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An Examination of the Coercion in Intimate Partner Relationships Scale: Validation of the
Original Measure and Conceptualization of a Short Form

By
Kathleen Wilson

A Thesis
Submitted to the Faculty of Graduate Studies
through the Department of Psychology
in Partial Fulfillment of the Requirements for the Degree of Master of Arts
at the University of Windsor

Windsor, Ontario, Canada

2019

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An Examination of the Coercion in Intimate Partner Relationships Scale: Validation of the
Original Measure and Conceptualization of a Short Form

by
Kathleen Wilson

APPROVED BY:

D. Kane
Faculty of Nursing

D. Jackson
Department of Psychology

P. Timmons Fritz, Advisor
Department of Psychology

September 10 2019

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ABSTRACT

Researchers studying intimate partner violence have highlighted a need for a standardized way of conceptualizing and measuring coercive control. In order to address this, the purpose of the current study was to validate and adapt the theory-driven Coercion in Intimate Partner Relationships (CIPR; Dutton, Goodman, Terrell, Schmidt, & Fujimoto, 2007) scale as well as create a short form of the instrument. A sample of 76 undergraduate students from the University of Windsor and 549 adults recruited from Amazon's Mechanical Turk completed measures of coercive control, physical and psychological intimate partner violence, depression, and posttraumatic stress disorder. Confirmatory factor analyses, multiple regressions, and correlational analyses were conducted on two samples to examine the psychometric properties of the CIPR. Support was found for the construct, concurrent, convergent, predictive, and discriminant validity of the CIPR. Support was also found for the reliability (i.e., internal consistency and test-retest) of the tool. A short form of the instrument is also proposed, as are recommendations for additional adjustments that would further improve the short form. It is argued that if these tools are widely accepted and used by researchers, the field will be a step closer to standardization in the conceptualization and measurement of coercive control, which should translate into a better understanding of coercion and its correlates. Outside of research, the validated tools could also be used in legal settings to help persons of authority better understand the context surrounding abusive relationships (e.g., by police responding to domestic violence calls). Additionally, the information gained regarding the relation between coercion and PTSD could potentially inform mental health services (e.g., treatment options for survivors of IPV). Lastly, the potential benefits of educating adolescents about coercion is also discussed.

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CHAPTER I

Introduction

Intimate partner violence (IPV), defined as harmful physical, sexual, or psychological acts committed by a romantic partner, continues to be a global concern in which women are primarily the victims and men are primarily the perpetrators (WHO, 2016). Approximately 30% of women worldwide have reported experiencing violence in the context of an intimate relationship, with victims commonly suffering from physical injuries, psychological concerns, and in some cases, death by suicide or homicide (WHO, 2016). More specifically, women are twice as likely as men to be victims of IPV, and compared to women, men are 285 times more likely to murder their intimate partners (Whitaker, 2013). In Canada, in 2016, 28% of victims of police-reported crimes were victims of IPV and violence perpetrated by a romantic partner was the leading type of violence reported by women. Moreover, more than 93,000 incidents of IPV were reported to the police, a likely underestimation as a large percentage of victims do not report their abuse to law enforcement (Statistics Canada, 2016). Of these incidents, 79% of victims, or 73,470 individuals, were women. The most common type of IPV reported was physical (as opposed to psychological or sexual) and the vast majority of victims of serious physical violence, including homicide, were women (Statistics Canada, 2016).

In regards to dating relationships in particular, approximately 31% of university students from 32 countries worldwide reported experiencing physical IPV (Straus, 2008) and prevalence estimates of physical IPV in universities in the United States range from 14% to 42% (Whitaker, 2013). In Canada, in 2016, 15% of police-reported IPV cases or 13,950 incidences of IPV were related to dating violence. Moreover, women accounted for approximately 80% of the victims of dating violence by a current or former partner. For adolescent and emerging adult women aged

15- to 19 years old, 82% were victims of dating violence (Statistics Canada, 2016). As is illustrated by this brief review of statistics, IPV is a major problem that commonly begins in dating relationships and is affecting women as young as 15 years old in Canada, the United States, and countries around the world.

Theories of Coercion and Intimate Partner Violence

In an attempt to eliminate IPV and create efficient prevention and treatment programs, risk factors related to IPV have been studied. Among the well-established risk factors for IPV is the presence of controlling behaviours, particularly those exhibited by males toward female romantic partners (WHO, 2016). Moreover, for decades, coercive control, a pattern of behaviors aimed at exerting and displaying power over an individual (Stark, 2007), has been hypothesized as a central correlate of IPV. For instance, Okun (1986) postulated that coercive control, herein referred to as coercion, was used in abusive intimate relationships in a way that was analogous to the thought reform that was used after the revolution in communist China in order to induce behavioural and attitudinal changes in political prisoners. In general, Okun (1986) suggested that the intended results of thought reform and woman abuse were similar. Specifically, thought reform was intended to produce psychological breakdowns so that prisoners became malleable, allowing them to be brainwashed into compliance with their captors. In a similar vein, Okun (1986) proposed that in woman abuse, perpetrators appear to break down the woman's spirit to increase compliance to demands. One of the ways this is achieved is by threatening dire consequences if the individual refuses to comply with what the controller dictates. In abusive relationships, threats against the safety of the woman's children, relatives, friends, or pets are often used. Okun (1986) also suggested that surveillance by the controller is used with political

prisoners and women in abusive relationships as a means to check on whether or not demands are being obeyed.

These and other tactics of coercion proposed by Okun (1986) are also seen in Pence and Paymar's (1993) Power and Control Wheel, which was created as part of the Duluth Domestic Abuse Intervention Project. This model suggests that physical and sexual violence as well as tactics of coercion, such as isolation, economic abuse, threats, and blaming, are used to gain power in a romantic relationship. As such, based on this model, power and control are central to understanding IPV.

The centrality of coercion in understanding IPV was underscored by Johnson (1995) who, in response to the gender debate around IPV, proposed that there are two forms of IPV—common couple violence and patriarchal terrorism. Common couple violence is hypothesized to be triggered by the conflict that arises within romantic and family relationships and appears to be committed equally as often by males and females, with high reciprocity between partners. On the other hand, patriarchal terrorism, which is less prevalent, is theorized to be systematic violence enacted by males as a means to gain control over female romantic partners, with low reciprocity between partners. This type of IPV is hypothesized to involve high-frequency and systemic use of control tactics, such as violence, threats, and isolation, and is hypothesized to escalate more so than common couple violence (Johnson, 1995). Research by Graham-Kevan and Archer (2003) supported these initial typologies and their hypothesized characteristics.

More recently, Johnson (2006) proposed four typologies of IPV, all of which are based on dyadic control. Specifically, intimate partner terrorism is theorized to be a type of IPV in which one partner is violent and controlling and the other partner is neither violent nor controlling. Violent resistance is theorized to be a type of IPV in which one partner is violent and

controlling and the other is violent, but not controlling (i.e., self-defense). Situational couple violence is theorized to be a type of IPV in which one or both partners are violent, but not controlling, and mutual violent control is theorized to be a type of IPV in which both partners are violent and controlling.

Dutton and Goodman (2005) also created a highly ecologically valid theory of coercion, including what the pattern of coercion involves. Moreover, their theory was guided by a comprehensive literature review, ethnographic interviews with experts and individuals who have experienced IPV, a review of archival data, and consultation with experts in the field.

Dutton and Goodman's (2005) work was highly influenced by French and Raven's (1959) conceptualization of power in relationships. According to French and Raven (1959), there are five bases of power that agents can exert over targets. Reward and coercive power are bases that are particularly relevant to the power dynamics in intimate relationships. Reward power refers to the ability of the agent to either provide a positive stimulus or to remove a negative stimulus if the target complies with a demand (French & Raven, 1959). The strength of this power depends on the target's belief that the agent can provide the reward or remove the negative stimulus. Similarly, coercive power is the ability of the agent to punish the target for not complying with a demand (French & Raven, 1959). The effectiveness of coercive power is based on the targets' perception of the severity of the punishment as well as the targets' belief that the punishment will be avoided if they comply. As is suggested, the target can either respond to a demand by complying or refusing to obey the agent. Furthermore, reward and coercive power both require that the agent use direct or indirect surveillance to monitor whether or not the target complies with a demand (French & Raven, 1959). Lastly, the stage can be set for coercion, or in

other words, the agent sometimes demonstrates to the target that he or she has the means to exert coercion before a demand has been made (French & Raven, 1959).

To further inform their theory, in addition to reviewing other relevant literature on coercion, social power, psychological abuse, and IPV, Dutton, Goodman, and Schmidt (2005) collected ethnographic data in the form of structured interviews with individuals who had recent personal experiences with IPV, observations in IPV-related settings such as social groups, and interviews with individuals who work with IPV in a professional capacity. Archival data, including police reports of incidents of IPV and transcripts of interviews with female IPV perpetrators, were also reviewed, and experts in the field were consulted as the theory was being developed and refined.

Based on this extensive background work, Dutton and Goodman (2005) propose that the cycle of coercion involves three key components, including a demand made by the coercive partner, an associated threat or negative consequence for noncompliance, and surveillance of whether or not the partner has complied with the demand. Action is taken depending on whether or not the partner complied with the demand (e.g., physical IPV). The stage can be set for coercion by the coercive partner by creating an expectation for negative outcomes if demands are not obeyed, creating or exploiting the partner's vulnerabilities, wearing down the partner's resistance, and/or facilitating the partner's dependence on the coercive partner. The target is hypothesized to respond to the coercion cognitively, emotionally, and behaviourally by either complying or not complying with the demand (behavioural response) which is influenced by the degree to which the target believes (i.e., threat appraisal; cognitive response) and fears (emotional response) the threat. It is also theorized that coercion affects the target's quality of life, mental and physical health, and outlook on life.

Another important part of the theory is the relational context surrounding the coercion. In other words, coercion will take different forms depending on the couple and the circumstances surrounding their relationship. For example, coercion would look different in a childless relationship in which one partner is a new immigrant to the country and is financially dependent on the other, as compared to a relationship in which both partners are financially independent and have children together. In the first relationship, the coercive partner may threaten legal trouble related to immigration or the restriction of money, whereas in the second relationship, the coercive partner may not make threats about financial restrictions, but may instead make threats about the safety of the children. Despite these differences, in both situations, control over one's romantic partner is theorized as the guiding force behind the threats. As is underscored by these early theories and typologies of IPV, the pursuit of control has been central in understanding IPV for decades.

Research on Coercion and Intimate Partner Violence

The theorized relation between coercion and IPV has been studied empirically using a variety of different instruments to assess coercion. For instance, using the Relationship Behavior Rating scale, which is a revision of the Partner Abuse scale (Attala, Hudson, & McSweeney, 1994), Tanha, Beck, Figueredo, and Raghavan (2010) tested the assertion that coercion is a motivator for IPV using a sample of 762 couples undergoing divorce mediation. Intimate partner violence included harmful physical, psychological, and sexual acts, including intimidation and threats. Results indicated that women were more likely to be victimized by men than vice versa. Moreover, the path between coercion experienced by both women and men and IPV was significant, providing support for the authors' hypothesis that coercion is a motivator for IPV, used with the intent of gaining control over the victim.

In a similar vein, Whitaker (2013) examined the role that control-seeking plays in the perpetration of psychological and physical IPV in dating relationships, above and beyond the role of male dominance and hostile sexism. Using a sample of emerging adult men enrolled in university classes and five items from Hamby's (1996) Restrictive subscale of the Dominance scale, Whitaker (2013) found that control-seeking mediated the relation between male dominance and physical IPV and partially mediated the relation between hostile sexism and physical and psychological IPV.

More recently, using the intimidation and threat items of the Revised Controlling Behaviours scale (Graham-Kevan, & Archer, 2005), Fawson (2015) examined the relations among sexual, physical, and psychological IPV perpetration, victimization, and controlling behaviors in a sample of 486 heterosexual high school students who were in dating relationships. For boys and girls, IPV perpetration was related to controlling behaviors. Specifically, those who endorsed controlling behaviours were more likely to perpetrate physical, emotional, and sexual abuse in intimate relationships.

Similar conclusions have been made in research examining the role that coercion plays in IPV for elderly persons. More specifically, using a sample of 5,103 individuals aged 60 years and above, Policastro and Finn (2017) examined the relation between physical IPV victimization after age 60 and lifetime emotional coercion by an intimate partner. Emotional coercion was assessed using items created by the authors (e.g., Has anyone ever verbally attacked, scolded, or yelled at you so that you felt afraid for your safety, threatened, or intimidated? Has anyone ever forcefully or repeatedly asked you to do something so much that you felt harassed or coerced into doing something against your will?). Results indicated that a greater percentage of individuals who had reported emotional coercion by an intimate partner experienced physical

IPV after age 60. More specifically, individuals who reported experiencing emotional coercion in the context of an intimate relationship were 8.5 times more likely to experience physical IPV as compared to individuals who had never experienced emotional coercion by an intimate partner.

Efforts have also been made to examine the role that coercion plays in same-sex intimate partnerships. For instance, Frankland and Brown (2014) sought to examine whether or not Johnson's (2006) typologies of IPV were representational of violence in same-sex relationships. To do so, the authors created a measure of control that was consistent with Pence and Paymar's (1993) Power and Control Wheel, mentioned earlier. Overall, results indicated that violence in same-sex intimate relationships could be categorized using Johnson's (2006) typologies. Furthermore, although the majority of relationships were violence-free, situational couple violence was the most prevalent type of violence, followed by mutual violent control, intimate partner terrorism, and violent resistance. Taken together, these results further support the centrality of coercion in IPV within a variety of samples.

Potential Outcomes Related to Coercion

The negative correlates associated with coercion and IPV have also been studied empirically using a variety of measurement tools to assess coercion. Specifically, in studies that have examined potential outcomes of coercion and IPV, coercion has been assessed using author-created tools that have yet to be validated (i.e., Leone, Johnson, Cohan, & Lloyd, 2004), items adapted from broad national surveys (i.e., Coker et al., 2002; Johnson & Leone, 2005; Terrazas-Carrillo, McWhirter, & Martel, 2016), and validated questionnaires created specifically to measure control (i.e., The Revised Controlling Behaviours scale by Graham-Kevan, & Archer, 2005).

In general, results indicate that, as compared to people who have not experienced coercion or IPV, survivors of physical and psychological IPV and coercion are more likely to experience a host of negative outcomes such as chronic physical or mental illness, injury, anxiety, anger, and problems with substance abuse (Coker et al., 2002; Leone, Johnson, Cohan, & Lloyd, 2004; Próspero, 2008). Interestingly, Coker et al. (2002) found that psychological abuse victimization was a stronger predictor of these outcomes than was physical abuse. Moreover, psychological abuse characterized by control was more strongly associated with these outcomes than noncontrol forms of psychological abuse.

In terms of more specific mental health outcomes, depression and posttraumatic stress disorder have been studied quite extensively. Results indicate that coercion is related to and predictive of depression when studied using samples of predominantly White, married men and women aged 18 to 97 (Anderson, 2008; Coker et al., 2002; Johnson & Leone, 2005; Lovestad, Love, Vaez, & Krantz, 2017), married/cohabitating Mexican women 15 years of age and older (Terrazas-Carrillo, McWhirter, & Martel, 2016), and young women who identify as African American and Hispanic (Bubriski-McKenzie & Jasinski, 2013). In Lovestad et al.'s (2017) study, higher levels of physical and sexual IPV as well as controlling behaviours were related to higher levels of self-reported symptoms of depression even after adjusting for psychosocial covariates, including age, civil status, education level, employment status, access to social support, and witnessing IPV in childhood home. Interestingly, controlling behaviour was the most prevalent form of IPV reported by this sample. Specifically, 25% of participants reported that over the past year their partner had engaged in controlling behaviours towards them compared to 7.5% and 2.8% for physical and sexual IPV, respectively.

As for posttraumatic stress disorder (PTSD), a trauma- and stressor-related disorder commonly characterized by recurrent and intrusive memories, dreams, or flashbacks of the traumatic event or situation; physiological reactions and distress associated with internal or external stimuli or cues related to the trauma; persistent avoidance of stimuli associated to the trauma; negative alterations in mood and thinking patterns associated with the trauma; and alterations in arousal and reactivity associated with the trauma (American Psychiatric Association, 2013), results indicate that coercion is also related to and predictive of symptomatology. These results have been found in samples of married men and women between the ages of 18 and 97 (Anderson 2008; Johnson & Leone, 2005), young women who identify as African American and Hispanic (Bubriski-McKenzie & Jasinski, 2013), and women residing in a homeless shelter (Levine & Fritz, 2016). It is noteworthy that in both Johnson and Leone's (2005) and Bubriski-McKenzie and Jasinski's (2013) studies, victims of intimate partner terrorism reported more symptoms of depression and PTSD as compared to victims of situational couple violence. Thus, individuals in relationships with higher levels or more established patterns of control appear to report more mental health problems.

A Need for Standardization

As suggested above, although more attention has recently been given to the study of coercion and its correlates, findings are limited in that studies have not been guided by the same theoretical framework and coercion has not been measured using a standardized tool. Thus, comparisons across studies cannot be easily made. Moreover, not all of the tools that have been and are currently being used to assess coercion were specifically created to measure the construct. More specifically, none of the instruments cited above appear to be capable of capturing *patterns* of behaviours that would be indicative of coercion (i.e., as theorized by

Dutton & Goodman, 2005). Therefore, it is not certain that coercion has truly been measured in the extant literature, especially when authors have created their own surveys that have not been validated. As such, if this continues, our understanding of coercion and its correlates will continue to be limited.

This lack of standardization regarding the conceptualization and measurement of coercion has recently been recognized by researchers in the field who appear to be in agreement that this needs to be resolved. For example, Hamberger, Larsen, and Lehrner (2017) recently reviewed the literature on coercion as a means to address the inconsistencies regarding how the construct is defined and measured. They underscored that, although coercion has been widely accepted as being an important part of IPV, there is no single theory guiding research in the field and standardization is needed in regards to the conceptualization and measurement of coercion. The authors provided an overview of how coercion has been defined by various researchers in the field and highlighted Dutton and Goodman's (2005) conceptualization of coercion as one of the most cogent theories developed to date. However, no measure capable of assessing all components of this theory was included in their summary table of measures of coercion, as currently there is no published tool that has been validated in a peer-review process. Moreover, based on their review of literature in the field, Hamberger et al. (2017) suggest that the following three commonalities, rather than a distinct theory, have been guiding research on coercion: (a) perpetrators intentionally try to gain control over their partners, (b) victims perceive their partners' behaviours as negative, and (c) perpetrators are able to make threats that their victims perceive to be credible.

Consistent with this, Hardesty et al. (2015) underscore this issue and provide suggestions for moving forward. Through use of the Dominance-Isolation subscale of the Psychological

Maltreatment of Women Inventory (PMWI; Tolman, 1999), Hardesty and her colleagues (2015) sought to establish the most advantageous way to measure coercion. After deciding it would be most useful to distinguish between high versus low coercion within intimate relationships, the authors examined whether frequency or count data should be used when doing so.

To examine this, Hardesty and her colleagues (2015) conducted both hierarchical and *k*-means clustering analyses with PMWI frequency and count data. Results indicated that it was advantageous to use a frequency approach rather than a count approach to distinguish high and low levels of coercion. More specifically, they found that hierarchical clustering solutions for the frequency approach were confirmed, whereas solutions for the count approach were unstable. Moreover, when a *k*-means clustering analysis was conducted, the count approach revealed an unusually high number of high-controlling cases, which was inconsistent with past prevalence estimates. Furthermore, for the count approach, substantial overlap was also found in total PMWI scores between the two cluster solutions, which suggested that the number of high controllers identified through the count approach was inflated by partners who use a variety of coercive behaviours at a very low frequency. Using the frequency approach, a cut-off of 19 best distinguished high versus low coercion as assessed by the PMWI.

Overall, Hardesty and colleagues (2015) found that a frequency-based approach yielded the most reliable/valid means of distinguishing between high and low coercion and suggest that researchers adopt a frequency approach in future studies. They also suggest that researchers use the high versus low coercion approach and conduct both hierarchical and *k*-means clustering analyses when doing so. In favor of standardization, it was also recommended that the PMWI and a cut-off of 19 be used to further study coercion.

Although there are many advantages to this approach and it is in favor of standardization,

it is argued that the PMWI may not be the most appropriate tool to use to thoroughly examine coercion. Although the PMWI is comprehensive in its coverage of psychological IPV, it does not appear to capture all aspects of coercion. Instead, it is argued that use of the Coercion in Intimate Partner Relationships scale (CIPR; discussed below) is more appropriate as it captures all theorized aspects of coercion (Dutton & Goodman, 2005). Moreover, the PMWI is not able to capture severity, whereas an adjusted CIPR could gauge severity in a theory-driven manner through questions regarding fear and threat appraisal (i.e., the extent to which a partner believes the threat will be carried out; potential adjustments are elaborated upon in the discussion).

The Coercion in Intimate Partner Relationships Scale

Dutton, Goodman, Terrell, Schmidt, and Fujimoto (2007) created the CIPR questionnaire to assess Dutton and Goodman's (2005) theorized components of coercion. As was done during the development of their theory of coercion, Dutton and colleagues consulted professionals who work directly with individuals in abusive relationships and experts/researchers in the field before finalizing the CIPR. More specifically, using a 5-point Likert scale, consultants were asked to rate how much they agreed that draft items belonged to their designated subscales. In general, consultants and professionals in the field provided feedback regarding the addition of and rewording of items.

The final version of the CIPR is comprised of subscales that assess demands, threats, surveillance, and responses to coercion, as well as one question pertaining to third-party involvement in threats. The respondent is asked to answer the questions in terms of victimization and perpetration with *yes* or *no* responses.

Initial support has been found for the validity and reliability of the tool. Moreover, Dutton et al. (2007) examined the psychometric properties of the questionnaire using a sample of

750 men ($n = 302$) and women ($n = 448$) between the ages of 18 and 80 years who had been in a romantic relationship for at least one year. Participants were either victims of IPV ($n = 139$), perpetrators of IPV ($n = 39$), both a victim and perpetrator ($n = 245$), or had no personal experience with IPV ($n = 334$). The mean age of participants was 31 years and the majority of the sample had some college education or were in college, were in a committed relationship, lived separate from their partner, and identified as African American. Participants were recruited from community agencies related to IPV, colleges, agencies providing nonIPV-related services, and the public (e.g., fast food restaurants). All participants completed the CIPR as well as additional measures of correlates of coercion, including measures of psychological and physical IPV, PTSD, and depression. Interviews were also conducted with one in every ten participants to gain insight into the demands to which individuals had been exposed. This was done as part of the validity check, so that the authors could examine the extent to which the demands included in the CIPR represented recent demands faced in actual relationships.

The hypothesized factor structures for the Demand, Threat, and Surveillance subscales were supported through exploratory and confirmatory factor analyses. In terms of validity, strong support was found for convergent validity as statistically significant relations were found between the scores on the Threat subscale and the Demand and Surveillance subscales, as well as levels of IPV. Specifically, higher scores on the Threat subscale were related to higher scores on the Demand and Surveillance subscales. Support for predictive validity was also found, as Threat subscale scores predicted PTSD, depression, IPV threat appraisal, and fear scores. Other than for depression, these associations were found when physical, sexual, and psychological IPV were controlled for. Findings were consistent for both men and women. Moreover, internal

consistency was high, as Cronbach alphas were .86 or higher for all of the subscales in terms of victimization and perpetration.

Although initial psychometric testing shows promise for the CIPR, the tool is limited in that the psychometric properties have not been tested by a research team that is independent from the CIPR creators. Moreover, to my knowledge, the CIPR has not yet been used in published research by other authors in the field. As such, currently, this field of research is lacking in that this invaluable tool has yet to be validated and adopted by researchers.

Adapting the Coercion in Intimate Partner Relationships Scale. Although the CIPR is a promising instrument for assessing coercion, as it is grounded in theory and is able to measure the theorized pattern of coercion, there are some adjustments that would make the instrument more practical and useful. First, consistent with the suggestion outlined earlier by Hardesty et al. (2015), it would be advantageous to adapt the CIPR scale to assess frequency of coercion. More specifically, it is of interest to change the current *yes* or *no* format of the CIPR to an 8-point Likert-style scale that provides the following options, referring to the frequency of coercion tactics experienced and used in the past three months of one's current romantic relationship: 1 (*This has never happened*), 2 (*Not in the past 3 months, but it did happen before*), 3 (*Once in the past 3 months*), 4 (*Twice in the past 3 months*), 5 (*3 – 5 times in the past 3 months*), 6 (*6 – 10 times in the past 3 months*), 7 (*11 – 20 times in the past 3 months*), and 8 (*More than 20 times in the past 3 months*). These scale options are consistent with those used in the well-known Revised Conflict Tactics Scale (Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Not only would frequency data provide a more accurate understanding of coercion, but knowledge of the frequency by which tactics of coercion occur would also be useful to inform much needed longitudinal work on the pattern of coercion over time. Additionally, the variability that would

be captured using a Likert-style scale over a dichotomous scale would be beneficial for statistical analyses.

Furthermore, it would also be advantageous and practical for a shorter version of the original 202-item CIPR scale to be created. Specifically, the current length may limit the number of additional questionnaires that can be administered simultaneously. The current length may also produce respondent fatigue, which could compromise the accuracy and quality of responses (Egleston, Miller, & Meropol, 2011).

