of couple interactions (Johnson et al., 2023). This proposal would be consistent with models within self-determination theory and emotionally focused therapy that suggest that one's interactions foster relationship motivation and satisfaction in the partner that then influence one's partner's behaviours towards them (Johnson et al., 2023; Pelletier & Rocchi, 2016). In this case, partners may possess agency in altering challenging relationship dynamics (Anderson, 2020) by engaging in greater supportive relationship behaviours instead of waiting to feel satisfied enough to do so, as

engaging in behaviours themselves may foster greater relationship satisfaction. As existing models emphasize the reciprocal and interconnected nature of relationship exchanges, experimental and prospective research could better determine the trajectory between individuals' own need-supportive behaviours and the relationship and sexual satisfaction of themselves and their partners.

When participants engaged in need-supportive behaviours towards their partner, they were also more likely to report higher sexual satisfaction, while their partners did not report any changes in sexual satisfaction. These findings suggest that providing support for one's partner's basic psychological needs may contribute to several aspects of relationship quality, such as sexual satisfaction. Our results are consistent with research that is beginning to establish links between general relationship processes and sexual satisfaction (Gravel et al., 2020). Specifically, daily diary research showed that sexually satisfied partners perceived that their basic psychological needs were being fulfilled generally within the relationship (Gravel et al., 2020). It is also possible that partners who provide general relational support for basic psychological needs also provide support for partners' sexual basic psychological needs, which is associated with their own sexual satisfaction through increasing sexual responsiveness in return from a partner. Our findings, in conjunction with previous research, suggest that positive relationship behaviours may have far-reaching correlates, even in specific subdomains of the relationship, such as sexual satisfaction.

When participants engaged in need-thwarting behaviours towards their partners, they and their partners experienced lower relationship satisfaction. These findings are consistent with research that has demonstrated that need frustration within romantic relationships contributes to relationship dissatisfaction (Vanhee et al., 2018). Frequently engaging in need-thwarting

behaviours can decrease positive emotions and availability of support in return (Feeney & Collins, 2015). When individuals engage in need-thwarting behaviours, they may also interpret their need-thwarting behaviours as being reflective of less of a desire to be in the relationship, which could lessen their relationship satisfaction (Bem, 1972; Laird, 2007). Importantly, when individuals engaged in need-thwarting behaviours, they also reported less sexual satisfaction, but their partners did not. In non-distressed romantic relationships, less securely attached partners often engage in more controlling forms of caregiving, which is negatively associated with sexual satisfaction (Péloquin et al., 2014). When thwarting behaviours are present within a relationship, individuals may experience lower self-esteem which can affect sexual functioning (Péloquin et al., 2014). Thwarting behaviours may also be perceived as limiting opportunities for sexual exploration due to reduced safety, with corresponding detriments for sexual satisfaction.

Overall, our findings are consistent with the assertion that active need-thwarting behaviours within relationships differ from simply not receiving enough support from a partner and may have unique associations with compromised relationship functioning (Costa et al., 2015). The "corrosiveness" of thwarting relationship behaviours has been documented in dyadic research illustrating how marital stability is insidiously impacted by relationship processes like criticism, contempt, defensiveness, and stonewalling (otherwise known as "The Four Horsemen;" Gottman, 1993). Once again, it remains possible that less satisfied individuals may be more likely to engage in need-thwarting towards their partners, particularly if their lower satisfaction contributes to feeling resentment and anger towards their partner. While our cross-sectional data has identified dyadic associations, prospective research could delineate the trajectory that exists between one's own need-thwarting behaviours and relationship and sexual satisfaction, which is likely reciprocal in nature.

When controlling for perceptions of support received from a partner, one's own need-supportive behaviours were still positively associated with their own relationship satisfaction and sexual satisfaction. These findings underscore that providing support may be even more important than perceiving support when considering relationship satisfaction due to interpersonal and intrapersonal pathways (Feeney & Collins, 2015). Engaging in need-thwarting behaviours was also associated with one's own lower relationship satisfaction even when controlling for the influence of thwarting perceived from a partner. Engaging in need-thwarting behaviours was not associated with one's own lower sexual satisfaction when controlling for the perception of thwarting from a partner, but one's perceptions of their partner's need-thwarting behaviours was. It is possible that perceiving active harmful relationship behaviours from a partner is so actively harmful to feeling secure in one's sexual relationship (Péloquin et al., 2014) that one's own and one's partner's reported need-thwarting behaviours are rendered less meaningful and statistically insignificant. Relationship need-thwarting behaviours may also be more closely related to measures of ill-being (like compromised sexual functioning or distress) than well-being (Costa et al., 2015) and be more strongly associated with outcomes within the general relationship domain, as opposed to the sexual domain (Gravel et al., 2019; Vallerand, 1997).

Relationships motivation theory proposes that there is often mutuality between partners when it comes to autonomy support (Deci et al., 2006; Ryan & Deci, 2017). Our findings confirm that there is mutuality between partners when it comes to not only need-supportive behaviours but other relationship processes. In the current study, we found mutuality (positive associations) between partners for self-reported engagement in need-supportive and need-thwarting behaviours and relationship and sexual satisfaction. In other words, actors' scores for each of these variables were positively associated with partners' scores. These findings make

sense as engaging in supportive behaviours is theorized to cultivate an environment of supportiveness experienced by both self and partner while thwarting behaviours can cultivate an environment of reduced responsiveness from one's partner, leading to perceptions of reduced support within couples (Feeney & Collins, 2015).

While the current study has many strengths, some limitations are present. As our data are cross-sectional, we are not able to make causal claims about the trajectory of need-supportive and need-thwarting behaviours and relationship satisfaction and sexual satisfaction. Future dyadic longitudinal and experimental research will be better positioned to test whether support (or thwarting) experienced from a partner facilitates motivation which then contributes to need-supportive and need-thwarting behaviours towards a partner, as suggested in previous models (Pelletier & Rocchi, 2016). While a range of participants with different identities and life circumstances were included, most participants identified as cisgender, heterosexual, White, younger adults with post-secondary schooling experience. In addition, most participants reported high levels of need-supportive behaviours and relationship and sexual satisfaction. Thus, our results might best represent more satisfied individuals who were willing to participate in the larger study, a longitudinal daily diary study with their partners.

Notwithstanding these limitations, our study has several strengths. First, our sample size of 105 couples permitted us to recruit established couples with a diverse range of relationship lengths, relationship types, and socioeconomic statuses from across Canada. As participants showed a good level of engagement as evidenced through low proportions of missing data and successful completion of attention check questions (Meade & Craig, 2012) and there was mutuality between partners when it came to perceptions of couple behaviours, we believe that participant responses were valid and reflective of their relationship processes. Inclusion of both

members of the couple provided a more comprehensive understanding of relationship functioning as conceptualized through self-determination theory and allowed us to demonstrate the strong influence of one's own need-supportive and need-thwarting behaviours on one's own relationship satisfaction while considering the influence of one's partner's behaviours. Consideration of both relationship and sexual satisfaction also permitted a nuanced understanding of how both self and partner's need-supportive and need-thwarting behaviours are associated with many aspects of relationship quality, including sexual satisfaction. Finally, consideration of need-thwarting behaviours gave further insight into risk factors that can lead to relationship dissatisfaction, adding to an emerging field of self-determination theory research that considers the darker side of human functioning (Costa et al., 2015; Vansteenkiste et al., 2020; Vansteenkiste & Ryan, 2013).

Relationship researchers are advocating for a greater focus on autonomy and ownership of one's own behaviours in relationships instead of a sole focus on attachment and "togetherness" within couples (Anderson, 2020). Our results add to the emerging literature demonstrating that within dyads, one's own supportive behaviours may be more influential than support received when considering relationship and sexual satisfaction (Carbonneau et al., 2019; Deci et al., 2006; Kanat-Maymon et al., 2021). It will be important for research and clinical approaches to consider both partners' experiences and the environment in which supporting or thwarting occurs to fully understand and improve relationship functioning. As leading couples therapy approaches emphasize examining and restructuring reciprocal interactions between both partners in relationships (Baucom et al., 2023; Gottman & Gottman, 2023; Johnson et al., 2023), research involving both members of the couple will likely continue to be the most informative in understanding couple functioning.

Couples therapy models could also be expanded by considering mutual associations between need-supportive and need-thwarting behaviours within couples. Future experimental research that targets need-supportive and need-thwarting behaviours within couples could inform whether actively focusing on increasing need-supportive behaviours and decreasing need-thwarting behaviours may have corresponding benefits for relationship and sexual satisfaction, as one might anticipate. Limiting harmful relationship behaviours and exchanges is the focus of many couples therapy approaches (e.g., reducing negative relationship behaviours ["The Four Horsemen"] in Gottman method couple therapy [Gottman & Gottman, 2023], "catching the bullet" and reframing negative interactions in emotionally focused therapy [Furrow et al., 2022; Johnson et al., 2023], and using skills-based interventions to limit unsupportive behaviours in cognitive behavioural couples therapy [Baucom et al., 2023]). However, need frustration has been more weakly correlated with relationship satisfaction than need fulfillment in non-clinical samples (Vanhee et al., 2016). For these reasons, it is possible that promoting supportive behaviours in couples therapy may be more helpful than reducing the presence of thwarting behaviours for relationship satisfaction, especially for couples experiencing lower levels of distress. Inclusion of distressed couples and couples at earlier stages of relationships in future work may also expand the generalizability of future findings related to supporting and thwarting needs within the context of a romantic relationship. Finally, evaluating the effectiveness of targeting need-supportive and need-thwarting behaviours for sexual satisfaction may yield valuable insights for its suitability as an intervention in sex therapy.

This study demonstrated that within couples, one's own and one's partner's engagement in behaviours that support or thwart each basic psychological need can be positively and negatively associated with one's relationship satisfaction, respectively. Further, one's own need-

supportive and need-thwarting behaviours were positively and negatively associated with one's own sexual satisfaction, respectively, but not with one's partner's sexual satisfaction. Even when respectively controlling for perceptions of their partner's need-supportive and need-thwarting behaviours, one's own need-supportive behaviours were positively associated with one's own relationship and sexual satisfaction while one's own need-thwarting behaviours were negatively associated with one's own relationship satisfaction. Our results are consistent with previous research that has documented that one's own need-supportive behaviours are uniquely associated with their own relationship and sexual satisfaction, even when considering the influence of support received and perceived from a partner. A shift from solely focusing on the support we receive to examining and targeting the support we give may not only increase one's relationship satisfaction, but one's ability to contribute to their own relationship well-being.

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## Tables and Figures

### Table 3.1

*Study 3 Descriptive Statistics for Demographic Variables*

| Variable | *M or n with %* | *SD* |
|---|---|---|
| Age | 25.74 | 6.01 |
| Couple relationship duration (months; averaged within couple) | 53.84 | 53.14 |
| Relationship type | | |
| Living together | 85 (40.5%) | |
| Committed relationship, but not living together | 79 (37.6%) | |
| Married | 44 (21%) | |
| Other (polyamorous, common law) | 2 (1%) | |
| Gender (selecting all that apply) | | |
| Woman | 115 | |
| Man | 81 | |
| Non-binary | 19 | |
| Gender-fluid | 9 | |
| Another gender identity | 4 | |
| Agender | 1 | |
| Gender (selected choice) | | |
| Cisgender | 185 (88.1%) | |
| Transgender | 13 (6.2%) | |
| Another gender | 8 (3.8%) | |
| Unsure; prefer not to answer | 4 (2.0%) | |
| Sexual Orientation | | |
| Bisexual | 32 (15.2%) | |
| Heterosexual | 100 (47.6%) | |
| Lesbian | 22 (10.5%) | |
| Mostly heterosexual | 16 (7.6%) | |
| Queer | 17 (8.1%) | |
| Another sexual orientation (e.g., asexual, gay, pansexual, questioning) | 23 (10.9%) | |
| Race (selecting all that apply) | | |
| Black | 12 | |
| Canadian Indigenous | 7 | |
| East Asian | 8 | |
| Latin American | 5 | |
| Middle Eastern | 4 | |
| South Asian | 13 | |
| Southeast Asian | 7 | |
| White | 168 | |

| | |
|---|---|
| Another race | 5 |

**Table 3.2**

*Study 3 Correlations Between Individuals' Self-Reported Scores on Variables*

| Variable | *M* (SD) | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1. Own need-supportive behaviours | 6.18 (.51) | | | | | |
| 2. Own need-thwarting behaviours | 1.73 (.56) | -.47** | | | | |
| 3. Perception of partner's need-supportive behaviours | 6.16 (.83) | .53** | -.41** | | | |
| 4. Perception of partner's need-thwarting behaviours | 1.70 (.68) | -.40** | .48** | -.74** | | |
| 5. Relationship satisfaction | 69.65 (9.94) | .49** | -.34** | .66** | -.56** | |
| 6. Sexual satisfaction | 30.75 (4.22) | .38** | -.17* | .36** | -.25** | .51** |

*Note.* $N = 210$. *$p < 0.05$ level (2-tailed).**$p < 0.01$ level (2-tailed).

**Table 3.3**

*Study 3 Correlations Between Actor and Partner Variables*

| | Partner Variables | | | | | |
|---|---|---|---|---|---|---|
| Actor Variables | 1 | 2 | 3 | 4 | 5 | 6 |
| 1. Own need-supportive behaviours | .17* | | | | | |
| 2. Own need-thwarting behaviours | -.09 | .001 | | | | |
| 3. Perception of partner's need-supportive behaviours | .25** | -.18** | .18* | | | |
| 4. Perception of partner's need-thwarting behaviours | -.18** | .27** | -.12 | .15* | | |
| 5. Relationship satisfaction | .23** | -.18** | .26** | -.23** | .47** | |
| 6. Sexual satisfaction | .11 | -.06 | .10 | -.03 | .19** | .41** |

*Note.* Table includes associations between partners for variables of interest.
*Note.* $N = 210$. *$p < 0.05$ level (2-tailed).**$p < 0.01$ level (2-tailed).

**Table 3.4**

*Study 3 Actor-Partner Interdependence Model with Behaviours as Independent Variables and Relationship and Sexual Satisfaction as Dependent Variables*

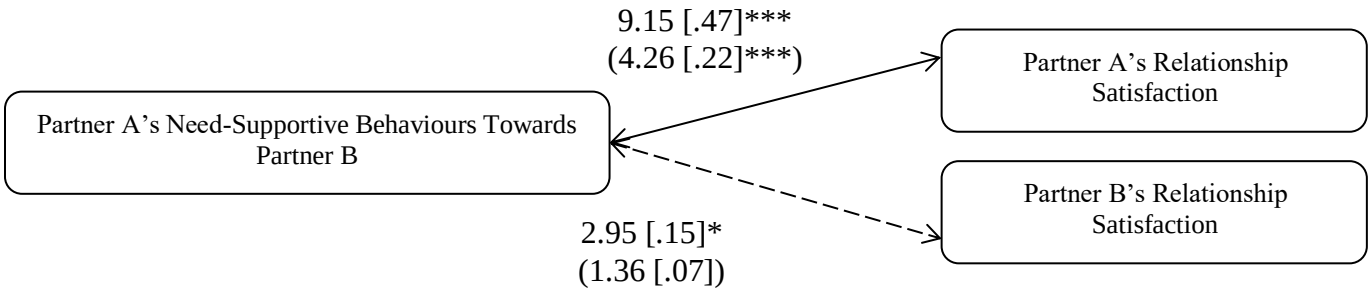
| | Need-supportive behaviours towards partner ($N$ = 105) | | | | | Need-thwarting behaviours towards partner ($N$ = 105) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *b*(β) | SE | *df* | *t* | *p* | *b*(β) | SE | *df* | *t* | *p* |
| **Relationship satisfaction** *(not* | | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *including perceptions of partner support)* | | | | | | | | | | |
| Actor effects | **9.15 (.47)** | **1.14** | **195.87** | **8.01** | **<.001** | **-5.94 (-.33)** | **1.13** | **176.96** | **-5.24** | **<.001** |
| Partner effects | **2.95 (.15)** | **1.14** | **195.87** | **2.59** | **.01** | **-3.18 (-.18)** | **1.13** | **176.96** | **-2.80** | **.006** |
| **Relationship satisfaction** *(controlling for perceptions of partner support)* | | | | | | | | | | |
| Actor effects | **4.26 (.22)** | **1.12** | **204.65** | **3.81** | **<.001** | **-2.27 (-.13)** | **1.14** | **196.10** | **-1.99** | **.048** |
| Partner effects | 1.36 (.07) | .99 | 195.91 | 1.38 | .17 | -1.10 (-.06) | 1.06 | 184.11 | -1.04 | .30 |
| **Sexual satisfaction** *(not controlling for perceptions of partner need-thwarting)* | | | | | | | | | | |
| Actor effects | **3.10 (.37)** | **.52** | **193.42** | **5.93** | **<.001** | **-1.26 (-.17)** | **.51** | **177.84** | **-2.45** | **.02** |
| Partner effects | .35 (.04) | .52 | 193.42 | .67 | .51 | -.48 (-.06) | .51 | 177.84 | -.93 | .36 |
| **Sexual satisfaction** *(controlling for perceptions of partner need-thwarting)* | | | | | | | | | | |
| Actor effects | **2.18 (.26)** | **.59** | **203.69** | **3.72** | **<.001** | -.45 (-.06) | .56 | 195.01 | -.79 | .43 |
| Partner effects | .05 (.006) | .52 | 192.73 | .10 | .92 | -.02 (-.003) | .52 | 182.56 | -.03 | .98 |

*Note.* Actor effects mean the association between individuals' own self-reported behaviours and their own outcomes. Partner effects mean the association between individuals' partners' self-reported behaviours on individuals' outcomes. Significant effects are bolded.

## Figure 4.1

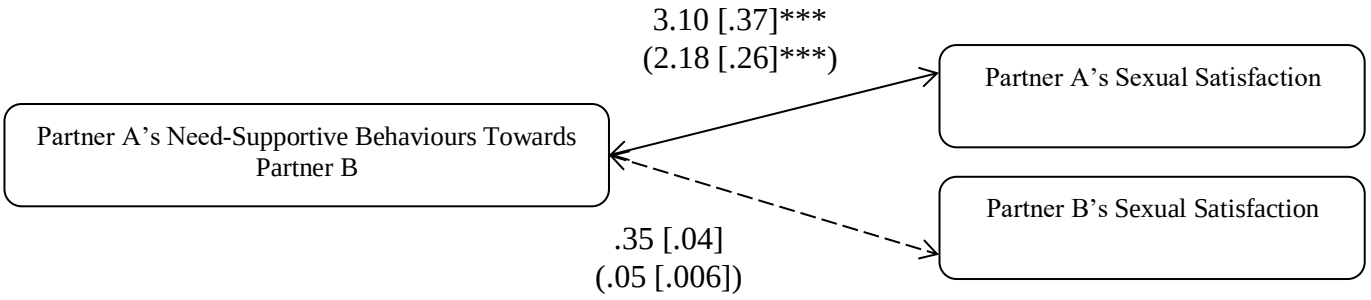
*Study 3 Actor-Partner Interdependence Model Considering Own Need-Supportive Behaviours and Relationship Satisfaction*



*Note. N* = 210. *$p$ < 0.05 level. ***$p$ < 0.001 level. Values in brackets [] represent standardized coefficients. Values in parentheses () indicate results when actors' perceptions of partner's need-supportive behaviours (IBQ-Other Support scores) were used as control variables.

**Figure 4.2**

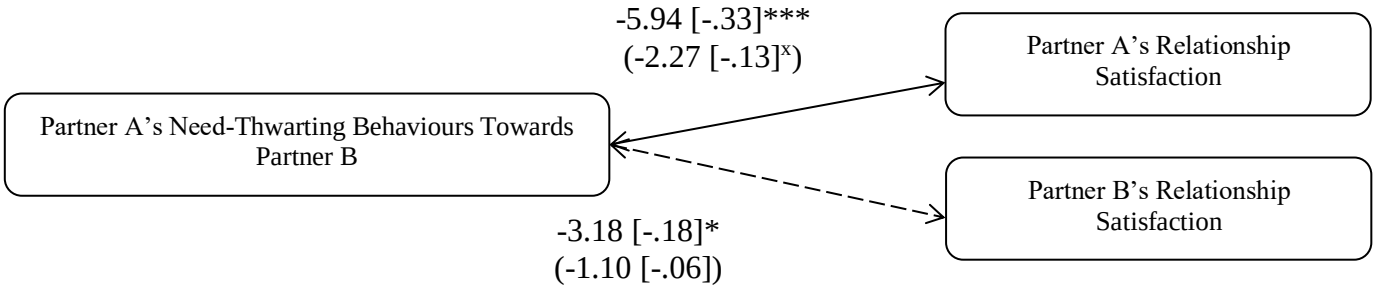
*Study 3 Actor-Partner Interdependence Model Considering Own Need-Supportive Behaviours and Sexual Satisfaction*




*Note. N* = 210. ***$p$ < 0.001 level. Values in brackets [] represent standardized coefficients. Values in parentheses () indicate results when actors' perceptions of partner's need-supportive behaviours (IBQ-Other Support scores) were used as control variables.