Finally, if a short form is created, it is also possible to adjust the CIPR to include questions that examine severity. Specifically, severity could be assessed in a theory-driven way by asking respondents to rate threat appraisal (i.e., the extent to which they believe threats made by their partner) and fear for individual items.

The Current Study

In response to recent literature calling for a standardized method for conceptualizing and measuring coercion (Hamberger et al., 2017; Hardesty et al., 2015), the purpose of the current study was to examine and cross-validate the psychometric properties of the CIPR, after its response scale had been altered to assess frequency of coercive behaviours. In doing so, two samples were used to examine validity and reliability. Specifically, I examined construct validity, or the extent to which the CIPR assesses the construct for which it was intended (i.e., coercion). This was achieved through confirmatory factor analyses of the CIPR subscales as well as through examinations of: (a) concurrent validity, or the extent to which the CIPR correlates with another measure of the variable of interest; (b) convergent validity, or the extent to which similar or related constructs correlate with one another; (c) discriminant validity, or the extent to which dissimilar constructs, that would not be expected to be related, correlate with one another;

and (d) predictive validity, the extent to which the score on a measure of interest predicts scores on a criterion measure (Kazdin, 2017). As was done by Dutton et al. (2005), measures of physical IPV, depression, PTSD, and controlling behaviours were used to examine validity. In terms of reliability, the internal consistency of the subscales, or the degree to which items within each scale relate, was examined in two samples (Kazdin, 2017). Finally, test-retest reliability, a measure of the stability of test scores from the same instrument over time, was also examined (Kazdin, 2017). Other goals of the current study were to create a short form of the questionnaire, using the frequency-based response scale, and collect data to inform future longitudinal work.

The rationale behind the current study was that, if widely adopted by researchers, a psychometrically defensible and efficient tool with universal cutoffs could bring the field a step closer to standardization in the conceptualization and measurement of coercion. Not only would this translate into a better understanding of coercion, but invaluable information about the frequency of the various components of coercion could inform future longitudinal studies. Outside of research, the validated tools could also be used in legal settings to help persons of authority to better understand the context surrounding abusive relationships (e.g., by police responding to domestic violence calls; in court). Further, the information gained regarding the relation between coercion and PTSD and depression could potentially inform educational and mental health services (e.g., prevention initiatives; treatment options for victims of coercive control).

Research Objectives

The first objective of the current study was to examine the validity of the original CIPR, the second objective was to cross-validate the original CIPR using a second sample, the third objective was to create a short form of the instrument, and the fourth objective was to collect

data regarding the frequency of coercion in order to inform future longitudinal work. The following results were expected for the first and second objective and are summarized in Table 1.

Outcome expectations related to Objectives 1 and 2.

Expectation 1. The first expectation tested in the current study was that the original CIPR would demonstrate good construct validity. Based on the initial work of Dutton et al. (2007), I expected that the factor structure of the CIPR would replicate with the new samples and altered response scale, providing support for the validity of the tool. More specifically, I expected that, although the chi-square-goodness of fit statistics may be significant due to the large sample size, indicating model misspecification, other fit indices would indicate acceptable model fit for the CIPR (i.e., RMSEA, SRMR, NNFI/TLI, and CFI).

Expectation 2. The second expectation tested in the current study was that the CIPR would demonstrate good concurrent validity as examined in both samples. Based on the initial work of Dutton et al. (2007), I expected that higher scores on the CIPR would be associated with higher scores on another measure of coercion, namely, the Checklist of Controlling Behaviors (CCB; Lehmann, Simmons, & Pillai, 2012), demonstrating correspondence between these measures of coercion and control tactics.

Expectation 3. The third expectation tested in the current study was that the original CIPR would demonstrate good convergent validity as examined in both samples. Based on previous research, I expected that higher scores on overall coercion, as measured by the CIPR, would be associated with higher scores on physical IPV as measured by the CCB (Fawson, 2015; Tanha et al., 2013). I also expected that scores on the Demand, Threat, and Surveillance subscales would be positively related (Dutton et al., 2007).

Expectation 4. The fourth expectation to be tested in the current study was that the CIPR would demonstrate good predictive validity as examined in both samples. I expected that total coercion victimization would predict PTSD after controlling for potential covariates, as has been found in other studies (e.g., Anderson, 2008; Bubriski-McKenzie & Jasinski, 2013; Johnson & Leone, 2005; Levine & Fritz, 2016). I also expected that total coercion victimization would predict depression, after controlling for potential covariates, as has been found in previous research (Anderson, 2008; Coker et al., 2002; Johnson & Leone, 2005; Leone et al., 2004; Lovestad et al., 2017; Próspero, 2008; Terrazas-Carillo et al., 2016).

Expectation 5. The fifth expectation tested in the current study was that the CIPR would demonstrate good discriminant validity as examined in both samples. In order to examine this, overall coercion was correlated with scores on a measure of socially desirable answering. It was expected that these variables would not be correlated to an extent that suggests singularity or that the instruments are assessing the same construct (i.e., $r \geq 0.90$; Pituch & Stevens, 2016).

Expectation 6. The sixth expectation tested in the current study was that the original CIPR would demonstrate good reliability as exhibited by high internal consistency. Based on the initial work of Dutton et al. (2005), I expected that the CIPR would be found to be reliable as demonstrated by Cronbach alpha scores that are 0.70 or above for all subscales in both samples, demonstrating acceptable internal consistency (George & Mallery, 2005).

Expectation 7. The final expectation tested in the current study was that the CIPR would demonstrate good reliability as exhibited by high test-retest reliability. I expected that good test-retest reliability would be apparent as demonstrated via coefficients that are at or above .60 (Cicchetti & Sparrow, 1981).

Table 1

Statistical Analyses for Specified Hypotheses

Research objectives	Variables of interest	Statistical analyses performed	Outcomes
Objective 1 and 2, Expectation 1. Construct validity of the CIPR	Coercion (latent variable) as measured by the CIPR	Confirmatory factor analysis (examination of chi goodness-of-fit statistic, RMSEA, SRMR, NNFI/TLI, and CFI)	Supported; Evidence of construct validity was demonstrated by acceptable fit values
Objective 1 and 2, Expectation 2. Concurrent validity of the CIPR	Coercion as measured by the CIPR and controlling behaviors as measured by the CCB	Spearman's rank correlation analyses	Supported; Evidence of concurrent validity was demonstrated by a significant positive correlation between CIPR and CCB total coercion scores
Objective 1 and 2, Expectation 3. Convergent validity of the CIPR	Coercion and its subscales as measured by the CIPR, and physical IPV as measured by the CCB	Spearman's rank correlation analyses	Supported; Evidence of convergent validity was demonstrated by significant positive correlations between CIPR coercion and physical IPV as well as between all CIPR subscales

Research objectives	Variables of interest	Statistical analyses performed	Outcomes
Objective 1 and 2, Expectation 4. Predictive validity of the CIPR	Coercion victimization (predictor variable) as measured by the CIPR, depression (outcome variable) as measured by the QIDS-SR, and PTSD (outcome variable) as measured by the PCL-5	Regression analyses	Partially Supported; Evidence of predictive validity was demonstrated by total CIPR coercion victimization significantly predicting PTSD. CIPR coercion victimization did not predict depression
Objective 1 and 2, Expectation 5. Discriminant validity of the CIPR	Coercion as measured by the CIPR and socially desirable answering as measured by the MCSDS-C	Spearman's rank correlation analyses	Supported; Evidence of discriminant validity was demonstrated by a low correlation between CIPR total coercion and socially desirable answering
Objective 1 and 2, Expectation 6. Internal consistency of the subscales of the CIPR	Coercion as measured by the CIPR	Cronbach's alphas	Supported; Evidence of reliability was demonstrated by Cronbach alpha scores greater than .70 for all subscales
Objective 1 and 2, Expectation 7. Test-retest reliability of the CIPR	Coercion as measured by the CIPR	Spearman's rank correlation analyses	Supported; Evidence of reliability was demonstrated by coefficients greater than .60
Objective 3: Shorten the CIPR	Coercion as measured by the CIPR	Confirmatory factor/principle component analysis	--
Objective 4: Collect information to inform longitudinal work	Questions created for the current study	Frequency of responses	--

CHAPTER II

Method

Participants

Participants consisted of 625 self-identified men and women between the ages of 18 and 71 ($M=35.18$, $SD = 11.86$) who had been in a romantic relationship for at least three months prior to completing the study. The inclusion criteria that the participants had to have been in the relationship for at least three months was chosen in hopes that the participants were familiar enough with their partner to answer questions about their partner's behaviour. This duration has also been used by other researchers in the field (e.g., Gleason, 2005; Horvath, 2004; Schneiderman, Zagoory-Sharon, Leckman, & Feldman, 2012). Other inclusion criteria were that the participants were not in long-distance or online romantic relationships and that the participants resided in Canada or the United States. In order to avoid the need to obtain parental consent, Canadian participants were 16 years or older, whereas participants from the United States were 18 years or older.

Participants were recruited online via the University of Windsor's participant pool ($n = 76$) as well as through Mechanical Turk (MTurk; $n = 549$). The latter is an online crowdsourcing tool run by Amazon™, which has become popular among behavioural scientists as it is an efficient way to collect diverse samples of data for a low cost (Mason & Suri, 2012; Shapiro, Chandler, & Mueller, 2013). Multiple recruitment sources were used in order to increase the likelihood that participants enrolled in the current study came from diverse backgrounds, namely in terms of age and experience with IPV. Moreover, this method was used to increase the generalizability of the results of the current study as experiences of university students are likely unrepresentative of the general population (Kazdin, 2017), whereas past research has

demonstrated that the prevalence of depression, anxiety, and trauma exposure reported by MTurk workers is comparable to the general population (Shapiro et al., 2013). Moreover, consistent with the literature, women on MTurk reported more symptoms of anxiety and were more likely than men to report depressive symptoms that exceeded clinical cutoffs and unemployed individuals were more likely to report higher levels of depressive symptoms, general anxiety, and lower levels of life satisfaction (Shapiro et al., 2013). Therefore, the current recruitment strategy appeared to be promising in terms of acquiring data from a representational sample.

Descriptive statistics (performed after deleting cases that were thought to be from bots or where 20% or more data were missing) indicated that participants recruited through MTurk were an average of 37 years old, whereas participants recruited through the Participant Pool were an average of 23 years old. Nearly half of the MTurk workers self-identified as female (55%), whereas the majority of Participant Pool students self-identified as female (90%). The majority of MTurk workers reported their highest level of education to be a Bachelor's degree (48%), whereas the majority of Participant Pool students reported their highest level of education to be a high school diploma (70%). Moreover, the majority of MTurk workers and Participant Pool students did not have children (38% and 89%, respectively). The majority of MTurk workers lived with their married spouse (50%), whereas the majority of Participant Pool students lived with their family (56%). Lastly, the majority of MTurk workers were born in the United States (97%), whereas the majority of Participant Pool students were born in Canada (74%).

In terms of intimate relationships, on average, MTurk workers began dating at 21 years of age, whereas Participant Pool students began dating at 16 years of age. On average, MTurk workers had dated nine people and had been sexually-involved with 10 partners, whereas Participant Pool students had dated and been sexually-involved with four people. The average

length of MTurk workers' past relationships was 31 months or roughly two-and-a-half years, whereas the average length of Participant Pool students' past relationships was 36 months or three years. The majority of MTurk workers and Participant Pool students reported that they had not experienced emotional, physical, or sexual abuse in past romantic relationships (61% and 64%, respectively).

In terms of participants' current intimate relationships, the average length of MTurk workers' current relationships was 88 months or roughly seven years, whereas the average length of Participant Pool students' current relationships was 61 months or roughly five years. The majority of MTurk workers were married (49%), whereas the majority of Participant Pool students reported being in a committed (nonmarital) relationship (64%). The majority of MTurk workers and Participant Pool students engaged in sexual activities with their current partners (87% and 89%, respectively). On average, MTurk workers spent 41 hours a week with their partners, whereas Participant Pool students spent an average of 44 hours a week with their partners. On a scale from 0 (*Extremely uncommitted; Extremely unsatisfied*) to 10 (*Extremely committed; Extremely satisfied*), on average, MTurk workers rated both their commitment to and satisfaction with their current partner/relationship as an eight, whereas Participant Pool students rated both their current commitment and satisfaction as a nine. Descriptive statistics for the recruitment groups race/ethnic backgrounds and sexual orientations can be found in Table 2.

In order to examine if participants recruited through MTurk and those recruited through the Participant Pool differed on key demographics and study variables of interest, I ran a series of independent *t* tests, Mann Whitney U tests, and chi-square tests (see Tables 2 and 3). The two groups did not differ significantly in terms of PTSD symptomatology, depression symptomatology, socially desirable answering, past relationship IPV, nor the amount of time

they had been in a romantic relationship with their current partner. Additionally, for the most part, there were no significant differences in terms of ethnic and cultural diversity. However, the proportion of Black participants was higher in the MTurk group as compared to the Participant Pool group. Specifically, the ratio of Black participants to nonBlack participants in the MTurk group was 5:1, whereas the ratio of Black participants to nonBlack participants in the Participant Pool group was 22:1.

Furthermore, significant differences were also found for total coercion perpetration as measured by the CCB, threat appraisal, and fear in response to threats made by their current romantic partner. Overall, MTurk participants reported significantly more coercion and violence perpetration as compared to students recruited through the Participant Pool. Participants recruited through MTurk were also more likely than those recruited through the Participant Pool to believe their partners' threats and be more fearful in response to threats made by their partners.

Statistical differences were also found for age and place of birth, wherein MTurk participants were found to be significantly older than Participant Pool participants and more likely to have been born in the United States as compared to Canada. Moreover, a greater proportion of MTurk workers had graduated from post-secondary education as compared to Participant Pool workers. Lastly, significant differences were found for gender distribution, wherein the ratio of self-identified men to women was smaller in the MTurk sample as compared to the Participant Pool sample. Thus, gender was more evenly distributed in the MTurk sample as compared to the Participant Pool sample, which consisted primarily of women. More specifically, the ratio of self-identified men to women was 1.0:9.0 in the Participant Pool as compared to 1.0:1.2 in the MTurk sample.

Overall, results indicated that recruiting participants through MTurk was successful in providing a more diverse sample for the current study. Specifically, and of primary importance, by recruiting participants through MTurk, I was able to collect data from people who were older and who had experienced more control and violence in their current romantic relationships as compared to students recruited through the university.

Table 2

Descriptive Statistics for Participants Recruited Through MTurk and the University Participant Pool

Racial/Ethnic identity	MTurk (N = 478)		Participant pool (N = 71)		X^2	p
	<i>n</i>	%	<i>n</i>	%		
White/Caucasian; European Canadian	353	73.70	56	80.00	1.22	.27
Black/African Canadian/American; Caribbean Canadian/American	74	15.40	3	4.30	6.34	.01
Hispanic/Latino	29	6.10	1	1.40	2.53	.11
East Asian/Pacific Islander	24	5.00	7	10.00	2.85	.09
South Asian	11	2.30	2	2.90	0.08	.77
Arab/Middle Eastern	6	1.30	1	1.40	0.02	.90
Bi-racial/Multi- ethnic	6	1.30	1	1.40	0.02	.90
Other	4	0.80	1	1.40	0.54	.46
Aboriginal; Native Canadian/American	3	0.60	1	1.40	0.54	.46
Sexual orientation	MTurk (N = 478)		Participant pool (N = 71)			
	<i>n</i>	%	<i>n</i>	%		
Heterosexual	402	83.90	61	87.10		
Bi-sexual	55	11.50	6	8.60		
Lesbian/Gay	14	2.90	1	1.40		
Pansexual	2	0.40	1	1.40		

Asexual	2	0.40	0	0.00
Other	2	0.40	0	0.00
Unknown	2	0.40	1	1.40

Table 3

Differences Explored Between Participants Recruited Through MTurk and Participant Pool

Variable	<i>t/U</i>	<i>p</i>
Age	9.54	<.001
Duration of current romantic relationship	1.61	.11
PTSD symptomatology	0.81	.42
Depression symptomatology	-1.05	.29
Socially desirable answering	-0.59	.56
CCB victimization	†3175.00	.07
CCB perpetration	†2948.00	.02
CIPR victimization	†3453.00	.30
CIPR perpetration	†3317.00	.16
Threat appraisal	3.17	<.001
Fear response to threats	2.16	.03
Variable	<i>X</i> ²	<i>p</i>
Gender	31.51	<.001
Sexual orientation	3.91	.69
Place of birth	420.40	<.001
Level of education	57.20	<.001
Past IPV	0.21	.64

Note. †Denotes the results of a Mann Whitney U analysis.

In order to examine the validity of the CIPR in two samples (i.e., cross-validation), participants recruited from MTurk and the Participant Pool were randomly divided into two samples containing participants from both recruitment sources. Sample A consisted of 284 participants, whereas Sample B consisted of 265 participants. Sample A, which was used to check the validity of the original CIPR and create the short form, was comprised of 84% of MTurk workers and 15% of Participant Pool students. Sample B, which was used to cross-validate the CIPR, was comprised of 90% of MTurk workers and 10% of Participant Pool students.

Sample A participants were an average of 34-years-old, whereas Sample B participants were an average of 37-years-old. The majority of Sample A and Sample B participants self-identified as female (59% and 60%, respectively). The majority of participants from Sample A and Sample B reported their highest level of education to be a Bachelor's degree (42% and 45%, respectively). Moreover, the majority of participants from Sample A and Sample B did not have children (48% and 40%, respectively) and lived with their married spouse (41% and 49%, respectively). Finally, the majority of participants from Sample A and Sample B (82% and 88%, respectively) were born in the United States.

In terms of intimate relationships, on average, Sample A participants began dating at 24 years of age, whereas Sample B participants began dating at 17 years of age. On average, Sample A participants had dated seven people and been involved sexually with nine people, whereas Sample B participants had dated nine people and been involved sexually with eight people. The average length of Sample A participants' past relationships was 24 months or two years, whereas the average length of Sample B participants' past relationships was 38 months or roughly three

years. The majority of Sample A and Sample B participants reported that they had not experienced emotional, physical, or sexual abuse in past romantic relationships (64% and 59%, respectively).

In terms of participants' current intimate relationships, the average length of Sample A participants' current relationships was 76 months or roughly six years, whereas the average length of Sample B participants' current relationships was 94 months or roughly eight years. The majority of Sample A and Sample B participants were married (41% and 49%, respectively) and engaged in sexual activities with their current partners (87% and 87%, respectively). On average, Sample A participants spent 43 hours a week with their partners, whereas Sample B participants spent an average of 40 hours a week with their partners. On average, Sample A and Sample B participants rated their commitment to their current partner/relationship as a 9 out of 10 and their satisfaction to their current partner/relationship as an 8 out of 10. Descriptive statistics for the samples race/ethnic backgrounds and sexual orientations can be found in Table 4.

In order to examine if Sample A and Sample B differed on key demographics and study variables of interest, I ran a series of independent *t* tests, Mann Whitney U tests, and chi-square tests. The samples did not differ significantly on any key demographics or study variables, except for age, wherein Sample B participants were found to be significantly older than Sample A participants. Although the age difference was statistically significant, the difference was not theoretically significant. Thus, the two samples were used to conduct main analyses. Results are displayed in Table 4 and Table 5 below.

Table 4

Descriptive Statistics for Sample A and Sample B Participants

Racial/Ethnic Identity	Sample A (N = 284)		Sample B (N = 265)		X^2	<i>p</i>
	<i>n</i>	%	<i>n</i>	%		
White/Caucasian; European Canadian	208	73.00	201	76.00	0.40	.53
Black/African Canadian/American; Caribbean Canadian/American	41	14.40	36	13.60	0.07	.79
Hispanic/Latino	18	6.30	12	4.50	0.87	.35
East Asian/Pacific Islander	18	6.30	13	4.90	0.53	.47
South Asian	7	2.50	6	2.30	0.02	.88
Arab/Middle Eastern	4	1.40	3	1.10	0.08	.77
Aboriginal; Native Canadian/American	3	1.10	1	0.40	0.54	.46
Other	2	0.70	3	1.10	0.01	.95
Bi-racial/Multi- ethnic	1	0.40	6	2.30	3.98	.06

Sexual Orientation	Sample A (N = 284)		Sample B (N = 265)	
	<i>n</i>	%	<i>n</i>	%
Heterosexual	233	82.00	230	87.00
Bi-sexual	35	12.30	26	9.80
Lesbian/Gay	9	3.20	6	2.30
Pansexual	3	1.10	0	0.00
Unknown	3	1.10	0	0.00

Asexual	1	0.40	1	0.40
Other	0	0.00	2	0.80

Table 5

Differences Explored Between Sample A and Sample B Participants

Variable	<i>t/U</i>	<i>p</i>
Age	-2.64	.01
Duration of current romantic relationship	-1.55	.12
PTSD symptomatology	1.26	.21
Depression symptomatology	0.72	.47
Socially desirable answering	0.64	.52
CCB victimization	†7193.00	.94
CCB perpetration	†7088.00	.78
CIPR victimization	†6868.00	.50
CIPR perpetration	†6838.00	.45
Threat appraisal	0.70	.49
Fear response to threats	0.40	.69
Variable	X^2	<i>p</i>
Gender	0.04	.85
Sexual orientation	9.30	.16
Place of birth	3.56	.17
Past IPV	1.86	.17

Note. † Denotes the results of a Mann Whitney U analysis.

Procedure

University of Windsor sample. Once clearance was obtained from the University of Windsor's Research Ethics Board, I posted online study advertisements on the university participant pool website (see Appendices A and B for advertisement content). In an attempt to achieve a balanced design, separate advertisements were posted on the website for self-identified men and women. Interested students who met the inclusion criteria of the study, as assessed via the screening questions that were added to the participant pool mass screening survey (i.e., Are you currently in a romantic relationship that has lasted at least 3 months in length? Are you currently in a long-distance or online romantic relationship?), enrolled in the study through their student account on the participant pool website.

In order to collect data to assess test-retest reliability of the CIPR, the study was advertised as a two-part study. As is commonly done, test-retest administrations were separated by a period of two weeks. For financial reasons, test-retest reliability was only tested with the University of Windsor sample. Part 1 of the study took approximately 35 minutes to complete and participants were awarded with one bonus credit which was added to their mark in an eligible class. Students earned an additional 0.50 of a participant pool credit for completing the CIPR again (Part 2), which took an average of 10 minutes to complete.

Upon enrollment in the study, participants were sent an email containing the URL for Part 1 of the study as well as their study identification number. Two weeks later, participants were sent another email containing the URL for Part 2 of the study and their study identification number (see Appendices E and F for content of email). If participants failed to complete Part 1 or Part 2 of the study within a week of receiving the emails, they were sent a reminder email (see

Appendices G and H for content of reminder emails). For Part 1 and Part 2, once participants clicked the link, they were directed to an online survey hosted by Qualtrics. They first read about the subject of the study, potential harms, and their rights as research participants, and then they provided their consent to participate by clicking *I agree* (see Appendices I and J for consent forms). It was outlined in the consent forms that in order to receive full compensation, participants needed to spend at least 15 minutes on the Part 1 survey and at least five minutes on the Part 2 survey. This was done to encourage participants to take their time and answer questions carefully. For Part 1 and Part 2 of the study, once consent was provided, participants completed the survey questionnaires. In order to control for order effects, the questionnaires were administered in randomized order.

As is elaborated upon in the Measures section, Part 1 of the study consisted of various questionnaires that examined demographics, victimization and perpetration of coercion in intimate relationships, physical and psychological IPV perpetration and victimization, symptoms of depression and PTSD, and tendencies to answer questions in a socially desirable manner. Part 2 of the study only consisted of questions regarding victimization and perpetration of coercion in intimate relationships. Upon completion of Part 1 and Part 2 of the surveys, participants completed a positive mood induction procedure wherein they wrote about a positive memory that they had of their current partner or relationship (Trope, Ferguson, & Raghunathan, 2001; see Appendix L). Participants were then directed to a debriefing form that included local resources for IPV, counselling services, and instructions for how to clear one's browser history (see Appendices M, N, and P for debriefing, resources, and web safety forms). Students were provided with the same resource list upon completion of Part 1 and Part 2. Once Part 2 was

completed, they received a more detailed explanation of the purpose of the study. Data collection began at the beginning of January 2019 and ended in early June 2019.

Mechanical Turk sample. Once clearance was obtained from the University of Windsor's Research Ethics Board, I also posted online study advertisements on the MTurk website (see Appendices C and D for advertisement content). In an attempt to achieve a balanced design, separate human intelligence tasks (HITs) were posted on MTurk for self-identified men and women. Interested MTurk workers who met the inclusion criteria (viz., had been in a romantic relationship that was not long-distance or purely online for a minimum of three months and resided in Canada or the United States) for the study signed up through their worker accounts. Mechanical Turk workers earned a one-time stipend of \$1.25 U.S. dollars for completing Part 1 of the study, which took an average of 35 minutes to complete.