**Figure 4.3**

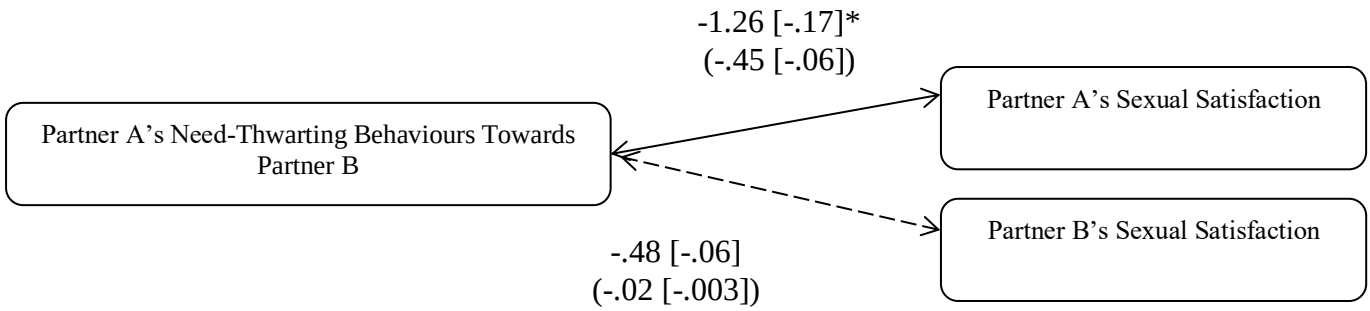
*Study 3 Actor-Partner Interdependence Model Considering Own Need-Thwarting Behaviours and Relationship Satisfaction*




*Note. N* = 210. *$p$ < .05 level. ***$p$ < 0.001 level. x$p$ = .048. Values in brackets [] represent standardized coefficients. Values in parentheses () indicate results when actors' perceptions of partner's need-thwarting behaviours (IBQ-Other Thwarting scores) were used as control variables.

**Figure 4.4**

*Study 3 Actor-Partner Interdependence Model Considering Own Need-Thwarting Behaviours and Sexual Satisfaction*




*Note.* $N = 210$. *$p < 0.05$ level. Values in brackets [] represent standardized coefficients. Values in parentheses () indicate results when actors' perceptions of partner's need-thwarting behaviours (IBQ-Other Thwarting scores) were used as control variables.

# Chapter 5: General Discussion

## Summary of Objectives

In this thesis, I considered how one's own engagement in behaviours that supported or thwarted their romantic partner's basic psychological needs for autonomy, competence, and relatedness was associated with their own relationship and sexual satisfaction. Historically, self-determination theory research has mostly focused on how experiencing basic psychological need support from a romantic partner is associated with relationship satisfaction for the support recipient (Gravel et al., 2020; Patrick et al., 2007; Vanhee et al., 2016). Less consideration has been given to how one's own need-supportive (and need-thwarting) behaviours affect their own relationship satisfaction. Consistent with researchers' calls for relationship partners to increase ownership of their own contributions to their relationship success (Anderson, 2020), self-determination theory is beginning to consider how one's own support or thwarting of another's basic psychological needs may be just as important as receiving support for relationship satisfaction (Carbonneau et al., 2019; Deci et al., 2006; Kanat-Maymon et al., 2021). This thesis adds to existing research by considering the degree to which supporting and thwarting all three basic psychological needs is associated with one's own relationship and sexual satisfaction while considering the role of one's relationship motivation and the behaviours of one's romantic partner. This holistic focus permitted me to examine the specific relationship behaviours that are associated with thriving relationships while considering the motivational and dyadic context in which they occur. I also examined the specific thwarting behaviours and lower quality motivation that characterize relationships with lower relationship satisfaction. Employing three distinct research designs, including cross-sectional, prospective, and dyadic means, my thesis yielded findings that contribute to the expansion of self-determination theory and its

conceptualization of relationship functioning. My findings may also inform behavioural targets for clinicians working with couples trying to promote relationship satisfaction.

In this section of my dissertation, I discuss each study's interpretations and present relevant theoretical implications, including the importance of fostering one's own need-supportive behaviours, targeting active thwarting behaviours and lower quality motivation, and considering the motivational context in which behaviours occur to understand and facilitate relationship and sexual satisfaction. In addition, considerations for couples therapy approaches are discussed, such as the congruency of my findings with interventions that prioritize both giving and receiving of support, and that consider and restructure both partners' behaviours, in addition to motivation. I also discuss future directions related to methodology, representativeness, and exploratory domains, as well as contributions and limitations of my program of work.

## Study Findings

### *Study 1: Wanting is not enough: An examination of how need-supportive and need-thwarting behaviours moderate the association between relationship motivation and satisfaction*

Study 1 adopted a cross-sectional design with an undergraduate sample of partnered individuals to examine whether one's own engagement in need-supportive and need-thwarting behaviours moderated associations between their own relationship motivation and relationship satisfaction. I hypothesized that at higher levels of need-supportive behaviours and lower levels of need-thwarting behaviours, autonomous relationship motivation would have the strongest positive effect on relationship satisfaction. I also hypothesized that at lower levels of need-supportive behaviours and higher levels of need-thwarting behaviours, controlled relationship motivation would have the strongest negative effect on relationship satisfaction. I also conducted exploratory analyses to consider how gender affected these associations. Contrary to my

hypotheses, autonomous motivation had the strongest positive effect on relationship satisfaction at lower levels of need-supportive behaviours and higher levels of need-thwarting behaviours. Consistent with my hypotheses, controlled motivation had the strongest negative effect on relationship satisfaction at lower levels of need-supportive behaviours and higher levels of need-thwarting behaviours. All pathways remained significant in models for participants who identified as female with the exception of higher need-thwarting behaviours moderating the association between controlled motivation and lower relationship satisfaction for males only.

### *Study 2: Paved with good intentions: Need-supportive and need-thwarting behaviours as mediators between motivation for relational activities and satisfaction*

In Study 2, I used a prospective design with an undergraduate sample of partnered individuals to examine the trajectory between one's motivation within the relationship, their need-supportive and need-thwarting behaviours, and their relationship satisfaction and change in relationship satisfaction over time. I hypothesized that higher autonomous motivation for relational activities at Time 1 would be associated with greater relationship satisfaction and an increase in relationship satisfaction at Time 2 (three months later) to the degree that partners reported higher need-supportive behaviours and fewer need-thwarting behaviours at Time 2. I also hypothesized that higher controlled motivation for relational activities at Time 1 would be associated with worse relationship satisfaction and a decrease in relationship satisfaction at Time 2 to the degree that partners reported fewer need-supportive behaviours and higher need-thwarting behaviours at Time 2. Most hypotheses were confirmed. However, need-thwarting behaviours did not explain the association between initial motivation and a change in relationship satisfaction.

### *Study 3: Everything I do, I do it for us: A dyadic analysis of supporting and thwarting psychological needs among established couples*

In Study 3, I explored whether one's own need-supportive and need-thwarting behaviours were associated with their own relationship and sexual satisfaction and that of their partners. Guided by the actor-partner interdependence model (Kenny et al., 2006), I hypothesized that when individuals engaged in more need-supportive behaviours towards their partners, they and their partners would report higher relationship and sexual satisfaction. Similarly, I hypothesized that when individuals engaged in more need-thwarting behaviours towards their partners, they and their partners would report lower relationship and sexual satisfaction. I predicted that these hypothesized associations would remain significant when controlling for the influence of one's perceptions of their partner's engagement in need-supportive and need-thwarting behaviours, respectively. All hypotheses were confirmed except personally engaging in need-supportive and need-thwarting behaviours was not associated with one's partner's sexual satisfaction. When one's perceptions of their partner's behaviours were considered, one's own need-supportive behaviours were still associated with their own higher relationship and sexual satisfaction whereas their need-thwarting behaviours were only associated with their lower relationship satisfaction, not sexual satisfaction.

## Contributions

My thesis contributes to self-determination theory and couples research through its methodological rigour, representative recruitment efforts, and expansion into understudied domains within self-determination theory. My thesis' inclusion of cross-sectional, prospective, and dyadic studies enables me to demonstrate the existence of variables that are associated with and that predict relationship satisfaction individually and between partners. Specifically, inclusion of a three-month time delay in Study 2 permitted exploration of whether motivation

can predict future need-supportive and need-thwarting behaviours and a change in relationship satisfaction. My findings are consistent with hypothesized models that have been adopted in other domains, such as the hierarchical model of intrinsic and extrinsic motivation (Vallerand, 1997) and an educational process model that considers antecedents, motivation, and outcomes as defined by self-determination theory (L. G. Pelletier & Rocchi, 2016). However, these models have never been examined prospectively within the field of romantic relationships. In addition, the inclusion of both members of the couple in Study 3 allowed me to assess whether one's own need-supportive and need-thwarting behaviours still contributed to their relationship and sexual satisfaction even while considering partner-reported and perceived support from a romantic partner. Through adopting a dyadic design, I was able to demonstrate that one's own behaviours uniquely contributed to their relationship and sexual satisfaction and were not just a reflection of the mutuality of basic psychological need support between partners (Ryan & Deci, 2017). The consistency of findings between my three methodologically distinct studies from three different samples adds validity to the conclusions and implications made in my thesis. In all three studies, my exclusion of participants with high rates of insufficient effort responding through attention check questions was consistent with best practices (Cheung, 2019; Meade & Craig, 2012) and increased confidence that the data provided by participants was authentic and representative of their experiences within their romantic relationships.

As minoritized groups are often underrepresented in relationship research (Williamson et al., 2022), it was important for my thesis to represent participants with many different identities. Specifically for Study 3, recruitment efforts included social media and in-person outreach to communities that have been traditionally less represented in relationship research. My targeting of participants who identified as members of groups that are non-White, lower-income, and

sexual and gender minorities ensured greater generalizability of my findings. Specifically, inclusion of demographic questions pertaining to race, gender identity, sexual orientation, socioeconomic status, and relationship type in Study 3 provided valuable data about the diversity of participants represented in my research. While the proportion of participants within minoritized groups could be improved with future research, Study 3's participants did represent a diverse range of races, gender identities, sexual orientations, socioeconomic statuses, and relationship lengths and types. The recruitment of rural participants (especially those from the Ottawa Valley) significantly increased the representativeness of my research while addressing a call for involvement of rural community members as research partners (C. A. Pelletier et al., 2020). In addition, as Studies 1 and 2 recruited participants with a relationship length of at least three months and Study 3 recruited established couples with a relationship duration of at least 12 months, my findings hold valuable insights for couples across different stages of partnership and relationship durations. This representativeness is especially important because relationship satisfaction waxes and wanes over the course of a relationship (Bühler et al., 2021).

Finally, my thesis builds upon existing self-determination theory research by considering motivation and behaviours in conjunction and from the perspective of both partners. My thesis also addresses other previously neglected domains within self-determination theory such as the dark side of human functioning (Vansteenkiste et al., 2020; Vansteenkiste & Ryan, 2013), general relationship motivation *and* motivation for relational activities (Gaine & La Guardia, 2009), support and thwarting of all three basic psychological needs (not just autonomy), and a newly emerging field of research within self-determination theory: sexual satisfaction (Gravel, 2017). Through adopting this fulsome focus, my thesis contributes to a holistic understanding of

relationship functioning and validates the expansiveness and future directions that are embedded within self-determination theory as a theory of human development.

**Theoretical Implications Related to Self-Determination Theory**

This thesis used cross-sectional, prospective, and dyadic methods to determine whether one's own engagement in need-supportive and need-thwarting behaviours was associated with their own relationship satisfaction, even when considering their relationship motivation and perceptions and actual reports of their partners' engagement in need-supportive and need-thwarting behaviours. Overall, my findings demonstrated that participants' higher levels of need-supportive and lower levels of need-thwarting behaviours were consistently associated with their own motivation, both partners' relationship satisfaction, and in some cases, change in relationship satisfaction over time, and sexual satisfaction. Self-determination theory researchers may wish to integrate research questions that continue to explore the importance of one's own behaviours, factors that contribute to relationship ill-being (such as controlled motivation and need-thwarting behaviours), and motivation and one's own behaviours, when conceptualizing thriving relationships.

My thesis adds to emerging research that demonstrates that within romantic relationships, giving support for *each* basic psychological need (not just autonomy as has been the historical focus; Carbonneau et al., 2019; Rochette et al., 2022) may be as important as receiving support for both relationship and sexual satisfaction (e.g., Carbonneau et al., 2019; Deci et al., 2006; Kanat-Maymon et al., 2021). When individuals give support, they may experience positive emotions associated with connection and increased availability of support in return (Feeney & Collins, 2015; Ryan & Deci, 2017), with corresponding benefits for relationship satisfaction. Sexual satisfaction and relationship satisfaction's positive association with one another (Józefacka et al., 2023) may be so robust that engaging in need-supportive behaviours not only

facilitates one's own higher relationship satisfaction, but their sexual satisfaction, as was demonstrated in Study 3 of the current thesis. Relational and sexual domains are considered similar but distinct within self-determination theory (Gravel et al., 2019) and the hierarchical model of intrinsic and extrinsic motivation proposes that factors within the same context share the strongest associations (Vallerand, 1997). As a result, it may be important for future work to examine need supporting and thwarting specifically within sexual experiences above and beyond supporting and thwarting within the general context of the relationship.

Experiencing a lack of need support within relationships is different from active frustration of basic psychological needs, which has been associated with compromised relationship functioning within romantic relationships (Costa et al., 2015; Vanhee et al., 2016, 2018). In my thesis, the documented deleterious associations between one's own need-thwarting behaviours and their relationship and sexual satisfaction suggest that when conceptualizing relationship satisfaction, it is important to be aware of one's own need-supportive *and* need-thwarting behaviours. Indeed, researchers continue to propose that in contrast to self-determination theory's previous focus, correlates of ill-being should also be assessed and integrated within self-determination theory (Vansteenkiste et al., 2020; Vansteenkiste & Ryan, 2013). My results are consistent with work showing that need supporting and thwarting received from others can be conceptualized as occurring concurrently (Costa et al., 2015) and suggest that one's *own* need-supportive and need-thwarting behaviours can be considered together for greater understanding of relationship functioning.

My thesis' results demonstrate that it is important to consider both the motivational and behavioural context when conceptualizing relationship satisfaction. As autonomously motivated partners have been documented to already report engaging in supportive behaviours (Hadden et

al., 2015, 2018; Knee et al., 2005), my thesis' results suggest that greater need-supportive and fewer need-thwarting behaviours may not add much to the prediction of relationship satisfaction, but may serve as a protective factor for partners engaging in fewer supportive behaviours. Overall, my cross-sectional and prospective results suggest that there is a behavioural mechanism through which motivation is associated with relationship satisfaction. Indeed, within self-determination theory, the hierarchical model of intrinsic and extrinsic motivation proposes that motivation contributes to one's subsequent behavioural outcomes (Vallerand, 1997). My thesis expands upon existing work by demonstrating that need-supportive and need-thwarting behaviours do not only result from autonomous and controlled motivation, respectively, but mediate the association between motivation and relationship satisfaction. Measuring motivation and need-supportive and need-thwarting behaviours in isolation may ignore existing interactions, contributing to a simplistic understanding of the trajectory between motivation and relationship satisfaction.

My thesis' dyadic findings were consistent with previous research that has indicated that providing support contributes variance to the prediction of relationship satisfaction even when considering support perceived from a partner (Carbonneau et al., 2019). This is consistent with self-determination theory's proposition that both perceiving and giving basic psychological need support are associated with higher relationship satisfaction (Deci et al., 2006; Ryan & Deci, 2017), perhaps due to the relational benefits of reciprocal responsiveness between partners (Feeney & Collins, 2015). As previously discussed, perceptions of partners' responsiveness are associated with relationship satisfaction and may add to explaining relationship satisfaction in conjunction with one's own behaviours (Gadassi et al., 2016; Reis, 2012).

**Theoretical Expansions Beyond Self-Determination Theory**

My thesis not only contributes to the development of self-determination theory, but also advances other theories focused on relationship processes. First, my thesis' results are consistent with the perceived partner responsiveness model and expand upon its key tenets. Consistent with this model (Reis, 2012), my thesis illustrates that one's perceptions of their partner's supportive behaviours are associated with their own relationship satisfaction. In addition, my results show that perceptions of thwarting behaviours from one's partner are also associated with lower relationship satisfaction. The model of perceived partner supportiveness (Reis, 2012) may benefit from adding models of perceptions of thwarting relationship behaviours, which are conceptually different than support or a lack of support (Ryan & Deci, 2017) and have been consistently associated with lower relationship satisfaction (Falconier et al., 2015; Gottman & Gottman, 2023). Importantly, my results expand beyond perceptions of partner behaviours by demonstrating that one's *own* supportive and thwarting behaviours are associated with their own relationship satisfaction, even when controlling for perceptions of one's partner's behaviours. These findings suggest that it is not just perceptions of one's partner's support that are associated with relationship satisfaction, but one's own behaviours, as well.

In addition, my research also relates to attachment theory through its exploration of both partners' contributions to their relationship satisfaction. My thesis' findings that both partners' relationship behaviours contribute to their relationship satisfaction is consistent with attachment theory propositions that partners participate in reciprocal cycles that characterize healthy and unhealthy relationships (Johnson & Sims, 2000). My results relating to the importance of both partners' relationship behaviours run parallel to attachment theory researchers' recent advocation for greater emphasis on one's own contributions to their relationship quality (Anderson, 2020). While researchers and clinicians who use attachment theory have stressed the importance of

perceiving partners as being accessible, responsive, and engaged (Johnson et al., 2023), my research suggests that it is also important that individuals themselves are engaging in behaviours that are characterized by these qualities for their own relationship satisfaction. It would be interesting to consider how participation in need-supportive and need-thwarting behaviours aligns with attachment theory's conceptualization of accessibility, responsiveness, and engagement, which can be hard to objectively measure and target. As attachment is theorized to develop from early experiences and may continue into romantic relationships (Hazan & Shaver, 1987), it is also possible that individuals with certain kinds of attachment styles tend to participate in higher or lower need-supportive and need-thwarting behaviours. It would be theoretically and clinically relevant to examine whether individuals' own engagement in need-supportive and need-thwarting behaviours towards a partner has the capacity to alter their attachment styles, just as others' behaviours may alter one's own attachment style later in life (Hazan & Shaver, 1987).

Models of communal and exchange motivation (Clark & Mills, 2012) propose that possessing motivation to support another's well-being (communal motivation) is linked to higher relationship satisfaction for individuals, as opposed to motivation to gain benefits from the relationship (exchange motivation; Le et al., 2018). Self-determination theory does not just consider relationship motivation to support another or to gain external benefits, but also measures aspects of motivation that relate to the self, such as intrinsic interest, alignment with values, and avoidance of guilt (Ryan & Deci, 2017). Through integrating self-determination theory's conceptualization of motivation, my thesis provides information about the correlates and processes related to an understanding of motivation that expands beyond motives to support another or to gain benefits. In addition, through adopting measures of general motivation for

one's relationship *and* motivation for specific relational activities, my thesis addresses calls to integrate global and context-specific forms of relationship motivation, which may be easier to target (Gaine & La Guardia, 2009). Conceptualizations of communal and exchange motivation may benefit from adopting more contextual measures of motivation for certain activities, which may differ from one's general communal and exchange motivation for the relationship. This expansion could provide valuable information about whether one approaches their entire relationship to receive external benefits or only feels motivated to gain external benefits for certain relationship activities, which could be targeted clinically. In addition to considering the activities for which motivation is being endorsed, conceptualizations of communal and exchange motivation could develop to consider the behavioural context in which motivation is being reported. By focusing only on one's reported communal and exchange motivation and not their behaviours, researchers may fail to examine for which partners communal and exchange motivation is most associated with relationship satisfaction. In my thesis, when partners reported participating in lower need-supportive and higher need-thwarting behaviours, their motivation was most strongly associated with their relationship satisfaction. Communal and exchange motivation researchers may also wish to examine whether motivation's association with relationship satisfaction is affected by one's own engagement in supportive and thwarting behaviours, to inform for which partners communal and exchange motivation is most connected to relationship satisfaction. Communal and exchange conceptualizations may also benefit from considering whether motivation contributes to future need-supportive and need-thwarting behaviours, to better understand the trajectory of motivation and relationship satisfaction.

**Clinical Implications**

Findings from my thesis are also consistent with interventions used within couples therapy approaches that emphasize the cultivation of support and reduction of thwarting between

partners. Through adopting a skills-based approach to increasing supportive relationship behaviours (Baucom et al., 2023), cognitive behavioural couple therapy's key focuses are consistent with my thesis' findings regarding the positive relational correlates of engaging in need-supportive behaviours and refraining from need-thwarting ones. Cognitive behavioural couple therapy also conceptualizes couple difficulties as being connected to one's thoughts, emotions, and behaviours related to the relationship (Baucom et al., 2023). My results are consistent with this kind of conceptualization by illustrating the interconnectedness of one's behaviours and one's motivation and relationship satisfaction, which can consist of both cognitive and affective components. In addition, emotionally focused therapy focuses on restructuring relationship interactions and increasing responsiveness from one's partner in return (Johnson et al., 2023). My results also suggest that limiting thwarting behaviours in couples therapy may help improve relationship satisfaction. Indeed, the Gottman method couple therapy approach focuses on assessing and limiting the most corrosive relationship behaviours (such as criticism, contempt, defensiveness, and stonewalling, which are known as "The Four Horsemen of the Apocalypse"; Gottman & Gottman, 2023). Similarly, the first stage of emotionally focused therapy is "de-escalation," in which conflict is better understood and lessened before deeper work begins (Johnson et al., 2023). A future clinical direction could be exploring the efficacy of not only promoting need-supportive behaviours, but limiting need-thwarting behaviours in couples therapy, especially during "de-escalation" phases, in which a primary focus is to establish safety (Johnson et al., 2023). My thesis' findings may also lead to tangible focuses for couples therapy, such as administration of the Interpersonal Behaviours Questionnaire ([IBQ], Rocchi et al., 2017) for assessment and targeting of need-supportive and need-thwarting

behaviours. The scale's sensitivity to change after clinical interventions could also be tested in future work.

Finally, my dyadic data suggests that measuring and addressing the motivation and behaviours of both partners are crucial to understanding one's relationship and sexual satisfaction. By centering a dyadic perspective, approaches like emotionally focused therapy promote ownership of one's own contributions to their relationship distress and that of their partner through owning and restructuring the couple's reciprocal cycle (Johnson et al., 2023). In addition, as this thesis demonstrated that perceiving need-thwarting from a partner facilitates lower sexual satisfaction, my research suggests that involvement of both partners in sex therapy may be helpful. However, involvement of both partners is not always common, especially in the case of sexual dysfunction (Rosen & Bergeron, 2019), despite the existence of evidence-based couple interventions for sexual dysfunction (e.g., Bergeron et al., 2021; Corsini-Munt et al., 2014).