Upon enrollment in the study, the link to the survey was available to MTurk workers through the website. Once participants clicked the link, they were directed to an online survey hosted by Qualtrics. They first read about the subject of the study, potential harms, their rights as research participants, and then provided their consent to participate by clicking *I agree* (see Appendix K for consent form). Similar to other studies conducted on MTurk, it was outlined in the consent form that in order to receive full compensation they had to (a) take longer than 15 minutes to complete the survey, (b) complete the survey through to the end, and (c) pass the bot/validity checks (i.e., $2 + 2$; *choose never for this response*). Although no compensation was given, MTurk workers were able to withdraw from the survey at any time without penalty (i.e., a "rejection" on their worker account). Once consent had been provided, participants completed the Part 1 questionnaires in randomized order. Upon completion of the survey, participants completed the positive mood induction procedure outlined above and were then directed to a

debriefing form that included international resources for IPV, counselling services, and instructions for how to clear one's browser history (see Appendices O and P for debriefing, resources, and web safety forms). Data collection began at the beginning of January 2019 and ended mid-May 2019.

Measures

Coercion. The 202-item CIPR (Dutton et al., 2007; see Appendices Q and R) was used to examine victimization and perpetration of coercion in the context of one's current romantic relationship. Demands, threats, and surveillance tactics used in the last three months of the relationship were assessed. More specifically, the 48-item Demand subscale assessed demands made regarding personal activities and appearance (e.g., maintaining a certain weight); support and social life (e.g., spending time with friends or family members); household activities (e.g., taking care of the house); work, economics, and resources (e.g., going to school); as well as health (e.g., taking medication or prescription drugs); the intimate relationship (e.g., doing certain sexual behaviours); legal matters (e.g., talking to the police or lawyer); immigration (e.g., talking to the immigration authorities); and children (e.g., making important decisions about the children). The 31-item Threat subscale assessed threats that fit into the categories of (a) harm to the participant (e.g., physically hurt you), (b) harm to the perpetrator/partner (e.g., threaten to commit suicide), and (c) harm to others (e.g., destroy property of family members or friends). Finally, the 13-item Surveillance subscale assessed a variety of means of checking on someone's activities (e.g., kept track of telephone/cell phone use; checked victim's clothing; asked the children, neighbors, friends, family, or coworkers; used audio or video tape recorder).

With permission from the author, (M. A. Dutton, personal communication, April 30, 2018), the CIPR was altered so that data on the frequency of coercive tactics was collected using

an 8-point Likert-style scale, instead of the original *yes* or *no* format. The Likert-style scale consisted of the following options, referring to the frequency of coercion tactics experienced and used over the past three months of the current relationship: 1 (*This has never happened*), 2 (*not in the past 3 months, but it did happen before*), 3 (*Once in the past 3 months*), 4 (*twice in the past 3 months*), 5 (*3 – 5 times in the past 3 months*), 6 (*6 – 10 times in the past 3 months*), 7 (*11 – 20 times in the past 3 months*), and 8 (*more than 20 times in the past 3 months*). The instructions before each subscale were also altered slightly to reflect the change in obtaining information about frequency. Subscale scores were derived for the Demand, Threat, and Surveillance subscales by summing all items within each subscale. I also calculated a total coercion perpetration and total coercion victimization score, which were the sums of all subscale scores. Higher scores indicate a greater amount of coercion. Initial psychometric testing of the CIPR has demonstrated high reliability ($\alpha \geq .86$) and validity (Dutton et al., 2005). In the current study, internal consistency was good (perpetration $\alpha \geq .83$; victimization $\alpha \geq .88$).

Other components and information about coercion. In order to gauge how often, on average, all three components of coercion had been used and experienced together over the past three months of the relationship, participants were also asked how often they and their partner demanded or expected something from the other, gave an associated threat for noncompliance, and checked up on the other to see whether or not the specific demand was obeyed. The same Likert-style scale as the CIPR was used to assess this. Higher scores indicate a greater amount of coercion. Using the following scale, participants were also asked to indicate when they first started experiencing and using demands, threats, and surveillance tactics in their current relationship: 0 (*Never*), 1 (*1 week into the relationship*), 2 (*2-3 weeks into the relationship*), 3 (*1*

month into the relationship), 4 (*A few months into the relationship- i.e., 2 – 6 months*), 5 (*Several months into the relationship – i.e., 7 – 12 months*), or 6 (*After a year or longer*).

Finally, participants were also asked to indicate, on average, the extent to which they believed that their partner would follow through with threatened negative consequences for not complying with demands made over the past three months of the relationship. An 11-point Likert-style scale that ranged from 0 (*I did not believe that he/she would follow through with threats*) to 10 (*I strongly believed that he/she would follow through with threats*) was used. In addition, participants were asked to indicate, on average, how fearful they were when their partner threatened negative consequences for not complying with demands made over the past three months of the relationship. An 11-point Likert-style scale that ranges from 0 (*I was not fearful at all*) to 10 (*I was extremely afraid*) was used (items can be found in Appendix S). These questions were created to better capture information on all components of Dutton and Goodman's (2005) theory of coercion.

Controlling behaviours and intimate partner violence. In order to examine the concurrent and convergent validity of the CIPR, the CCB (Lehmann, Simmons, & Pillai, 2012; see Appendices T and U) was used to assess victimization and perpetration of control tactics, as well as physical and psychological IPV. Using a 5-point Likert-style scale ranging from 0 (*never*) to 4 (*very frequently*), participants were asked to indicate how often, over the past 3 months of their current relationship, they were the victims and perpetrators of various forms of physical (10 items; e.g., choked me), sexual (9 items; e.g., physically forced me to have sexual intercourse), emotional (10 items; e.g., told me I was crazy), and economic (8 items; e.g., made me ask for money for the basic necessities) abuse, as well as how often control tactics were used, including intimidation (7 items; e.g., smashed or broke something), minimizing of abuse (7

items; e.g., told me that abuse was a normal part of relationships), blaming (8 items; e.g., blamed me for his or her abusive behaviour saying it was my fault), isolation (11 items; e.g., forbade me or stopped me from seeing someone), and male privilege or inferiority (8 items; e.g., treated me like a servant). Of importance to note is that the instructions were altered slightly to reflect that not all participants in the current study were in abusive relationships. Additionally, in order to make the items clearer, I added “my partner” to the beginning of the victimization items and “I” to the beginning of the perpetration items. Previous research indicates that the CCB is a reliable ($\alpha \geq .80$) and valid tool (Lehmann et al., 2012). In the current study, internal consistency was excellent (perpetration $\alpha = .99$; victimization $\alpha = .99$).

Depression. The Quick Inventory of Depressive Symptomology Self-Report (QIDS-SR; Rush et al., 2003) was used to assess the existence of current symptoms of depression, including sleep, mood, appetite, weight, concentration, energy, and interests, among other symptoms. In order to avoid the need to contact participants who endorsed suicidal ideation the item about thoughts of death or suicide was not included in the current study. For the remaining 15 items of the scale, participants were asked to choose the answer that best described their state over the past week or two. Participants answered using a 4-point Likert-type scale that varied from item to item. A total depression score was derived by summing the items according to Rush et al.’s guidelines. More specifically, the highest score from items assessing sleep (items 1 through 4) were added to the highest score of the items assessing appetite (items 6 through 9) and psychomotor movement (items 14 and 15), all of which were added to the remaining scores. Higher scores indicate more severe depression. More specifically, scores ranging from 0 to 5 were indicative of no self-reported symptoms of depression, scores ranging from 6 to 10 were indicative of mild depression, scores ranging from 11 to 15 were indicative of moderate

depression, scores ranging from 16 to 20 were indicative of severe depression, and scores ranging from 21 to 24 were indicative of very severe depression. Results of past research indicate that the QIDS-SR is a reliable ($\alpha = .86$) and valid instrument (Rush et al., 2003; Trivedi et al., 2004). In the current study, internal consistency was good ($\alpha = .88$).

Posttraumatic stress disorder. The PTSD Checklist for *DSM-5* (PCL-5; Weathers et al., 2013; see Appendix V) was used to assess the existence of current *Diagnostic and Statistical Manual of Mental Disorders, Fifth Revision (DSM-5)* (American Psychiatric Association, 2013) symptoms of PTSD, including: intrusive memories and dreams (e.g., repeated, disturbing, and unwanted memories of the stressful experience; repeated, disturbing dreams of the stressful experience), avoidance behaviours (e.g., avoiding external reminders of the stressful experience), physiological reactions to cues of the stressful event (e.g., having strong physical reactions when something reminded you of the stressful experience), alertness (e.g., being “superalert” or watchful or on guard), blame (e.g., blaming yourself or someone else for the stressful experience or what happened after it), and negative emotions (e.g., having strong negative feelings such as fear, horror, anger, guilt, or shame), among others. Participants rated how much they had been bothered by each issue over the past month using a 4-point Likert-style scale that ranged from 0 (*not at all*) to 4 (*extremely*). Recent research indicates that the PCL-5 is a reliable ($\alpha = .94$) and valid tool (Blevins, Weathers, Davis, Witte, & Domino, 2015). In the current study, internal consistency was excellent ($\alpha = .97$).

Demographics. Among other demographics, participants were asked to disclose their gender, age, and level of education. Participants were also asked questions regarding their dating history, including the age they first started dating, the number of dating partners they have had, the average length of their past relationships, the number of sexual partners they have had, and if

IPV was experienced in any of their previous relationships. Participants were also asked to report on their current relationship, including the length of the relationship, if the relationship was sexual in nature, relationship satisfaction, and their relationship/cohabitation status. This information was used for descriptive purposes (the items can be found in Appendix W).

Socially desirable responding. The 13-item Marlowe-Crowne Social Desirability Scale Short-Form C (MCSDS Form C; Reynolds, 1982; see Appendix X) was used to assess participants' tendencies to answer questions in a socially desirable manner. Participants rated whether or not statements regarding personal attitudes and traits were *true* (0) or *false* (1) of them (e.g., I sometimes feel resentful when I don't get my way; I am always courteous, even to people who are disagreeable). Items 5, 7, 9, 10, and 13 were reverse-coded and a total score was derived wherein higher scores indicate more socially desirable answering. Previous research has indicated that the MCSDS Form C is a reliable ($\alpha = .67$) and valid instrument (Reynolds, 1982). In the current study, internal consistency was good ($\alpha = .75$).

Validity checks. In order to determine if participants were dedicating their full attention toward the task, four validity check questions were added throughout the survey (e.g., please choose response "never" for this question). If participants did not choose the answer asked of them for the majority of the validity checks (i.e., > 50%), their data were excluded from data analyses.

Positive mood induction task. Upon completion of the measures above, participants completed a positive mood induction procedure wherein they wrote about a positive memory that they had of their current partner or romantic relationship (Trope et al., 2001). They typed their description into an unlimited character text box.

CHAPTER III

Results

Preliminary Analyses

Data cleaning, file splitting, and missing data. Data analyses were conducted using SPSS (Version 22) and SAS (university student edition). Before randomly splitting the dataset in half, I verified that responses were within appropriate ranges and determined that no unusual response patterns were apparent (i.e., short completion time). Next, I examined the validity of the data and found that 21% of the sample, or 134 of the 625 participants, had failed at least one of the four validity checks. More specifically, of the participants who failed validity checks, 74% ($n = 99$) failed only one validity check. Twenty percent ($n = 27$) failed two validity checks and only 6% ($n = 8$) failed three validity checks. None of the participants failed all four of the validity checks. Thus, responses from eight participants, all of whom were MTurk workers, were removed from the dataset as these participants failed more than half of the validity checks ($N = 617$; n for MTurk = 541; n for Participant Pool = 76).

Following this, I examined how many participants were missing more than 20% of data. Fifty-three participants (9% of the sample), five of whom were recruited from the Participant Pool and 48 of whom were recruited from MTurk, were missing more than 20% of data. Responses from these participants were also deleted (Bennett, 2001; $N = 564$; n for MTurk = 493; n for Participant Pool = 71). Finally, I closely inspected the qualitative answers and deleted 15 MTurk cases (2% of the sample) wherein the content of the answers suggested that a bot had completed the survey or that the participant was not paying attention to or understanding what was being asked of them ($N = 549$; n for MTurk = 478; n for Participant Pool = 71). Of the remaining cases, the average amount of missing data for incomplete cases was 1.61%.

Following this, I randomly split the dataset in half by creating a random dummy variable, coded with values of zero and one. The dataset was then split so that one sample consisted of the participants who were randomly assigned a value of one and another sample consisted of the participants who were randomly assigned a value of zero. After the random split, Sample A, which was used to check the validity of the CIPR/create a short form, consisted of 284 participants, whereas Sample B, used to cross-validate the CIPR, consisted of 265 participants.

Next, I created composite scores and further examined missing data in Sample A and Sample B, separately. To begin, I conducted a composite-level missing values analysis with main variables (i.e., CIPR perpetration and victimization totals, CCB perpetration and victimization totals, MCSDS total, PCL-5 total, and QIDS-SR total) and demographic variables. A composite-level analysis was conducted as composite scores would be used for correlational and regression analyses. Sample A results indicated that 86% of the variables and 60% of cases had incomplete data. The CIPR total victimization composite was missing the most data. Specifically, 24% of data, or 69 cases were missing, leaving a total of 215 responses for this composite. The CIPR total perpetration composite was missing 20% of data, or 58 cases, leaving a total of 226 responses for this composite. The CCB total victimization composite was missing 19% of data, or 54 cases, leaving 230 responses for this composite. Finally, the CCB total perpetration composite was missing 21% of data, or 60 cases, leaving 224 responses for this composite. Little's MCAR test indicated that Sample A data were not missing completely at random, $\chi^2(403) = 514.18, p < .001$.

Next, an examination of patterns of missing data revealed that the most frequent pattern of missing data was no missing data on composite scores and demographics. The second most frequent pattern of missing data was that the CIPR total victimization composite was the only

composite missing data. The third most frequent pattern of missing data was that the CIPR total perpetration composite was the only composite missing data. The second and third patterns affected less than 10% of cases. In general, it appeared as though participants were more likely to leave answers blank for questions that examined coercion.

In order to determine whether or not the missing data were missing at random, I created dichotomous missing data variables for CIPR total victimization and CIPR total perpetration. This allowed me to examine whether or not participants who did and did not have a CIPR total victimization composite score differed significantly on any of the other main variables of interest or demographic variables. I also examined whether or not participants who did and did not have a CIPR total perpetration composite score differed significantly from one another on any of the other main variables of interest or demographics. The results of a series of *t* tests, Mann Whitney U tests, and chi-square tests indicated that participants who did and did not have CIPR total victimization scores did not differ significantly on any of the other variables of interest, nor on the demographic questions.

Although these results did not allow me to explain missingness for the CIPR victimization composite as a function of another variable, results of the CCB victimization analysis suggested that data were likely missing at random. Moreover, if missing data for CIPR victimization were related to coercion victimization, we would expect there to be a significant difference between missingness for CIPR victimization and CCB victimization as these scores both assess coercion victimization. However, this was not the case.

The same results were found when a series of *t* tests, Mann Whitney U tests, and chi-square tests were conducted for missingness on the CIPR perpetration composite. Moreover, the same conclusion was drawn about the data likely being missing at random as no significant

difference was found between missingness on the CIPR perpetration composite and CCB perpetration. Thus, for sample A, it did not appear as though one's score for coercion affected whether or not they answered questions regarding coercion. Instead, it is possible that participants in Sample A did not feel comfortable answering sensitive questions about their relationships for reasons that were not examined in the current study.

Sample B results indicated that 79% of the variables and 61% of cases had incomplete data. The CCB total victimization composite was missing the most data. Specifically, 29% of data, or 76 cases were missing, leaving a total of 189 responses for this composite. The CIPR total perpetration composite was missing 24% of data, or 63 cases, leaving a total of 202 responses for this composite. The CIPR total victimization composite was missing 23% of data, or 61 cases, leaving 204 responses for this composite. Finally, the CCB total perpetration composite was missing 22% of data, or 59 cases, leaving 206 responses for this composite. Little's MCAR test indicated that the Sample B data were not missing completely at random, $\chi^2(420) = 588.72, p = .000$.

Next, an examination of patterns of missing data revealed that the most frequent pattern of missing data was no missing data on composite scores and demographics. The second most frequent pattern of missing data was that the CCB total victimization composite was the only composite missing data. The third most frequent pattern of missing data was that the CIPR total perpetration composite was the only composite missing data. The second and third patterns affected less than 10% of cases. Consistent with Sample A, it appeared as though participants were more likely to leave answers blank for questions that examined coercion.

In order to determine whether or not the missing data were missing at random for Sample B, I created dichotomous missing data variables for CCB total victimization and CIPR total

perpetration. This allowed me to examine whether or not participants who did and did not have a CCB total victimization composite score differed significantly on any of the other main variables of interest or demographic variables. I also examined whether or not participants who did and did not have a CIPR total perpetration composite score differed significantly from one another on any of the other main variables of interest or demographics. The results of a series of *t* tests, Mann Whitney U tests, and chi-square tests indicated that participants who did and did not have CCB total victimization scores did not differ significantly on any of the other variables of interest, nor on the demographic questions.

Although these results did not allow me to explain missingness for the CCB total victimization composite as a function of another variable, results of the CIPR victimization analysis suggests that data were likely missing at random. Moreover, if missing data for CCB total victimization were related to coercion victimization, we would expect there to be a significant difference between missingness for CCB victimization and CIPR victimization as these scores both assess coercion victimization. However, this was not the case.

The same results were found when a series of *t* tests, Mann Whitney U tests, and chi-square tests were conducted for missingness on the CIPR perpetration composite. Moreover, the same conclusion was drawn about the data being missing at random as no significant difference was found between missingness on the CIPR perpetration composite and CCB perpetration. Thus, for sample B, it did not appear as though one's score for coercion affected whether or not they answered questions regarding coercion. Instead, it is possible that, like participants in Sample A, participants in Sample B did not feel comfortable answering sensitive questions about their relationships for reasons that were not examined in the current study. Taken together, it appeared as though data was most likely missing at random. Thus, in order to address missing

data for the multiple regression and correlational analyses, multiple imputation with ten imputations was applied at the composite-level in Sample A and Sample B (Graham, 2009; Pituch & Stevens, 2016).

Finally, I briefly examined item-level missing data for the CIPR items. Sample A results indicated that all CIPR items, except one assessing surveillance perpetration (i.e., didn't need to check, you just knew), were missing less than 2% of data, or 5 cases. The item assessing surveillance perpetration was missing 2.5% of data or 7 cases, leaving 277 responses for that item. Little's MCAR test indicated that the Sample A data were not missing completely at random, $\chi^2(21287) = 21901.05, p = .002$.

Sample B results also indicated that all CIPR items, except one assessing partners' threats to keep the participant from going to work, were missing less than 2% of data, or 5 cases. The item assessing threatening to keep the participant from going to work was missing 2.3% of data or 6 cases, leaving 259 responses for that item. Little's MCAR test indicated that the Sample B data were missing completely at random, $\chi^2(20519) = 19875.35, p = .999$. Because CIPR missing data was minimal at the item-level, list wise deletion was used for the confirmatory factor analyses (Pituch & Stevens, 2016).

Sample size. Once missing data had been examined, sample size was assessed. During the planning stages of this study G*Power 3.1 was used to examine the minimum sample sizes needed for the various analyses. In terms of the regression analyses, a sample size of 89 was estimated when a power of 0.95, a medium effect size ($f^2 = 0.15$), and an alpha level of 0.05 was specified. A sample size of 115 was estimated for the correlational analyses when a power of 0.95, a medium effect size ($r = 0.30, r^2 = 0.09$), and an alpha level of 0.05 was specified. Thus, both Sample A and Sample B were large enough to run the regression and correlational analyses.

In terms of sample size requirements for the confirmatory factor analyses, I consulted a summary table created by Jackson, Voth, and Frey (2013). This table was informed by the authors' research and provides minimum sample size requirements based on the number of factors or latent variables in the model, the number of measured variables per latent variable, and the likelihood of model rejection/fit. Because each of the latent variables for each of the CIPR subscales had a different number of measured variables, multiple minimum sample sizes were found for each subscale. For the 9-factor Demand subscale, a sample size of 50 to 400 was deemed appropriate based on the number of measured variables per latent variables. In terms of the Threat, Surveillance, and Response to Demand subscales, based on the same table, a sample size of 50 to 200 was deemed appropriate. Therefore, the current sample sizes of 284 and 265 were deemed to be acceptable to examine the majority of the CIPR subscales. However, because some of the sample size estimates exceeded the sizes of Sample A and Sample B, the confirmatory factor analyses were also conducted on the combined sample ($N = 549$).

Assumptions. Before the main analyses were conducted, I examined whether or not outliers existed on Sample A and Sample B composites, sub-scales, and CIPR items. I did so by computing z scores and, because sample sizes exceeded 100, I used a cutoff of $|4|$ to determine if a value should be considered an outlier (Pituch & Stevens, 2016). Results of this procedure indicated that none of the Sample A or Sample B composites, sub-scales, nor CIPR items were outliers.

Before running the regression analyses on Sample A and Sample B, I also examined whether or not outliers existed on the CIPR victimization composite through an examination of Leverage scores. For Sample A, four cases were determined to be outliers on x using a cut-off of

0.04 ($4 * [1+1/199]$). The regression analyses were conducted with and without these cases. For Sample B, no cases were determined to be outliers on x using a cut-off of 0.05 ($4 * [1+1/163]$).

Influential observations were also examined through an inspection of the standardized DFFIT values using a cut-off of two. For Sample A and Sample B, no influential observations were found for the regression between total PTSD and total coercion victimization nor the regression between total depression and total coercion victimization.

Linearity and homoscedasticity were also examined by graphing the regression standardized residuals on the y axis and the regression standardized predicted values on the x axis. When this was examined for the Sample A regressions between total PTSD and total coercion victimization and total depression and total coercion victimization, an even scatter of points fell above, below, and to the left and right of zero for both graphs, indicating that linearity and homoscedasticity were intact for both regressions. Correlations between the predictor and outcomes variables also indicated that linearity was intact as they were over $r = .30$ and did not exceed $r = .80$ (Mayers, 2013). The same was found for Sample B regressions between total PTSD and total coercion victimization and total depression and total coercion victimization.

In addition, multicollinearity was assessed. As described later, certain covariates were removed from the Sample A and Sample B analyses due to violations of multicollinearity as indicated by tolerance values that were greater than .1 and VIF values that were less than 10.

Normality was also assessed through an examination of histograms of the regression standardized residuals, values of skewness, values of kurtosis, and by examining the significance of the Kolmogorov-Smirnov test. The residuals around the regression line appeared to be normally distributed when the plot of the regression standardized residuals was visually examined for the Sample A and Sample B regression between total PTSD and total coercion

victimization and the Sample A and Sample B regression between total depression and total coercion victimization. Furthermore, none of the values of skewness and kurtosis for the variables included in the regressions exceeded the cut-offs of $|2|$ and $|3|$, respectively. However, results of the Kolmogorov-Smirnov test indicated that the assumption of normality was not met for the Sample A and Sample B regression between total PTSD and total coercion victimization, nor the Sample A and Sample B regression between total depression and coercion victimization, as significance was found ($p < .001$). However, the Kolmogorov-Smirnov test is sensitive to large sample sizes. Thus, results of this analysis were interpreted with caution as the samples used in the current study were considered large. Because regression is generally robust to mild deviations from normality, especially when the assumption of homoscedasticity is met, the regressions were conducted standardly.

Normality of the endogenous variables (the CIPR items) was also examined before confirmatory factor analyses were conducted on Sample A and Sample B. Based on the Kolmogorov-Smirnov test, normality was found to be violated for all Sample A and Sample B CIPR items, as all statistics were significant ($p < .001$). When skewness and kurtosis were examined, violations were apparent for the vast majority of CIPR items, as the majority of values exceeded $|2|$ and $|3|$, respectively (Stevens, & Pituch, 2016). Taken together, results indicated that the assumption of normality was violated for the CIPR items in both samples. In response to this violation, a Satorra-Bentler correction was used when conducting the confirmatory factor analyses.

Before main analyses were conducted, I also examined the means, standard deviations, and ranges of participants in Sample A and Sample B (Table 6). In terms of PTSD and depression, on average, Sample A and Sample B participants were experiencing subclinical

levels of symptomatology (Blevins et al., 2015; Rush et al., 2003). Lastly, on average, participants from both samples were rarely experiencing or perpetrating coercion and IPV as measured by the CCB (Lehmann et al., 2012). At this time, levels of coercion victimization and perpetration as measured by the CIPR could not be interpreted as cut-offs have not yet been created (see the discussion for a more detailed discussion of plans to use cluster analysis to determine appropriate cut-off score to distinguish high and low coercion scores).