**Future Directions**

In the future, researchers may wish to not only consider receipt of support but provision of support for *each* basic psychological need within romantic relationships for a holistic conceptualization of couple functioning. Additional prospective research that measures relationship motivation and behaviours in tandem could confirm whether need-supportive and need-thwarting behaviours are the mechanism through which motivation is associated with relationship satisfaction. As one's own need-supportive behaviours were associated with an increase in relationship satisfaction in Study 2, experimental research could examine the effectiveness of targeting need-supportive behaviours to further contribute to clinical practice recommendations. Experimental designs that target the cultivation of autonomous motivation for

couples could also provide valuable insights about whether changes in motivation cause future behaviours that can be associated with relationship satisfaction.

Future self-determination theory research with couples may also benefit from focusing on relationship distress, which was not an outcome variable in the current thesis. Inclusion of measures of relationship distress may inform whether one's own engagement in need-thwarting behaviours is a stronger predictor of relationship ill-being than relationship well-being. In addition, Study 3 demonstrated that one's own need-thwarting behaviours were associated with their lower relationship satisfaction but that one's perceptions of their partner's need-thwarting behaviours (not their own engagement) were a stronger correlate of their lower sexual satisfaction. Additional research examining the contexts in which sexual partners feel secure to explore and trust one another, or what can undermine security and trust, may also provide additional insight into the differential correlates of relationship satisfaction versus sexual satisfaction, as conceptualized by self-determination theory. Future research may also benefit from considering whether need-supportive behaviours that occur generally within the relationship generalize to need-supportive behaviours in sexual experiences.

Across all three studies, partnered individuals and couples were relatively satisfied in their relationships. Recruitment of participants who report higher levels of relationship dissatisfaction would permit a more comprehensive examination of the demonstrated associations between motivation, behaviours, and relationship satisfaction. In addition, research enlisting a larger proportion of participants from minoritized backgrounds would allow for greater generalizability of findings and reflect researchers' calls to increase representativeness, especially within couples research (Williamson et al., 2022). Future research with more men and gender-diverse participants is also needed to build upon the expanding domain of gender and

self-determination theory to more clearly understand in what circumstances and for what reasons the theory's tenets may not be universal.

**Limitations**

While my thesis poses several strengths, limitations do exist. Across studies, most participants identified as having relatively high relationship satisfaction, autonomous relationship motivation, and levels of need-supportive behaviours. As a result, my findings may best represent the experiences of participants who are in relatively stable and satisfying relationships and who self-selected to participate in research regarding romantic relationships. In addition, some demographic data was not queried in Studies 1 and 2. Our focus on only querying gender, relationship type, and relationship duration was consistent with self-determination theory research employing couples at the time (Carbonneau et al., 2019; Rochette et al., 2022). With the School of Psychology's renewed focus on increasing representation and the advent of self-identification initiatives within the University of Ottawa (Office of the President, n. d.), I have adapted my practice to assess representativeness by directly reporting on identity-specific characteristic, like in Study 3. In this study, most participants did identify as White, cisgender, heterosexual, younger adults with post-secondary education. Consistent with Williamson et al.'s (2022) recommendations, my laboratory and I are continuing to broaden our recruitment efforts to increase the representation of participants and generalizability of results. It is also important to note that data collection for Studies 1 and 2 happened during the COVID-19 pandemic and extended into 2022. Couples may have been most affected at different points in the pandemic (i.e., notification of the pandemic, implementation of lockdown procedures, and medical, financial, and psychological co-occurring events) and as such, it is hard to arbitrarily determine at which point the pandemic was most influential for participants. In addition, the COVID-19 pandemic likely affected individual couples differentially based upon circumstances and co-

habitating status. Participants may have had fewer opportunities for in-person contact with partners and fewer representative relationship experiences. It is also possible that for partners who lived together, regularly engaging in greater need-supportive behaviours and fewer need-thwarting behaviours could have been even more crucial for relationship satisfaction in the presence of significant pandemic stress. As participants' living status was not explicitly queried, these possibilities remain speculative. Study 3's data collection took place after the pandemic and results were consistent with those from Studies 1 and 2, suggesting that there may not be a cohort effect from COVID-19. Finally, while my thesis' diversity of methodological designs permitted cross-sectional, prospective, and dyadic conclusions, the lack of an experimental design precludes causal inferences.

**Conclusion**

My thesis illustrated that one's own need-supportive behaviours and need-thwarting behaviours interact with one's motivation within the relationship and are associated cross-sectionally and prospectively with relationship satisfaction, and dyadically with one's own relationship and sexual satisfaction. My work runs parallel to couples therapy approaches that seek to build supportive relationship skills (Baucom et al., 2023), restructure reciprocal interactions between self and partner (Furrow et al., 2022), limit harmful relationship behaviours (Gottman, 1993), and foster higher quality relationship motivation (Cordova et al., 2001) with potential downstream benefits for increased positive relationship behaviours and relationship satisfaction. Overall, my thesis expands beyond self-determination theory's historical focus on perceptions of support received (Ryan & Deci, 2017) to address researchers' calls to increase ownership of one's own contributions to their relationship success through consideration of their own relationship behaviours (Anderson, 2020). Within couples, partners themselves possess the ability to contribute to their own thriving relationships through engaging in need-supportive (and

not need-thwarting) behaviours and experiencing higher quality motivation for the relationship and their relational activities.

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# Appendices

## Appendix A: Glossary

**Actor-Partner Interdependence Model (APIM):** a statistical model that examines the impact of an individual's predictor variables on their own dependent variables, as well as those of a partner (Kenny et al., 2006).

**Autonomous motivation:** motivation that is internalized and reflects one's internal interests, values, and desires, as opposed to internalized or externalized pressures (Ryan & Deci, 2017).

**Autonomy:** a basic psychological need identified by Deci and Ryan (2000) in self-determination theory that refers to a sense of volition and freedom over behaviours.

**Autonomy-supportive behaviours:** behaviours that support an individual's basic psychological need for autonomy, such as giving choices, providing rationales, and understanding others' perspectives (Mageau & Vallerand, 2003).

**Autonomy-thwarting behaviours:** behaviours that thwart an individual's basic psychological need for autonomy, such as giving external rewards, imposing personal opinions, giving conditional regard, and intimidating others (Bartholomew et al., 2009).

**Basic psychological needs:** needs of autonomy, competence, and relatedness that are theorized by self-determination theory to be universal (Deci & Ryan, 2000).

**Competence:** a basic psychological need identified by Deci and Ryan (2000) in self-determination theory that pertains to experiencing mastery over one's environment.

**Competence-supportive behaviours:** behaviours that support an individual's basic psychological need for competence, including promoting learning, giving positive feedback, and promoting skill development (Sheldon & Filak, 2008)

**Competence-thwarting behaviours:** behaviours that thwart an individual's basic psychological need for competence including highlighting mistakes, discouraging engagement in challenging tasks, and questioning one's capacity to succeed (Sheldon & Filak, 2008).

**Controlled motivation:** motivation that is externalized and is reflective of internal or external pressures (Ryan & Deci, 2017).

**Global motivation:** the quality of motivation an individual experiences generally across life domains (Vallerand, 1997).

**Hierarchical model of intrinsic and extrinsic motivation (HMIEM):** a conceptualization developed by Vallerand (1997) of the facilitation of motivation through basic psychological needs. The HMIEM suggests that social supports contribute to satisfaction or frustration of basic psychological needs, which then facilitates motivation and subsequent cognitive, affective, and behavioural outcomes. The HMIEM proposes that this process can exist at three levels (global, contextual, and situational), and that factors experienced at one level of specificity share the strongest relationship with factors at the same level of specificity.

**Internalization of motivation:** a process by which motivation shifts from being controlled to autonomous through increasing support for basic psychological needs (Ryan & Deci, 2017).

**Motivation for relational activities:** the quality of motivation to engage in relational activities with a partner first measured by Gaine and La Guardia (2009) and situated within self-determination theory.

**Need fulfillment:** occurs when basic psychological needs of autonomy, competence, and relatedness have been satisfied by the environment or others. Leads to the internalization of motivation and positive outcomes (Ryan & Deci, 2017).

**Need thwarting:** occurs when basic psychological needs of autonomy, competence, and relatedness have been actively thwarted by the environment or others. Leads to the externalization of motivation and negative consequences (Ryan & Deci, 2017).

**Need-supportive behaviours:** behaviours that support an individual's basic psychological needs of autonomy, competence, and relatedness as defined by self-determination theory.

**Need-thwarting behaviours:** behaviours that thwart an individual's basic psychological needs of autonomy, competence, and relatedness as defined by self-determination theory.

**Perceived partner responsiveness:** a model that considers individuals' perceptions of being valued, understood, and cared for by their partner (Reis, 2012).

**Relatedness:** a basic psychological need identified by Deci and Ryan (2000) in self-determination theory that means experiencing a sense of connection and care with another.

**Relatedness-supportive behaviours:** behaviours that support an individual's basic psychological need for relatedness through increasing connection, interest, and support (Rocchi et al., 2017).

**Relatedness-thwarting behaviours:** behaviours that thwart an individual's basic psychological need for relatedness through promoting disinterest, disconnection, and a lack of understanding (Sheldon & Filak, 2008)

**Relationship motivation:** quality of motivation to be in a romantic relationship with a partner first measured by Blais et al. (1990) and situated within self-determination theory.

**Relationships Motivation Theory (RMT):** a subtheory of self-determination theory that suggests that receiving and providing support for basic psychological needs within relationships is related to positive individual and relational outcomes (Ryan & Deci, 2017).

## Appendix B: Study 1 Consent Form - English

**Title of the study: "**How do self-perceptions influence our cognitions?"

**Invitation to Participate:** I am invited to participate in a study that examines how self-compassion influences perceptions of behaviours in romantic relationships. I am aware that this study is being conducted by Dr. Luc Pelletier (Principal Investigator, School of Psychology, Faculty of Social Sciences) who could be contacted at _____ or by email at _____, and Traleena Rouleau (Research Assistant, School of Psychology, Faculty of Social Sciences), who could be contacted by email at _____.

**Participation:** As a participant, I am invited to complete screening questions through the University of Ottawa's Psychology Integrated System of Participation in Research (ISPR). In these questions, I will be asked about my self-identified gender and if I am currently in a romantic relationship that has lasted at least three months. If I meet the screening criteria, I will be asked to complete questionnaires about demographics (age, length of dating relationship, and gender of my partner) and about the following factors: self-compassion for myself, my levels of self-esteem, my perceptions about how I support my partner in our relationship, my perceptions about how my partner supports me in our relationship, how supported I feel in general, my motivation for remaining in our relationship, and my satisfaction with our relationship. Completion of these questionnaires should take approximately 45 to 50 minutes. This study will help us learn more about how self-compassion is related to romantic relationships and how people cognitively view their romantic relationships.

**Risks:** My participation in this study will entail that I volunteer very personal information regarding my self-esteem, self-compassion, feelings of support in my life, and feelings of support in my romantic relationships. If ever I experience any psychological or physical discomfort, I understand that my participation is entirely voluntary and that I may withdraw from the study at any time without being penalized. If I choose to withdraw from the study, my data will be destroyed and will not be used in the analyses, unless I grant permission to use it. All efforts have been made to minimize the risks involved in this study.

**Benefits:** The information that will be provided by my participation in this study, and the data that it generates, will facilitate research that aims to understand how self-compassion leads to increased motivation for a relationship, more positive relationship behaviors, and more reciprocal relationship interactions. This research will help individuals understand what leads to positive behaviors in romantic relationships and how romantic relationships are perceived by partners.

**Confidentiality and anonymity:** I am aware that all the information that I provide by completing this questionnaire will remain strictly confidential. I understand that the contents will be used only for research purposes and that any personal information [about myself] that is collected during the study will be kept strictly confidential. Only the researchers will have access to this information; however, the server that is used to collect this information (Qualtrics) is an American server; therefore, the data that I provide will be subject to the Patriot Act of the United States of America, which allows American authorities access to it. All information will be coded so that my identity remains anonymous. My participation is strictly voluntary and I maintain the right to withdraw from the study at any time. In case of voluntary withdrawal, I may ask that all

the data concerning my participation be destroyed. No information that I will submit will allow others to identify data that is linked to my participation. Only I can contact the researchers in order to request removal of data linked to my ISPR number. In order to minimize the risks of security breaches, and to help ensure my confidentiality, the researchers recommend that I use standard safety measures, such as signing out of my account, closing my browser, and locking my screen or device when I am no longer using them/when I have completed the study.

**Conservation of data:** The data collected through this questionnaire will be kept in a secure manner, where all information provided will be kept on a password-protected computer at the University of Ottawa in the Principal Investigator's locked office. The data will be kept for five years after the initial date of data collection. After this period, all data will be erased or destroyed.

**Compensation:** I understand that I am participating in this study as part of the Integrated System of Participants in Research (ISPR) and that I will receive credit for participating in accordance with the rules of that system. For completing this study, I will be compensated with 1 point toward my course. If I choose to withdraw from the study, I will still receive this compensation.

**Voluntary Participation**: I am under no obligation to participate. If I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, all data gathered until the time of withdrawal will not be used for research purposes, unless I grant permission to use it.

**Acceptance:** I agree to participate in the above research study conducted by Dr. Luc Pelletier (Principal Investigator) and Traleena Rouleau (Research Assistant).

If I have any questions about the study, I may contact the research assistant or the principal investigator. In case I experience any short-term negative experiences after completing this study, I am aware that there are resources for mental health services available on or around campus: Counselling and Coaching Services (100 Marie-Curie Private, 4th Floor, MCE, phone number: 613-562-5200, email: couns@uottawa.ca). Should I feel I would like additional support with my romantic relationship after this study, I am aware that there are services in the Ottawa community that are available, like the Centre for Interpersonal Relationships, that has a focus on relationship improvement (Suite 600 at 267 O'Connor Street, phone number: 1-855-779-2347, email: ottawa.admin@cfir.ca).

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5
Tel.: (613) 562-5387
Email: ethics@uottawa.ca
Participants should print a copy of the consent form to keep for their personal records.
**Do you agree to participate in this study?**
Yes
No

## Appendix C: Study 1 Consent Form - French

**Titre de l'étude:** «Comment les perceptions de soi influencent-elles nos cognitions»

**Invitation à participer:** Je suis invitée à participer à une étude qui examine comment la compassion de soi influence les perceptions des comportements dans les relations amoureuses. Je suis au courant que cette étude est menée par le Dr Luc Pelletier (chercheur principal, École de psychologie, Faculté des sciences sociales), qui pourrait être contacté au _____ ou par courriel à _____ et Traleena Rouleau (adjointe à la recherche, École de psychologie, Faculté des sciences sociales), qui pourrait être contactée par courriel à _____.

**Participation:** En tant que participant, je suis invité à répondre aux questions de sélection par l'intermédiaire du Système intégré de participation à la recherche en psychologie (ISPR) de l'Université d'Ottawa. Dans ces questions, on me demandera quel est mon sexe auto-identifié et si je suis actuellement dans une relation amoureuse qui dure depuis au moins trois mois. Si je remplis les critères de sélection, on me demandera de remplir des questionnaires sur les données démographiques (âge, durée de la relation et le sexe de mon partenaire) et sur les facteurs suivants: compassion pour moi-même, mon niveau d'estime de soi, ma Perceptions sur la façon dont je soutiens mon partenaire dans notre relation, sur le soutien de mon partenaire dans notre relation, sur le soutien que je ressens en général, sur ma motivation à rester dans notre relation et ma satisfaction à l'égard de notre relation. La réponse à ces questionnaires devrait prendre environ 45 à 50 minutes. Cette étude nous aidera à en savoir plus sur les liens entre la compassion de soi et les relations amoureuses et sur la façon dont les gens perçoivent leur relation de manière cognitive.

**Risques:** Ma participation à cette étude impliquera que je transmette volontairement des informations très personnelles concernant mon estime de moi, ma compassion, mes sentiments de soutien dans ma vie et mes sentiments de soutien dans mes relations amoureuses. Si je ressens un malaise psychologique ou physique, je comprends que ma participation est entièrement volontaire et que je peux me retirer de l'étude à tout moment sans être pénalisé. Si je choisis de me retirer de l'étude, mes données seront détruites et ne seront pas utilisées dans les analyses, à moins que je n'accorde la permission de les utiliser. Tous les efforts ont été déployés pour minimiser les risques liés à cette étude.

**Avantages:** Les informations qui seront fournies par ma participation à cette étude, ainsi que les données générées par celle-ci, faciliteront les recherches visant à comprendre comment la compassion de soi conduit à une motivation accrue pour une relation, des comportements relationnels plus positifs et une relation plus réciproque. Cette recherche aidera les individus à comprendre ce qui conduit à des comportements positifs dans les relations amoureuses et comment les relations amoureuses sont perçues par les partenaires.

**Confidentialité et anonymat:**
Je suis conscient que toutes les informations que je fournis en répondant à ce questionnaire resteront strictement confidentielles. Je comprends que le contenu sera utilisé uniquement à des fins de recherche et que toute information personnelle [à propos de moi-même] recueillie au cours de l'étude sera strictement confidentielle. Seuls les chercheurs auront accès à cette information. Cependant, le serveur utilisé pour collecter ces informations (Qualtrics) est un

serveur américain. par conséquent, les données que je fournis seront soumises au Patriot Act des États-Unis d'Amérique, qui permet aux autorités américaines d'y accéder. Toutes les informations seront codées afin que mon identité reste anonyme. Ma participation est strictement volontaire et je conserve le droit de me retirer de l'étude à tout moment. En cas de retrait volontaire, je peux demander que toutes les données concernant ma participation soient détruites. Aucune information que je soumettrai ne permettra à d'autres personnes d'identifier les données liées à ma participation. Je suis le seul à pouvoir contacter les chercheurs afin de demander la suppression des données liées à mon numéro ISPR. Afin de minimiser les risques d'atteinte à la sécurité et de protéger ma confidentialité, les enquêteurs me recommandent de prendre des mesures de sécurité standard, telles que me déconnecter de mon compte, fermer mon navigateur et verrouiller mon écran ou mon appareil lorsque je ne suis plus les utiliser / quand j'ai terminé l'étude.

**Conservation des données:** Les données recueillies au moyen de ce questionnaire seront conservées de manière sécurisée. Toutes les informations fournies seront conservées sur un ordinateur protégé par un mot de passe de l'Université d'Ottawa situé dans le bureau verrouillé du chercheur principal. Les données seront conservées pendant cinq ans après la date initiale de collecte des données. Après cette période, toutes les données seront effacées ou détruites.

**Compensation:** Je comprends que je participe à cette étude dans le cadre du Système intégré de participants à la recherche (ISPR) et que je bénéficierai de crédits pour participer conformément aux règles de ce système. Pour terminer cette étude, je serai rémunéré avec 1 point pour mon cours. Si je choisis de me retirer de l'étude, je recevrai quand même cette compensation.

**Participation volontaire:** Je n'ai aucune obligation de participer. Si je choisis de participer, je peux me retirer de l'étude à tout moment et / ou refuser de répondre aux questions sans subir de conséquences négatives. Si je choisis de retirer mes données, toutes les données recueillies jusqu'au moment du retrait ne seront pas utilisées à des fins de recherche, à moins que je n'accorde la permission de l'utiliser.

**Acceptation:** J'accepte de participer à la recherche susmentionnée menée par le Dr Luc Pelletier (chercheur principal) et Traleena Rouleau (assistante de recherche).

Si j'ai des questions sur l'étude, je peux contacter l'assistant de recherche ou le chercheur principal. Au cas où j'éprouverais des expériences négatives à court terme après avoir terminé cette étude, je suis conscient qu'il existe des ressources pour les services de santé mentale disponibles sur ou autour du campus: Services de conseil et d'encadrement (100 Marie-Curie Private, 4e étage, MCE, numéro de téléphone : 613-562-5200, courriel: couns@uottawa.ca). Si, après cette étude, je souhaitais bénéficier d'un soutien supplémentaire dans le cadre de ma relation amoureuse, je suis consciente que certains services disponibles dans la communauté d'Ottawa, tels que le Centre pour les relations interpersonnelles, mettent l'accent sur l'amélioration des relations (Suite 600, p. 267). O'Connor Street, numéro de téléphone: 1-855-779-2347, courriel: ottawa.admin@cfir.ca).

Si j'ai des questions concernant la conduite éthique de cette étude, je peux contacter le responsable du protocole pour l'éthique dans la recherche. , Université d'Ottawa, Pavillon

Tabaret, 550, rue Cumberland, pièce 154, Ottawa (Ontario) K1N 6N5Tel .: (613) 562-5387 Courriel: ethique@uottawa.ca Les participants doivent imprimer une copie du formulaire de consentement à conserver pour leurs dossiers personnels.

**Acceptez-vous de participer à cette étude?**
Oui
Non

## Appendix D: Study 1 Debriefing Form - English

We thank you for participating in our study. We hope that you found this experience interesting and rewarding. At the beginning of the study, we told you that we were interested in examining how self-perceptions influence cognitions, which can, in turn, affect other aspects of our lives.

Although the study did explore these topics, the study's specific objectives were not explicitly discussed (but will be explained in the next paragraph). We did not fully explain our objectives because we wanted your responses to be natural, not socially desirable, and not influenced by our hypotheses of the study. We believed that we could obtain more natural and valid responses if we did not explain the direct purpose of our study. We hope that you can appreciate this choice and that you do not feel upset about being partially deceived.

***What are our objectives and hypotheses in this research?***

This research had three specific objectives. The first objective was to analyze how trait levels of self-compassion relate to the concordance between need satisfaction and intrinsic motivation for a romantic relationship. Need-supportive behaviours can be defined as those that foster autonomy, competence, and relatedness, which are the three basic psychological needs necessary for growth, as outlined in Self-Determination Theory (SDT). Autonomy is described as a sense of volition and concordance, competence as a feeling of mastery and effectiveness, and relatedness as a need for social integration. Interpersonal relationships can be need-supportive if they foster the satisfaction of the three needs but can be classified as need-thwarting if they threaten the ability of these needs to thrive. Satisfaction of SDT needs are associated with increased quality and commitment in intimate relationships, whereas thwarting of SDT needs are associated with reduced quality and commitment in intimate relationships. It was hypothesized that because people with self-compassion demonstrate greater authenticity, mindfulness, and reduced defensiveness, participants with higher self-compassion would demonstrate greater concordance between need satisfaction and motivation. This was hypothesized because it was believed that self-compassionate participants would not need to inflate or exaggerate need satisfaction or motivation, which would lead to the natural relationship between satisfaction of basic needs and relationship commitment to be exposed.

The second objective was to examine how self-compassion is related to individual perceptions of need-supportive behaviours in a romantic relationship, as measured through scores on the Interpersonal Behaviors Questionnaire-Self (IBQ-Self). The IBQ-Self was designed to measure an individual's perception of engaging in autonomy-supportive, autonomy-thwarting, competence-supportive, competence-thwarting, relatedness-supportive, and relatedness-thwarting-behaviours in relationships. Factors that lead to enhanced accuracy in the reporting of need-supportive behaviours have not been analyzed, but self-compassion research might hold promise for answering this question. Self-compassion is a construct theorized to be comprised of self-kindness, a sense of common humanity, and mindfulness. These elements converge to form a mindset that can alter an individual's response to personal faults, stress, and uncontrollable life events. Self-compassionate individuals demonstrate greater positive relationship behavior so it was hypothesized that they would report that they engage in increased need-supportive behaviours. In addition, because self-compassion is interdependent, it remained likely that self-compassionate people could better manage needs for autonomy and connectedness which are two basic psychological needs (autonomy and relatedness) assessed through the IBQ-Self. While we

predicted that self-compassionate people would have higher IBQ-Self scores, it was unclear whether people low in self-compassion would have categorically low or categorically high IBQ-Self scores. People who are not self-compassionate exhibit less positive relationship behaviours so it is possible that their IBQ-Self scores will be lower than those reported by self-compassionate people. However, people without self-compassion do not accept personal responsibility for past misdeeds as much as those with self-compassion and demonstrate increased self-righteousness and ego-defensiveness. Thus, it also remains possible that people who are not self-compassionate will report higher IBQ-Self scores because of a reduced ability to acknowledge fault or an increased need to protect the self and ego.

The third objective was to explore how self-compassion related to participants' perceptions of their partners' need-supportive behaviours, as measured through scores on the Interpersonal Behaviors Questionnaire-Other (IBQ-Other). The IBQ-Other measures an individual's perception of autonomy-supportive, autonomy-thwarting, competence-supportive, competence-thwarting, relatedness-supportive, and relatedness-thwarting-behaviours from another person (in this study, a romantic partner). It was hypothesized that participants with higher self-compassion would also have higher IBQ-Other scores. This was predicted because it was believed that supportive partners can foster increased self-compassion. In addition, because self-compassion is associated with less contingent feelings of self-worth, it was believed that participants would have less barriers to positive perceptions of worth and would self-select for partners who confirm beliefs of self-worth, as outlined by behavioral confirmation theory. According to behavioural confirmation theory, people self-select for situations and partners who confirm their beliefs about themselves. Specifically, people select for opportunities in which they can behaviourally express their self-views. In past research, a significant association between partners' levels of self-compassion has been demonstrated. Because self-compassion is associated with increased positive relationship behaviours, it remained likely that self-compassionate individuals would have self-compassionate partners, who are demonstrated to engage in increased positive relationship behaviours. Lastly, because self-compassionate individuals are more accepting of relationship partners, it remained likely that partners' faults or mistakes would be perceived mindfully and would not completely colour participants' perceptions of partners' need-supportive behaviours. It was predicted that this would be reflected in higher IBQ-Other scores. On the contrary, it was predicted that people with lower self-compassion would report lower IBQ-Other scores. This was predicted because people with lower self-compassion have more contingent feelings of self-worth, which can compromise positive perceptions of worth. Because it is possible that people with low self-compassion would struggle to have positive perceptions of worth, we believed it would be more likely that they would self-select for partners who confirm feelings of compromised self-worth through less need-supportive behaviours. In addition, because individuals with low self-compassion struggle to recognize that humans are imperfect, they may be less inclined to accept partner faults or less likely to mindfully accept disagreements in proportion to their magnitude. We believed that this could result in exaggerated IBQ-Other scores that emphasize negative qualities of partners and do not appreciate positive ones.

***Why is this important to scientists or the general public?***

This work will be the first to examine one partner's IBQ-Self and IBQ-Other ratings in romantic relationships to evaluate the level of concordance between the two ratings. It builds on previous research conducted by Dr. Luc Pelletier, in evaluating contributing factors to IBQ-Self and IBQ-

Other concordance. Focusing on self-perceptions of romantic relationships at the partner level can inform how self-compassion influences how partners perceive themselves and others in a romantic relationship, as well as how self-compassion may affect motivation and satisfaction in a romantic relationship. Specifically, this study could have clinical relevance for correcting cognitive distortions and conflict among partners, to foster more accurate self-perceptions and to facilitate increased motivation, satisfaction, and supportive behaviours within a romantic relationship. This research will also introduce a motivational lens in exploring how intrinsic motivation for romantic relationships relates to need satisfaction within the relationship, in an attempt to replicate previous research that has demonstrated that satisfaction and thwarting of SDT needs are associated with relationship quality and commitment.

***What if I have questions later?***

Any questions you might have about your rights as a research participant may be addressed to Protocol Officer for Ethics in Research, 550 Cumberland St., Room 154, (613) 562-5387 or by email at ethics@uottawa.ca.

For more information about this research, you may contact: Dr. Luc Pelletier (Principal Investigator), School of Psychology, University of Ottawa _____ or by email: _____ or Traleena Rouleau (Research Assistant), School of Psychology, University of Ottawa _____ or by email: _____

If you have any questions about the study, you may contact the research assistant or the principal investigator. In case you experience any short-term negative experiences after completing this study, there are resources for mental health services available on or around campus: Counselling and Coaching Services (100 Marie-Curie Private, 4th Floor, MCE, phone number: 613-562-5200, email: couns@uottawa.ca). Should you feel you would like additional support with your romantic relationship after this study, there are services in the Ottawa community that are available, like the Centre for Interpersonal Relationships, that has a focus on relationship improvement (Suite 600 at 267 O'Connor Street, phone number: 1-855-779-2347, email: ottawa.admin@cfir.ca).

I consent for my completed data to be used for this research project, conducted by Traleena Rouleau and Dr. Luc Pelletier.

Yes
No

## Appendix E : Study 1 Debriefing Form - French

Nous vous remercions de participer à notre étude. Nous espérons que vous avez trouvé cette expérience intéressante et enrichissante. Au début de l'étude, nous vous avions dit que nous voulions examiner en quoi la perception de soi influe sur les cognitions, lesquelles peuvent à leur tour affecter d'autres aspects de notre vie.

Bien que l'étude ait exploré ces sujets, ses objectifs spécifiques n'ont pas été explicitement discutés (mais seront expliqués dans le paragraphe suivant). Nous n'avons pas expliqué complètement nos objectifs car nous souhaitions que vos réponses soient naturelles, non socialement souhaitables et non influencées par nos hypothèses de l'étude. Nous pensions pouvoir obtenir des réponses plus naturelles et valables si nous n'expliquions pas l'objectif direct de notre étude. Nous espérons que vous pourrez apprécier ce choix et que vous ne vous sentirez pas fâché d'être partiellement trompé.

***Quels sont nos objectifs et hypothèses dans cette recherche?***
Cette recherche avait trois objectifs spécifiques. Le premier objectif était d'analyser la relation entre les niveaux de compassion de soi et la concordance entre la satisfaction du besoin et la motivation intrinsèque pour une relation amoureuse. Les comportements répondant aux besoins peuvent être définis comme ceux qui favorisent l'autonomie, la compétence et les relations, qui constituent les trois besoins psychologiques de base nécessaires à la croissance, comme indiqué dans la théorie de l'autodétermination (TDS). L'autonomie est décrite comme un sentiment de volonté et de concordance, la compétence comme un sentiment de maîtrise et d'efficacité, et la parenté comme un besoin d'intégration sociale. Les relations interpersonnelles peuvent répondre aux besoins si elles favorisent la satisfaction des trois besoins, mais elles peuvent être qualifiées de contrecarrant les besoins si elles menacent la capacité de répondre à ces besoins. La satisfaction des besoins en traitement SDT est associée à une qualité et à un engagement accrus dans les relations intimes, tandis que les contrecarrer est une perte de qualité et d'engagement en relations intimes. On a émis l'hypothèse suivante: étant donné que les personnes qui éprouvent de la compassion envers eux-mêmes démontrent une plus grande authenticité, une pleine conscience et une capacité de défense réduite, les participants présentant une plus grande compassion de soi démontreraient une plus grande concordance entre la satisfaction du besoin et la motivation. Cette hypothèse a été émise parce que l'on pensait que les participants compatissants n'auraient pas besoin de gonfler ou d'exagérer la satisfaction du besoin ou la motivation, ce qui créerait une relation naturelle entre la satisfaction des besoins essentiels et l'engagement relationnel.

Le deuxième objectif était d'examiner comment la compassion de soi était liée aux perceptions individuelles de comportements de soutien aux besoins dans une relation amoureuse, mesurés à l'aide des scores du Questionnaire sur les comportements interpersonnels - Self (IBQ-Self). IBQ-Self a été conçu pour mesurer la perception par un individu de comportements comportementaux favorisant l'autonomie, contrecarrant l'autonomie, soutenant la compétence, opposant compétence, favorisant la relation et ceux-ci dans la relation. Les facteurs qui conduisent à une précision accrue dans la déclaration des comportements répondant aux besoins n'ont pas encore été analysés, mais les recherches sur l'auto-compassion pourraient être prometteuses pour répondre à cette question. La compassion de soi est une construction théorisée comme comprenant la bonté de soi, un sens d'humanité commune et la pleine conscience. Ces éléments

convergent pour former un état d'esprit susceptible de modifier la réaction d'un individu aux fautes personnelles, au stress et aux événements de la vie incontrôlables. Les individus compatissants manifestent un comportement relationnel positif plus développé, de sorte qu'il a été supposé qu'ils déclareraient qu'ils adoptent davantage de comportements répondant aux besoins. En outre, comme la compassion de soi est interdépendante, il était toujours probable que les personnes de confiance en soi pourraient mieux gérer les besoins d'autonomie et de connexion qui constituent deux besoins psychologiques de base (autonomie et relations) évalués par le biais de IBQ-Self. Même si nous avions prédit que les personnes auto-compatissantes obtiendraient des scores IBQ-Self plus élevés, il n'était pas clair si les personnes ayant un niveau de compassion faible auraient des scores IBQ-Self catégoriquement bas ou catégoriquement élevés. Les personnes qui ne sont pas compatissantes ont des comportements relationnels moins positifs, il est donc possible que leurs scores IBQ-Self soient inférieurs à ceux rapportés par des personnes compatissantes. Cependant, les personnes sans compassion de soi n'acceptent pas la responsabilité personnelle des méfaits du passé autant que celles qui éprouvent de la compassion en soi et démontrent une augmentation de la justice de soi et de la défense de l'ego. Ainsi, il reste également possible que les personnes qui ne sont pas compatissantes se fassent remarquer par des scores IBQ-Self plus élevés en raison d'une capacité réduite à reconnaître la faute ou d'un besoin accru de protection du moi et de l'ego.

Le troisième objectif était d'explorer la relation entre l'auto-compassion et la perception par les participants des comportements de soutien aux besoins de leurs partenaires, mesurés à l'aide des scores du Questionnaire sur les comportements interpersonnels - Autres (IBQ - Autres). L'IBQ-Autres mesure la perception d'un individu qui soutient l'autonomie, contrecarre l'autonomie, soutient les compétences, contrecarre les compétences, comportements favorisant la deuil et contrariants d'une autre personne (dans cette étude, un partenaire romantique). On a émis l'hypothèse que les participants ayant une plus grande compassion envers soi-même obtiendraient également des scores plus élevés pour IBQ-Autres. Cela a été prédit parce que l'on croyait que des partenaires de soutien pouvaient favoriser une plus grande compassion envers soi-même. En outre, comme la compassion de soi est associée à des sentiments moins contingents d'estime de soi, on a estimé que les participants auraient moins d'obstacles à une perception positive de la valeur et choisiraient eux-mêmes des partenaires qui confirment leur confiance en soi, comme indiqué par théorie de confirmation comportementale. Selon la théorie de la confirmation comportementale, les personnes choisissent elles-mêmes des situations et les partenaires qui confirment leurs convictions. Plus précisément, les personnes choisissent des opportunités dans lesquelles elles peuvent exprimer de manière comportementale leur point de vue. Dans des recherches antérieures, une association significative entre les niveaux de compassion des partenaires a été démontrée. Étant donné que la compassion envers soi est associée à des comportements relationnels positifs accrus, il était toujours probable que les personnes compatissantes auraient des partenaires compatissants, à qui il a été démontré qu'ils adoptaient des comportements relationnels positifs. Enfin, étant donné que les personnes compatissantes acceptent davantage les partenaires, il est probable que leurs fautes seront perçues de manière réfléchie et ne nuiront pas complètement aux perceptions des participants à l'égard des comportements répondant aux besoins des partenaires. On prévoyait que cela se traduirait par des scores plus élevés pour IBQ-Autres. Au contraire, il a été prédit que les personnes ayant moins d'auto-compassion rapporteraient des scores inférieurs à IBQ-Autres. Cela a été prédit parce que les personnes ayant une plus faible compassion envers soi-même ont

un sentiment plus éventuel de confiance en soi, ce qui peut compromettre les perceptions positives de la valeur. Comme il est possible que les personnes peu compatissantes se démènent pour avoir une perception positive de leur valeur, nous avons pensé qu'il serait plus probable qu'elles choisissent elles-mêmes des partenaires qui confirment leur sentiment de perte de confiance en soi par des comportements moins axés sur le besoin. En outre, comme les personnes peu compatissantes ont du mal à reconnaître que les humains sont imparfaits, elles peuvent être moins enclines à accepter les fautes de leurs partenaires ou moins susceptibles d'accepter consciemment des désaccords proportionnels à leur ampleur. Nous estimions que cela pourrait entraîner des scores exagérés dans IBQ-Other, qui mettent l'accent sur les qualités négatives des partenaires et n'apprécient pas les positifs.

***Pourquoi est-ce important pour les scientifiques ou le grand public?***

Ce travail sera le premier à examiner le modèle IBQ-Self et le IBQ-Autres évaluations dans les relations amoureuses pour évaluer le niveau de concordance entre les deux évaluations. Il s'appuie sur des recherches antérieures menées par le Dr Luc Pelletier pour évaluer les facteurs contributifs de la concordance IBQ-Self et IBQ-Other. Se concentrer sur la perception de soi des relations amoureuses au niveau des partenaires peut expliquer comment la compassion de soi influence la façon dont les partenaires se perçoivent eux-mêmes et les autres dans une relation amoureuse, ainsi que la manière dont la compassion de soi peut affecter la motivation et la satisfaction dans une relation amoureuse. Plus précisément, cette étude pourrait avoir une pertinence clinique pour corriger les distorsions cognitives et les conflits entre partenaires, pour favoriser une perception de soi plus précise et pour favoriser une motivation accrue, une satisfaction accrue et des comportements de soutien au sein d'une relation amoureuse. Cette recherche introduira également un prisme motivationnel dans l'exploration du lien entre la motivation intrinsèque pour les relations amoureuses et la satisfaction des besoins au sein de la relation, dans le but de reproduire des recherches antérieures qui ont démontré que la satisfaction et le non-respect des besoins en TDS sont associés à la qualité et à l'engagement des relations.

***Et si j'ai des questions plus tard?***
Si vous avez des questions plus tard, vous pouvez vous adresser à l'agent du protocole pour l'éthique dans la recherche, 550, rue Cumberland, bureau 154, au (613) 562-5387 ou par courrier électronique à ethics @ uottawa.ca.

Pour de plus amples informations sur cette recherche, vous pouvez contacter: Dr. Luc Pelletier (Chercheur principal), École de psychologie, Université d'Ottawa _____ ou par courriel: _____ ou Traleena Rouleau (adjointe à la recherche), École de psychologie, Université d'Ottawa _____ ou par courriel: _____. Si vous avez des questions sur l'étude, vous pouvez contacter l'assistant de recherche ou l'investigateur principal.

Si vous rencontrez des expériences négatives à court terme après avoir terminé cette étude, des ressources sur les services de santé mentale sont disponibles sur le campus ou à proximité: Services de conseil et d'encadrement (100 Marie-Curie Private, 4e étage, MCE, numéro de téléphone: 613-562-5200, courriel: couns@uottawa.ca). Si vous estimez que vous souhaitiez un soutien supplémentaire dans votre relation amoureuse après cette étude, des services sont disponibles dans la communauté d'Ottawa, comme le Centre pour les relations interpersonnelles,

qui met l'accent sur l'amélioration des relations (bureau 600, 267, rue O'Connor, numéro de téléphone: 1-855-779-2347, courrier électronique: ottawa.admin@cfir.ca) .

Je consens à ce que mes données complètes soient utilisées pour cette recherche projet mené par Traleena Rouleau et le Dr Luc Pelletier.

Oui
Non

## Appendix F: Study 1 Description

Study description, as it will appear on the University of Ottawa ISPR

**Study Title:** "How do self-perceptions influence our cognitions?" English only

*Study description:* The present study aims to explore how our self-views affect how we think about ourselves and others. This study consists of pre-screening questionnaires which will assess demographics (e.g., self-identified gender, relationship status). If screening criteria are met, the following variables will be assessed: additional demographic information (e.g., age, self-identified gender of partner, length of dating relationship), self-compassion, self-esteem, support in relationships, general feelings of support, and satisfaction in relationships. This questionnaire will help identify how self-perceptions influence how we think and how these self-perceptions influence other aspects of our lives. **Please note that this study is only offered in English.**

Pre-screen restrictions: Yes

Duration: Pre-screening questions and questionnaires should take approximately 45-50 minutes to complete.

Compensation: 1 point towards an introductory psychology course

Researchers: Dr. Luc Pelletier (Principal Investigator)
Email: _____

Traleena Rouleau (Research Assistant)
Email: _____

Participant sign-up deadline: None

## Appendix G: Studies 1 and 2 Demographic Questions

1. What is your age?
2. What is your self-identified gender identity?
    a. Male
    b. Female
    c. Another Gender Identity: Please specify:
3. What gender identity does your romantic partner self-identify with?
    a. Male
    b. Female
    c. Another Gender Identity: Please specify:
4. How long have you and your partner been in a romantic relationship?

## Appendix H: Interpersonal Behaviours Questionnaire (IBQ; Rocchi et al., 2017)

Using the scale below, please indicate the extent to which you agree with the following statements about how your partner behaves with you.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **Do not agree** | | | **Somewhat agree** | | | **Completely agree** |

My partner….

1. Gives me the freedom to make my own choices.
2. Supports my decisions.
3. Supports the choices I make for myself.
4. Encourages me to make my own decisions.
5. Pressures me to do things their way.
6. Impose their opinions on me.
7. Pressures me to adopt certain behaviours.
8. Limits my choices.
9. Encourages me to improve my skills.
10. Provides valuable feedback.
11. Acknowledges my ability to achieve my goals.
12. Tells me that I can accomplish things.
13. Points out that I will likely fail.
14. Sends me the message that I am incompetent.
15. Doubts my capacity to improve.
16. Questions my ability to overcome challenges.
17. Is interested in what I do.
18. Takes the time to get to know me.
19. Honestly enjoys spending time with me.
20. Relates to me.
21. Does not comfort me when I am feeling low.
22. Is distant when we spend time together.
23. Does not connect with me.
24. Does not care about me.

**Interpersonal Behaviours Questionnaire – Self (IBQ-Self; Rocchi et al., 2017)**

Using the scale below, please indicate the extent to which you agree with the following statements about how you generally behave when you are with your romantic partner.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **Do not agree** | | | **Somewhat agree** | | | **Completely agree** |

**When I am with my partner, I…**

1. Give them the freedom to make their own choices.
2. Support their decisions.
3. Support the choices they make for themselves.
4. Encourage them to make their own decisions.
5. Pressure them to do things my way.
6. Impose my opinions on them.
7. Pressure them to adopt certain behaviours.
8. Limit their choices.
9. Encourage them to improve their skills.
10. Provide valuable feedback.
11. Acknowledge their ability to achieve their goals.
12. Tell them that they can accomplish things.
13. Point out that they will likely fail.
14. Send them the message that they are incompetent.
15. Doubt their capacity to improve.
16. Question their ability to overcome challenges.
17. Am interested in what they do.
18. Take the time to get to know them.
19. Honestly enjoy spending time with them.
20. Relate to them.
21. Do not comfort them when they are feeling low.
22. Am distant when we spend time together.
23. Do not connect with them.
24. Do not care about them.