Table 6

Means, Medians, Standard Deviations, and Ranges for Sample A and Sample B Composite Variables

Variable	Sample A			Sample B		
	Mean/Median (<i>SD</i>)	Minimum	Maximum	Mean/Median (<i>SD</i>)	Minimum	Maximum
PCL-5	44.54 (21.43)	21	103	42.29 (18.81)	21	103
QIDS-SR	14.71 (5)	8	28	14.39 (5.25)	8	32
MCSDS	6.23 (3.24)	0	13	6.06 (3.06)	0	13
CCB victimization	83 (78.72) †	80	374	84 (78.72) †	80	361
CCB perpetration	82 (69.07) †	80	389	82 (66.91) †	80	356
CIPR victimization	132 (129.49) †	92	691	126 (132.50) †	92	634
CIPR perpetration	117(141.45) †	92	682	107 (143.67) †	92	650

Note. † denotes median; the PTSD Checklist for *DSM-5* (PCL-5; Weathers et al., 2013) measures symptoms of PTSD, the Quick Inventory of Depressive Symptomology Self-Report (QIDS-SR; Rush et al., 2003) measures symptoms of depression, the Marlowe-Crowne Social Desirability Scale Short-Form C (MCSDS Form C; Reynolds, 1982) measures social desirability, and both the Checklist of Controlling Behaviors (CCB; Lehmann et al., 2012) and the Coercion in Intimate Partner Relationships scale (CIPR; Dutton et al., 2007) measure coercion.

Analysis of test-retest subsample. A series of *t* tests and Mann Whitney U tests were conducted to examine whether or not Participant Pool students who completed the two-week re-test portion of the study differed from those who did not complete the re-test portion on main study variables. As outlined in Table 7, results indicated that participants did not differ on age or any of the measures of interest.

Table 7

Differences Explored between Participant Pool Students Who Completed the Retest Portion of the Study versus Those Who Did Not

Variable	<i>t/U</i>	<i>p</i>
Age	0.65	.52
PTSD symptomatology	-0.82	.42
Depression symptomatology	-0.68	.50
Socially desirable answering	0.38	.70
CCB victimization	†57.00	.72
CCB perpetration	†62.00	.91
CIPR victimization	†55.00	.63
CIPR perpetration	†62.00	.90

Variable	<i>X</i> ²	<i>p</i>
Gender	1.17	.28

Note. † Denotes the results of a Mann Whitney U analysis.

Model specification and identification of the Coercion in Intimate Partner

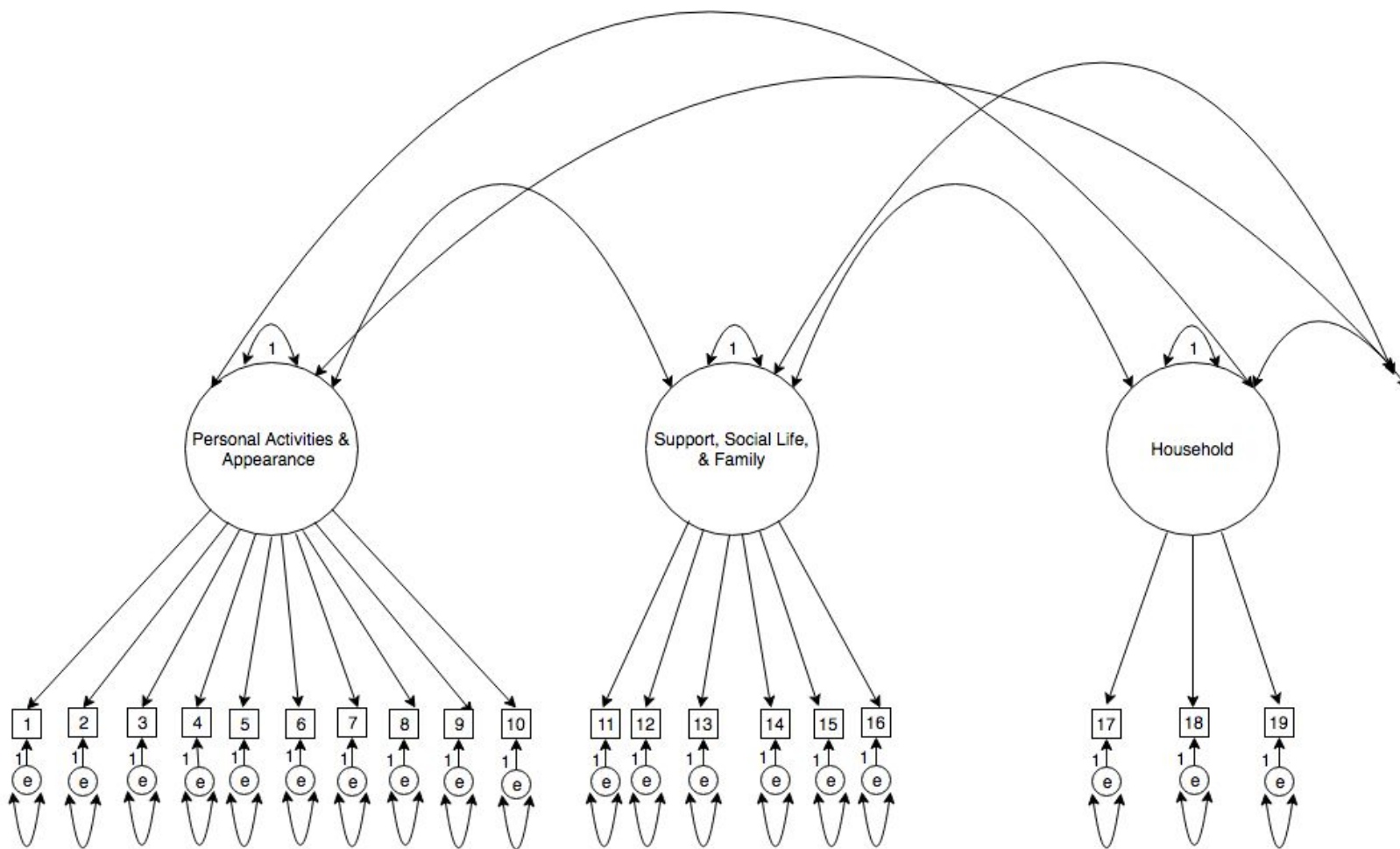
Relationship subscales. Next, in order to ensure that the models for the original CIPR subscales were appropriate to conduct confirmatory factor analyses on, I specified each model being examined and determined whether or not a unique solution was possible for each of the models (i.e., subsections of the CIPR [threat, demand, surveillance, response to demand]). In general, the subsections of the CIPR appeared to be properly specified because, as outlined earlier, the CIPR is grounded in theory, research findings, and ethnographic interviews. Moreover, exploratory and confirmatory factor analyses were initially conducted by the author of the CIPR.

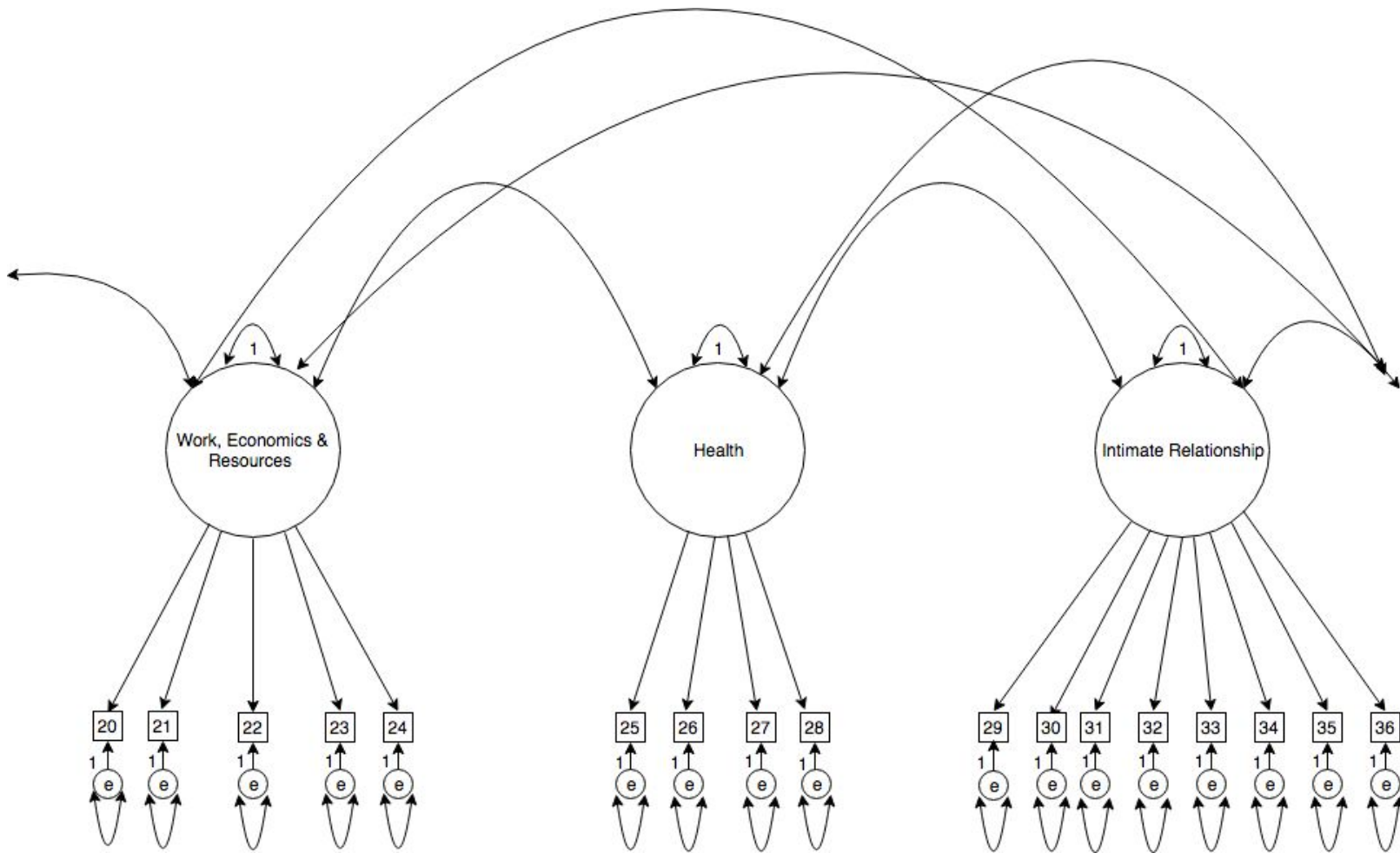
As is depicted by the double-headed arrows in the following four models, the latent variables were allowed to co-vary. As recommended by Pituch and Stevens (2016), in order to scale the latent factors, the unit variance identification method was used for all models. Specifically, the factor variances were directly set to a value of one. Error was also scaled by fixing the direct paths to their corresponding endogenous variables to one. Furthermore, the subscale models were each over identified using the counting rule. Specifically, the difference between the number of observed variables in each of the models (p^*) and the number of parameters that needed to be estimated was calculated for each model.

The demand model. In terms of the perpetration and victimization Demand subscale, depicted in Figure 1, the validity of nine factors was being examined, consisting of 48 of the CIPR items. More specifically, the validity of the Personal Activities and Appearance, Support and Social Life, Household, Work/Economics and Resources, Health, Intimate Relationship, Legal, Immigration, and Children/Parenting domains of the Demand subscale was assessed. As can be seen in Figure 1, each of the nine latent factors was theorized to have a different number

of item loadings. Moreover, in the correlated model, there were 48 endogenous variables and nine exogenous latent variables.

In terms of model identification, 1,176 pieces of information were identified for the Demand subscale model, $p^* = [48 (49)] / 2$. There were 48 error variances, 48 factor loadings, and 35 factor covariances to estimate, resulting in a total of 131 total parameters that needed to be estimated. Based on the difference between the pieces of information in the model and the information that needed to be estimated, 1,045 degrees of freedom for the theoretical model were found. Thus, the model was found to be over-identified, meaning that a unique solution to the model was possible and the model could be analyzed mathematically.





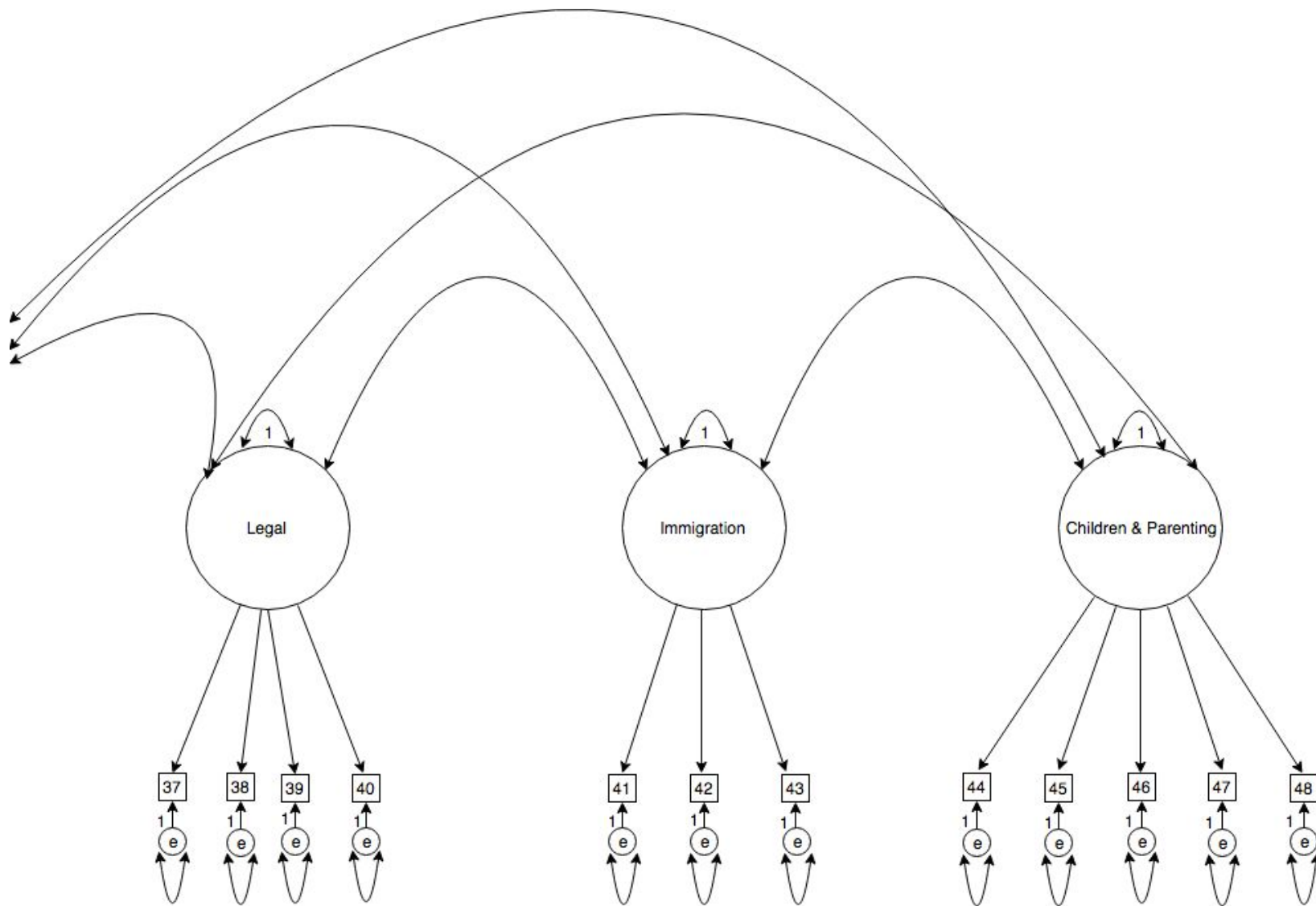


Figure 1. Model for the original victimization and perpetration CIPR Demand subscale. Not all covariances are depicted. All latent variables are allowed to co-vary with each other and a total of 35 covariances are being estimated.

The threat model. In terms of the perpetration and victimization Threat subscale, depicted in Figure 2, I examined the validity of three factors, consisting of 31 of the CIPR items. More specifically, the validity of the Harm to You, Harm to Partner, and Harm to Others domains of the Demand subscale was assessed. As can be seen in Figure 2, each of the three latent factors was theorized to have a different number of item loadings. Moreover, in the correlated model, there were 31 endogenous variables and three exogenous latent variables.

In terms of model identification, 496 pieces of information were identified for the Threat subscale model, $p^* = [31(32)] / 2$. There were 31 error variances, 31 factor loadings, and 3 factor covariances to estimate, resulting in a total of 65 total parameters that needed to be estimated. Based on the difference between the pieces of information in the model and the information that needed to be estimated, 431 degrees of freedom for the theoretical model were found. Thus, the model was over identified.

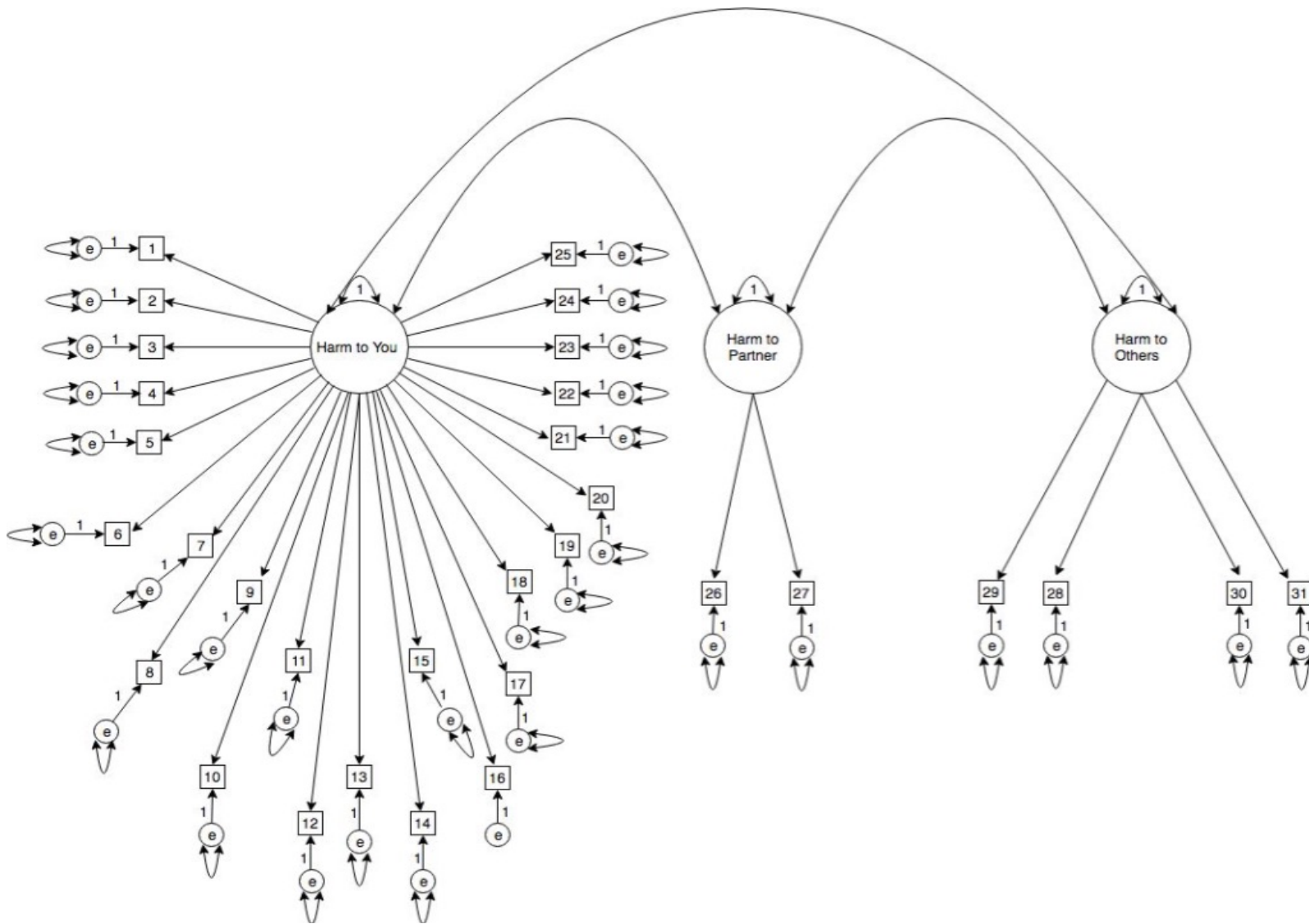


Figure 2. Model for the original victimization and perpetration CIPR Threat subscale.

The surveillance model. In terms of the perpetration and victimization Surveillance subscale, depicted in Figure 3, I examined the validity of one factor, consisting of 13 of the CIPR items. As can be seen in Figure 3, the latent factor was theorized to have 13 item loadings. Moreover, in the model, there were 13 endogenous variables and one exogenous latent variable.

In terms of model identification, 91 pieces of information were identified for the Surveillance subscale model, $p^* = [13 (14)] / 2$. There were 13 error variances, 13 factor loadings, and 0 factor covariances to estimate, resulting in a total of 26 total parameters that needed to be estimated. Based on the difference between the pieces of information in the model and the information that needed to be estimated, 65 degrees of freedom for the theoretical model were found. Thus, the model was over-identified.

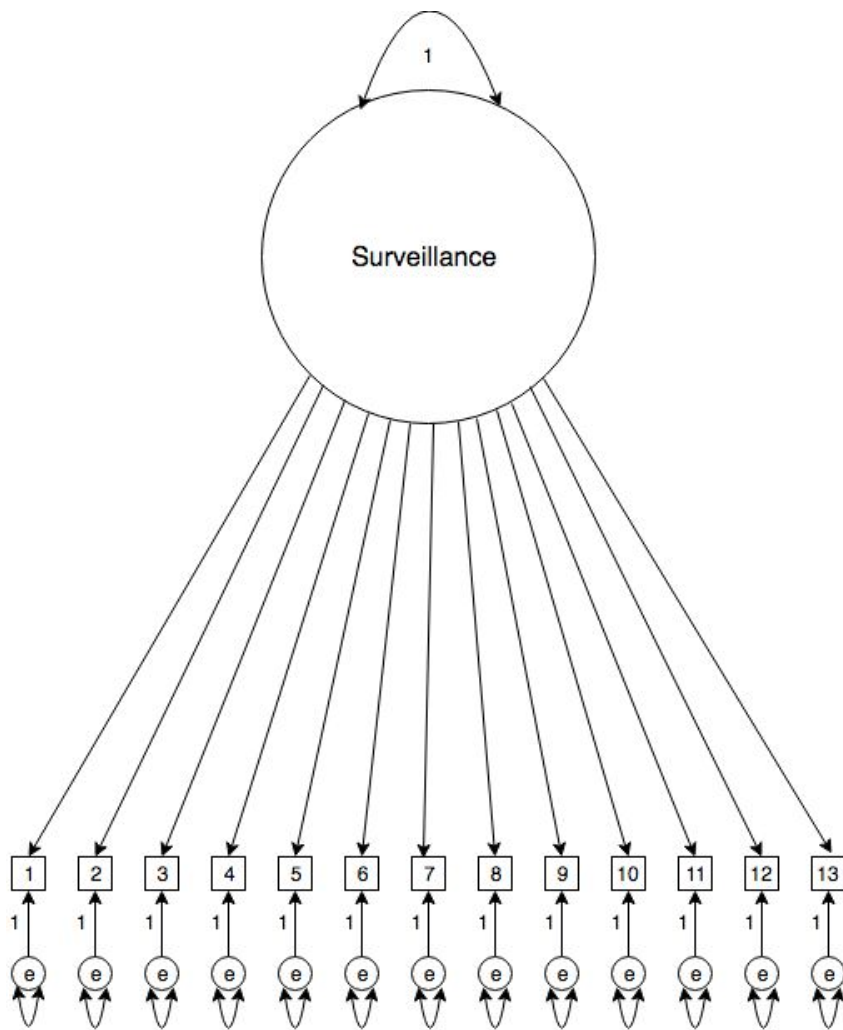


Figure 3. Model for the original victimization and perpetration CIPR Surveillance subscale.

The response to victimization model. In terms of the Response to Victimization subscale, depicted in Figure 4, I examined the validity of two unnamed factors, consisting of 16 of the CIPR items. As can be seen in Figure 4, the two latent factors were theorized to have a different number of item loadings. Moreover, in the correlated model, there were 16 endogenous variables and two exogenous latent variables.

In terms of model identification, 136 pieces of information were identified for the Response to Victimization subscale model, $p^* = [16(17)] / 2$. There are 16 error variances, 16 factor loadings, and one factor covariance to estimate, resulting in a total of 33 total parameters that needed to be estimated. Based on the difference between the pieces of information in the model and the information that needed to be estimated, 103 degrees of freedom for the theoretical model were found. Thus, the model was over-identified.