## Appendix I: Couple Motivation Questionnaire (Blais et al., 1990)

### 21-Item Version

There are many different reasons why people get involved in couple relationships. Please take a few moments to think about the reasons why you are currently having a relationship with your partner. Then using the scale below, please indicate the degree to which you feel each of the following items corresponds to your reasons for having a relationship with your partner by selecting the appropriate number.

| Does not corresponds at all | Corresponds very little | Corresponds slightly | Corresponds moderately | Corresponds well | Corresponds very well | Corresponds exactly |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**WHY ARE YOU HAVING A RELATIONSHIP WITH YOUR PARTNER ?**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. I don't know. In all honesty, I don't feel like making the effort to keep this relationship together. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Because I need to be in a relationship with my partner to feel important. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Because I value the way my relationship with my partner allows me to improve myself as a person. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. I don't know why anymore. I think, to my deep disappointment, that our relationship is destined to fail since I no longer see any possibility of saving it. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Because I value the way our life as a couple gives me the opportunity to participate in new activities. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. Because I love the many fun and crazy times I share with my partner. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. Because I would feel guilty if I separated from my partner. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. I don't really know ; I feel helpless to the fact that sooner or later we are going to separate. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. Because my relationship with my partner allows me to have a more stable sex life with someone of my choice. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. Because people who are important to me (e.g. children, family, friends) are proud of our relationship and I wouldn't want to disappoint them. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 11. Because my partner wouldn't be able to cope with a separation. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. Because this is the person I have chosen to share in my important life projects. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. There is nothing motivating me to stay in my relationship with my partner. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. Because I experience enormous pleasure and freedom in our sex life. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. Because life with my partner offers me the opportunity to learn how to better communicate my ideas. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. Because with my partner, I feel free to commit myself to future projects that I hold dearly. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17. Because my spouse insists that we stay together. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18. Because my relationship is a commitment that I have to hold. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19. Because the number of deep and meaningful discussions I share with my partner are very satisfying for me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20. Because living with my partner gives me the opportunity to develop new abilities that I didn't know I had. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 21. Because the moments I share with my partner are very stimulating and satisfying for me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**18-Item Version**

There are many different reasons why people get involved in couple relationships. Thinking about your current sexual partner, please take a few moments to think about the reasons why you are currently in a relationship with that person (if you have more than one sexual partner, think about the one that is participating in this study with you). Then using the scale below, please indicate the degree to which you feel each of the following items corresponds to your reasons for having a relationship with your sexual partner by choosing the appropriate answer choice.

| Does not corresponds at all | Corresponds very little | Corresponds slightly | Corresponds moderately | Corresponds well | Corresponds very well | Corresponds exactly |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

1. I don't know. In all honesty, I don't feel like making the effort to keep this relationship together.
2. Because I need to be in a relationship with my partner to feel important.
3. Because I value the way my relationship with my partner allows me to improve myself as a person.
4. I don't know why anymore. Our relationship is destined to fail since I no longer see any possibility of saving it.
5. Because I value the way our life as a couple gives me the opportunity to participate in new activities.
6. Because I love the many fun and exciting times I share with my partner.
7. Because I would feel guilty if I separated from my partner.
8. Because people who are important to me (e.g., children, family, friends) are proud of our relationship and I wouldn't want to disappoint them.
9. Because my partner wouldn't be able to cope with a separation.
10. Because this is the person I have chosen to share life plans that are important to me.
11. There is nothing motivating me to stay in my relationship with my partner.
12. Because I do not want to be alone.
13. Because with my partner, I feel free to commit myself to future plans that I hold dear.
14. Because my relationship allows me to share my emotions and special moments with someone.
15. Because my relationship is a commitment that I must keep.
16. Because the many deep and meaningful discussions I have with my partner are very satisfying to me.
17. Because being with my partner gives me the opportunity to develop new abilities that I didn't know I had.
18. Because the moments I share with my partner are very stimulating and satisfying to me.

## Appendix J: Relationship Assessment Scale (Hendrick, 1988)

Please answer the following questions using the scale below.

Low (1) – High (5)

1. How well does your partner meet your needs?

1 2 3 4 5

2. In general, how satisfied are you with your relationship?

1 2 3 4 5

3. How good is your relationship compared to most?

1 2 3 4 5

4. How often do you wish you hadn't gotten into this relationship?

1 2 3 4 5

5. To what extent has your relationship met your original expectations?

1 2 3 4 5

6. How much do you love your partner?

1 2 3 4 5

7. How many problems are there in your relationship?

1 2 3 4 5

## Appendix K: Study 2 Consent Forms – English
## Time 1 Consent Form – English

**Title of the study: "**Part One-Exploring needs and social relationships"

**Invitation to Participate:** I am invited to participate in a study that examines how motivation and goals influence social relationships. I am aware that this study is being conducted by Dr. Luc Pelletier (Principal Investigator, School of Psychology, Faculty of Social Sciences) who could be contacted at _____ or by email at _____, and Traleena Rouleau (Research Assistant, School of Psychology, Faculty of Social Sciences), who could be contacted by email at _____

**Participation:** As a participant, I will be asked questions about my self-identified gender, the self-identified gender of my partner, and if I am currently in a romantic relationship that has lasted at least three months. If I meet the screening criteria, I will be asked questions about the following factors: motivation, motivation for relationship activities, relationship goals, self-compassion for myself, my perceptions about how I support my partner in our relationship, my perceptions about how my partner supports me in our relationship, my satisfaction within my relationship, and behaviours I engage in during relationship conflicts. Completion of these questionnaires should take approximately 30 to 35 minutes. This study will help us learn more about peoples' needs in social relationships and how they cognitively view their social relationships.

**Risks:** My participation in this study will entail that I volunteer very personal information regarding my motivation, relationship motivation, relationship goals, self-compassion, feelings of support in my romantic relationships, relationship satisfaction, and relationship conflicts. If ever I experience any psychological or physical discomfort, I understand that my participation is entirely voluntary and that I may withdraw from the study at any time without being penalized. If I choose to withdraw from the study, my data will be destroyed and will not be used in the analyses, unless I grant permission to use it. All efforts have been made to minimize the risks involved in this study.

**Benefits:** The information that will be provided by my participation in this study, and the data that it generates, will facilitate research that aims to understand how motivation and goals relate to self-compassion, relationship behaviors, relationship interactions, and relationship satisfaction. This research will help individuals understand what leads to positive behaviors in romantic relationships and how romantic relationships are perceived by partners.

**Confidentiality and anonymity:** I am aware that all the information that I provide by completing this questionnaire will remain strictly confidential. I understand that the contents will be used only for research purposes and that any personal information [about myself] that is collected during the study will be kept strictly confidential. Only the researchers will have access to this information; however, the server that is used to collect this information (Qualtrics) is a Canadian server; therefore, the data that I provide will be subject to Canadian legislation relating to security. All information will be coded so that my identity remains anonymous, except if I provide my email address to participate in part two of the study. My participation is strictly voluntary and I maintain the right to withdraw from the study at any time. In case of voluntary withdrawal, I may ask that all the data concerning my participation be destroyed. Only I can contact the researchers in order to request removal of data linked to my ISPR number. In order to

minimize the risks of security breaches, and to help ensure my confidentiality, the researchers recommend that I use standard safety measures, such as signing out of my account, closing my browser, and locking my screen or device when I am no longer using them/when I have completed the study.

**Conservation of data:** The data collected through this questionnaire will be kept in a secure manner, where all information provided will be kept on a password-protected computer at the University of Ottawa in the Principal Investigator's locked office. The data will be kept for five years after publication of the study. After this period, all data will be erased or destroyed.

**Compensation:** I understand that I am participating in this study as part of the Integrated System of Participants in Research (ISPR) and that I will receive credit for participating in accordance with the rules of that system. For completing this study, I will be compensated with 1 point toward my course. If I choose to withdraw from the study, I will still receive this compensation.

**Voluntary Participation**: I am under no obligation to participate. If I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, all data gathered until the time of withdrawal will not be used for research purposes, unless I grant permission to use it.

**Acceptance:** I agree to participate in the above research study conducted by Dr. Luc Pelletier (Principal Investigator) and Traleena Rouleau (Research Assistant).

If I have any questions about the study, I may contact the research assistant or the principal investigator. In case I experience any short-term negative experiences after completing this study, I am aware that there are resources for mental health services available on or around campus: Counselling and Coaching Services (100 Marie-Curie Private, 4th Floor, MCE, phone number: 613-562-5200, email: couns@uottawa.ca). Should I feel I would like additional support with my romantic relationship after this study, I am aware that there are services in the Ottawa community that are available, like the Centre for Interpersonal Relationships, that has a focus on relationship improvement (Suite 600 at 267 O'Connor Street, phone number: 1-855-779-2347, email: ottawa.admin@cfir.ca).

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5
Tel.: (613) 562-5387
Email: ethics@uottawa.ca

Participants should print a copy of the consent form to keep for their personal records.

**Do you agree to participate in this study?**
Yes
No

**Time 2 Consent Form - English**

**Title of the study: "**Part Two-Exploring needs and social relationships"

**Invitation to Participate:** I am invited to participate in a study that examines how motivation and goals influence social relationships. I am aware that this study is being conducted by Dr. Luc Pelletier (Principal Investigator, School of Psychology, Faculty of Social Sciences) who could be contacted at _____ or by email at _____, and Traleena Rouleau (Research Assistant, School of Psychology, Faculty of Social Sciences), who could be contacted by email at _____

**Participation:** As a participant, I will be asked whether I am still in the same romantic relationship I was in during part one of this study. If I meet the screening criteria, I will be asked questions about the following factors: self-compassion for myself, my perceptions about how I support my partner in our relationship, my perceptions about how my partner supports me in our relationship, my satisfaction within my relationship, and behaviours I engage in during relationship conflicts. Completion of these questionnaires should take approximately 30 to 35 minutes. This study will help us learn more about how motivation is related to romantic relationships and how people cognitively view their romantic relationships.

**Risks:** My participation in this study will entail that I volunteer very personal information regarding my self-compassion, feelings of support in my romantic relationships, relationship satisfaction, and relationship conflicts. If ever I experience any psychological or physical discomfort, I understand that my participation is entirely voluntary and that I may withdraw from the study at any time without being penalized. If I choose to withdraw from the study, my data will be destroyed and will not be used in the analyses, unless I grant permission to use it. All efforts have been made to minimize the risks involved in this study.

**Benefits:** The information that will be provided by my participation in this study, and the data that it generates, will facilitate research that aims to understand how motivation and goals relate to self-compassion, positive relationship behaviors, relationship interactions, and relationship satisfaction. This research will help individuals understand what leads to positive behaviors in romantic relationships and how romantic relationships are perceived by partners.

**Confidentiality and anonymity:** I am aware that all the information that I provide by completing this questionnaire will remain strictly confidential. I understand that the contents will be used only for research purposes and that any personal information [about myself] that is collected during the study will be kept strictly confidential. Only the researchers will have access to this information; however, the server that is used to collect this information (Qualtrics) is a Canadian server; therefore, the data that I provide will be subject to Canadian legislation relating to security. All information will be coded so that my identity remains anonymous, except if I provide permission to be contacted if I am the recipient of a financial incentive. In this case, only the researcher will have access to my email address. My participation is strictly voluntary and I maintain the right to withdraw from the study at any time. In case of voluntary withdrawal, I may ask that all the data concerning my participation be destroyed. No information that I will submit will allow others to identify data that is linked to my participation, except if I provide an email address to be entered for a chance to win a financial incentive. In this case, only the researchers

will have access to the email address and will destroy it once the draw for the financial incentive takes place. Only I can contact the researchers in order to request removal of data linked to my ISPR number. In order to minimize the risks of security breaches, and to help ensure my confidentiality, the researchers recommend that I use standard safety measures, such as signing out of my account, closing my browser, and locking my screen or device when I am no longer using them/when I have completed the study.

**Conservation of data:** The data collected through this questionnaire will be kept in a secure manner, where all information provided will be kept on a password-protected computer at the University of Ottawa in the Principal Investigator's locked office. The data will be kept for five years after publication of the study. After this period, all data will be erased or destroyed.

**Compensation:** I understand that I am participating in this study for a chance to win $100. If I choose to withdraw from the study, I will still be entered to win $100.

To thank me for my contribution to the research project, I will be given the option to enter my email address in a draw to win $100. The draw is open to all research participants who enter their email address in the draw, regardless of whether they decide to withdraw from further participating in the research project. Upon completion of the study, an email address will be randomly selected amongst those who have entered and the person whose email address is drawn will be informed by email. To win the prize, the person must correctly answer a skill testing question. If the person cannot be reached within 14 days from the date of the draw, the prize will be awarded to the second email address that is randomly selected and so on until the prize has been awarded. The odds of winning a prize will depend on the number of eligible entries received.

The email address that I provide when I enter the draw is collected for the purposes of contacting me if my email address is selected in the draw. If I am selected as the winner, the researcher will ask for my name to be included on the e-transfer. My contact information I have provided will be kept confidential and then destroyed once the prizes have been awarded.

The researchers reserve the right to cancel the draw or cancel the awarding of the prize if the integrity of the draw or the research or the confidentiality of participants is compromised. The draw is governed by the applicable laws of Canada.

**Voluntary Participation**: I am under no obligation to participate. If I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, all data gathered until the time of withdrawal will not be used for research purposes, unless I grant permission to use it.

**Acceptance:** I agree to participate in the above research study conducted by Dr. Luc Pelletier (Principal Investigator) and Traleena Rouleau (Research Assistant).

If I have any questions about the study, I may contact the research assistant or the principal investigator. In case I experience any short-term negative experiences after completing this study, I am aware that there are resources for mental health services available on or around campus: Counselling and Coaching Services (100 Marie-Curie Private, 4$^{th}$ Floor, MCE, phone number:

613-562-5200, email: couns@uottawa.ca). Should I feel I would like additional support with my romantic relationship after this study, I am aware that there are services in the Ottawa community that are available, like the Centre for Interpersonal Relationships, that has a focus on relationship improvement (Suite 600 at 267 O'Connor Street, phone number: 1-855-779-2347, email: ottawa.admin@cfir.ca).

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5
Tel.: (613) 562-5387
Email: ethics@uottawa.ca

Participants should print a copy of the consent form to keep for their personal records.

**Do you agree to participate in this study?**

Yes

No

## Appendix L: Study 2 Consent Forms – French
## Time 1 Consent Form – French

**Titre de l'étude:** «Première partie - Explorer les besoins et les relations sociales»

**Invitation à participer:** Je suis invitée à participer à une étude qui examine l'influence de la motivation et des objectifs sur les relations sociales. Je suis conscient que cette étude est menée par le Dr Luc Pelletier (chercheur principal, École de psychologie, Faculté des sciences sociales), qui pourrait être contacté au _____ ou par courriel à _____ et Traleena Rouleau (adjointe à la recherche, École de psychologie, Faculté des sciences sociales), qui pourrait être contactée par courriel à _____.

**Participation:** En tant que participant, on me posera des questions sur mon genre, celui que mon partenaire s'est identifié, et si je suis actuellement dans une relation amoureuse qui dure depuis au moins trois mois. Si je remplis les critères de sélection, on me posera des questions sur les facteurs suivants: motivation, motivation pour les activités relationnelles, objectifs de la relation, compassion pour moi-même, mes perceptions de la façon dont je soutiens mon partenaire dans notre relation, mes perceptions de la partenaire me soutient dans notre relation, ma satisfaction dans ma relation et les comportements que je prends lors de conflits relationnels. La réponse à ces questionnaires devrait prendre environ 30 à 35 minutes. Cette étude nous aidera à en savoir plus sur les besoins des individus en relations sociales et sur la manière dont ils perçoivent leurs relations sociales de manière cognitive.

**Risques:** Ma participation à cette étude implique que je transmette volontairement des informations très personnelles concernant ma motivation, la motivation de la relation, les objectifs de la relation, la compassion envers soi-même, le sentiment de soutien dans mes relations amoureuses, la satisfaction de ma relation et les conflits de relations. Si jamais je ressens un inconfort physique ou psychologique, je comprends que ma participation est entièrement volontaire et que je peux me retirer de l'étude à tout moment sans être pénalisé. Si je choisis de me retirer de l'étude, mes données seront détruites et ne seront pas utilisées dans les analyses, à moins que je n'accorde la permission de les utiliser. Tous les efforts ont été déployés pour minimiser les risques liés à cette étude.

**Avantages:** Les informations qui seront fournies par ma participation à cette étude, ainsi que les données qu'elle génère, faciliteront les recherches visant à comprendre comment la motivation et les objectifs se rapportent à la compassion, aux comportements relationnels, aux relations interpersonnelles et à la satisfaction relationnelle. Cette recherche aidera les individus à comprendre ce qui conduit à des comportements positifs dans les relations amoureuses et comment les relations amoureuses sont perçues par les partenaires.

**Confidentialité et anonymat:** je suis conscient que toutes les informations que je fournis en remplissant ce questionnaire resteront strictement confidentielles. Je comprends que le contenu ne sera utilisé qu'à des fins de recherche et que toute information personnelle [à propos de moi-même] recueillie au cours de l'étude sera strictement confidentielle. Seuls les chercheurs auront accès à ces informations. Cependant, le serveur utilisé pour collecter ces informations (Qualtrics) est un serveur canadien. Par conséquent, les données que je fournis seront soumises à la

législation canadienne en matière de sécurité. Toutes les informations seront codées de manière à ce que mon identité reste anonyme, sauf si je fournis mon adresse électronique pour participer à la deuxième partie de l'étude. Ma participation est strictement volontaire et je conserve le droit de me retirer de l'étude à tout moment. En cas de retrait volontaire, je peux demander que toutes les données concernant ma participation soient détruites. Je suis le seul à pouvoir contacter les chercheurs afin de demander la suppression des données liées à mon numéro ISPR. Afin de minimiser les risques d'atteinte à la sécurité et de protéger ma confidentialité, les enquêteurs me recommandent de prendre des mesures de sécurité standard, telles que me déconnecter de mon compte, fermer mon navigateur et verrouiller mon écran ou mon appareil lorsque je ne suis plus les utiliser / quand j'ai terminé l'étude.

**Conservation des données:** Les données recueillies au moyen de ce questionnaire seront conservées de manière sécurisée. Toutes les informations fournies seront conservées sur un ordinateur protégé par un mot de passe de l'Université d'Ottawa situé dans le bureau verrouillé du chercheur principal. Les données seront conservées pendant cinq ans après la publication de l'étude. Après cette période, toutes les données seront effacées ou détruites.

**Compensation:** Je comprends que je participe à cette étude dans le cadre du Système intégré de participants à la recherche (ISPR) et que je bénéficierai de crédits pour participer conformément aux règles de ce système. Pour terminer cette étude, je serai rémunéré avec 1 point pour mon cours. Si je choisis de me retirer de l'étude, je recevrai quand même cette compensation.

**Participation volontaire:** Je n'ai aucune obligation de participer. Si je choisis de participer, je peux me retirer de l'étude à tout moment et / ou refuser de répondre à toutes les questions sans subir de conséquences négatives. Si je choisis de retirer mes données, toutes les données recueillies jusqu'au moment du retrait ne seront pas utilisées à des fins de recherche, à moins que je n'autorise l'autorisation de les utiliser.

**Acceptation:** J'accepte de participer à la recherche susmentionnée menée par le Dr Luc Pelletier (chercheur principal) et Traleena Rouleau (adjointe à la recherche).

Si j'ai des questions sur l'étude, je peux contacter l'assistant de recherche ou le chercheur principal. Au cas où j'éprouverais des expériences négatives à court terme après avoir terminé cette étude, je suis conscient qu'il existe des ressources pour les services de santé mentale disponibles sur ou autour du campus: Services de conseil et d'encadrement (100 Marie-Curie Private, 4e étage, MCE, numéro de téléphone : 613-562-5200, courriel: couns@uottawa.ca). Si je sens que je voudrais davantage de soutien dans mes relations amoureuses après cette étude, je suis consciente que certains services disponibles dans la communauté d'Ottawa, comme le Centre pour les relations interpersonnelles, mettent l'accent sur l'amélioration des relations (pièce 600, p. 267). O'Connor Street, numéro de téléphone: 1-855-779-2347, courriel: ottawa.admin@cfir.ca).

Si j'ai des questions sur la conduite éthique de cette étude, je peux contacter le responsable du protocole pour l'éthique dans la recherche, Université d'Ottawa, pavillon Tabaret, 550, rue Cumberland, pièce 154, Ottawa, ON K1N 6N5.
Tél .: (613) 562-5387

Courriel: éthiques@uottawa.ca

Les participants doivent imprimer une copie du formulaire de consentement à conserver pour leurs dossiers personnels.

**Acceptez-vous de participer à cette étude?**

Oui

Non

**Time 2 Consent Form - French**

**Titre de l'étude:** «Deuxième partie - Explorer les besoins et les relations sociales»

**Invitation à participer:** Je suis invité à participer à une étude qui examine comment la motivation et les objectifs influencent les relations sociales. Je sais que cette étude est menée par le Dr Luc Pelletier (chercheur principal, École de psychologie, Faculté des sciences sociales) qui pourrait être contacté au _____ ou par courriel à _____, et Traleena Rouleau (assistante de recherche, École de psychologie, Faculté des sciences sociales), qui pourraient être contactées par courriel à _____

**Participation:** En tant que participant, on me demandera si je suis toujours dans la même relation amoureuse que j'étais dans la première partie de cette étude. Si je remplis les critères de sélection, on me posera des questions sur les facteurs suivants: la compassion pour moi-même, mes perceptions sur la façon dont je soutiens mon partenaire dans notre relation, mes perceptions sur la façon dont mon partenaire me soutient dans notre relation, ma satisfaction à l'intérieur ma relation et les comportements que j'adopte lors de conflits relationnels. La réponse à ces questionnaires devrait prendre environ 30 à 35 minutes. Cette étude nous aidera à en savoir plus sur la façon dont la motivation est liée aux relations amoureuses et sur la façon dont les gens voient cognitivement leurs relations amoureuses.

**Risques:** Ma participation à cette étude impliquera que je donne volontairement des informations très personnelles concernant ma compassion, mes sentiments de soutien dans mes relations amoureuses, la satisfaction relationnelle et les conflits relationnels. Si jamais j'éprouve un inconfort psychologique ou physique, je comprends que ma participation est entièrement volontaire et que je peux me retirer de l'étude à tout moment sans être pénalisé. Si je choisis de me retirer de l'étude, mes données seront détruites et ne seront pas utilisées dans les analyses, sauf si j'autorise à les utiliser. Tous les efforts ont été faits pour minimiser les risques impliqués dans cette étude.