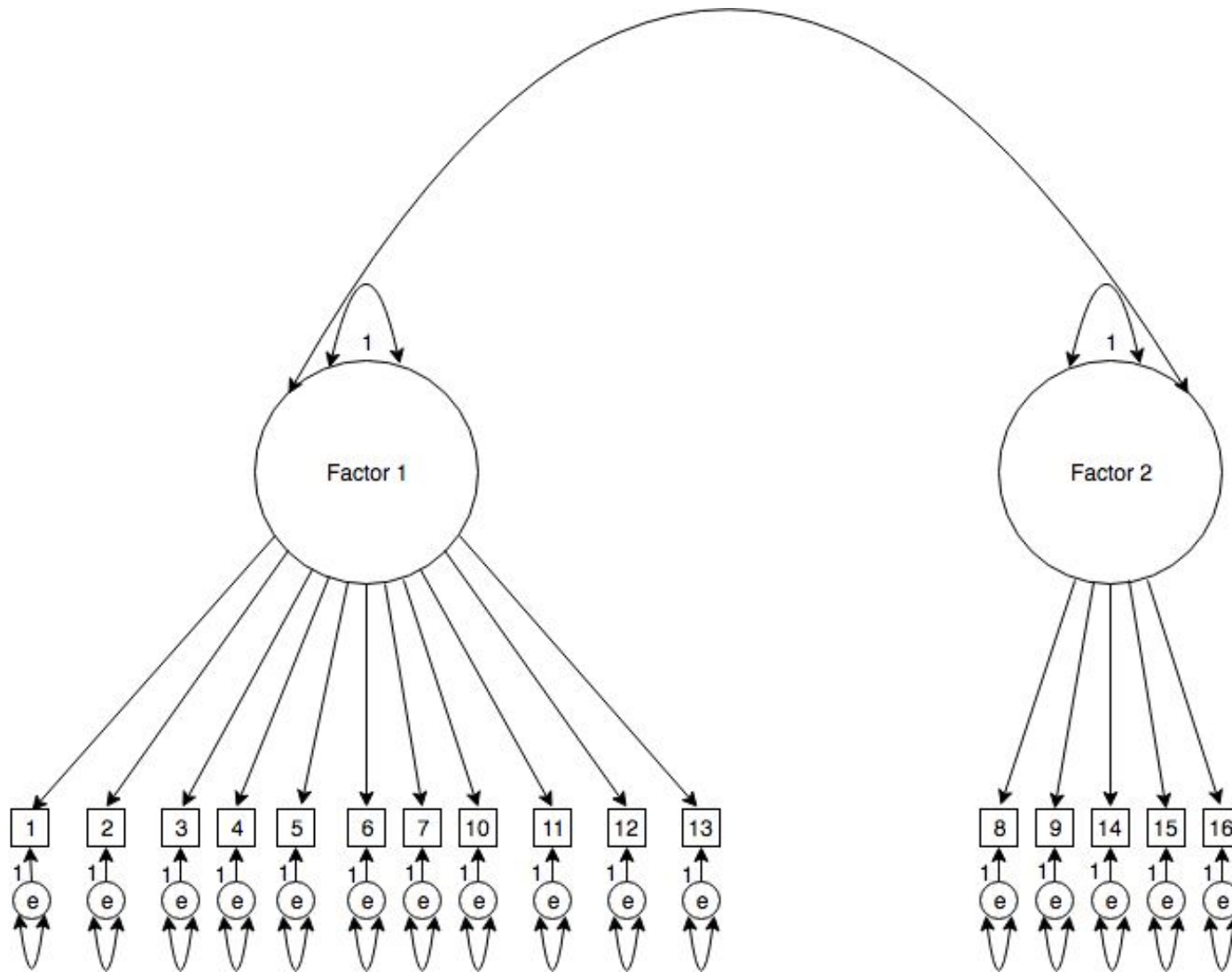


Figure 4. Model for the original victimization CIPR Response to Demand subscale.

Primary Analyses for Objective 1 and 2

Expectation 1: Construct validity for the original Coercion in Intimate Partner Relationships Scale. In order to examine the construct validity of the original CIPR subscales, I conducted a series of confirmatory factor analyses on Sample A, Sample B, and on the full sample using models of the original CIPR subscales. More specifically, confirmatory factor analyses were conducted separately for perpetration and victimization, and within these domains, analyses were performed for the Demand, Threat, and Surveillance subscales. An analysis was also conducted for the Response to Victimization subscale. Thus, a total of seven confirmatory factor analyses were conducted on each sample (N= 21). Table 8 below outlines the confirmatory factor analyses that were conducted.

Table 8

Models of the Subscales of the Coercion in Intimate Partner Relationships Scale Examined through Confirmatory Factor Analyses

CIPR victimization models	CIPR perpetration models
Demand model	Demand model
Threat model	Threat model
Surveillance model	Surveillance model
Response to demand model	--

Covariance matrices and the maximum likelihood function were used when conducting the confirmatory factor analyses because the samples were fairly large, and as such, it was assumed that this estimation technique would not yield biased results. The Satorra Bentler correction was also applied as normality was found to be violated for the endogenous variables (i.e., the CIPR items). Specifically, this correction was used in order to avoid overestimation of the chi-square goodness-of-fit statistic/inflated Type I error and standard errors that are downwardly biased (Jackson, Gillaspay, & Purc-Stephenson, 2009).

For each model, I examined the chi-square goodness-of-fit statistics in order to determine whether or not the specified model was consistent with the data. Moreover, the null hypothesis tested was that the structure of the population covariance matrix possessed the same structure implied by the model. Therefore, it was ideal if the chi-square goodness-of-fit statistics were found to be nonsignificant, as this would indicate that the models were a possible explanation for the data. That said, this is rarely the case because the chi-square goodness-of-fit statistic is sensitive to sample size. Thus, in order to counter this issue and thoroughly examine whether or not the implied model was consistent with the data, I also examined various absolute and incremental fit statistics (Pituch & Stevens, 2016). The results of these analyses for Sample A, Sample B, and the combined sample are displayed in Tables 9 through 16 below. Descriptions of fit in these tables are based on recommendations by Pituch and Stevens (2016).

Table 9

Fit Indices for the Demand Victimization and Demand Perpetration Subscales of the Coercion in Intimate Partner Relationships Scale

Fit indices	Sample A		Sample B	
	Fit statistic	Description of fit	Fit statistic	Description of fit
Demand victimization				
Chi-square	$\chi^2(1044) = 4494, p < .001$	Possible model misspecification	$\chi^2(1044) = 4880, p < .001$	Possible model misspecification
RMSEA	0.06, 90% CI [0.05, 0.06]	Adequate fit	0.06, 90% CI [0.05, 0.06]	Adequate fit
SRMR	0.07	Acceptable fit	0.07	Acceptable fit
NNFI/TLI	0.89	Adequate fit	0.88	Adequate fit
CFI	0.90	Good fit	0.89	Adequate fit
Demand perpetration				
Chi-square	$\chi^2(1044) = 5064, p < .001$	Possible model misspecification	$\chi^2(1044) = 5171, p < .001$	Possible model misspecification
RMSEA	0.05, 90% CI [0.04, 0.05]	Good fit	0.05, 90% CI [0.04, 0.05]	Good fit
SRMR	0.05	Good fit	0.05	Good fit
NNFI/TLI	0.92	Good fit	0.91	Good fit
CFI	0.92	Good fit	0.92	Good fit

Table 10

Fit Indices for the Threat Victimization and Threat Perpetration Subscales of the Coercion in Intimate Partner Relationships Scale

Fit indices	Sample A		Sample B	
	Fit statistic	Description of fit	Fit statistic	Description of fit
Threat victimization				
Chi-square	$\chi^2(431) = 3935, p < .001$	Possible model misspecification	$\chi^2(431) = 3388, p < .001$	Possible model misspecification
RMSEA	0.05, 90% CI [0.04, 0.06]	Close fit	0.04, 90% CI [0.03, 0.05]	Close fit
SRMR	0.04	Good fit	0.03	Good fit
NNFI/TLI	0.92	Good fit	0.95	Good fit
CFI	0.93	Good fit	0.96	Good fit
Threat perpetration				
Chi-square	$\chi^2(431) = 3363, p < .001$	Possible model misspecification	$\chi^2(431) = 4201, p < .001$	Possible model misspecification
RMSEA	0.03, 90% CI [0.02, 0.04]	Close fit	0.04, 90% CI [0.03, 0.05]	Close fit
SRMR	0.03	Good fit	0.03	Good fit
NNFI/TLI	0.97	Good fit	0.96	Good fit
CFI	0.97	Good fit	0.97	Good fit

Table 11

Fit Indices for the Surveillance Victimization and Surveillance Perpetration Subscales of the Coercion in Intimate Partner Relationships Scale

Fit indices	Sample A		Sample B	
	Fit statistic	Description of fit	Fit statistic	Description of fit
Surveillance victimization				
Chi-square	$\chi^2 (65) = 350.84,$ $p < .001$	Possible model misspecification	$\chi^2 (65) = 406.11,$ $p < .001$	Possible model misspecification
RMSEA	0.05, 90% <i>CI</i> [0.03, 0.06],	Close fit	0.06, 90% <i>CI</i> [0.05, 0.08],	Adequate fit
SRMR	0.04	Good fit	0.04	Good fit
NNFI/TLI	0.96	Good fit	0.96	Good fit
CFI	0.97	Good fit	0.96	Good fit
Surveillance perpetration				
Chi-square	$\chi^2 (65) = 388.72,$ $p < .001$	Possible model misspecification	$\chi^2 (65) = 428.71,$ $p < .001$	Possible model misspecification
RMSEA	0.05, 90% <i>CI</i> [0.03, 0.07],	Close fit	0.06, 90% <i>CI</i> [0.04, 0.07],	Adequate fit
SRMR	0.03	Good fit	0.04	Good fit
NNFI/TLI	0.97	Good fit	0.96	Good fit
CFI	0.97	Good fit	0.97	Good fit

Table 12

Fit Indices for the Response to Victimization Subscale of the Coercion in Intimate Partner Relationships Scale

Fit indices	Sample A		Sample B	
	Fit statistic	Description of fit	Fit statistic	Description of fit
Chi-square	$\chi^2(103) = 727.47, p < .001$	Possible model misspecification	$\chi^2(103) = 666.02, p < .001$	Possible model misspecification
RMSEA	0.07, 90% CI [0.06, 0.08],	Adequate fit	0.06, 90% CI [0.05, 0.08],	Adequate fit
SRMR	0.06	Acceptable fit	0.05	Good fit
NNFI/TLI	0.89	Adequate fit	0.94	Good fit
CFI	0.91	Good fit	0.95	Good fit

Table 13

Full Sample Fit Indices for the Demand Victimization and Demand Perpetration Subscales of the Coercion in Intimate Partner Relationships Scale

Fit indices	Victimization		Perpetration	
	Fit statistic	Description of fit	Fit statistic	Description of fit
Chi-square	$\chi^2(1044) = 3999.15, p < .001$	Possible model misspecification	$\chi^2(1044) = 4310.68, p < .001$	Possible model misspecification
RMSEA	0.04, 90% CI [0.03, 0.04],	Close fit	0.03, 90% CI [0.03, 0.04],	Close fit
SRMR	0.05	Good fit	0.04	Good fit
NNFI/TLI	0.93	Good fit	0.93	Good fit
CFI	0.93	Good fit	0.95	Good fit

Table 14

Full Sample Fit Indices for the Threat Victimization and Threat Perpetration Subscales of the Coercion in Intimate Partner Relationships Scale

Fit indices	Victimization		Perpetration	
	Fit statistic	Description of fit	Fit statistic	Description of fit
Chi-square	$\chi^2(431) = 4427.49, p < .001$	Possible model misspecification	$\chi^2(431) = 4437.44, p < .001$	Possible model misspecification
RMSEA	0.04, 90% CI [0.04, 0.05],	Close fit	0.03, 90% CI [0.03, 0.04],	Close fit
SRMR	0.03	Good fit	0.02	Good fit
NNFI/TLI	0.95	Good fit	0.97	Good fit
CFI	0.95	Good fit	0.97	Good fit

Table 15

Full Sample Fit Indices for the Surveillance Victimization and Surveillance Perpetration Subscales of the Coercion in Intimate Partner Relationships Scale

Fit indices	Victimization		Perpetration	
	Fit statistic	Description of fit	Fit statistic	Description of fit
Chi-square	$\chi^2(65) = 592.43, p < .001$	Possible model misspecification	$\chi^2(65) = 620.00, p < .001$	Possible model misspecification
RMSEA	0.06, 90% CI [0.05, 0.07],	Adequate fit	0.06, 90% CI [0.05, 0.07],	Adequate fit
SRMR	0.04	Good fit	0.03	Good fit
NNFI/TLI	0.96	Good fit	0.96	Good fit
CFI	0.97	Good fit	0.97	Good fit

Table 16

Full Sample Fit Indices for the Response to Victimization Subscale of the Coercion in Intimate Partner Relationships Scale

Fit indices	Fit statistic	Description of fit
Chi-square	$\chi^2 (103) = 1006.85, p < .001$	Possible model misspecification
RMSEA	0.07, 90% CI [0.06, 0.07]	Adequate fit
SRMR	0.06	Acceptable fit
NNFI/TLI	0.93	Good fit
CFI	0.94	Good fit

The results of the series of confirmatory factor analyses for Sample A, Sample B, and the full sample support the construct validity of the CIPR subscales. Although the chi-square-goodness-of-fit-statistics were significant, likely due to an abundance of statistical power that found significant differences for even small discrepancies between the implied and actual matrix, the other fit statistics indicated good model fit for all subscales. Taken together, it appears as though the items within each of the original CIPR subscales are valid for measuring demands, threats, surveillance behaviours, and victim reactions to demands within romantic relationships.

Expectation 2: Concurrent validity for the original CIPR. In order to assess the concurrent validity of the original CIPR, Spearman Rank correlational analyses were conducted with the other measure of coercion (i.e., the CCB) in Sample A and Sample B (see Table 17). Specifically, total coercion perpetration and victimization as measured by the CIPR were correlated with total coercion perpetration and victimization as measured by the CCB. The CIPR perpetration and victimization subscales (i.e., Demand, Threat, Surveillance, and Response to Victimization) were also correlated with total coercion victimization and perpetration as measured by the CCB. As expected, Sample A and Sample B results indicated that higher coercion victimization subscale and composite scores on the CIPR were significantly related to higher coercion victimization scores on the CCB. Additionally, for Sample A and Sample B, higher coercion perpetration subscale and composite scores on the CIPR were significantly related to higher coercion perpetration scores on the CCB. Taken together, results support the concurrent validity of the CIPR.

Table 17

Sample A and Sample B Spearman Correlations for Scale and Composite Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 CIPR Demand Victimization	--	.64**	.80**	.70**	.79**	.65**	.71**	.97**	.79**	-.12	.47**	.36**	.68**	.58**	.64**	.59**
2 CIPR Threat Victimization	.77**	--	.73**	.74**	.70**	.79**	.73**	.73**	.73**	-.23**	.59**	.49**	.77**	.72**	.77**	.71**
3 CIPR Surveillance Victimization	.84**	.75**	--	.74**	.79**	.70**	.80**	.87**	.81**	-.14*	.50**	.37**	.73**	.67**	.72**	.70**
4 CIPR Response to Victimization	.80**	.78**	.73**	--	.76**	.71**	.75**	.75**	.77**	-.26**	.64**	.51**	.70**	.62**	.74**	.68**
5 CIPR Demand Perpetration	.84**	.72**	.76**	.70**	--	.73**	.80**	.83**	.98**	-.13**	.52**	.42**	.72**	.67**	.68**	.68**
6 CIPR Threat Perpetration	.71**	.76**	.68**	.68**	.70**	--	.76**	.71**	.79**	-.19**	.56**	.48**	.76**	.73**	.72**	.72**
7 CIPR Surveillance Perpetration	.75**	.71**	.75**	.70**	.75**	.76**	--	.77**	.86**	-.18**	.57**	.45**	.73**	.72**	.72**	.72**
8 CIPR Total Coercion Victimization	.98**	.82**	.89**	.82**	.84**	.73**	.76**	--	.84**	-.14*	.52**	.41**	.74**	.65**	.71**	.66**
9 CIPR Total Coercion Perpetration	.86**	.76**	.79**	.75**	.97**	.79**	.84**	.87**	--	-.17**	.53**	.44**	.73**	.69**	.70**	.70**
10 Socially Desirable Answering Total	-.08	-.07	-.02	-.15*	-.09	-.15*	-.06	-.07	-.11	--	-.34**	-.35**	-.18**	-.20**	-.26**	-.23**
11 PTSD Total	.57**	.56**	.52**	.56**	.54**	.53**	.55**	.57**	.57**	-.20	--	.71**	.63**	.55**	.66**	.59**
12 Depression Total	.43**	.40**	.35**	.48**	.38**	.45**	.44**	.43**	.43**	-.22	.62**	--	.51**	.47**	.58**	.50**
13 CCB Physical Violence Victimization	.68**	.71**	.67**	.66**	.64**	.72**	.66**	.69**	.67**	-.09	.56**	.44**	--	.80**	.81**	.73**
14 CCB Physical Violence Perpetration	.68**	.72**	.67**	.69**	.68**	.76**	.74**	.70**	.73**	-.12	.58**	.42**	.81**	--	.71**	.80**
15 CCB Total Coercion Victimization	.69**	.70**	.67**	.71**	.61**	.66**	.64**	.71**	.65**	-.11	.57**	.48**	.78**	.70**	--	.79**
16 CCB Total Coercion Perpetration	.69**	.68**	.62**	.71**	.67**	.73**	.71**	.69**	.71**	-.22	.56**	.44**	.73**	.81**	.74**	--

Note. Sample A results are displayed in the upper half of the diagonal, whereas Sample B results are displayed in the lower half of the diagonal;
* $p < 0.05$. ** $p < 0.01$.

Expectation 3: Convergent validity for the original Coercion in Intimate Partner

Relationships Scale. In order to assess the convergent validity of the CIPR, Spearman Rank correlational analyses were conducted using the physical IPV subscale of the CCB with Sample A and Sample B. Specifically, total coercion perpetration and victimization as measured by the CIPR were correlated with total physical IPV perpetration and victimization as measured by the CCB. As expected, Sample A and Sample B results indicated that higher coercion victimization subscale and composite scores on the CIPR were significantly related to higher physical IPV victimization scores on the CCB. Moreover, in Sample A and Sample B, higher coercion perpetration subscale and composite scores on the CIPR were significantly related to higher physical IPV perpetration scores on the CCB.

In order to further assess convergent validity, Spearman's Rank correlational analyses were conducted on both samples to examine the relation between the Demand, Threat, and Surveillance subscales. As can be referenced in Table 17, Sample A and Sample B results indicated that all CIPR subscales were significantly positively related to one another at an alpha level of 0.01. This was true within and across victimization and perpetration. Moreover, all correlations were at or above $r = 0.64$, with the majority being above $r = 0.70$. Taken together, results support the convergent validity of the CIPR.

Expectation 4: Predictive validity for the original Coercion in Intimate Partner

Relationships Scale. In order to examine the predictive validity of the CIPR, I conducted multiple regression analyses between CIPR victimization and PTSD as well as between CIPR victimization and depression. Again, the analyses were conducted on both Sample A and Sample B in order to examine validity and cross-validity.

When examining the predictive validity of the CIPR in Sample A and Sample B, social desirable answering (i.e., MCSDS composite), as well as PTSD/depression (depending on the regression) were added as covariates, as significant correlations were found between these composites and the outcome variables. Despite being significantly related to PTSD and depression symptomatology, CIPR coercion perpetration, CCB coercion perpetration, and CCB coercion victimization were not entered into the model as multicollinearity was violated for these variables in both samples. Furthermore, threat appraisal (i.e., the extent to which the participants believed their partner's threats) and fear response (i.e., the degree to which participants were fearful of threats made by their partners) over the past three months were also added as covariates in the model in order to examine whether or not these factors affected psychological outcomes, as theorized by Dutton and Goodman (2005).

For the first Sample A multiple regression analysis, depression symptomatology, socially desirable answering, fear response, threat appraisal, and CIPR victimization were entered to predict PTSD symptomatology and these variables accounted for 65% of variance, $F(5, 242) = 91.23, p < .001$. Threat appraisal ($\beta = .04; b = .61, p = .24$) was not a significant covariate of PTSD. However, total CIPR victimization was a significant predictor ($\beta = .27; b = .04, p < .001$) and depression ($\beta = .42; b = 1.81, p < .001$), social desirable answering ($\beta = -.11; b = -$

.83, $p = .01$), and fear response ($\beta = .21$; $b = 1.42$, $p = .02$) emerged as significant covariates. Results were consistent when the analyses were conducted with and without outliers on x . Thus, in order to preserve sample size, the results reported above included outliers.

For the second Sample A multiple regression analysis, PTSD symptomatology, social desirable answering, fear response, threat appraisal, and CIPR victimization were entered to predict depression symptomatology and these variables accounted for 47% of variance, $F(5, 242) = 44.13$, $p < .001$. Total CIPR victimization ($\beta = -.03$; $b = .00$, $p = .88$) was not a significant predictor and threat appraisal ($\beta = -.06$; $b = -.13$, $p = .36$) and fear response ($\beta = .04$; $b = .08$, $p = .65$) were not significant covariates. However, PTSD symptomatology ($\beta = .64$; $b = .15$, $p < .001$) and socially desirable answering ($\beta = -.15$; $b = -.22$, $p = .01$) were significant covariates. Results were consistent when the analyses were conducted with and without outliers on x . Thus, the results reported above included outliers.

For the first Sample B multiple regression analysis, depression symptomatology, social desirable answering, fear response, threat appraisal, and CIPR victimization were entered to predict PTSD symptomatology and these variables accounted for 64% of variance, $F(5, 232) = 83.54$, $p < .001$. Total CIPR victimization was a significant predictor ($\beta = .47$; $b = .06$, $p < .001$) and depression was a significant covariate ($\beta = .35$; $b = 1.27$, $p < .001$). Socially desirable answering ($\beta = -.06$; $b = -.36$, $p = .20$), threat appraisal ($\beta = .04$; $b = .20$, $p = .71$), and fear response ($\beta = .09$; $b = .90$, $p = .14$) were not significant covariates.

For the second Sample B multiple regression analysis, PTSD symptomatology, social desirable answering, fear response, threat appraisal, and CIPR victimization were entered to predict depression symptomatology and these variables accounted for 41% of variance, $F(5, 232) = 33.01$, $p < .001$. Consistent with Sample A results, total CIPR victimization ($\beta = -.14$; $b = -$

.01, $p = .22$) was not a significant predictor of depression symptomatology. Additionally, threat appraisal ($\beta = -.05$; $b = -.08$, $p = .64$) was not a significant covariate. However, fear response ($\beta = .25$; $b = .43$, $p = .03$), PTSD symptomatology ($\beta = .58$; $b = .15$, $p = <.001$), and socially desirable answering ($\beta = -.11$; $b = -.21$, $p = .02$) were significant covariates.

Taken together, the results of the Sample A and Sample B multiple regression analyses somewhat supported the predictive validity of the CIPR. Moreover, in both samples, total coercion victimization was a significant predictor of PTSD, but not depression. Specifically, the Sample A model indicated that, when all other variables were held constant, for every (standard deviation) unit increase in total coercion victimization, PTSD increased by .27 of a standard deviation. Further, the Sample B model indicated that, when all other variables were held constant, for every (standard deviation) unit increase in total coercion victimization, PTSD increased by .47 of a standard deviation. Findings were inconsistent in terms of the predictive nature of threat appraisal and fear response.

Expectation 5: Discriminant validity for the original Coercion in Intimate Partner Relationships Scale. In order to assess the discriminant validity of the CIPR, Spearman's Rank correlational analyses were conducted on Sample A and Sample B using the MCSDS, which measured the tendency of participants to answer survey questions in a socially desirable manner. Specifically, total coercion perpetration and victimization as measured by the CIPR were correlated with total MCSDS scores. As can be referenced in Table 17, Sample A and sample B results indicated that CIPR total victimization and total perpetration scores were not correlated with total MCSDS scores to an extent that would suggest singularity or that the instruments were measuring the same construct (i.e., $r \geq 0.90$; Pituch & Stevens, 2016). Thus, results support the discriminant validity of the CIPR.

Expectation 6: Internal consistency for the original Coercion in Intimate Partner Relationships Scale. In order to examine the internal consistency of the CIPR, I derived Cronbach's alpha statistics for each of the subscales using Sample A and Sample B. As can be referenced in Table 18, Sample A and Sample B results indicated that the CIPR subscales have either good or excellent internal consistency. Taken together, results support the reliability of the CIPR.

Table 18

Cronbach's Alpha Values for the Original Coercion in Intimate Partners Relationships Scale for Sample A and Sample B

Subscale	Cronbach's Alpha and descriptors for Sample A	Cronbach's Alpha and descriptors for Sample B
CIPR total coercion victimization	.96 (Excellent)	.88 (Good)
Demand victimization	.99 (Excellent)	.99 (Excellent)
Surveillance victimization	.96 (Excellent)	.96 (Excellent)
Threat victimization	.99 (Excellent)	.99 (Excellent)
Response to victimization	.97 (Excellent)	.97 (Excellent)
CIPR total coercion perpetration	.98 (Excellent)	.83 (Good)
Demand perpetration	.99 (Excellent)	.99 (Excellent)
Surveillance perpetration	.97 (Excellent)	.97 (Excellent)
Threat perpetration	.99 (Excellent)	.99 (Excellent)

Note. Descriptors were informed by George and Mallery (2005).

Expectation 7: Test-retest for the original Coercion in Intimate Partner

Relationships Scale. I also examined test-retest by conducting Spearman Rank correlational analyses using the total coercion victimization score from Participant Pool students' initial survey response and their total coercion victimization score from their second survey response, which was collected two weeks later. Responses from a total of 42 participants were included in this analysis and results indicated that test-retest reliability was good, $r = 0.62, p = < .001$ (Cicchetti & Sparrow, 1981). The same was done for total coercion perpetration. Responses from a total of 41 Participant Pool participants were included in this analysis and results indicated that test-retest reliability was excellent, $r = 0.79, p = < .001$ (Cicchetti & Sparrow, 1981). Taken together, results supported the reliability of the CIPR.

Primary Analyses for Objective 3

Shortening the Coercion in Intimate Partner Relationships Scale. In order to shorten the CIPR, I examined the *R*-square values computed when the series of confirmatory factor analyses were conducted on Sample A. In order to examine factor loadings, I also conducted a principle component analysis for each of the subscales (using Sample A). Initially, for each subscale, I requested the factor-solutions proposed by Dutton et al. (2007). However, as explained below, after removing items from larger subscales, I examined the factor-loadings and simple-structure for various factor-solutions as simple-structure was poor for the solutions proposed by Dutton et al. (2007). During this, a promax rotation was used as this rotation allowed the factors to be correlated.

During the process of shortening the measure, I examined factor loadings, *R*-square values, and consulted modification indices and communality estimates. More specifically, items

that had *R*-square values less than 0.20, indicating low variance explained by a factor were considered for deletion. Items with factor loadings less than 0.40 on all factors, indicating that the item did not significantly relate to the factors were also considered for deletion. As were items with a factor loading greater than 0.32 on multiple factors, indicating that the item did not differentiate among several factors. Consistent with Diemer, Rapa, Park, and Perry (2017), items that did not load onto a distinct factor of at least three items were also considered for deletion. I also used my discretion and knowledge of coercion when deciding which items could be removed to shorten the measure. Important to note is that the victimization and perpetration subscales needed to be consistent, and therefore, certain items were retained or deleted in order to ensure the subscales included the same victimization and perpetration items. Lastly, I tried to retain at least one item from each of the factors that Dutton et al. (2007) initially conceptualized (e.g., at least one item regarding harm to self, harm to victim, and harm to others for the threat subscale).

Furthermore, an iterative process was used to determine which items should be deleted. Specifically, I deleted small groups of items (rather than individual items, due to time constraints) and then re-ran the analyses and re-examined the factor loadings and simple-structure. The factor loading displayed in the tables below are those that were used during the final consideration.

Shortening the response to victimization subscale. The Response to Victimization subscale was shortened from 16 to seven items. As can be referenced in Table 19, nine of the items were deleted due to high factor loadings on both factors and/or redundancy with another item. Moreover, four items were retained for Factor 1, whereas three items were retained for Factor 2. Although, Dutton et al. (2007) did not name this two-factor solution, I found that Factor

1 of the short form contained items characterized by extreme actions taken by romantic partners to end the demands of their partner and/or protect themselves (e.g., tried to get criminal charges filed, called the police). Factor 2 of the short form was conceptualized as containing items that characterize less extreme actions taken by romantic partners in response to demands made by their partner (e.g., tried to avoid him/her, did what the partner wanted). Potential re-wording for retained items has also been included in Table 19 (for a future version of the short form that could not be examined in the current study).

Table 19

Factor Loadings, R-square Values, and Actions Performed for Shortening the 2-Factor Response to Victimization Subscale

Items	Factor 1 loadings	Factor 2 loadings	R^2	Decisions and actions performed
16. Tried to get criminal charges filed	.87	.29	.84	Retained for Factor 1
15. Called the police	.86	.33	.85	Retained for Factor 1 Reword to: Called someone for help (e.g., police, friend)
9. Used/threatened to use a weapon against him/her	.85	.32	.82	Retained for Factor 1 Reword to: Fought back physically (with or without a weapon)
14. Filed for a civil protection order.	.84	.36	.85	Retained for Factor 1
8. Fought back physically	.84	.36	.85	Deleted round 1: redundant with item 9; item loads highly on both factors; (reword item 9 for future)
10. Left home to get away from him/her	.76	.46	.78	Deleted round 3: item loads highly on both factors
5. Sought help from someone else	.75	.43	.73	Deleted round 1: redundant with item 15; item loads highly on both factors; (reword item 15 for future)
11. Ended (or tried to end) the relationship	.74	.40	.68	Deleted round 2: item loads highly on both factors
4. Lied about having done what your partner wanted	.63	.58	.74	Deleted round 1: loads highly on both factors
6. Tried to distract your partner	.62	.60	.75	Deleted round 1: loads highly on both factors
1. Did what your partner wanted, even though you didn't want to	.16	.79	.39	Retained for Factor 2

Items	Factor 1 loadings	Factor 2 loadings	R^2	Decisions and actions performed
2. Refused to do what he/she said	.34	.76	.53	Retained for Factor 2 Reword to: Refused to do what he/she said (e.g., argued back verbally)
3. Tried to talk your partner out of wanting you to do it	.38	.74	.59	Deleted first round: item loads highly on both factors
12. Argued back verbally	.32	.69	.45	Deleted round 3: redundant with item 2; item loads highly on both factors; (reword item 2 for future)
13. Did nothing - just didn't do it	.50	.63	.62	Deleted round 1: item loads highly on both factors
7. Tried to avoid him/her	.53	.61	.66	Retained for Factor 2 Good information for future research on PTSD

Shortening the demand victimization subscale. All of the items' factor loadings for the 9-factor Demand Victimization subscale (which was originally proposed to include Personal Activities and Appearance; Support and Social Life; Household; Work/Economics and Resources; Health; Intimate Relationship; Legal; Immigration; and Children/Parenting) loaded highly on more than one factor, indicating that the factors did not differentiate the items and that the factor solution lacked simple structure (this was also the case when I examined a 2-, 3-, 4-, 5-, 6-, 7-, and 8-factor solution). Thus, in order to shorten this subscale, I started by deleting items that I considered to be redundant with other items or less relevant as compared to other items (see Table 20). Twenty items were identified at this time. After these 20 items were deleted, I re-ran the analysis and re-examined the factor loadings for the remaining items. The remaining items also loaded highly on more than one factor (also when I examined a 2-, 3-, 4-, 5-, 6-, 7-, and 8-factor solution). Moreover, the 9-Factor solution no longer made sense conceptually. Thus, the remaining items were better conceptualized as belonging to one factor. Overall, the Demand Victimization subscale was shortened from 48 items to 28 items.

Table 20

Factor Loadings, R-square Values, and Actions Performed for Shortening the 9-Factor Demand Victimization Subscale

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	Factor 4 loadings	Factor 5 loadings	Factor 6 loadings	Factor 7 loadings	Factor 8 loadings	Factor 9 loadings	R ²	Decisions and actions performed
1. Leaving the house (e.g., not want you to leave)	.82	--	--	--	--	--	--	--	--	.65	Retained for Factor 1
2. Eating	.35	.69	.13	.33	.17	.02	-.04	.12	.19	.74	Deleted round 1
3. Sleeping in certain places or at certain times	.83	--	--	--	--	--	--	--	--	.72	Retained for Factor 1
4. Wearing certain clothes	.83	--	--	--	--	--	--	--	--	.76	Retained for Factor 1
5. Maintaining a certain weight	.88	--	--	--	--	--	--	--	--	.82	Retained for Factor 1
6. Using TV, radio, or the internet	.81	--	--	--	--	--	--	--	--	.73	Retained for Factor 1 Reword to: Access to/use of entertainment (TV, radio, internet, reading material)
7. Viewing sexually explicit material	.82	--	--	--	--	--	--	--	--	.71	Retained for Factor 1
8. Bathing or using the bathroom	.83	--	--	--	--	--	--	--	--	.75	Retained for Factor 1

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	Factor 4 loadings	Factor 5 loadings	Factor 6 loadings	Factor 7 loadings	Factor 8 loadings	Factor 9 loadings	R^2	Decisions and actions performed
9. Answering the phone	.34	.66	.15	.28	.17	.13	.06	.13	-.20	.68	Deleted round 1
10. Reading certain things	.40	.59	.27	.30	.19	.18	.11	.11	.21	.76	Deleted round 1
11. Talking on the phone	.83	--	--	--	--	--	--	--	--	.69	Retained for Factor 1
12. Spending time with friends or family members	.81	--	--	--	--	--	--	--	--	.71	Retained for Factor 1 Reword to: Spending time with friends, family, or community
13. Going to church, school, or other community activities	.45	.55	.18	.18	.30	.11	.16	.19	-.11	.71	Deleted round 1
14. Talking to a counselor, clergy, or someone else about personal or family matters	.86	--	--	--	--	--	--	--	--	.78	Retained for Factor 1
15. Taking care of dependent relatives	.48	.40	.34	.17	.18	.03	.28	.04	-.04	.56	Deleted round 1
16. Taking care of pets	.33	.31	.31	.17	.48	.21	-.02	.15	.10	.48	Deleted round 1
17. Taking care of the house	.70	--	--	--	--	--	--	--	--	.57	Retained for Factor 1 Reword to: Taking care of the household (e.g., cooking, cleaning)

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	Factor 4 loadings	Factor 5 loadings	Factor 6 loadings	Factor 7 loadings	Factor 8 loadings	Factor 9 loadings	R ²	Decisions and actions performed
18. Buying or preparing foods	.16	.30	.34	.41	.60	.09	.00	-.09	.05	.52	Deleted round 1
19. Living in certain places	.88	--	--	--	--	--	--	--	--	.78	Retained for Factor 1
20. Working	.76	--	--	--	--	--	--	--	--	.61	Retained for Factor 1
21. Spending money, using credit cards, or bank accounts	.71	--	--	--	--	--	--	--	--	.52	Retained for Factor 1
22. Learning another language	.58	.42	.26	.29	.05	.36	.07	.05	-.03	.70	Deleted round 1
23. Going to school	.79	--	--	--	--	--	--	--	--	.64	Retained for Factor 1 Rerword to: Going to school or learning
24. Using the car or truck	.82	--	--	--	--	--	--	--	--	.69	Retained for Factor 1
25. Using street drugs	.79	.30	.24	.21	.11	.06	.02	.02	-.20	.80	Deleted round 1
26. Using alcohol	.85	--	--	--	--	--	--	--	--	.70	Retained for Factor 1 Rerword to: using alcohol or drugs
27. Going to the doctor	.55	.33	.24	.32	.22	.07	.30	.10	.01	.65	Deleted round 1

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	Factor 4 loadings	Factor 5 loadings	Factor 6 loadings	Factor 7 loadings	Factor 8 loadings	Factor 9 loadings	R^2	Decisions and actions performed
28. Taking medication or prescriptions drugs	.75	--	--	--	--	--	--	--	--	.54	Retained for Factor 1 Reword to: Health (e.g., taking medication/prescriptions drugs, going to the doctor)
29. Talking to your partner	.23	.30	.15	.74	.25	-.05	.22	.03	-.04	.41	Deleted round 1
30. Spending time with your partner	.66	--	--	--	--	--	--	--	--	.36	Retained for Factor 1
31. Separating or leaving the relationship	.85	--	--	--	--	--	--	--	--	.76	Retained for Factor 1
32. Having sex	.27	.37	.29	.61	.14	.13	-.11	.19	.07	.50	Deleted round 1
33. Using birth control/condoms	.70	--	--	--	--	--	--	--	--	.49	Retained for Factor 1
34. Doing certain sexual behaviors	.76	--	--	--	--	--	--	--	--	.58	Retained for Factor 1 Reword to: Having sex or doing certain sexual behaviors
35. Having sex in exchange for money, drugs, or other things.	.77	.32	.27	.18	.10	.04	.17	.16	.01	.81	Deleted round 1

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	Factor 4 loadings	Factor 5 loadings	Factor 6 loadings	Factor 7 loadings	Factor 8 loadings	Factor 9 loadings	R^2	Decisions and actions performed
36. Photographing you nude or while having sex	.84	--	--	--	--	--	--	--	--	.79	Retained for Factor 1
37. Talking to police or lawyer	.83	--	--	--	--	--	--	--	--	.86	Retained for Factor 1 Reword to: talking to authorities (e.g., police, lawyer, landlord, child protection services, immigration officer)
38. Doing things that are against the law	.82	--	--	--	--	--	--	--	--	.82	Retained for Factor 1
39. Carrying a gun or knife	.80	.27	.18	.20	.17	.03	-.03	-.06	-.15	.77	Deleted round 1
40. Talking to landlord or housing authorities	.70	.40	.23	.14	.20	.16	.06	.10	.27	.78	Deleted round 1
41. Filing citizenship papers	.74	.35	.25	.06	.20	-.09	.08	.20	.05	.78	Deleted round 1
42. Talking to the immigration authorities	.80	.29	.27	.13	.14	.21	-.06	.04	.13	.86	Deleted round 1
43. Immigration sponsorship	.84	--	--	--	--	--	--	--	--	.86	Retained for Factor 1 Reword to: Immigration (e.g., sponsorship, citizenship)

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	Factor 4 loadings	Factor 5 loadings	Factor 6 loadings	Factor 7 loadings	Factor 8 loadings	Factor 9 loadings	R^2	Decisions and actions performed
44. Taking care of children	.69	--	--	--	--	--	--	--	--	.85	Retained for Factor 1 Reword to: taking care of dependents (e.g., children, aging parents, pets)
45. Disciplining the children	.39	.21	.77	.20	.15	-.02	.15	.11	.05	.85	Deleted round 1
46. Making every day decisions about the children	.72	--	--	--	--	--	--	--	--	.88	Retained for Factor 1 Reword to: making decisions about the children
47. Making important decisions about the children	.35	.23	.81	.18	.13	-.01	.07	-.01	-.13	.84	Deleted round 1
48. Talking to child protection authorities	.70	.33	.38	.18	.09	.17	-.04	.13	.18	.58	Deleted round 1

Shortening the demand perpetration subscale. Using the same procedure as the Demand Victimization subscale, the new Demand Perpetration subscale was conceptualized as belonging to one factor containing the same items as the victimization subscale. Overall, the Demand Perpetration subscale was shortened from 48 items to 28 items. The factor loadings and *R*-square values can be referenced in Table 21.

Table 21

Factor Loadings, R-square Values, and Actions Performed for Shortening the 9-factor Demand Perpetration Subscale

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	Factor 4 loadings	Factor 5 loadings	Factor 6 loadings	Factor 7 loadings	Factor 8 loadings	Factor 9 loadings	R^2	Decisions and actions performed
1. Leaving the house (e.g., not want you to leave)	.82	--	--	--	--	--	--	--	--	.66	Retained for Factor 1
2. Eating	.35	.24	.67	.16	.26	.32	.08	-.07	.10	.71	Deleted round 1
3. Sleeping in certain places or at certain times	.81	--	--	--	--	--	--	--	--	.72	Retained for Factor 1
4. Wearing certain clothes	.85	--	--	--	--	--	--	--	--	.82	Retained for Factor 1
5. Maintaining a certain weight	.86	--	--	--	--	--	--	--	--	.79	Retained for Factor 1
6. Using TV, radio, or the internet	.87	--	--	--	--	--	--	--	--	.74	Retained for Factor 1 Reword to: Access to/use of entertainment (TV, radio, internet, reading material)
7. Viewing sexually explicit material	.83	--	--	--	--	--	--	--	--	.78	Retained for Factor 1
8. Bathing or using the bathroom	.87	--	--	--	--	--	--	--	--	.81	Retained for Factor 1

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	Factor 4 loadings	Factor 5 loadings	Factor 6 loadings	Factor 7 loadings	Factor 8 loadings	Factor 9 loadings	R^2	Decisions and actions performed
9. Answering the phone	.37	.24	.31	.25	.24	.18	.57	.01	.09	.64	Deleted round 1
10. Reading certain things	.29	.33	.48	.31	.31	.26	.26	.31	.11	.76	Deleted round 1
11. Talking on the phone	.83	--	--	--	--	--	--	--	--	.71	Retained for Factor 1
12. Spending time with friends or family members	.84	--	--	--	--	--	--	--	--	.72	Retained for Factor 1 Reword to: Spending time w friends, family, or communit
13. Going to church, school, or other community activities	.48	.31	.42	.30	.25	.17	.36	.05	-.03	.78	Deleted round 1
14. Talking to a counselor, clergy, or someone else about personal or family matters	.91	--	--	--	--	--	--	--	--	.82	Retained for Factor 1
15. Taking care of dependent relatives	.65	.27	.27	.26	.33	.24	.18	.17	.00	.79	Deleted round 1
16. Taking care of pets	.23	.41	.38	.34	.42	.10	.08	.06	-.03	.57	Deleted round 1

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	Factor 4 loadings	Factor 5 loadings	Factor 6 loadings	Factor 7 loadings	Factor 8 loadings	Factor 9 loadings	R^2	Decisions and actions performed
17. Taking care of the house	.76	--	--	--	--	--	--	--	--	.64	Retained for Factor 1 Reword to: Taking care of the household (e.g., cooking, cleaning)
18. Buying or preparing foods	.17	.20	.34	.39	.57	.30	.16	.04	.11	.63	Deleted round 1
19. Living in certain places	.90	--	--	--	--	--	--	--	--	.78	Retained for Factor 1
20. Working	.80	--	--	--	--	--	--	--	--	.66	Retained for Factor 1
21. Spending money, using credit cards, or bank accounts	.83	--	--	--	--	--	--	--	--	.70	Retained for Factor 1
22. Learning another language	.49	.44	.41	.31	.23	.20	.14	.29	.01	.81	Deleted round 1
23. Going to school	.85	--	--	--	--	--	--	--	--	.74	Retained for Factor 1 Reword to: Going to school learning
24. Using the car or truck	.87	--	--	--	--	--	--	--	--	.74	Retained for Factor 1
25. Using street drugs	.71	.27	.28	.22	.22	.18	.14	.08	.01	.74	Deleted round 1
26. Using alcohol	.85	--	--	--	--	--	--	--	--	.74	Retained for Factor 1 Reword to: using alcohol or dru

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	Factor 4 loadings	Factor 5 loadings	Factor 6 loadings	Factor 7 loadings	Factor 8 loadings	Factor 9 loadings	R ²	Decisions and actions performed
27. Going to the doctor	.46	.34	.15	.35	.26	.28	.42	-.08	-.16	.69	Deleted round 1
28. Taking medication or prescriptions drugs	.87	--	--	--	--	--	--	--	--	.76	Retained for Factor 1 Reword to: Health (e.g., taking medication/prescriptions drugs going to the doctor)
29. Talking to you	.23	.15	.27	.33	.18	.70	.28	.03	-.09	.53	Deleted round 1
30. Spending time with you	.71	--	--	--	--	--	--	--	--	.51	Retained for Factor 1
31. Separating or leaving the relationship	.87	--	--	--	--	--	--	--	--	.78	Retained for Factor 1
32. Having sex	.25	.32	.33	.22	.38	.48	.17	.04	.19	.60	Deleted round 1
33. Using birth control/condoms	.79	--	--	--	--	--	--	--	--	.63	Retained for Factor 1
34. Doing certain sexual behaviors	.82	--	--	--	--	--	--	--	--	.68	Retained for Factor 1 Reword to: Having sex or doing certain sexual behaviors
35. Having sex in exchange for money, drugs, or other things.	.66	.35	.23	.38	.13	.21	.27	-.02	.04	.82	Deleted round 1

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	Factor 4 loadings	Factor 5 loadings	Factor 6 loadings	Factor 7 loadings	Factor 8 loadings	Factor 9 loadings	R^2	Decisions and Actions Performed
36. Photographing your partner nude or while having sex	.90	--	--	--	--	--	--	--	--	.83	Retained for Factor 1
37. Talking to police or lawyer	.89	--	--	--	--	--	--	--	--	.89	Retained for Factor 1 Reword to: talking to authorities (e.g., police, lawyer, landlord, child protection services, immigration officer)
38. Doing things that are against the law	.88	--	--	--	--	--	--	--	--	.80	Retained for Factor 1
39. Carrying a gun or knife	.64	.37	.26	.24	.19	.14	.17	-.15	.08	.71	Deleted round 1
40. Talking to landlord or housing authorities	.35	.68	.32	.30	.15	.13	.25	-.01	-.07	.73	Deleted round 1
41. Filing citizenship papers	.71	.32	.31	.34	.17	.15	.21	-.00	.04	.88	Deleted round 1
42. Talking to the immigration authorities	.48	.64	.29	.32	.11	.20	.19	.01	.03	.84	Deleted round 1
43. Immigration sponsorship	.89	--	--	--	--	--	--	--	--	.89	Retained for Factor 1 Reword to: immigration (e.g., sponsorship, citizenship)

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	Factor 4 loadings	Factor 5 loadings	Factor 6 loadings	Factor 7 loadings	Factor 8 loadings	Factor 9 loadings	R^2	Decisions and actions performed
44. Taking care of children	.77	--	--	--	--	--	--	--	--	.74	Retained for Factor 1
45. Disciplining the children	.38	.27	.13	.67	.20	.27	.28	-.03	-.05	.83	Reword to: taking care of dependents (e.g., children, aging parents, pets) Deleted round 1
46. Making every day decisions about the children	.80	--	--	--	--	--	--	--	--	.88	Retained for Factor 1
47. Making important decisions about the children	.40	.19	.17	.74	.24	.22	.18	.02	.05	.86	Deleted round 1
48. Talking to child protection authorities	.46	.62	.30	.36	.18	.15	.15	.02	.08	.72	Deleted round 1

Shortening the threat victimization subscale. All of the items' factor loadings for the 3-factor Threat Victimization subscale (which was originally proposed to include Harm to You, Harm to Partner, and Harm to Others) loaded highly on more than one factor, indicating that the factors did not differentiate the items and that the factor solution lacked simple structure (this was also the case when I examined 4-, 2-, and 1-factor solutions). Thus, in order to shorten this subscale, I started by deleting items that I considered to be redundant with other items or less relevant as compared to other items (see Table 22). Sixteen items were identified at this step. After these 16 items were deleted, I re-ran the analysis and re-examined the factor loadings for the remaining items. The remaining items also loaded highly on more than one factor (when I examined a 4-, 2-, and 3- factor solution). Moreover, the 3-Factor solution no longer made sense conceptually. Thus, the remaining items were conceptualized as belonging to one factor. Overall, the Threat Victimization subscale was shortened from 31 items to 15 items.

Table 22

Factor Loadings, R-square Values, and Actions Performed for Shortening the 3-Factor Threat Victimization Subscale

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	R^2	Decisions and actions performed
1. Say something mean, embarrassing or humiliating	.38	.24	.72	.53	Deleted round 1
2. Keep you from seeing or talking to your family or friends	.86	--	--	.71	Retained for Factor 1
3. Tell someone else personal or private information about you	.84	--	--	.70	Retained for Factor 1
4. Keep you from leaving the house	.85	--	--	.70	Retained for Factor 1
5. Limit your access to transportation	.51	.33	.69	.75	Deleted round 1
6. Physically hurt you	.90	--	--	.79	Retained for Factor 1
7. Try to kill you	.85	--	--	.72	Retained for Factor 1
8. Scare you	.58	.54	.40	.68	Deleted round 1
9. Have sex with someone else	.91	--	--	.82	Retained for Factor 1

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	R^2	Decisions and Actions Performed
10. Leave the relationship or get a divorce	.88	--	--	.77	Retained for Factor 1
11. Not let you take your medication	.62	.45	.50	.82	Deleted round 1
12. Put you in a mental hospital	.55	.68	.31	.82	Deleted round 1
13. Cause you to lose your job	.60	.43	.52	.81	Deleted round 1
14. Keep you from going to work	.44	.58	.49	.75	Deleted round 1
15. Cause you to lose your housing	.57	.50	.48	.80	Deleted round 1
16. Hurt you financially	.89	--	--	.76	Retained for Factor 1
17. Threaten you with legal trouble	.91	--	--	.85	Retained for Factor 1
18. Have you arrested	.46	.66	.42	.80	Deleted round 1
19. Threaten to have you deported	.72	.45	.43	.88	Deleted round 1
20. Force you to engage in unwanted sex acts	.91	--	--	.81	Retained for Factor 1 Reword to: Force you to engage in unwanted sex acts with or without others

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	R^2	Decisions and actions performed
21. Force you to participate in or observe sex acts with others	.75	.44	.34	.81	Deleted first round
22. Destroy legal papers	.45	.75	.34	.82	Deleted round 1
23. Destroy or take something that belongs to you	.90	--	--	.77	Retained for Factor 1
24. Physically hurt or kill your pet or other animal	.92	--	--	.84	Retained for Factor 1
25. Not let you see your child or take your children from you	.90	--	--	.83	Retained for Factor 1
26. Threaten to commit suicide	.93	--	--	.84	Retained for Factor 1 Reword to: Threaten or attempt to harm him/herself/commit suicide
27. Actually attempt to harm or kill him/herself	.74	.46	.34	.79	Deleted first round
28. Say something mean or hurtful to your friends or family members	.91	--	--	.86	Retained for Factor 1 Reword to: Harm friend/family member (through words or actions) or their property
29. Physically hurt your friend or family member	.69	.43	.44	.84	Deleted round 1
30. Try to kill your friend or family member	.56	.67	.31	.82	Deleted round 1
31. Destroy property of your family members or friends	.74	.41	.37	.82	Deleted round 1

Shortening the threat perpetration subscale. Using the same procedure as the Threat Victimization subscale, the shortened Threat Perpetration subscale was conceptualized as belonging to one factor containing the same items as the victimization subscale. Overall, the Threat Perpetration subscale was shortened from 31 items to 15 items. The factor loadings and *R*-square values can be referenced in Table 23.