**Avantages:** Les informations qui seront fournies par ma participation à cette étude, et les données qu'elles génèrent, faciliteront la recherche qui vise à comprendre comment la motivation et les objectifs sont liés à l'autocompassion, aux comportements relationnels positifs, aux interactions relationnelles et à la satisfaction relationnelle. Cette recherche aidera les individus à comprendre ce qui mène à des comportements positifs dans les relations amoureuses et comment les relations amoureuses sont perçues par les partenaires.

**Confidentialité et anonymat:** Je suis conscient que toutes les informations que je fournis en remplissant ce questionnaire resteront strictement confidentielles. Je comprends que le contenu ne sera utilisé qu'à des fins de recherche et que toute information personnelle [sur moi-même] qui est collectée au cours de l'étude sera strictement confidentielle. Seuls les chercheurs auront accès à ces informations; cependant, le serveur utilisé pour recueillir ces informations (Qualtrics) est un serveur canadien; par conséquent, les données que je fournis seront soumises à la législation canadienne en matière de sécurité. Toutes les informations seront codées afin que mon identité reste anonyme, sauf si je donne la permission d'être contacté si je suis bénéficiaire d'une incitation financière. Dans ce cas, seul le chercheur aura accès à mon adresse e-mail. Ma participation est strictement volontaire et je conserve le droit de me retirer de l'étude à tout

moment. En cas de retrait volontaire, je pourrai demander que toutes les données concernant ma participation soient détruites. Aucune information que je soumettrai ne permettra à d'autres d'identifier des données liées à ma participation, sauf si je fournis une adresse e-mail à saisir pour avoir une chance de gagner une incitation financière. Dans ce cas, seuls les chercheurs auront accès à l'adresse e-mail et la détruiront une fois le tirage de l'incitation financière effectué. Je suis le seul à pouvoir contacter les chercheurs afin de demander la suppression des données liées à mon numéro ISPR. Afin de minimiser les risques d'atteintes à la sécurité et de garantir ma confidentialité, les chercheurs recommandent d'utiliser des mesures de sécurité standard, telles que la déconnexion de mon compte, la fermeture de mon navigateur et le verrouillage de mon écran ou de mon appareil lorsque je ne suis plus les utiliser / quand j'ai terminé l'étude.

**Conservation des données:** Les données recueillies grâce à ce questionnaire seront conservées de manière sécurisée, où toutes les informations fournies seront conservées sur un ordinateur protégé par mot de passe à l'Université d'Ottawa dans le bureau verrouillé du chercheur principal. Les données seront conservées pendant cinq ans après la publication de l'étude. Après cette période, toutes les données seront effacées ou détruites.

**Compensation:** Je comprends que je participe à cette étude pour avoir une chance de gagner 100 $. Si je choisis de me retirer de l'étude, je serai toujours inscrit pour gagner 100 $.

Pour me remercier de ma contribution au projet de recherche, on me donnera la possibilité de saisir mon adresse e-mail lors d'un tirage pour gagner 100 $. Le tirage est ouvert à tous les participants à la recherche qui entrent leur adresse e-mail dans le tirage, qu'ils décident ou non de se retirer de leur participation au projet de recherche. À la fin de l'étude, une adresse e-mail sera choisie au hasard parmi ceux qui se sont inscrits et la personne dont l'adresse e-mail est tirée sera informée par e-mail. Pour gagner le prix, la personne doit répondre correctement à une question d'habileté. Si la personne ne peut être contactée dans les 14 jours suivant la date du tirage, le prix sera attribué à la deuxième adresse e-mail sélectionnée au hasard et ainsi de suite jusqu'à ce que le prix ait été attribué. Les chances de gagner un prix dépendent du nombre de bulletins de participation admissibles reçus.

L'adresse e-mail que je fournis lorsque je participe au tirage est collectée afin de me contacter si mon adresse e-mail est sélectionnée lors du tirage. Si je suis sélectionné comme gagnant, le chercheur demandera que mon nom pour le e-transfer. Mes coordonnées que j'ai fournies resteront confidentielles, puis détruites une fois les prix attribués.

Les chercheurs se réservent le droit d'annuler le tirage ou d'annuler l'attribution du prix si l'intégrité du tirage ou la recherche ou la confidentialité des participants est compromise. Le tirage est régi par les lois applicables du Canada.

**Participation volontaire:** je n'ai aucune obligation de participer. Si je choisis de participer, je peux me retirer de l'étude à tout moment et / ou refuser de répondre à toutes les questions, sans subir de conséquences négatives. Si je choisis de me retirer, toutes les données recueillies jusqu'au moment du retrait ne seront pas utilisées à des fins de recherche, sauf si j'autorise à les utiliser.

**Acceptation:** J'accepte de participer à l'étude de recherche ci-dessus menée par le Dr Luc Pelletier (chercheur principal) et Traleena Rouleau (assistante de recherche).

Si j'ai des questions sur l'étude, je peux contacter l'assistant de recherche ou le chercheur principal. Dans le cas où j'éprouve des expériences négatives à court terme après avoir terminé cette étude, je suis conscient qu'il existe des ressources pour les services de santé mentale disponibles sur ou autour du campus: Services de conseil et de coaching (100 Marie-Curie Private, 4th Floor, MCE, numéro de téléphone : 613-562-5200, courriel: couns@uottawa.ca). Si je sens que j'aimerais un soutien supplémentaire dans ma relation amoureuse après cette étude, je suis conscient qu'il existe des services dans la communauté d'Ottawa qui sont disponibles, comme le Centre for Interpersonal Relationships, qui met l'accent sur l'amélioration des relations (Suite 600 au 267 O'Connor Street, numéro de téléphone: 1-855-779-2347, courriel: ottawa.admin@cfir.ca).

Si j'ai des questions concernant la conduite éthique de cette étude, je peux contacter l'agent de protocole pour l'éthique en recherche, Université d'Ottawa, Pavillon Tabaret, 550, rue Cumberland, pièce 154, Ottawa, ON K1N 6N5
Tél .: (613) 562-5387
Courriel: ethique@uottawa.ca

Les participants doivent imprimer une copie du formulaire de consentement à conserver pour leurs dossiers personnels.

**Acceptez-vous de participer à cette étude?**

Oui

Non

## Appendix M: Study 2 Descriptions

Study description, as it will appear on the University of Ottawa ISPR

**Study Title:** "Part One-Exploring needs and social relationships" English only

*Study description:* The present study aims to explore how our needs affect our social relationships. This study consists of demographic information (e.g., age, self-identified gender, self-identified gender of relationship partner, relationship status and length of dating relationship). If screening criteria are met, the following variables will be assessed: motivation, motivation for relationship activities, relationship goals, self-compassion, support in relationships, conflict resolution behaviours in relationships, and satisfaction in relationships. This study will help us learn more about peoples' needs in social relationships and how they cognitively view their social relationships. **Please note that this study is only offered in English.** Participants must be English-speaking and be in a romantic relationship that has lasted at least three months.

Pre-screen restrictions: Yes

Duration: Pre-screening questions and questionnaires should take approximately 30-35 minutes to complete.

Compensation: 1 point towards a course registered with the ISPR

Researchers: Dr. Luc Pelletier (Principal Investigator)
Email: _____

Traleena Rouleau (Research Assistant)
Email: _____

Participant sign-up deadline: None

Study description, as it will appear on Qualtrics

**Study Title:** "Part Two-Exploring needs and social relationships" English only

*Study description:* The present study aims to explore how our needs affect our social relationships. This study will ask me if I am in the same romantic relationship I was in when I completed part one. If screening criteria are met, the following variables will be assessed: self-compassion, support in relationships, conflict resolution behaviours in relationships, and satisfaction in relationships. This study will help us learn more about peoples' needs in social relationships and how they cognitively view their social relationships. **Please note that this study is only offered in English.** Participants must be English-speaking and be in the same romantic relationship they reported at Part One of the study.

Pre-screen restrictions: Yes

Duration: Pre-screening questions and questionnaires should take approximately 30-35 minutes to complete.

Compensation: A chance to win $100

Researchers: Dr. Luc Pelletier (Principal Investigator)
Email: _____

Traleena Rouleau (Research Assistant)
Email: _____

Participant sign-up deadline: None

## Appendix N: Study 2 Debriefing Forms - English

We thank you for participating in our study. We hope that you found this experience interesting and rewarding. At the beginning of the study, we told you that we were interested in examining how needs influence our social relationships.

Although the study did explore these topics, the study's specific objectives were not explicitly discussed (but will be explained in the following paragraphs). We did not fully explain our objectives because we wanted your responses to be natural, not socially desirable, and not influenced by our hypotheses of the study. We believed that we could obtain more natural and valid responses if we did not explain the direct purpose of our study. We hope that you can appreciate this choice and that you do not feel upset about being partially deceived.

***What are our objectives and hypotheses in this research?***

The first objective of this research was to investigate how global motivation influences need-supportive behaviours and relationship functioning. Self-determined motivation is a general motivational orientation in which people feel personally motivated in several aspects of their lives. Lower self-determined motivation reflects a motivational orientation in which people feel less motivated and more controlled to do certain things in aspects of their lives. Individuals with more self-determined global motivation exhibit self-determined relationship motivation, as has been shown in previous research. According to Deci and Ryan's Relationship Motivation Theory, relationships in which there is self-determined motivation result in increased interest in partners' perspectives and well-being, a desire for empathy with close others, and supportive behaviours towards romantic partners. Because of this, we believed that global motivation, through its association with relationship motivation, would translate into more supportive behaviours between partners, which has been shown in past research. It was also predicted that individuals with self-determined motivation would engage in more conflict resolution behaviours with their partners than individuals with less self-determined motivation. Lastly, it was predicted that partners with self-determined motivation would demonstrate enhanced relationship functioning and satisfaction. It was predicted that participants with low self-determined motivation would demonstrate fewer supportive behaviours in their relationships, fewer conflict resolution behaviours, and less relationship satisfaction.

The second objective of this research was to examine the relationship between motivation for relational activities, need-supportive behaviours, and relationship functioning. Because of the strong link between self-determined motivation for a relationship and for relationship activities, it was predicted that motivation for relationship activities would also result in increased supportive relationship behaviours between partners, greater conflict resolution behaviours, and greater relationship satisfaction. It was predicted that participants with low self-determined motivation for relationship activities would demonstrate fewer supportive behaviours in their relationships, fewer conflict resolution behaviours, and less relationship satisfaction.

The third objective of this study was to analyze the relationship between compassionate and self-image goals and measures of need-supportive behaviours and relationship functioning. Compassionate goals refer to motives to support other people and enhance their well-being, out of concern for others and not out of a desire to enhance one's own self-image. On the contrary, self-image goals pertain to motives to create a desired public and private self-image to attain

interpersonal outcomes. Individuals with compassionate goals are expected to provide additional support to others, resulting in enhanced perceived support, reciprocal support, and relationship satisfaction within romantic relationships. It was predicted that higher levels of compassionate goals would result in increased need supportive and conflict resolution behaviours, as compassionate goals can predict enhanced need support. It is hypothesized that higher levels of self-image goals would result in stagnant or reduced supportive and conflict resolution behaviours throughout the course of a relationship as self-image goals do not predict need support in a relationship. Compassionate goals contribute to partner relationship satisfaction. It was thus predicted that higher compassionate goals would result in higher relationship satisfaction. Self-image goals reduce the impact of compassionate goals and so, it was predicted that self-image goals would reduce relationship satisfaction.

We believed that those high in global self-determined motivation, motivation for relational activities, and compassionate goals would demonstrate high self-compassion and that those low in global self-determined motivation, motivation for relational activities, and high in self-image goals would demonstrate low self-compassion. We predicted this because self-compassionate individuals have more self-determined motivation. In addition, people who have compassionate goals have higher self-compassion, whereas people who have self-image goals have lower self-compassion. We also predicted that those with high self-compassion would demonstrate consistently high or higher self-compassion throughout the course of a relationship. Within a romantic relationship, participants' levels of self-compassion are positively correlated with those of their partner. This could be due to each relationship partner self-selecting for partners who confirm beliefs of self-worth. Partners with high levels of self-compassion also engage in more positive relationship behaviours. In addition to self-selecting for equally self-compassionate partners, highly self-compassionate participants may demonstrate increased self-compassion from the positive relationship behaviours of their self-compassionate partners, which are theorized to foster self-compassion. It was predicted that participants who were high in self-compassion would demonstrate consistently high or higher self-compassion throughout the course of a romantic relationship. On the contrary, it was predicted that individuals low in self-compassion would self-select for individuals who were also low in self-compassion and who also confirmed their beliefs of self-worth. Because it is theorized that participants low in self-compassion would have partners who were also low in self-compassion, it was predicted that participants low in self-compassion would not benefit from fostered self-compassion from their romantic partners, as partners who are less self-compassionate engage in fewer positive relationship behaviours, leading to less cultivated self-compassion. It was thus predicted that individuals low in self-compassion would demonstrate consistently low or lower self-compassion throughout the course of their romantic relationships.

***Why is this important to scientists or the general public?***

This work will be the first to longitudinally explore motivational predictors of romantic relationship processes, in exploring global motivation, motivation for relational activities, and compassionate and self-image goals' capacity to predict relationship functioning, need-supportive behaviours, and self-compassion over a period of three months. Global motivation and motivation for relational activities have never been longitudinally explored in relation to romantic relationship processes and self-compassion, and compassionate and self-image goals have not been considered in the context of motivation and romantic relationship behaviours. This

work will also introduce a motivational lens in exploring how self-determined motivation for romantic relationships relates to supportive relationship behaviours and relationship functioning in an attempt to replicate previous research that has demonstrated that satisfaction and thwarting of relationship needs are associated with relationship quality and commitment in intimate relationships.

***What if I have questions later?***

Any questions you might have about your rights as a research participant may be addressed to Protocol Officer for Ethics in Research, 550 Cumberland St., Room 154, (613) 562-5387 or by email at ethics@uottawa.ca.

For more information about this research, you may contact: Dr. Luc Pelletier (Principal Investigator), School of Psychology, University of Ottawa _____ or by email: _____ or Traleena Rouleau (Research Assistant), School of Psychology, University of Ottawa _____ or by email: _____.

If you have any questions about the study, you may contact the research assistant or the principal investigator. In case you experience any short-term negative experiences after completing this study, there are resources for mental health services available on or around campus: Counselling and Coaching Services (100 Marie-Curie Private, 4th Floor, MCE, phone number: 613-562-5200, email: couns@uottawa.ca). Should you feel you would like additional support with your romantic relationship after this study, there are services in the Ottawa community that are available, like the Centre for Interpersonal Relationships, that has a focus on relationship improvement (Suite 600 at 267 O'Connor Street, phone number: 1-855-779-2347, email: ottawa.admin@cfir.ca).

I consent for my completed data to be used for this research project, conducted by Traleena Rouleau and Dr. Luc Pelletier.

Yes
No

## Appendix O: Study 2 Debriefing Forms - French

Nous vous remercions de participer à notre étude. Nous espérons que vous avez trouvé cette expérience intéressante et enrichissante. Au début de l'étude, nous vous avions dit que nous voulions examiner l'influence des besoins sur nos relations sociales.

Bien que l'étude ait effectivement exploré ces sujets, ses objectifs spécifiques n'ont pas été explicitement discutés (mais seront expliqués dans les paragraphes suivants). Nous n'avons pas expliqué complètement nos objectifs car nous souhaitions que vos réponses soient naturelles, non socialement souhaitables et non influencées par nos hypothèses de l'étude. Nous pensions pouvoir obtenir des réponses plus naturelles et valables si nous n'expliquions pas l'objectif direct de notre étude. Nous espérons que vous pourrez apprécier ce choix et que vous ne vous sentirez pas fâché d'être partiellement trompé.

***Quels sont nos objectifs et hypothèses dans cette recherche?***
Le premier objectif de cette recherche était d'étudier comment la motivation globale influence les comportements de soutien aux besoins et le fonctionnement des relations. La motivation autodéterminée est une orientation de motivation générale dans laquelle les personnes se sentent personnellement motivées dans plusieurs aspects de leur vie. Une motivation auto-déterminée plus faible reflète une orientation de motivation dans laquelle les gens se sentent moins motivés et plus contrôlés pour faire certaines choses dans certains aspects de leur vie. Les individus ayant une motivation globale plus autodéterminée manifestent une motivation relationnelle autodéterminée, comme cela a été démontré dans des recherches antérieures. Selon la théorie de la motivation des relations de Deci et Ryan, les relations dans lesquelles la motivation est autodéterminée se traduisent par un intérêt accru pour les perspectives et le bien-être des partenaires, un désir d'empathie avec les proches et des comportements de soutien envers les partenaires romantiques. Pour cette raison, nous avons pensé que la motivation globale, via son association avec la motivation relationnelle, se traduirait par davantage de comportements de soutien entre partenaires, comme l'ont montré des recherches antérieures. Il était également prédit que les personnes ayant une motivation autodéterminée adopteraient davantage de comportements de résolution de conflit avec leurs partenaires que les personnes ayant une motivation moins autodéterminée. Enfin, il a été prédit que les partenaires motivés par leur volonté démontreraient une amélioration du fonctionnement et de la satisfaction de la relation. Il a été prédit que les participants avec une motivation peu autodéterminée démontreraient moins de comportements de soutien dans leurs relations, moins de comportements de résolution de conflit et moins de satisfaction relationnelle.

Le deuxième objectif de cette recherche était d'examiner la relation entre la motivation pour des activités relationnelles, les comportements répondant aux besoins et le fonctionnement de la relation. En raison du lien étroit qui existe entre la motivation autodéterminée pour une relation et les activités relationnelles, il a été prédit que la motivation pour les activités relationnelles se traduirait également par une augmentation des comportements relationnels favorables entre partenaires, une plus grande résolution des conflits et une plus grande satisfaction relationnelle. Il a été prédit que les participants avec une motivation autodéterminée faible pour les activités relationnelles manifesteraient moins de comportements de soutien dans leurs relations, moins de comportements de résolution de conflit et moins de satisfaction de la relation.

Le troisième objectif de cette étude était d'analyser la relation entre les objectifs de compassion et d'image de soi et les mesures de comportements répondant au besoin et du fonctionnement de la relation. Les objectifs de compassion se rapportent aux motifs de soutenir les autres et d'améliorer leur bien-être, par souci des autres et non par désir d'améliorer leur propre image. Au contraire, les objectifs d'image de soi ont trait aux motifs de créer une image de soi publique et privée souhaitée pour atteindre des résultats interpersonnels. Les personnes ayant des objectifs de compassion sont censées fournir un soutien supplémentaire aux autres, ce qui se traduit par une amélioration du soutien perçu, du soutien réciproque et de la satisfaction des relations au sein des relations amoureuses. Il a été prédit que des niveaux plus élevés d'objectifs de compassion entraîneraient une augmentation des comportements de soutien du besoin et de résolution des conflits, car des objectifs de compassion peuvent prédire un soutien accru. L'hypothèse est que des niveaux plus élevés d'objectifs d'image de soi se traduiraient par des comportements de soutien et de résolution de conflit stagnants ou réduits tout au long d'une relation, car les objectifs d'image de soi ne prédisent pas le besoin d'assistance dans une relation. Les objectifs de compassion contribuent à la satisfaction de la relation de partenariat. Il était donc prédit que des objectifs de compassion plus élevés entraîneraient une plus grande satisfaction de la relation. Les objectifs d'image de soi réduisent l'impact des objectifs de compassion et, par conséquent, il a été prédit que les objectifs d'image de soi réduiraient la satisfaction de la relation.

Nous croyions que ceux qui étaient très motivés au niveau mondial, motivés par des activités relationnelles et des objectifs compatissants démontreraient une grande compassion envers eux-mêmes, et que ceux qui étaient peu motivés par la volonté mondiale, motivés par des activités relationnelles et par des objectifs élevés faire preuve d'une faible compassion. Nous l'avions prédit parce que les individus compatissants ont une motivation plus autodéterminée. En outre, les personnes qui ont des objectifs de compassion ont une plus grande compassion, alors que celles qui ont des objectifs d'image de soi ont une plus faible compassion. Nous avons également prédit que les personnes qui éprouvent une grande compassion envers eux-mêmes manifesteront constamment une compassion élevée ou supérieure tout au long de la relation. Dans une relation amoureuse, le degré de compassion des participants est positivement corrélé à celui de leur partenaire. Cela pourrait être dû au fait que chaque partenaire choisit lui-même des partenaires qui confirment sa confiance en lui. Les partenaires ayant un niveau élevé de compassion envers eux-mêmes adoptent également des comportements relationnels plus positifs. En plus de s'auto-sélectionner pour des partenaires égoïstes, des participants très égoïstes peuvent faire preuve d'une plus grande compassion envers eux-mêmes en raison des comportements relationnels positifs de leurs partenaires empreints de compassion, qui sont théorisés de manière à favoriser la compassion en soi. Il a été prédit que les participants qui éprouvaient une grande compassion à leur égard manifesteraient une compassion de leur part toujours élevée ou supérieure tout au long d'une relation amoureuse. Au contraire, il a été prédit que les personnes peu compatissantes se choisiraient elles-mêmes des personnes également peu compatissantes et confirmant également leur conviction de leur estime de soi. Comme il est théorisé que les participants ayant une faible compassion envers eux-mêmes auraient des partenaires également faibles, il a été prédit que les participants ayant une faible compassion ne bénéficieraient pas de la compassion suscitée de la part de leurs partenaires romantiques, en tant que partenaires moins auto-compatissants s'engagent dans moins de comportements relationnels positifs, conduisant à une auto-compassion

moins cultivée. Il était donc prédit que les individus peu émus de compassion se montreraient constamment moins ou moins empathiques au cours de leurs relations amoureuses.

***Pourquoi est-ce important pour les scientifiques ou le grand public?***
Ce travail sera le premier à explorer de manière longitudinale les facteurs prédictifs de motivation des processus relationnels, en explorant la motivation globale, la motivation pour les activités relationnelles et la capacité des objectifs compatissants et valorisants de prédire le fonctionnement de la relation, les comportements répondant aux besoins et l'auto-compassion une période de trois mois. La motivation globale et la motivation pour les activités relationnelles n'ont jamais été explorées longitudinalement en relation avec les processus relationnels romantiques et l'auto-compassion, et les objectifs de compassion et d'image de soi n'ont pas été pris en compte dans le contexte des comportements liés à la motivation et aux relations amoureuses. Ce travail introduira également un prisme motivationnel dans l'exploration de la relation entre la motivation autodéterminée pour les relations amoureuses, les comportements relationnels de soutien et le fonctionnement de la relation, dans le but de reproduire des recherches antérieures qui ont démontré que la satisfaction et la contrariété des besoins relationnels sont associées à la qualité et à l'engagement de la relation. dans les relations intimes.

***Et si j'ai des questions plus tard?***
Pour toute question concernant vos droits en tant que participant à la recherche, veuillez vous adresser à la responsable du protocole pour l'éthique dans la recherche, 550, rue Cumberland, pièce 154, au (613) 562-5387 ou par courriel à ethique@uottawa.ca.

Pour de plus amples informations sur cette recherche, vous pouvez contacter: Dr. Luc Pelletier (chercheur principal), École de psychologie, Université d'Ottawa _____ ou par courriel: _____ ou Traleena Rouleau (adjointe à la recherche), École de psychologie, Université d'Ottawa _____ ou par courriel: _____.

Si vous avez des questions sur l'étude, vous pouvez contacter l'assistant de recherche ou le chercheur principal. Si vous rencontrez des expériences négatives à court terme après avoir terminé cette étude, des ressources sur les services de santé mentale sont disponibles sur ou autour du campus: Services de conseil et d'accompagnement professionnel (100 Marie-Curie Private, 4e étage, MCE, numéro de téléphone: 613-562 -5200, courriel: couns@uottawa.ca). Si, après cette étude, vous souhaitez renforcer votre relation amoureuse avec votre relation amoureuse, des services sont disponibles dans la communauté d'Ottawa, comme le Centre pour les relations interpersonnelles, qui met l'accent sur l'amélioration de la relation (Suite 600 au 267, rue O'Connor. , numéro de téléphone: 1-855-779-2347, courriel: ottawa.admin@cfir.ca).

Je consens à ce que mes données complètes soient utilisées dans le cadre de ce projet de recherche mené par Traleena Rouleau et le Dr Luc Pelletier.

Oui
Non

## Appendix P: Motivation for Relational Activities Scale (Gaine & La Guardia, 2009)

Please answer the following questions about your romantic relationship with your partner.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Not at all true | | | | | | Very true |

Sexual intimacy (14 items)
Why do you engage in sexual activity (petting, oral sex, or intercourse) with your partner?

Intrinsic:
1. Because I expect it to be interesting and exciting.
2. Because I get pleasure from sharing a special and intimate experience with my partner.
3. Because I find it very arousing and enjoyable to give my partner physical pleasure.

Identified:
1. Because I value sexual activity as a part of a full life.
2. Because sexual activity is an important part of my relationship.
3. Because it allows us to grow closer and more intimate.

Introjected:
1. Because sexual activity makes me feel better about myself.
2. Because that is what couples are supposed to do.
3. Because I'd feel anxious or guilty if I denied my partner of sexual activity.
4. Because my partner wants it, and it's my role to satisfy my partner's sexual needs.

External:
1. Because my partner gets moody and irritable if I deny him/her of sexual activity.
2. Because I fear my partner may become discontented with our relationship if I don't fulfill his/her sexual needs.
3. Because my partner is in a better mood and is nicer to me after we engage in sexual activity.
4. Because my partner will do things for me that he/she wouldn't do if I didn't engage in sexual activity with him/her.

Physical intimacy (14 items)
Why do you engage in physical intimacy (i.e., hug, kiss, cuddle) with your partner?

Intrinsic:
1. Because I enjoy being in contact with him/her.
2. Because I love the way I feel when I am in contact with him/her.
3. Because I am very attracted to my partner and desire to be in physical contact with him/her.

Identified:
1. Because it increases the intimacy and closeness in our relationship.
2. Because physical intimacy helps us stay connected and fosters emotional closeness between us.
3. Because I believe it is a healthy aspect of a good relationship.

4. Because it symbolizes our togetherness, which is something I value and strive for in our relationship.

Introjected:
1. Because romantic couples are supposed to show their affection for one another through physical intimacy.
2. Because I want others to know that we are a happy and intimate couple.
3. Because I feel anxious about our relationship unless there is a show of physical affection between us.
4. Because it pleases my partner, and I need to please him/her to feel important and wanted.

External:
1. Because my partner insists that we be physically affectionate.
2. Because my partner seems cold and rejecting if I don't give him/her physical affection.
3. Because my partner wants to be touched. So I do it to avoid a hassle from him/her.

Self-disclosure of feelings (13 items)
Why do you share your feelings with your partner?

Intrinsic:
1. Because I find it exciting to explore my innermost feelings with my partner.
2. Because it feels good to talk about my feelings with my partner.
3. Because I find it interesting to talk about my feelings with my partner.

Identified:
1. Because it is important to me that I can share my feelings with my partner.
2. Because I value being open about my feelings in my relationship.
3. Because being in-tune with each other's feelings helps our relationship stay on track.

Introjected:
1. Because when my partner shares his/her feelings, I feel obligated to share some of mine.
2. Because that's what my partner expects me to do.
3. Because people are supposed to share their feelings in relationships.

External:
1. Because my partner nags me until I tell him/her what I'm feeling.
2. Because my partner shows that he/she approves of me when I share my feelings.
3. Because my partner treats me better when I've expressed my feelings.
4. Because my partner withdraws and becomes cold with me if I don't share my feelings with him/her.

Self-disclosure of thoughts (13 items)
Why do you share your thoughts and concerns with your partner?
Intrinsic:
1. Because I get excited to tell my partner my thoughts.
2. Because it is interesting and thought-provoking to talk about my ideas with my partner.

3. Because I enjoy sharing deep and meaningful conversations with my partner.

Identified:
1. Because I value openness in our relationship.
2. Because I want my partner to know and understand me.
3. Because I value what I learn about myself when I discuss my thoughts with my partner.
4. Because talking to my partner gives me a new perspective on my problems and helps me deal with them.

Introjected:
1. Because I sometimes feel guilty if I keep my thoughts private.
2. Because I worry my partner will think I'm dumb or boring if I don't share my thoughts.
3. Because when my partner shares his/her thoughts, I feel like I have to share mine.

External:
1. Because my partner won't stop asking me questions unless I tell him/her what I'm thinking.
2. Because my partner is friendlier and nicer when I tell him/her what I'm thinking.
3. Because my partner demands that I be open about what I'm thinking, and he/she will get angry and resentful if I don't go along.

Social support (13 items)
Why do you listen to your partner's problems?

Intrinsic:
1. Because I am interested in whatever my partner is going through.
2. Because I enjoy the process of listening to and learning about my partner.
3. Because I am curious to know what my partner is feeling and thinking.

Identified:
1. Because I want my partner to be able to count on me when he/she is having problems.
2. Because I feel we become closer when I understand what my partner is going through.
3. Because it is important to me that my partner feels supported.

Introjected:
1. Because it is my responsibility to be there for my partner, and I'd feel bad if I wasn't there for him/her.
2. Because I'd feel guilty if I wasn't there for my partner when he/she is feeling down.
3. Because I need to do it to feel like I am a dependable partner.
4. Because I have to do it to be a good partner.

External:
1. Because my partner will get angry and resentful if I don't make time to listen to his/her problems and concerns.
2. Because if I just listen, my partner will stop bringing me down.
3. Because I expect that things will get worse between us if I don't make him/her feel better.

Instrumental support of partner's problems (12 items)
Why do you try to help your partner solve his/her problems?
Intrinsic:
1. Because I find it exciting and challenging to help my partner solve his/her problems.
2. Because I enjoy the challenge of helping my partner work through his/her tough issues.
3. Because I can't help but get caught-up in the thrill of tackling my partner's problems.

Identified:
1. Because I believe my partner's challenges are mine too.
2. Because it is important for us to tackle problems together.
3. Because I find it very satisfying to help my partner overcome a difficultly.

Introjected:
1. Because I'd feel like a bad person if I didn't try to help my partner solve his/her problems.
2. Because I worry that I will look like a neglectful partner if I don't help my partner solve his/her problems.
3. Because I feel valuable when I help my partner work through his/her issues.

External:
1. Because my partner can't cope with his/her problems without me.
2. Because if I help my partner get over his/her problems, we can get back to having fun and enjoying ourselves.
3. Because I have to help my partner for him/her to help me with my problems.

Instrumental support to make partner's life less stressful
(12 items)
Why do you invest time and effort in trying to do things that make your partner's life easier or less stressful?

Intrinsic:
1. Because I get a lot of pleasure out of making things easier for my partner.
2. Because it excites me to make my partner feel good.
3. Because I enjoy taking care of my partner.

Identified:
1. Because I value a giving relationship.
2. Because I believe we need to work together and be unselfish for our relationship to stay strong.
3. Because I want to see my partner prosper and be content. So, I'll do whatever I can to assist him/her in that.

Introjected:
1. Because I feel that helping my partner out is a way to fulfill my role in my relationship.
2. Because taking care of your partner is what it means to be in a romantic relationship.
3. Because I get anxious if I don't feel like I'm useful in my partner's life.

External:
1. Because I fear my partner will become unhappy with our relationship if I don't do things for him/her.
2. Because then we avoid arguing about who should do what.
3. Because my partner is easier to live with if he/she gets what he/she wants.

Niceties (14 items)
Why do you do special things for your partner (e.g., give gifts, call him/her, take him/her out)?
Intrinsic:
1. Because I get really excited at the anticipation of knowing my partner will enjoy what I've done or plan to do.
2. Because I enjoy the process of planning something that will bring my partner pleasure.
3. Because it delights me to see my partner happy.

Identified:
1. Because I want to show my partner how much I love and cherish him/her.
2. Because I want to express my gratitude for everything my partner does for me.
3. Because my partner deserves to be cared for and attended to.

Introjected:
1. Because I know it is the nice thing to do.
2. Because being in a romantic relationship means you've got to do things like that for your partner.
3. Because doing such things makes me feel like a good person and a good partner.
4. Because my partner sometimes expects that I do special things for him/her, and I'd feel guilty or anxious if I didn't follow through.

External:
1. Because I expect my partner will reciprocate and do special things for me.
2. Because it is a way to keep my partner interested and contented in our relationship.
3. Because things like that put my partner in a good mood and he/she treats me better.
4. Because my partner seems distant and unpleasant if I don't do special things for him/her.

Support for partner's life goals (13 items)
Why do you do things to support your partner's life aspirations and goals (e.g., education, career, hobbies, family, lifestyle)?
Intrinsic:
1. Because I find it exciting to talk with my partner about his/her dreams and to help make them a reality.
2. Because I enjoy the process of helping my partner stay motivated and overcoming obstacles to his/her goals.
3. Because helping my partner successfully pursue his/her goals is a very challenging and interesting task.

Identified:

1. Because I value the opportunity to contribute to something that is very meaningful in my partner's life.
2. Because my partner's goals are very important to me, and I want to be a part of achieving those goals.
3. Because I want to see my partner reach his/her potential or what he/she wants to be.

Introjected:
1. Because my partner might fail without my support, and I would feel guilty if I let that happen.
2. Because my partner's achievements will reflect good things about me.
3. Because my partner's achievements will make me look good to others as well.
4. Because helping my partner pursue his/her goals makes me feel useful.

External:
1. Because my partner will be easier to live with when he/she achieves his/her goals.
2. Because there are personal benefits to having a successful partner.
3. Because supporting him/her is an investment in my future too, since a successful partner makes life easier.

## Appendix Q: Global Motivation Scale (Pelletier et al., 2016)

*Please indicate to what extent each of the following statements corresponds to the reasons why you do generally different things in your life.*

| Do not agree at all | Very slightly agree | Slightly agree | Moderately agree | Mostly agree | Strongly agree | Completely agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

In general, I do things
1) ... in order to help myself become the person I aim to be
2) ... because I like making interesting discoveries
3) ... because I want to be viewed more positively by certain people /
4) ... because I choose them as means to attain my objectives
5) ... for the pleasure of acquiring new knowledge
6) ... because otherwise I would feel guilty for not doing them
7) ... because by doing them I am living in line with my deepest principles
8) ... although it does not make a difference whether I do them or not
9) ... for the pleasant sensations I feel while I am doing them
10) ... in order to show others what I am capable of
11) ... because I chose them in order to attain what I desire
12) ... because I would beat myself up for not doing them
13) ... even though I do not have a good reason for doing them
14) ... in order to attain prestige
15) ... even though I believe they are not worth the trouble
16) ... because I would feel bad if I do not do them
17) ... because by doing them I am fully expressing my deepest values
18) ... because they reflect what I value the most in life

## Appendix R: Brief Dyadic Adjustment Scale (Sabourin et al., 2002)

Most persons have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list.

| | | All the time | Most of the time | More often than not | Occasionally | Rarely | Never |
|---|---|---|---|---|---|---|---|
| 1. | How often do you discuss or have you considered divorce, separation, or terminating your relationship? | 0 | 1 | 2 | 3 | 4 | 5 |
| 2. | In general, how often do you think that things between you and your partner are going well? | 5 | 4 | 3 | 2 | 1 | 0 |
| 3. | Do you confide in your mate? | 5 | 4 | 3 | 2 | 1 | 0 |

4. The dots on the following line represent different degrees of happiness in your relationship. The middle point, "happy" represents the degree of happiness of most relationships. Please circle the dot which best describes the degree of happiness, all things considered, of your relationship.

| Extremely unhappy | Fairly unhappy | A little unhappy | Happy | Very happy | Extremely happy | Perfect |
|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 |

## Appendix S: Study 3 Consent Form

**Study Title:** Motivation and Sexual Health (MASH) Couples Study
**Researchers:** Dr. Serena Corsini-Munt (Assistant Professor, School of Psychology, University of Ottawa)_____*;* Natalie O. Rosen (Associate Professor, Departments of Psychology and Neuroscience & Obstetrics and Gynecology, Dalhousie University); Amy Muise (Associate Professor, Department of Psychology, York University); Erin McClung (Doctoral Student, School of Psychology, University of Ottawa).

**Invitation to Participate:** You are invited to take part in this research study conducted by Dr. Serena Corsini-Munt and colleagues. This study is funded by the Social Sciences and Humanities Research Council of Canada (SSHRC). This research is led through the University of Ottawa, in partnership with researchers from Dalhousie University and York University. Choosing whether to take part in this research is completely your choice. Data from this study will be analyzed as part of a doctoral candidate's thesis. The information below tells you about what you will be asked to do and about any benefit, risk, inconvenience, or discomfort that you might experience. You may decide not to take part, or you may leave the study at any time.

**Purpose of the Study:** Over time, established couples report changes to sexual desire and sexual functioning. This can include sexual satisfaction, rate of sex and experiences during sex. In this study, we are asking couples about their reasons for having sex and about relationship variables. We are asking this to better understand how those reasons are associated with sexual and relational wellbeing. We are looking for both members of the couple to take part in a study that will measure these links. This study requires participation from <u>both partners</u> throughout the whole study. Participating involves completing a series of surveys over a period of 2-3 months. During this time, our research team will share some information about sexual wellbeing with one member of the couple when they complete certain surveys.

**Participation:** Participation will involve:

(1) Completing an online screening form (5 minutes). Eligible couples will move onto the next step.

(2) Completing a first online survey (30-45 minutes), on Qualtrics XM, an online survey platform. The survey questions will collect data on sociodemographic information, sexual, relational, and psychological wellbeing. This includes desire and sexual motivation for both partners, sexual function, sexual satisfaction, relationship satisfaction, and mood. Couples will be presented within information about sexual well-being during the survey and asked to write out some answers in text boxes.

(3) Completing daily surveys (5-10 minutes each) for 21-days, also on Qualtrics XM. Each evening, participants will complete measures of their sexual desire, and relationship and sexual satisfaction. On days when participants report sexual activity with their partner, they will answer more questions about their sexual motivation. On the last day of the 21 days, participants will complete a longer survey (30-45 minutes). Couples will get information about sexual wellbeing during the daily surveys on Days 8 and 15. This may take extra time to read over and complete (20 minutes total).

(4) One month following completion of the daily surveys, all participants will complete follow-up surveys. These surveys will ask similar questions about sexual motivation, sexual desire and sexual, relational and psychological wellbeing (30-45 minutes).

Estimated total time for participation is 5-6 hours over 2-3 months.

**Risks:** You may find topics during the study to be personal. Because survey questions are about sex and relationships, certain subjects may make you feel uncomfortable. All members of the research team are sensitive to this risk and will take steps to address any discomfort. Please know that you can refuse to answer certain questions. If you still feel uneasy, you can discuss your discomfort with a member of the research team. Dr. Corsini-Munt is a registered clinical psychologist in Ontario and principal investigator in the study. You can also discuss with a member of the research team reachlab@uottawa.ca. Dr. Corsini-Munt and her research team will help provide a list of appropriate resources.

**Benefits:** Participation in this study will help in finding factors that can support positive sexual wellbeing among couples. It is possible that taking part in this study may be of no help to you. You and your partner's feedback about your experience will help our team develop a more helpful psychological treatment that could help support healthy sexual well-being.

**Confidentiality and anonymity:** Any information that is learned about you will be kept confidential and used for research purposes only. When you contact the study, you will be given a participant identification number to guarantee privacy. All data will be identified with this identification number only. There will be no personal identifying information connected to the information you provide to the study. You will be asked to give your phone number and email address so the researchers can send you reminders. A list connecting participant email addresses with their couple identification numbers will be encrypted. This list will be kept separately from the data on a password protected University of Ottawa system. At the end of the study, the researchers will destroy the linking file, and your contact information. At this point, all linking data will removed from your responses and you will no longer be able to remove your data from the study. The researchers will keep confidentiality across each couple and its members, even if one partner leaves from the study. The identity of participants will not be shown at any point during the study. Anonymity will also be kept in publications. If the results of this research are published, you and your partner's identity will remain confidential. The Office of Research Ethics and Integrity may have confidential access to data to help ensure participant protection methods are followed.

We recommend that you use standard safety measures to reduce the risk of security breaches and to help ensure your confidentiality. This includes signing out of your account, closing your internet browser and locking your devices when you are no longer using them.

**Conservation of data:** The study records will be kept on a password protected University of Ottawa network that requires Multi-Factor Authentication. Anonymized data may be stored in shared data storage area. Only Dr. Corsini-Munt and members of the research team will have access to data stored on the password protected University of Ottawa network.

Qualtrics Research Suite was selected for data collection in this research because it best meets the data collection needs required by this study (e.g., ability to send surveys and emails). The survey data that you provide to us via Qualtrics will be kept on protected servers, which are found in Canada. Qualtrics follows an internal procedure for privacy. They take preventive measures to ensure privacy and protection of all study data. However, we cannot guarantee protection of privacy for data that is stored by Qualtrics servers. Anonymized data will be stored indefinitely on an Open Science Framework (OSF) so future researchers can replicate the study.

**Compensation:** There will be no costs to you. If you qualify and agree to take part, both partners will individually complete an online survey. Compensation amount is dependent on the amount of surveys completed. Amounts for compensation are as follows: initial survey ($10), daily ($15 for completing 12 surveys, $25 for completing 16 surveys, $30 for completing 19 surveys and $35 for completing 20-21 surveys), larger survey on last day of daily surveys ($10), and final 1-month survey ($15). You will receive the compensation payments through e-transfer to the email with which you signed up for the study. The principal investigator, Dr. Serena Corsini-Munt, will be sending the payments. Please make sure you sign up for the study using the same email address associated with your e-transfer account with a Canadian banking institution to ensure that you receive the compensation.

Each member of the couple may receive up to $70 CDN for completing all surveys. Compensation will be sent in 2 installments as you progress through the study and sent via Interac e-transfer which can be deposited through Canadian banking institutions. Installments will be sent once after the daily surveys and then again after the one-month survey.

The study has attention check questions. These are meant to make sure that the participant is reading each question. They also help us to find spam bots. Participants who do not answer these questions correctly may not qualify for compensation.

**Voluntary Participation**: Your participation in this study is voluntary. You are free to remove your consent and stop participation at any time. While completing the survey questions, you can choose to leave the study at any time by closing your internet browser. If you wish to remove your responses once they have been submitted, please contact the research team at reachlab@uottawa.ca. If one member of the couple withdraws from the study, both will be withdrawn at that point, as participation requires both members participate. Should you and your partner break up, you will both be withdrawn from the study and receive compensation for the steps of the study you have completed until that point.

Should you have any further questions please contact the primary investigator:

Dr. Serena Corsini-Munt
School of Psychology, Department of Social Sciences
University of Ottawa
4094 Vanier Hall, 136 Jean Jacques Lussier
Ottawa, Ontario, Canada, K1N 6N5

_____

---

**Acceptance:** I agree to participate in the above research study conducted by Dr. Serena Corsini-Munt of the School of Psychology, Faculty of Social Science, University of Ottawa.

If I have any questions about the study, I may contact the researcher or the study staff.

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5
Tel.: (613) 562-5387
Email: ethics@uottawa.ca
Participants should print a copy of the consent form to keep for their personal records.