Table 23

Factor Loadings, R-square Values, and Actions Performed for Shortening the 3-Factor Threat Perpetration Subscale

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	R^2	Decisions and actions performed
1. Say something mean, embarrassing or humiliating to your partner	.58	.34	.43	.61	Deleted round 1
2. Keep your partner from seeing or talking to family or friends	.94	--	--	.87	Retained for Factor 1
3. Tell someone else personal or private information about your partner	.90	--	--	.80	Retained for Factor 1
4. Keep your partner from leaving the house	.88	--	--	.73	Retained for Factor 1
5. Limit your partner's access to transportation	.62	.53	.46	.87	Deleted round 1
6. Physically hurt your partner	.93	--	--	.84	Retained for Factor 1
7. Try to kill your partner	.87	--	--	.80	Retained for Factor 1
8. Scare your partner	.58	.54	.40	.76	Deleted round 1
9. Have sex with someone else	.92	--	--	.86	Retained for Factor 1
10. Leave the relationship or get a divorce	.89	--	--	.79	Retained for Factor 1

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	R^2	Decisions and actions performed
11. Not let your partner take their medication	.52	.39	.71	.86	Deleted round 1
12. Put your partner in a mental hospital	.59	.61	.44	.90	Deleted round 1
13. Cause your partner to lose their job	.65	.36	.58	.84	Deleted round 1
14. Keep your partner from going to work	.59	.67	.37	.88	Deleted round 1
15. Cause your partner to lose their housing	.63	.42	.55	.85	Deleted round 1
16. Hurt your partner financially	.94	--	--	.87	Retained for Factor 1
17. Threaten your partner with legal trouble	.95	--	--	.92	Retained for Factor 1
18. Have your partner arrested	.68	.47	.38	.79	Deleted round 1
19. Threaten to have your partner deported	.64	.45	.51	.86	Deleted round 1
20. Force your partner to engage in unwanted sex acts	.92	--	--	.86	Retained for Factor 1 Reword to: Force you to engage in unwanted sex acts with or without others
21. Force your partner to participate in or observe sex acts with others	.73	.41	.34	.87	Deleted first round

Items	Factor 1 loadings	Factor 2 loadings	Factor 3 loadings	R^2	Decisions and actions performed
22. Destroy legal papers	.40	.71	.44	.79	Deleted round 1
23. Destroy or take something that belongs to your partner	.92	--	--	.85	Retained for Factor 1
24. Physically hurt or kill your partner's pet or other animal	.93	--	--	.84	Retained for Factor 1
25. Not let your partner see their child or take their children from them	.90	--	--	.79	Retained for Factor 1
26. Threaten to commit suicide	.90	--	--	.83	Retained for Factor 1 Reword to: Threaten or attempt to harm him/herself/commit suicide
27. Actually attempt to harm or kill yourself	.36	.53	.70	.86	Deleted first round
28. Say something mean or hurtful to your partner's friends or family members	.90	--	--	.77	Retained for Factor 1 Reword to: Harm friend/family member (through words or actions) or their property
29. Physically hurt your partner's friends or family members	.43	.48	.69	.84	Deleted first round
30. Try to kill your partner's friend or family member	.43	.65	.44	.78	Deleted round 1
31. Destroy property of your partner's family members or friends	.36	.58	.68	.88	Deleted round 1

Shortening the surveillance victimization and perpetration subscales. The Surveillance Victimization and Surveillance Perpetration subscales could not be shortened at this time. As can be referenced in Table 24 and Table 25, for victimization and perpetration, all of the 13 items loaded highly onto the factor and the *R*-square values were large, indicating high variance explained by the factor. In order to shorten these subscales, the five items that examine checking one's personal belongings (e.g., clothing, mail) could be combined into one item. Similarly, the item assessing using an audio or video recorder could be deleted as it is captured by the item examining being spied on. If these changes were made, the 13-item victimization and perpetration subscales could both be shortened to eight items through rewording.

Table 24

Factor Loadings, R-square Values, and Actions Performed for Shortening the 1-Factor Surveillance Victimization Subscale

Items	Factor 1 loadings	R^2	Decisions and actions performed
10. Told you to report your behavior to him/her	.90	.81	Item retained on Factor 1
12. Spied on, followed, or stalked you	.88	.78	Item retained on Factor 1
8. Checked the car (odometer, where parked)	.88	.77	Item retained on Factor 1 Reword to combine with other item that assess checking personal belongings
4. Told you to carry a cell phone or pager	.87	.75	Item retained on Factor 1
9. Asked the children, neighbors, friends, family or coworkers	.87	.75	Item retained on Factor 1
1. Checked or opened your mail or personal papers/journal	.87	.75	Item retained on Factor 1 Reword to combine with other item that assess checking personal belongings
2. Kept track of telephone/cell phone use	.87	.74	Item retained on Factor 1
11. Used audio or video tape recorder	.86	.73	Item retained on Factor 1
7. Checked receipts/checkbook/bank statements	.85	.71	Item retained on Factor 1 Reword to combine with other item that assess checking personal belongings
6. Checked the house	.83	.69	Item retained on Factor 1 Reword to combine with other item that assess checking personal belongings
5. Checked your clothing	.83	.69	Item retained on Factor 1 Reword to combine with other item that assess checking personal belongings
13. Your partner didn't need to check; your partner just acted like he/she knew	.76	.59	Item retained on Factor 1

3. Called you on the phone .47 .22 Item retained on Factor 1

Table 25

Factor Loadings, R-square Values, and Actions Performed for Shortening the 1-Factor Surveillance Perpetration Subscale

Items	Factor 1 loadings	R^2	Decisions and actions performed
8. Checked the car (odometer, where parked)	.93	.88	Item retained on Factor 1 Reword to combine with other item that assess checking personal belongings
11. Used audio or video tape recorder	.92	.84	Item retained on Factor 1
9. Asked the children, neighbors, friends, family or coworkers	.92	.84	Item retained on Factor 1
10. Told you to report your behavior to him/her	.91	.84	Item retained on Factor 1
12. Spied on, followed, or stalked you	.91	.84	Item retained on Factor 1
5. Checked your clothing	.90	.80	Item retained on Factor 1 Reword to combine with other item that assess checking personal belongings
2. Kept track of telephone/cell phone use	.87	.75	Item retained on Factor 1
6. Checked the house	.87	.76	Item retained on Factor 1 Reword to combine with other item that assess checking personal belongings
1. Checked or opened your mail or personal papers/journal	.86	.73	Item retained on Factor 1 Reword to combine with other item that assess checking personal belongings
4. Told you to carry a cell phone or pager	.85	.71	Item retained on Factor 1
7. Checked receipts/checkbook/bank statements	.84	.70	Item retained on Factor 1 Reword to combine with other item that assess checking personal belongings

13. Your partner didn't need to check; your partner just acted like he/she knew	.76	.59	Item retained on Factor 1
3. Called you on the phone	.54	.28	Item retained on Factor 1

Overall, it is proposed that the 202-item CIPR be shortened to 105 items, wherein 49 items assess perpetration and 56 items assess victimization, including response to victimization. More specifically, through item deletion and item re-wording, the perpetration and victimization Demand subscales can be shortened to 28 items. The Threat subscales can be shortened to 15 items, whereas the surveillance subscale can be shortened to six items. Lastly the Response to Victimization subscale can be shortened to seven items. The proposed short form with re-worded items can be referenced in Appendix Y.

Primary Analyses for Objective 4

The final objective of the current study was to collect data to inform longitudinal research on coercion. Specifically, for victimization and perpetration, data were collected from Participant Pool and MTurk participants regarding how often coercion was used in the past three months as well as when the various components of coercion were first used within current romantic relationships. As can be referenced in Tables 26 to 32, the majority of participants reported that their current relationships were not coercive. Of the participants who reported that coercion had occurred in their current relationship, the majority reported that they and their current partners had used demands, threats, and surveillance tactics simultaneously in a situation once in the past three months. The majority also reported that demands were made on a monthly basis, threats were made on a daily or weekly basis, and that surveillance tactics were used on a daily basis. In terms of when coercion first began in relationships, of the participants who reported coercion, the majority indicated that demands, threats, and surveillance tactics were first made two to six months into the relationship.

Table 26

Frequency of Demands, Threats, and Surveillance Tactics Used Simultaneously in Situations During the Previous Three Months of Participants' Current Relationships

Response options	Perpetration		Victimization	
	<i>N</i>	%	<i>N</i>	%
Never	378	69	362	66.1
Once	38	6.9	46	8.4
Twice	24	4.4	21	3.8
3 - 5 times	15	2.7	26	4.7
6 - 10 times	27	4.9	29	5.3
11 - 20 times	34	6.2	31	5.7
More than 20 times	13	2.4	23	4.2
Not in the last 3 months, but in past	14	2.6	8	1.5

Table 27

Frequency of Demands Made During the Previous Three Months of Participants' Current Relationships

Response options	Perpetration		Victimization	
	<i>N</i>	%	<i>N</i>	%
Demands made on a daily basis	59	10.8	59	10.8
Demands made on a weekly basis	49	8.9	61	11.1
Demands made on a monthly basis	77	14.1	95	17.3
Demands were never made	361	65.9	330	60.2

Table 28

Frequency of Threats Made During the Previous Three Months of Participants' Current Relationships

Response options	Perpetration		Victimization	
	<i>N</i>	%	<i>N</i>	%
Threats made on a daily basis	36	6.6	35	6.4
Threats made on a weekly basis	34	6.2	54	9.9
Threats made on a monthly basis	32	5.8	28	5.1
Threats were never made	443	80.8	429	78.3

Table 29

Frequency of Surveillance Tactics Used During the Previous Three Months of Participants' Current Relationships

Response options	Perpetration		Victimization	
	<i>N</i>	%	<i>N</i>	%
Surveillance used on a daily basis	63	11.5	70	12.8
Surveillance used on a weekly basis	51	9.3	56	10.2
Surveillance used on a monthly basis	38	8.8	52	9.5
Surveillance was never used	386	70.4	369	67.3

Table 30

When Demands Were First Made in Participants' Current Relationships

Response options	Perpetration		Victimization	
	<i>N</i>	%	<i>N</i>	%
Never	314	57.3	290	52.9
1 week into relationship	24	4.4	26	4.7
2 – 3 weeks into relationship	31	5.7	33	6
1 month into relationship	50	9.1	44	8
2 – 6 months into relationship	57	10.4	74	13.5
7 – 12 months into relationship	45	8.2	54	9.9
After a year or longer	27	4.9	26	4.8

Table 31

When Threats Were First Made in Participants' Current Relationships

Response options	Perpetration		Victimization	
	<i>N</i>	%	<i>N</i>	%
Never	400	73	384	70.1
1 week into relationship	16	2.9	25	4.6
2 – 3 weeks into relationship	28	5.1	36	6.6
1 month into relationship	32	5.8	25	4.6
2 – 6 months into relationship	39	7.1	34	6.2
7 – 12 months into relationship	18	3.3	22	4
After a year or longer	13	2.4	21	3.8

Table 32

When Surveillance Tactics Were First Used in Participants' Current Relationships

Response options	Perpetration		Victimization	
	<i>N</i>	%	<i>N</i>	%
Never	367	67	384	70.1
1 week into relationship	32	5.8	16	2.9
2 – 3 weeks into relationship	30	5.5	27	4.9
1 month into relationship	27	4.9	33	6
2 – 6 months into relationship	46	8.4	37	6.8
7 – 12 months into relationship	34	6.2	33	6
After a year or longer	11	2	16	2.9

CHAPTER IV

Discussion

Summary of Objective 1 and 2 Findings

Validity of the original Coercion in Intimate Partner Relationships Scale. The primary purpose of the current study was to examine the validity/cross-validity and reliability of the CIPR. Specifically, using two samples, I examined the construct, concurrent, convergent, predictive, and discriminant validity of the CIPR as well as the internal consistency and test-retest reliability of the instrument.

Expectation 1. Construct validity, or the extent to which the CIPR subscales measured demands, threats, and surveillance behaviours, was examined through a series of confirmatory factor analyses. Although the chi-square-goodness-of-fit-statistics were significant, likely due to an abundance of statistical power, the other fit statistics indicated good model fit for all subscales. As recommended by Pituch and Stevens (2016), both incremental and absolute fit indices were examined. Thus, results are indicative of how well the specified model reproduced the data (i.e., RMSEA and SRMR) as well as the proportionate improvement of the models' fit to the data (i.e., NNFI/TLI and CFI). It is also important to note that, because degrees of freedom are included in the calculation of RMSEA and NNFI/TLI, these indices adjust for model complexity and counter the problem of better fit for complex models or models that require more estimation (Pituch & Stevens, 2016). Thus, the complexities of the models tested in the current study were accounted for when examining model fit. Taken together, as expected, it appears as though construct validity for the CIPR was supported. Moreover, the items within each of the original CIPR subscales are valid for measuring demands, threats, surveillance behaviours, and victim reactions to demands within romantic relationships.

Expectation 2. Concurrent validity, or the extent to which the CIPR correlated with another measure of coercion, was examined through correlational analyses between the CIPR and the CCB, which is an already established measure of coercion. Specifically, I conducted correlational analyses between coercion victimization as measured by the CIPR and coercion victimization as measured by the CCB as well as between coercion perpetration as measured by the CIPR and coercion perpetration as measured by the CCB. Consistent with predictions, Sample A and Sample B results indicated that higher coercion victimization scores on the CIPR were significantly related to higher coercion victimization scores on the CCB. Higher coercion perpetration scores on the CIPR were also significantly related to higher coercion perpetration scores on the CCB. Thus, support was found for the concurrent validity of the CIPR.

Expectation 3. Convergent validity, or the extent to which similar or related constructs of coercion correlated with one another, was examined through correlational analyses between coercion victimization and physical IPV victimization, coercion perpetration and physical IPV perpetration, as well as correlational analyses between the CIPR subscales. As expected, Sample A and Sample B results indicated that higher coercion victimization scores on the CIPR were significantly related to higher physical IPV victimization scores on the CCB. Additionally, higher coercion perpetration scores on the CIPR were significantly related to higher physical IPV perpetration scores on the CCB. Lastly, all CIPR subscales were significantly related to one another. Taken together, results support the convergent validity of the CIPR.

Expectation 4. Predictive validity, or the extent to which the CIPR predicted scores on a criterion measure, was also examined through multiple regression analyses between coercion victimization and PTSD symptomatology as well as between coercion victimization and depression symptomatology. As expected, Sample A and Sample B results indicated that

coercion victimization significantly predicted PTSD symptomatology above and beyond covariates. However, coercion victimization did not predict depression. Instead, in that model, PTSD symptomatology predicted depression symptomatology.

There are a few potential explanations for this finding. First, depression in the current study was measured differently than in past studies. Specifically, in the majority of past studies (i.e., Anderson, 2008; Bubriski-McKenzie & Jasinski, 2013; Johnson & Leone, 2005; Terrazas-Carillo et al., 2016), items assessing depression focused heavily on mood and energy level and less so on other symptoms of depression, such as concentration and changes in sleep and appetite that were assessed in the current study through the QIDS-SR. Thus, it is possible that coercion is related to alterations in mood, but not all symptoms of a major depressive episode.

Furthermore, in past studies, PTSD and depression had not been examined in the same model (i.e., Anderson, 2008; Coker et al., 2002; Johnson & Leone, 2005; Leone et al., 2004; Lovestad et al., 2017; Próspero, 2008; Terrazas-Carillo et al., 2016). Therefore, it is possible that the alterations in mood that were characterized as depression in past studies may have actually been symptoms of PTSD (American Psychiatric Association, 2013). Alternatively, it is possible that coercion is indirectly associated with depression and that symptoms of depression may stem from PTSD symptomatology rather than coercion itself.

Lastly, this investigation was the first to examine coercion through use of the CIPR. In the past, coercion was measured using questionnaires that had not necessarily been created to assess coercion. Thus, it is possible that what Dutton and Goodman (2005) theorize as coercion is related more so to PTSD than depression and that past studies found different results because coercion was measured differently. That said, future investigations using the CIPR are needed to

fully understand how coercion is related to depression and PTSD. Taken together, partial support was found for the predictive validity of the CIPR.

Expectation 5. Discriminant validity, or the extent to which dissimilar constructs correlate with one another, was also examined through correlational analyses between coercion victimization and socially desirable answering as well as coercion perpetration and socially desirable answering. Sample A and Sample B results indicated that neither coercion victimization nor coercion perpetration were correlated with socially desirable answering to an extent that would suggest singularity between constructs. Thus, support was found for the discriminant validity of the CIPR.

Expectation 6. Internal consistency, or the degree to which items within each CIPR subscale relate, was assessed through an examination of Cronbach alpha statistics. According to criteria outlined by George and Mallery (2005), Sample A and Sample B results indicated that the CIPR victimization and perpetration subscales (i.e., Demand, Threat, Surveillance, Response to Victimization) had either good or excellent internal consistency. As such, results support the internal consistency of the CIPR subscales.

Expectation 7. Test-retest reliability, a measure of the stability of CIPR test scores, was also examined through correlational analyses between initial coercion victimization and perpetration scores and scores collected two-weeks later. Results indicated that test-retest reliability was good for coercion victimization and excellent for coercion perpetration (Cicchetti & Sparrow, 1981). Not surprisingly, this finding indicates that participants are more reliable at reporting their own behaviours as compared to their partners' behaviours (Armstrong, Wernke, Medina, & Schafer, 2002). Taken together, results support the reliability of the CIPR.

Overall, the results of the current study support the validity and reliability of the CIPR and provide support for the use of the frequency-based CIPR by researchers studying coercion. Not only is the CIPR a psychometrically-defensible tool, but it is also the only known instrument designed to measure all of the components of coercion proposed by Dutton and Goodman (2005). Thus, if the tool is adopted by researchers, our understanding of coercion and its correlates will likely be improved as the CIPR will better capture the complexity of coercion.

Summary of Objective 3 Findings

Shortening the CIPR. Another objective of the current study was to create a short form of the CIPR. In order to do so, I used an iterative process and examined factor loadings, *R*-square values, and consulted modification indices. I also used my discretion and knowledge of coercion when deciding which items could be removed to shorten the measure. Moreover, the victimization and perpetration subscales needed to be consistent, and therefore, certain items were retained or deleted in order to ensure the subscales included the same victimization and perpetration items. Lastly, I retained at least one item from each of the factors that Dutton et al. (2007) initially conceptualized. Overall, I found that the 202-item CIPR can be shortened to 105 items, wherein 49 items assess perpetration and 56 items assess victimization, including response to demands.

Summary of Objective 4 Findings

Informing future longitudinal research. The final objective of the current study was to collect data that could be used to inform future longitudinal work. Specifically, information was collected regarding when the components of coercion had first started and how often they were used in the past three months of participants' current romantic relationships. Of the participants who reported that coercion had occurred, the majority reported that demands were made on a

monthly basis, threats were made on a daily or weekly basis, and surveillance tactics were used on a daily basis. In terms of when coercion first began in relationships, participants who reported coercion indicated that demands, threats, and surveillance tactics were first made two to six months into the relationship. Taken together, results indicate that future longitudinal work should be done with couples who have been dating for at least two months and that daily or weekly administrations would be best to capture the components of coercion.

Limitations and Future Directions

The current study was not without its limitations. Although support was found for the validity and reliability of the CIPR, the sample used was composed primarily of participants recruited from the U. S. where the measure was created. As such, findings may not be generalizable to people living in other countries. For instance, demands, threats, or surveillance tactics that are used by American romantic partners may not be the same as those used in other areas of the world. Moreover, the sample used to examine test-retest reliability was composed primarily of women enrolled in a university in southwestern Ontario. As such, the test-retest reliability of the CIPR may not be generalizable. Thus, future studies should examine the validity and reliability of the CIPR using more diverse samples.

Moreover, in the current study, participants were asked to report on their partners' behaviours. This reporting method likely introduced error as participant answers could have been affected by lapses in memory or biases in the way they viewed situations with their partner. Furthermore, test-retest reliability results indicated that participants were more reliable at reporting their own behaviours as compared to the behaviours of their partners. In order to remedy this, both partners in a romantic relationship should be recruited in future investigations of the CIPR.

Additionally, because the initial plan was to examine the psychometric properties of the CIPR short form on Sample B (this was not possible due to the need to re-word items to shorten the measure), another limitation of the current study is that the CIPR was shortened using only Sample A. If there had been no time constraints, the CIPR could have also been shortened using Sample B or the full sample.

Furthermore, as suggested by the work of Hardesty et al. (2015) on the PMWI, in order to make the CIPR a more useful instrument for researchers, cut-off values should be computed to distinguish between high versus low coercion. Furthermore, consistent with Hardesty and her colleagues (2015), it is ideal for both hierarchical and *k*-means clustering analyses to be conducted when doing so. The CIPR could also potentially be improved upon by adding questions that address threat appraisal and fear response as a way to assess severity of coercion. However, this is not a realistic addition to make to the original CIPR as it is already 202 items. Therefore, this addition is discussed in more detail below in regards to the short form.

In terms of the proposed short form, consistent with recommendations for the original CIPR, it would also be advantageous to compute cut-off values for the short form to distinguish between high versus low coercion. Future investigations are also needed wherein the validity and reliability of the instrument are examined. When doing so, it would be advantageous to examine the validity of the CIPR short form on a sample of adolescents as recent research has found that IPV and coercion are prevalent in this age group. For instance, the majority of the victims of IPV in Canada in 2016 were women aged 15 to 19 years old (Statistics Canada, 2016) and the main type of relationship violence reported by adolescents in another recent study was controlling behaviours (Sargent, Jouriles, Rosenfield, & McDonald, 2017). More research on coercion is

needed for this age group and the CIPR short form could be a useful tool to conduct longitudinal investigations with adolescents.

The usefulness of adding questions assessing threat appraisal and fear response could also be examined during a future investigation of the short form. For instance, similar to the current study, participants could be asked to rate the extent to which they believed the threats made by their partner and the extent to which they feared their partner's threats. However, instead of using one questions regarding all items, participants could be asked to rate their belief in the threat and fear response for every item that applies to them.

The findings of the regression analyses conducted in the current study suggest that fear response may be a more useful indicator of severity than threat appraisal, as fear response significantly predicted PTSD symptomatology, whereas threat appraisal did not. However, an overall average score was derived for the current study, which likely was not the most advantageous way to capture participants' beliefs and reactions. Thus, a better understanding of the usefulness of these ratings can be gained by asking these questions for all applicable items on the short form.

Another potential option to assess severity without asking participants to rate each item, would be to collect fear and threat appraisal ratings one time from a large and representative sample, and similar to the Conflict Tactics Scale (Straus et al., 1996), use this information to classify items based on severity. Then, in future administrations, the items could be aggregated in such a way that more severe items are given more weight than less severe items. As such, specific ratings would not need to be collected for each item in future administrations.

Implications

Research. Despite the limitations of the current study, the findings have the potential to contribute considerably to the field of coercion research. Specifically, as underscored by Hardesty and her colleagues (2015) and Hamberger and his colleagues (2017), the lack of standardization in the way coercion has been measured has been an ongoing problem. To date, researchers in the field have not measured coercion using a theory-driven, validated tool. Instead, it has been measured using a variety of questionnaires, most of which were not designed to measure coercion. As mentioned throughout this paper, the CIPR is a theory-driven tool that is capable of assessing the complexity of coercion through its subscales. The results of the current study support the validity and reliability of the tool with a frequency-based scale. Further, the recommendations for future versions of the CIPR outlined above, have the potential to further enhance the instrument's usability and applicability as the instrument will be shorter, capable of assessing severity, and will distinguish between high and low coercion. Moreover, the short version of the CIPR will be particularly useful for much-needed future longitudinal work and in research where a large number of questionnaires are being administered at once.

Theory. Furthermore, the findings of the current study supported the validity of Dutton and Goodman's (2005) theory of coercion as good model fit was found for the subscales of the CIPR and total CIPR coercion victimization predicted mental health outcomes (i.e., PTSD symptomatology). The proposed short form would be a realistic tool to further examine the validity of Dutton and Goodman's (2005) proposed theory of coercion. Specifically, because the short form has fewer items per latent variable, future investigations with this form and a large sample should provide enough statistical power to examine whether or not coercion as a latent construct is composed of demands, threats, and surveillance behaviours. Moreover, if ratings of fear response and threat appraisal were added to the short form as well as questions about PTSD

and depression, a comprehensive examination of Dutton and Goodman's (2005) full theory, including psychological outcomes, could be conducted. Lastly, the short form is also a realistic tool to use for longitudinal investigations that could examine the pattern of coercion and whether or not coercive tactics are used over time in the manner proposed by Dutton and Goodman (2005).

Practice and policy. Outside of research and theory, the results of the current study also have practical implications. For instance, the finding that coercion predicts PTSD symptomatology suggests that individuals who have been in an abusive relationship characterized by coercion are at-risk for experiencing psychological distress and may benefit from talking to a mental health service provider. Through psychotherapy, it is possible that the individual will be better able to process the abuse and alleviate his or her psychological distress. Moreover, the services of health care providers, such as psychologists, could also be informed by information gathered in the current study. Specifically, it may be beneficial for psychologists to ask whether or not clients in abusive relationships have been bothered by demands, threats, and surveillance behaviours made by romantic partners, as these individuals may be at-risk for developing symptoms of PTSD. Overall, information such as this could enhance the psychologists' conceptualization of the situation and inform treatment.