Please type your full name _____

*I have read the above information and agree to participate in the study* ☐

## Appendix T: Study 3 Screening Form

1. Can both you and your partner read and write in English?

   a. Yes  b. No → Exclusion criterion

2. Are you and your partner both 18 years of age or older?

   a. Yes  b. No → Exclusion criterion

3. Do you and your partner currently live in Canada?

   a. Yes  b. No → Exclusion criterion

4. Have you and your partner been a couple for at least 12 months?

   a. Yes  b. No → Exclusion criterion

5. If you are paying attention to this questionnaire, please select option 2.

   a. Option 1  b. Option 2

6. Do you and your partner see one another in person 3-4 times per week?

   a. Yes  b. No → Exclusion criterion

7. Do you and your partner have an active email address, and access to a computer or tablet and regular internet access?

   a. Yes  b. No → Exclusion criterion

8. We require that both you and your partner are willing to participate – as one cannot participate without the other. Have you confirmed with your partner that they are willing to participate?

   a. Yes  b. No → Exclusion criterion

**Participant Contact Information**

First name: _____

Last name: _____

How did you hear about this study? _____

What province are you in? _____

What time zone are you in? _____

Phone #: _____

Email address: _____

Gender: _____

_____

**We contact partners to make sure they agree to participate:**

Partner's first name: _____

Partner's last name: _____

Partner's phone number: _____

Partner's email address: _____

## Appendix U: Study 3 Screening and Enrollment Protocol

*Participant reached out showing interest in the study
*Reply and send participant email explaining the study
*If participant is interested, send one person from the couple the "MASH Screening Form"

REVIEWING SCREENING FORM

- Can both members of the couple read and write in English (are they both comfortable reading and writing in English)?
  - If **no**, send them an email explaining that they are NOT eligible for the study.
- Are both people in the couple over the age of 18?
  - If **no**, send them an email explaining that they are NOT eligible for the study.
- Are both people in the couple currently residing in Canada?
  - If **no**, send them an email explaining that they are NOT eligible for the study.
- Have they been a couple for at least 12 months?
  - If **no**, send them an email explaining that they are NOT eligible for the study.
- Does the couple see one another 3-4 times per week?
  - If **no**, send them an email explaining that they are NOT eligible for the study.
- Do both people in the couple have an active email address, and access to a computer or a tablet and regular internet access?
  - If **no**, send them an email explaining that they are NOT eligible for the study.
- Are both people in the couple willing to participate in this study?
  - If **no**, send them an email explaining that they are NOT eligible for the study.
  - If **yes**, contact both people to make sure they agree to participate.

*If their eligibility is unclear, contact the couple and review eligibility with them.
*If the couple is eligible to participate after reviewing the screening form, contact them and send the enrollment email to both partners.

*After both people in the couple read the enrollment email, send each member the baseline questionnaire link (which includes the consent form).

*Following baseline completion of both members of the couple, move forward with random selection of one member to Partner A, and then randomize to Intervention or Control.
*Do not move forward with next step (randomization and daily surveys until both members of the couple have completed the baseline survey).
*Follow up with phone call and email within one week of sending baseline surveys.

**Appendix V: Study 3 Recruitment Ads**

Principal Investigator: Dr. Serena Corsini-Munt
Ethics file number: H-06-22-7476

# Are you in a relationship?

Seeking couples to participate in our online surveys study!

Now recruiting couples who:

- can read and write in English
- are over 18 years old
- currently reside in Canada
- have an active email address
- have been a couple for at least 12 months

Participation includes:

- Initial survey (30 mins)
- Short daily survey for 21 days (5-10 mins per day)
- Larger survey at the end of day 21 (30 mins)
- 1 month follow-up survey (30 mins)

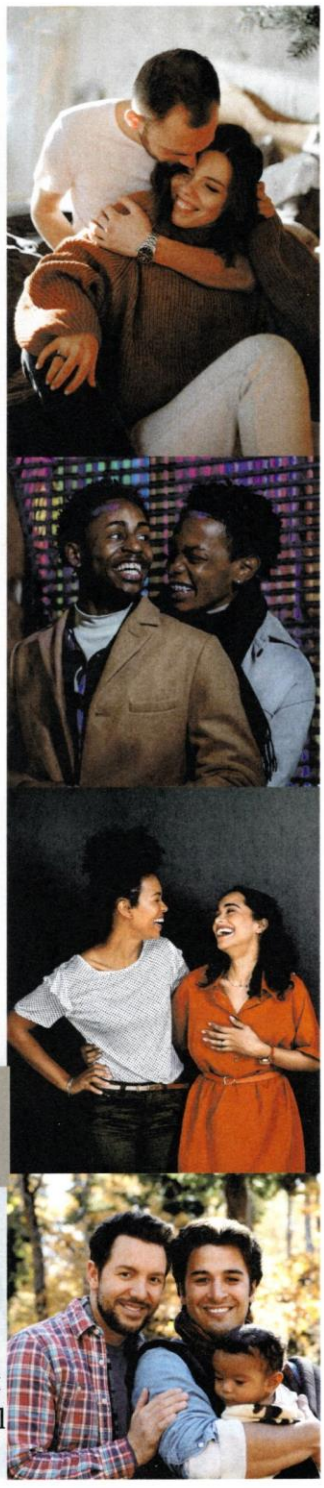
**Earn up to $140 CAD per couple for participating**

**Contact us at reachlab@uottawa.ca**

Other inclusion criteria apply.

Study involves questions about sex, sexual behaviours or sexual wellbeing

REACH



Principal Investigator: Dr. Serena Corsini-Munt

Ethics file number: H-06-22-7476

# Are you in a relationship?

Seeking couples to participate in our online surveys study!

Participation includes:

- Initial survey (30 mins)
- Short daily survey for 21 days (5-10 mins per day)
- Larger survey at the end of day 21 (30 mins)
- 1 month follow-up survey (30 mins)

**Earn up to $140 CAD per couple for participating**

Now recruiting couples who:

- can read and write in English
- are over 18 years old
- currently reside in Canada
- have an active email address
- have been a couple for at least 12 months

Study involves questions about sex, sexual behaviours or sexual wellbeing

**Contact us at reachlab@uottawa.ca**

Other inclusion criteria apply.

uOttawa REACH RELATIONSHIP AND COUPLE HEALTH LAB

# SEEKING COUPLES TO PARTICIPATE IN OUR ONLINE STUDY

Earn up to $140 CAD per couple for participating!

Now recruiting couples who:

- can read and write in English
- are over 18 years old
- currently reside in Canada
- have an active email address
- have been a couple for at least 12 months

Participation includes:

- Initial survey (30 mins)
- Short daily surveys for 21 days (5-10 mins per day)
- Larger survey at the end of day 21 (30 mins)
- 1 month follow-up survey (30 mins)

Study involves questions
about sex, sexual behaviours
or sexual wellbeing

Principal Investigator: Dr. Serena Corsini-Munt
Ethics file number: H-06-22-7476

**Contact us at reachlab@uottawa.ca**

Other inclusion criteria apply

uOttawa

REACH

## Appendix W: Study 3 Longer Recruitment Ad (e.g., Online Forums)

**Motivation and Sexual Health (MASH) Couples Study**

Seeking established couples to participate in a paid, online research study.

To be eligible to participate, both partners must agree and be:

a. 18 years or older
b. Comfortable reading and writing in English
c. In a committed relationship for at least 12 months, with a minimum of four in-person contacts/week or living together
d. Reside in Canada

* Other criteria may apply
** This study aims to be inclusive of all gender identities, bodies, and orientations.

One person from the couple will take part in an online eligibility screening process. Participants will be recruited on a first-come, first-served basis.

If eligible, both members will sign a consent form. The study involves:

1. Completion of a first online survey (30 minutes).
2. Daily surveys (5-10 minutes each) for 21-days.
3. On the last day of the 21 days, participants will complete a longer survey (30 minutes). One member of each couple will get information about sexual wellbeing during the daily surveys on Days 1, 8 and 15. This may take extra time to read over and complete (20 minutes total).
4. One-week and three-months following completion of the daily surveys, all participants will complete follow-up surveys (30 minutes).

Estimated total time for participation is 5-6 hours over 4-5 months.

As a thank you for your time and energy, you can receive up to $140 per couple.

To participate, please contact us by email at reachlab@uottawa.ca or by phone at _____

## Appendix X: Study 3 Recruitment Email

Hello _____,
Thanks for reaching out and your interest in our study about couples' sexual well-being!

**What's this project about?** Over time, established couples can report changes to their sexual desire and sexual functioning (including sexual satisfaction and experiences during sexual activity). Despite changes, some couples keep up an active sex life and others experience a decrease in desire and activity. In this study, we are asking couples about sexual desire and their reasons for having sex and other sexual and relational experiences. We are asking this to better understand how motivation for sex and reasons for having sex are associated with sexual and relational wellbeing. We will also be sharing information with each couple about sexual wellbeing throughout the study.

**What does participation involve?** This study requires participation from <u>both partners</u> throughout the whole study. One partner will complete a short online screening form, which takes about 5 minutes. We will also contact your partner to confirm their interest. If you are eligible, we will send you and your partner your own link to our consent form and then ask you to fill out an online survey on your own, which should take about 30 minutes. Within a few days of both of you completing the online survey, we are going to start sending short daily survey links for you both to complete in the evening. The daily surveys should take about 5 minutes each. There will be 3 weeks of daily surveys, with a longer one on the very last day. Then, you will not hear from us for about 3 months at which point we will send you one last survey to each complete online (30 minutes). During the daily surveys, one partner will randomly receive information from us about sexual well-being. If you are the partner selected to receive the information, you will be asked to complete a few extra text boxes. This will take an extra 15-20 minutes one time and then a few more minutes on Days 8 and 15. This will be part of the daily links. The total time commitment for this study should not exceed a total of 6 hours over a period of 4-5 months. Participants will be recruited on a first-come, first-served basis.

**Is there compensation?** As a thank you for taking part in the study, both you and your partner will each be compensated up to $70 CDN via Interac e-transfer, which can be accepted or deposited through a Canadian banking institution. The exact amount will depend on how much of the study you complete. We will also provide you a list of online resources about sexual and relational wellbeing.

Please do not hesitate to contact us if you have any questions or concerns!

_____
Research Assistant, ReaCH Lab
School of Psychology, uOttawa
reachlab@uottawa.ca

_____

## Appendix Y: Study 3 Debriefing Form

Thank you for participating in this study! Your time and effort are truly appreciated. Now that you have submitted all the surveys and completed all aspects of the study, we would like to tell you a little bit more about our research.

By participating in this study, you are helping us improve our understanding of the role of autonomous motivation in sexual desire and sexual relationships in established couples. Autonomous sexual motivation is having sex for your own personal reasons. We know that sexual desire is a driving force early on in relationships and contributes to a sense of closeness (Birnbaum et al., 2016; Birnbaum & Reis, 2019), but often declines for many couples as the relationship progresses (Birnbaum et al., 2018; Sims & Meana, 2010). Despite declining sexual desire for one or both partners, most couples report continuing to engage in sexual activity (Herbenick et al., 2014), suggesting that understanding the reasons couples have sex might have shed light on understanding decreasing desire and what types of reasons may lead to better sexual and relational satisfaction.

Autonomous sexual motivation has been associated with higher sexual desire and satisfaction (Gravel et al., 2020; Brunell & Webster, 2013). Currently, very little is known about the extent to which people can change their autonomous sexual motivation. With this study, we wanted to see if we could promote autonomous sexual motivation and corresponding sexual and relational satisfaction and well-being over the three-week period you completed the daily surveys and if any changes were still present one month later.

During this study, each couple was randomly selected to be presented with either general information about sexual well-being and general goal setting or specific information about autonomous motivation and sexual goal setting exercises. All the information presented to you was accurate and no deceiving information was presented. We did not inform participants ahead of time about the two different sets of information presented because we did not want to influence your responses to these different types of information. Please feel free to reach out to us if you have any questions or concerns reachlab@uottawa.ca .

We hope that this research will identify ways in which we can promote healthy sexual motivation that helps couples be motivated for sex for their own reasons, feel good about their reasons for wanting sex and ultimately lead to higher sexual and relational well-being.

Thank you again for your interest and participation in our study! If you want to learn more about our research, you can follow us on Instagram @reachlabuottawa or visit our lab website as it is updated: https://reachlabuottawa.ca

It is possible that thinking about your sexual and romantic relationship may have brought up some uncomfortable memories, thoughts, or emotions. If you'd like to talk to someone about any issues that came to your attention while participating, you may consider contacting a mental health professional. **Helpful services are widely available.**

If at any time in the future you experience sexual difficulties and would like to seek treatment, you can seek out a psychologist or sex therapist in your area through one of the following websites:

You can find a psychologist through your province's Psychological Association: http://www.cpa.ca/public/whatisapsychologist/PTassociations/

If you live in **Ontario**, you can find a sex therapist through the Board of Examiners in Sex Therapy & Counselling in Ontario: http://bestco.info/therapistlocator.ph

If you have experienced sexual or domestic abuse and would like support in your area, you can find local domestic or sexual abuse help lines, by province, at DAWN Canada's site http://www.dawncanada.net/issues/issues/we-can-tell-and-we-will-tell-2/crisis-hotlines/

**The following websites are also a great source of information about sexuality and relationships.**

- Science of Relationships: http://www.scienceofrelationships.com/
- Sexuality and U: www.sexualityandu.ca
- Planned Parenthood: www.plannedparenthood.org

**The following websites are excellent resources on mental health**

- Mental Health: www.mentalhelp.net
  - This website provides education and support to help individuals improve their mental health and wellness.
- Health Place: Mental Health Support, Resources & Information | HealthyPlace
  - This website provides support and information to people with mental health concerns, along with their family members and other loved ones.

If you have any concerns about the study itself, please feel free to contact Dr. Serena Corsini-Munt, at _____. You have the right to withdraw from the study at any time. If you have questions about your rights as a research participant, or would like to speak with someone not directly involved in the study, please feel free to contact the University of Ottawa Research Ethics Board at ethics@uottawa.ca or 1-613-562-5387. The Research Ethics Office may have confidential access to data to help ensure participant protection procedures are followed.

**After reviewing the information in this study debrief form, you are welcome to let your data continue being part of the study. No action is necessary.**

**You are also being offered the chance to withdraw your data (meaning that you do not want the researchers to use your data). To withdraw, your data, please check the box below.**

- ❑ **I would like to withdraw my data from this study.**

## Appendix Z: Study 3 Screening Responses

**If participants select an exclusion criterion on the screening form for Study 3, they will receive the following email.**

Thank you for your interest in our study and for taking the time to complete the screening form. Unfortunately, it looks as though you are not eligible to participate. We realize you may still be interested in information about relationships and sexual health. Here are some resources to check out:

You can find a psychologist through your province's Psychological Association: http://www.cpa.ca/public/whatisapsychologist/PTassociations/

If you live in **Ontario**, you can find a sex therapist through the Board of Examiners in Sex Therapy & Counselling in Ontario: http://bestco.info/therapistlocator.ph

If you have experienced sexual or domestic abuse and would like support in your area, you can find local domestic or sexual abuse help lines, by province, at DAWN Canada's site http://www.dawncanada.net/issues/issues/we-can-tell-and-we-will-tell-2/crisis-hotlines/

**The following websites are also a great source of information about sexuality and relationships.**

- Science of Relationships: http://www.scienceofrelationships.com/
- Sexuality and U: www.sexualityandu.ca
- Planned Parenthood: www.plannedparenthood.org

**The following websites are excellent resources on mental health**

- Mental Health: www.mentalhelp.net
    - This website provides education and support to help individuals improve their mental health and wellness.

- Health Place: Mental Health Support, Resources & Information | HealthyPlace
    - This website provides support and information to people with mental health concerns, along with their family members and other loved ones.

**If participants meet the preliminary eligibility criteria after completing the screening form for Study 3, they will receive the following email.**

Thank you for your interest in our study and for taking the time to complete the screening form. One of our research team members will review the information you provided, and we will be in touch to confirm you and your partner's interest. You should hear from us within two business days or sooner. If you have any questions while waiting to hear from us, please contact us at: reachlab@uottawa.ca or _____.

## Appendix AA: Couples Satisfaction Index (Funk & Rogge, 2007)

**CSI (4) is made up of items 1, 12, 19 and 22, and CSI (16) is made up of items 1, 5, 9, 11, 12, 17, 19, 20, 21, 22, 26, 27, 28, 30, 31, 32.**

Please indicate the degree of happiness, all things considered, of your relationship.

| Extremely Unhappy 0 | Fairly Unhappy 1 | A Little Unhappy 2 | Happy 3 | Very Happy 4 | Extremely Happy 5 | Perfect 6 |
|---|---|---|---|---|---|---|

Most people have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list.

| | Always Agree | Almost Always Agree | Occa-sionally Disagree | Fre-quently Disagree | Almost Always Disagree | Always Disagree |
|---|---|---|---|---|---|---|
| Amount of time spent together | 5 | 4 | 3 | 2 | 1 | 0 |
| Making major decisions | 5 | 4 | 3 | 2 | 1 | 0 |
| Demonstrations of affection | 5 | 4 | 3 | 2 | 1 | 0 |

| | All the time | Most of the time | More often than not | Occa-sionally | Rarely | Never |
|---|---|---|---|---|---|---|
| In general, how often do you think that things between you and your partner are going well? | 5 | 4 | 3 | 2 | 1 | 0 |
| How often do you wish you hadn't gotten into this relationship? | 0 | 1 | 2 | 3 | 4 | 5 |

| | Not at all TRUE | A little TRUE | Some-what TRUE | Mostly TRUE | Almost Completely TRUE | Completely TRUE |
|---|---|---|---|---|---|---|
| I still feel a strong connection with my partner | 0 | 1 | 2 | 3 | 4 | 5 |
| If I had my life to live over, I would marry (or live with / date) the same person | 0 | 1 | 2 | 3 | 4 | 5 |
| Our relationship is strong | 0 | 1 | 2 | 3 | 4 | 5 |
| I sometimes wonder if there is someone else out there for me | 5 | 4 | 3 | 2 | 1 | 0 |
| My relationship with my partner makes me happy | 0 | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| I have a warm and comfortable relationship with my partner | 0 | 1 | 2 | 3 | 4 | 5 |
| I can't imagine ending my relationship with my partner | 0 | 1 | 2 | 3 | 4 | 5 |
| I feel that I can confide in my partner about virtually anything | 0 | 1 | 2 | 3 | 4 | 5 |
| I have had second thoughts about this relationship recently | 5 | 4 | 3 | 2 | 1 | 0 |
| For me, my partner is the perfect romantic partner | 0 | 1 | 2 | 3 | 4 | 5 |
| I really feel like **part of a team** with my partner | 0 | 1 | 2 | 3 | 4 | 5 |
| I cannot imagine another person making me as happy as my partner does | 0 | 1 | 2 | 3 | 4 | 5 |

| | Not at all | A little | Some-what | Mostly | Almost Completely | Completely |
|---|---|---|---|---|---|---|
| How rewarding is your relationship with your partner? | 0 | 1 | 2 | 3 | 4 | 5 |
| How well does your partner meet your needs? | 0 | 1 | 2 | 3 | 4 | 5 |
| To what extent has your relationship met your original expectations? | 0 | 1 | 2 | 3 | 4 | 5 |
| In general, how satisfied are you with your relationship? | 0 | 1 | 2 | 3 | 4 | 5 |

| | Worse than all others (Extremely bad) | | | | | Better than all others (Extremely good) |
|---|---|---|---|---|---|---|
| How good is your relationship compared to most? | 0 | 1 | 2 | 3 | 4 | 5 |

| | Never | Less than once a month | Once or twice a month | Once or twice a week | Once a day | More often |
|---|---|---|---|---|---|---|
| Do you enjoy your partner's company? | 0 | 1 | 2 | 3 | 4 | 5 |
| How often do you and your partner have fun together? | 0 | 1 | 2 | 3 | 4 | 5 |

For each of the following items, select the answer that best describes *how you feel about your relationship*. Base your responses on your first impressions and immediate feelings about the item.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **INTERESTING** | **5** | **4** | **3** | **2** | **1** | **0** | **BORING** |
| **BAD** | **0** | **1** | **2** | **3** | **4** | **5** | **GOOD** |
| **FULL** | **5** | **4** | **3** | **2** | **1** | **0** | **EMPTY** |
| **LONELY** | **0** | **1** | **2** | **3** | **4** | **5** | **FRIENDLY** |
| **STURDY** | **5** | **4** | **3** | **2** | **1** | **0** | **FRAGILE** |
| **DISCOURAGING** | **0** | **1** | **2** | **3** | **4** | **5** | **HOPEFUL** |
| **ENJOYABLE** | **5** | **4** | **3** | **2** | **1** | **0** | **MISERABLE** |

Couple conflict, *Revised Dyadic Adjustment Scale* (2 items)

1. How often do you and your partner argue (i.e., disagree, have conflict)?

**All the time** **Most of the time** **More often than not** **Occasionally** **Rarely** **Never**

2. How often do you and your partner "get on each other's nerves?"

**All the time** **Most of the time** **More often than not** **Occasionally** **Rarely** **Never**

Sexual conflict (1 item)

3. How often do you and your partner argue **related to sex** (i.e., disagree, have conflict)?

**All the time** **Most of the time** **More often than not** **Occasionally** **Rarely** **Never**

**Appendix AB: Global Measure of Sexual Satisfaction (Lawrance & Byers, 1995 )**

Instructions: Overall, how would you describe your sexual relationship with your partner? For each pair of words, circle the number which best describes your sexual relationship.

| Very Good | | | | | | Very Bad |
|---|---|---|---|---|---|---|
| 7 | 6 | 5 | 4 | 3 | 2 | 1 |

| Very Pleasant | | | | | | Very Unpleasant |
|---|---|---|---|---|---|---|
| 7 | 6 | 5 | 4 | 3 | 2 | 1 |

| Very Positive | | | | | | Very Negative |
|---|---|---|---|---|---|---|
| 7 | 6 | 5 | 4 | 3 | 2 | 1 |

| Very Satisfying | | | | | | Very Unsatisfying |
|---|---|---|---|---|---|---|
| 7 | 6 | 5 | 4 | 3 | 2 | 1 |

| Very Valuable | | | | | | Worthless |
|---|---|---|---|---|---|---|
| 7 | 6 | 5 | 4 | 3 | 2 | 1 |