The CIPR could also be used to identify perpetrators who would benefit from specialized correctional treatment programs. Day and Bowen (2015) propose that perpetrators who use IPV as part of a greater context of coercion hold qualitatively different beliefs about violence as compared to perpetrators of noncoercive IPV. Moreover, they propose that the origin of coercive violence is different than that of noncoercive violence and that perpetrators of coercion are characterized by traits of psychopathy. Taken together, it appears as though it is more difficult to

change the beliefs and behaviours of perpetrators of coercion as compared to perpetrators of noncoercive IPV. In an attempt to move away from a one-size-fits-all treatment approach and towards more effective interventions, Day and Bowen (2015) propose that specialized interventions be created for perpetrators of coercion. Once these interventions have been created, the CIPR could be used as a screening tool to determine whether or not perpetrators are coercive as well as which program would be most instrumental for behavioural change based on the type of perpetrator.

Additionally, if Dutton and Goodman's (2005) theory were to be further validated on various samples, the theory could be taught to policy makers who may benefit from education regarding coercion in the context of romantic relationships. For instance, if policy makers were more aware of the patterns of behaviours that characterize coercion as well as the negative correlates of coercion, laws may be created wherein individuals could be charged for the systematic use of abusive coercion tactics.

Furthermore, the theory could also be taught to adolescents to educate them about unhealthy patterns of behaviours in romantic relationships. A recent study by Sargent et al. (2017) examined the effectiveness of TakeCare, which is a high school-based bystander intervention program targeting teen dating relationship violence (i.e., jealousy and control, heated arguments, sexual assault, physical violence, insults). Results indicated that this video-based program was effective at increasing positive bystander behaviours. However, although jealousy and control were the most prevalent acts of relationship violence at baseline and follow-up (44% and 38%, respectively), the intervention did not include modules and vignettes that covered control. Future renditions of this program or similar programs would likely be enhanced by adding modules that cover coercion as theorized by Dutton and Goodman (2005). Through

education, it is possible that in the future, young adults might be more capable of identifying whether or not they or their partners are being controlling and act to change these behaviours or leave unhealthy situations.

Conclusion

The current study examined the construct, concurrent, convergent, predictive, and discriminant validity of the CIPR as well as the internal consistency and test-retest reliability of the instrument using two samples. This study was the first to examine the psychometric properties of the CIPR with a frequency-based response scale. The results of a series of confirmatory factor analyses, correlational analyses, and multiple regression analyses conducted on two samples provide support for the validity and reliability of the CIPR. Moreover, a short form of the instrument is also proposed.

Although this study was not without limitations, the findings support the use of the CIPR as a valid and reliable way to measure coercion in a theory-driven and standardized way. Recommendations for future studies, specifically with the proposed short form, are also provided as the short form may be a more realistic way to assess coercion and its correlates. Not only do the results of the current study contribute to research and theory on coercion, practical implications are also outlined for health care providers, policy makers, law enforcement, and educators.

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APPENDICES

Appendix A: Participant Pool Study Description for Males

Title: Behavioural Styles in Romantic Relationships: Their Impact and Measurement

The purpose of this two-part study is to understand more about how different behavioural styles affect romantic relationships and individuals' well-being and how to best assess such behavioural styles. If you agree to participate, you will complete two brief online surveys separated by two weeks.

Eligibility Requirements: To participate in this two-part study, you must identify as a male University of Windsor student who is currently in a romantic relationship that has lasted for at least 3 months in length. The romantic relationship must **NOT** be purely long-distance or online (i.e., you must spend time with your current romantic partner face-to-face/in-person). You must also be 16 years of age or older.

Duration: 60 minutes (Part 1)
30 minutes (Part 2)

Points: 1 point (Part 1)
.5 point (Part 2)
1.5 points (Total)

Testing Dates: This two-part study will be conducted online and each part of the study must be completed within a week after receiving an email from the researcher.

Research Contact Information:

Kathleen Wilson, Master's student, Child Clinical Psychology, XXX
Dr. Patti Timmons Fritz, supervisor, XXX

Appendix B: Participant Pool Study Description for Females

Title: Behavioural Styles in Romantic Relationships: Their Impact and Measurement

The purpose of this two-part study is to understand how different behavioural styles affect romantic relationships and individuals' well-being and how to best assess such behavioural styles. If you agree to participate, you will complete two brief online surveys separated by two weeks.

Eligibility Requirements: To participate in this two-part study, you must identify as a female University of Windsor student who is currently in a romantic relationship that has lasted for at least 3 months in length. The romantic relationship must **NOT** be purely long-distance or online (i.e., you must spend time with your current romantic partner face-to-face/in-person). You must also be 16 years of age or older.

Duration: 60 minutes (Part 1)
30 minutes (Part 2)

Points: 1 point (Part 1)
.5 point (Part 2)
1.5 points (Total)

Testing Dates: This two-part study will be conducted online and each part of the study must be completed within a week after receiving an email from the researcher.

Research Contact Information:

Kathleen Wilson, Master's student, Child Clinical Psychology, XXX
Dr. Patti Timmons Fritz, supervisor, XXX

Appendix C: Study Description for Male Mechanical Turk Workers

Title: Behavioural Styles in Romantic Relationships: Their Impact and Measurement

The purpose of this study is to understand more about how different behavioural styles affect romantic relationships and individuals' well-being and how to best assess such behavioural styles. If you agree to participate, you will complete a brief online survey.

Eligibility Requirements: To participate in this study, you must identify as a male over the age of 18 who has been in a romantic relationship for at least 3 months in length. The romantic relationship must **NOT** be purely long-distance or online (i.e., you must spend time with your current romantic partner face-to-face/in-person). You must also reside in Canada or the United States.

Duration: 25-40 minutes

Compensation: \$1.25 US dollars

Testing Dates: This study is conducted online and must be completed within a week after signing up for the study/receiving an email from the researcher.

Research Contact Information:

Kathleen Wilson, Master's student, Child Clinical Psychology, XXX

Dr. Patti Timmons Fritz, supervisor, XXX

Appendix D: Study Description for Female Mechanical Turk Workers

Title: Behavioural Styles in Romantic Relationships: Their Impact and Measurement

The purpose of this study is to understand more about how different behavioural styles affect romantic relationships and individuals' well-being and how to best assess such behavioural styles. If you agree to participate, you will complete a brief online survey.

Eligibility Requirements: To participate in this study, you must identify as a female over the age of 18 who has been in a romantic relationship for at least 3 months in length. The romantic relationship must **NOT** be purely long-distance or online (i.e., you must spend time with your current romantic partner face-to-face in-person). You must also reside in Canada or the United States.

Duration: 25-40 minutes

Compensation: \$1.25 US dollars

Testing Dates: This study is conducted online and must be completed within a week after signing up for the study/receiving an email from the researcher.

Research Contact Information:

Kathleen Wilson, Master's student, Child Clinical Psychology, XXX

Dr. Patti Timmons Fritz, supervisor, XXX

Appendix E: Email for University of Windsor Students (Part 1)

*Email is based off of a previously approved email format, REB #12-145

Dear Research Participant,

We *sincerely* thank you for signing up for our study on the ways in which different behavioural styles affect romantic relationships and partners' well-being and how to best assess such behavioural styles and for contributing to scientific advancements being made at the University of Windsor. As a reminder, to be eligible for this study, you must be 16 years or older and in a romantic relationship that has lasted for at least 3 months in length. The romantic relationship must **not** be purely long-distance or online (i.e., you must spend time with your current romantic partner face-to-face/in-person).

INSTRUCTIONS: Please complete Part 1 of the online survey by [ENTER DATE], or as close to this date as possible. The survey can be accessed by clicking on the following URL link or by copying and pasting the URL into your Internet browser: [INSERT HYPERLINK].

After reading the online consent form and agreeing to participate in the study, you will be prompted to enter the study "ID given to you by the researcher."

YOUR STUDY NUMBER IS: [ENTER NUMBER],

Please enter this number—AND ONLY THIS NUMBER—into the space next to, "Please type in the ID given to you by the researcher." Then, click *next*, and proceed to answer the remainder of the survey questions.

We ask that you answer all questions as honestly and as accurately as possible, without the assistance of others, in a safe and secure location. Please **DO NOT** type your name, student ID number, or any other identifying information in the survey unless prompted. If you are unsure about an item, please make your best guess.

Participants will receive 1 bonus point for 60 minutes of participation towards the psychology participant pool, if registered in the pool and enrolled in on or more eligible courses. Once we verify that you have completed the online survey, we will award your bonus point. You will receive another email two-weeks after you have completed the first survey. The second survey will be shorter and you will receive 0.05 of a bonus point for 30 minutes of participation towards the psychology participant pool, if registered in the pool and enrolled in on or more eligible courses.

If you have any questions or concerns, please do not hesitate to contact us. We would be more than happy to assist you. You can contact the Primary Investigator, Kathleen Wilson at XXX, or her faculty supervisor, Dr. Patti Timmons Fritz at XXX, XXX

Thank you again for your time and participation in scientific research. Your contribution to our understanding of the ways in which different behavioural styles affect romantic relationships and partners' well-being is greatly appreciated.

Sincerely,

Kathleen Wilson

MA Candidate, Child Clinical Psychology

University of Windsor

Appendix F: Email for University of Windsor Students (Part 2)

*Email is based off of a previously approved email format, REB #12-145

Dear Research Participant,

We *sincerely* thank you for signing up for our two-part study on the ways in which different behavioural styles affect romantic relationships and partners' well-being and how to best assess such behavioural styles and for contributing to scientific advancements being made at the University of Windsor. You are receiving this email because you completed the first part of this study 2 weeks ago and it is now time to complete Part 2. As a reminder, to be eligible for this study, you must be 16 years or older and in a romantic relationship that has lasted for at least 3 months in length. The romantic relationship must **not** be purely long-distance or online (i.e., you must spend time with your current romantic partner face-to-face/in-person).

INSTRUCTIONS: Please complete Part 2 of the online survey by [ENTER DATE], or as close to this date as possible. The survey can be accessed by clicking on the following URL link or by copying and pasting the URL into your Internet browser: [INSERT HYPERLINK].

After reading the online consent form and agreeing to participate in the study, you will be prompted to enter the study "ID given to you by the researcher."

YOUR STUDY NUMBER IS: [ENTER NUMBER],

Please enter this number—AND ONLY THIS NUMBER—into the space next to, "Please type in the ID given to you by the researcher." Then, click *next*, and proceed to answer the remainder of the survey questions.

We ask that you answer all questions as honestly and as accurately as possible, without the assistance of others, in a safe and secure location. Please **DO NOT** type your name, student ID number, or any other identifying information in the survey unless prompted. If you are unsure about an item, please make your best guess.

Participants will receive 0.50 of a bonus point for 30 minutes of participation towards the psychology participant pool, if registered in the pool and enrolled in on or more eligible courses. Once we verify that you have completed the online survey, we will award your bonus point.

If you have any questions or concerns, please do not hesitate to contact us. We would be more than happy to assist you. You can contact the Primary Investigator, Kathleen Wilson at XXX, or her faculty supervisor, Dr. Patti Timmons Fritz at XXX, XXX.

Thank you again for your time and participation in scientific research. Your contribution to our understanding of the ways in which different behavioural styles affect romantic relationships and partners' well-being is greatly appreciated.

Sincerely,

Kathleen Wilson

MA Candidate, Child Clinical Psychology

University of Windsor

INSTRUCTIONS: Please complete Part 2 of the online survey by [ENTER DATE], or as close to this date as possible. The survey can be accessed by clicking on the following URL link or by copying and pasting the URL into your Internet browser: [INSERT HYPERLINK].

After reading the online consent form and agreeing to participate in the study, you will be prompted to enter the study "ID given to you by the researcher."

YOUR STUDY NUMBER IS: [ENTER NUMBER],

Please enter this number—AND ONLY THIS NUMBER—into the space next to, “Please type in the ID given to you by the researcher.” Then, click *next*, and proceed to answer the remainder of the survey questions.

We ask that you answer all questions as honestly and as accurately as possible, without the assistance of others, in a safe and secure location. Please **DO NOT** type your name, student ID number, or any other identifying information in the survey unless prompted. If you are unsure about an item, please make your best guess.

When you are finished, you can email Kathleen Wilson, XXX, the Primary Investigator, to let her know that you have completed the online survey. Participants will receive 0.50 of a bonus point for 30 minutes of participation towards the psychology participant pool, if registered in the pool and enrolled in on or more eligible courses. Once we verify that you have completed the online survey, we will award your bonus point.

If you have any questions or concerns, please do not hesitate to contact us. We would be more than happy to assist you. You can contact the Primary Investigator, Kathleen Wilson at XXX or her faculty supervisor, Dr. Patti Timmons Fritz at XXX, XXX.

Thank you again for your time and participation in scientific research. Your contribution to our understanding of the ways in which different behavioural styles affect romantic relationships and partners’ well-being is greatly appreciated.

Sincerely,

Kathleen Wilson
MA Candidate, Child Clinical Psychology
University of Windsor

Appendix G: Reminder Email for Part 1 of Study (University of Windsor Students)

Hello,

Thank you again for completing Part 1 of my study entitled “Behavioural Styles in Romantic Relationships: Their Impact and Measurement.”

You are receiving this email because you have not yet completed Part 2 of the online study. If you are still interested in completing the second part of the survey, the information that you will need to participate is provided below.

Thanks again for your interest in my project and I appreciate your time.

Kathleen Wilson

Note. Original email with study website and research identification number will be forwarded.

Appendix H: Reminder Email for Part 2 of Study (University of Windsor Students)

Hello,

Thank you again for completing Part 1 of my study entitled “Behavioural Styles in Romantic Relationships: Their Impact and Measurement.”

You are receiving this email because you have not yet completed Part 2 of the online study. If you are still interested in completing the second part of the survey, the information that you will need to participate is provided below.

Thanks again for your interest in my project and I appreciate your time.

Kathleen Wilson

Note. Original email with study website and research identification number will be forwarded.

Appendix I: Consent Form for University of Windsor Students (Part 1)

STUDY TITLE: Behavioural Styles in Romantic Relationships: Their Impact and Measurement
You are asked to participate in a research study conducted by Kathleen Wilson under the supervision of Dr. Patti Timmons Fritz from the Department of Psychology, University of Windsor. If you have any questions or concerns about this research please feel free to contact Kathleen Wilson at XXX or Dr. Patti Timmons Fritz, through email (XXX) or by telephone (519-253-3000, ext. 3707). The results from this study will form the basis of a Master's thesis research project, which is supported by the Social Science and Humanities Research Council of Canada and an Ontario Graduate Scholarship.

PURPOSE OF THE STUDY

The purpose of this study is to understand more about the ways in which different behavioural styles affect romantic relationships and partners' well-being and how to best assess such behavioural styles.

PROCEDURES

If you volunteer to participate in this study, we would ask you to first complete an online survey on Qualtrics asking about some background information, your experiences with conflict in romantic relationships, as well as questions about your well-being over the past week or two. Participants will receive 1 bonus point for 60 minutes of participation towards the psychology participant pool, if registered in the pool and enrolled in one or more eligible courses.

POTENTIAL RISKS AND DISCOMFORTS

One risk of this study is that you may have some negative feelings (e.g., anxiety, sadness, embarrassment, anger) in response to some of the things that you will be asked to think about and share. In addition, the subject matter may cause some distress or you may feel uncomfortable. However, you do not have to answer any questions that you do not want to answer, and you can stop participating in this study at any time without penalty. Should you experience any form of distress after being in this study, please either contact someone from the list of community resource that will be given to you or contact Dr. Patti Timmons Fritz (XXX or XXX). Additional resources and sources of help in the community will be provided to all people taking part in this study. Please contact any of these sources if you would like to talk more about any of your experiences.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

Information obtained from this study will add to our understanding of the ways in which different behavioural styles affect romantic relationships and partners' well-being and how to best assess such behavioural styles. Such information can be used to help raise awareness and to develop prevention and treatment programs aimed at helping individuals cope with tough situations. In addition, some people report that they learn something about themselves in the process of taking part in research.

COMPENSATION

Participants who complete Part 1 of the study will receive 1 bonus point for 60 minutes of participation towards the psychology participant pool, if registered in the pool and enrolled in one or more eligible courses. Though no penalty will be given, compensation will be withheld if the participants complete the study in less than 15 minutes.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. All of the information

that you reveal on the online questionnaire will be kept private and will only be accessed by researchers directly involved with the study. The information collected will be stored in an electronic database on a secure server which is password-protected. When downloaded, the data will be kept on an encrypted USB and on a secure computer in a locked office. Your name and email will be required for compensation but it will be deleted once the bonus marks have been assigned and semester grades have been submitted. The information from this study may be published at a later date but only group information, and not personally-identifying information, will be discussed. In accordance with the guidelines of the American Psychological Association, your data will be kept for five years following the last publication of the data. If the data are not used for subsequent research or will not be published, the data will be destroyed.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without penalty by exiting the questionnaire. However, all data provided before withdrawing from the study will be retained. Thus, closing the browser will not remove data provided up to that point. If you choose to withdraw before completing the study to the end, you may not receive full compensation. You will receive compensation commensurate to the amount of work completed. You may choose not to answer any questions you do not want to answer and still remain in the study. If you wish to withdraw from the survey, please scroll to the end of the survey before exiting the browser. Here, you will find an information sheet and list of resources. The investigator may withdraw you from this research if you do not engage with the study in a meaningful manner. More specifically, if you complete the study in less than 15 minutes, your data will not be considered viable and you will not receive compensation.

FEEDBACK OF THE RESULTS OF THIS STUDY TO THE SUBJECTS

A summary of research findings will be available to you upon completion of the project on the Research Ethics Board website, <http://www1.uwindsor.ca/reb/study-results>.

Date when results are available: December 2019.

SUBSEQUENT USE OF DATA

The data from this study may be used in future research.

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. If you have questions regarding your rights as a research participant, contact:

Research Ethics Coordinator,

University of Windsor

Windsor, ON

N9B 3P4

Telephone: 519-253-3000 ext. 3948

Email: ethics@uwindsor.ca

SIGNATURE OF RESEARCH SUBJECT/LEGAL REPRESENTATIVE

I understand the information provided for the study “Behavioural Styles in Romantic Relationships: Their Impact and Measurement” as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. By clicking “I agree” I know that I am consenting to participating in this study.

You may print this page for your records.

I agree

I do not agree

Appendix J: Consent Form for University of Windsor Students (Part 2)

STUDY TITLE: Behavioural Styles in Romantic Relationships: Their Impact and Measurement
You are asked to participate in a research study conducted by Kathleen Wilson under the supervision of Dr. Patti Timmons Fritz from the Department of Psychology, University of Windsor. If you have any questions or concerns about this research please feel free to contact Kathleen Wilson at XXX or Dr. Patti Timmons Fritz, through email (XXX) or by telephone (XXX). The results from this study will form the basis of a Master's thesis research project, which is supported by the Social Science and Humanities Research Council of Canada and an Ontario Graduate Scholarship.

PURPOSE OF THE STUDY

The purpose of this study is to understand more about the ways in which different behavioural styles affect romantic relationships and partners' well-being and how to best assess such behavioural styles.

PROCEDURES

If you volunteer to participate in this study, we would ask you to complete an online survey on Qualtrics asking about your experiences with conflict in romantic relationships. Participation should take no more than 30 minutes. You will receive 0.50 of a bonus point for 30 minutes of participation towards the psychology participant pool, if registered in the pool and enrolled in one or more eligible courses.

POTENTIAL RISKS AND DISCOMFORTS

One risk of this study is that you may have some negative feelings (e.g., anxiety, sadness, embarrassment, anger) in response to some of the things that you will be asked to think about and share. In addition, the subject matter may cause some distress or you may feel uncomfortable. However, you do not have to answer any questions that you do not want to answer, and you can stop participating in this study at any time without penalty. Should you experience any form of distress after being in this study, please either contact someone from the list of community resource that will be given to you or contact Dr. Patti Timmons Fritz (XXX or XXX). Additional resources and sources of help in the community will be provided to all people taking part in this study. Please contact any of these sources if you would like to talk more about any of your experiences.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

Information obtained from this study will add to our understanding of the ways in which different behavioural styles affect romantic relationships and partners' well-being and how to best assess such behavioural styles. Such information can be used to help raise awareness and to develop prevention and treatment programs aimed at helping individuals cope with tough situations. In addition, some people report that they learn something about themselves in the process of taking part in research.

COMPENSATION

Participants who complete Part 2 of the study will receive 0.05 of a bonus point for 30 minutes of participation towards the psychology participant pool, if registered in the pool and enrolled in one or more eligible courses. Though no penalty will be given, compensation will be withheld if the participants complete the study in less than 5 minutes.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. All of the information

that you reveal on the online questionnaire will be kept private and will only be accessed by researchers directly involved with the study. The information collected will be stored in an electronic database on a secure server which is password-protected. When downloaded, the data will be kept on an encrypted USB and on a secure computer in a locked office. Your name and email will be required for compensation but it will be deleted once the bonus marks have been assigned and semester grades have been submitted. The information from this study may be published at a later date but only group information, and not personally-identifying information, will be discussed. In accordance with the guidelines of the American Psychological Association, your data will be kept for five years following the last publication of the data. If the data are not used for subsequent research or will not be published, the data will be destroyed.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without penalty by exiting the questionnaire. However, all data provided before withdrawing from the study will be retained. Thus, closing the browser will not remove data provided up to that point. If you choose to withdraw before completing the study to the end, you may not receive full compensation. You will receive compensation commensurate to the amount of work completed. You may choose not to answer any questions you do not want to answer and still remain in the study. If you wish to withdraw from the survey, please scroll to the end of the survey before exiting the browser. Here, you will find an information sheet and list of resources. The investigator may withdraw you from this research if you do not engage with the study in a meaningful manner. More specifically, if you complete the study in less than 5 minutes, your data will not be considered viable and you will not receive compensation.

FEEDBACK OF THE RESULTS OF THIS STUDY TO THE SUBJECTS

A summary of research findings will be available to you upon completion of the project on the Research Ethics Board website, <http://www1.uwindsor.ca/reb/study-results>.

Date when results are available: December 2019.

SUBSEQUENT USE OF DATA

The data from this study may be used in future research.

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. If you have questions regarding your rights as a research participant, contact:

Research Ethics Coordinator,

University of Windsor

Windsor, ON

N9B 3P4

Telephone: 519-253-3000 ext. 3948

Email: ethics@uwindsor.ca

SIGNATURE OF RESEARCH SUBJECT/LEGAL REPRESENTATIVE

I understand the information provided for the study “Behavioural Styles in Romantic Relationships: Their Impact and Measurement” as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. By clicking “I agree” I know that I am consenting to participating in this study.

You may print this page for your records.

I agree

I do not agree

Appendix K: Consent Form for Mechanical Turk Workers

STUDY TITLE: Behavioural Styles in Romantic Relationships: Their Impact and Measurement
You are asked to participate in a research study conducted by Kathleen Wilson under the supervision of Dr. Patti Timmons Fritz from the Department of Psychology, University of Windsor. If you have any questions or concerns about this research please feel free to contact Kathleen Wilson at XXX or Dr. Patti Timmons Fritz, through email (XXX) or by telephone (519-253-3000, ext. 3707). The results from this study will form the basis of a Master's thesis research project, which is supported by the Social Science and Humanities Research Council of Canada and an Ontario Graduate Scholarship.

PURPOSE OF THE STUDY

The purpose of this study is to understand more about the ways in which different behavioural styles affect romantic relationships and partners' well-being and how to best assess such behavioural styles.

PROCEDURES

If you sign up for this study, we would ask you to complete an online survey on Qualtrics asking about some background information, your experiences with conflict in romantic relationships, as well as questions about your well-being over the past week or two.

Participation should take between 25 to 40 minutes. You will be compensated with a total of \$1.25 US dollars.

POTENTIAL RISKS AND DISCOMFORTS

One risk of this study is that you may have some negative feelings (e.g., anxiety, sadness, embarrassment, anger) in response to some of the things that you will be asked to think about and share. In addition, the subject matter may cause some distress or you may feel uncomfortable. However, you do not have to answer any questions that you do not want to answer, and you can stop participating in this study at any time without penalty. Should you experience any form of distress after being in this study, please either contact someone from the list of community resource that will be given to you or contact Dr. Patti Timmons Fritz (XXX or XXX). Additional resources and sources of help in the community will be provided to all people taking part in this study. Please contact any of these sources if you would like to talk more about any of your experiences.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

Information obtained from this study will add to our understanding of how different behavioural styles affect romantic relationships and individuals' well-being and how to best assess such behavioural styles. Such information can be used to help raise awareness and to develop prevention and treatment programs aimed at helping individuals cope with tough situations. In addition, some people report that they learn something about themselves in the process of taking part in research.

COMPENSATION

Participants who complete the study (25-40 minutes) will receive \$1.25 US dollars. Though no penalty will be given, compensation will be withheld if the participants (a) complete the study in less than 15 minutes, (b) do not complete the study through to the end, and (c) fail the bot/validity checks (i.e., 2 + 2; *choose never for this response*).

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. All of the information

that you reveal on the online questionnaire will be kept private and will only be accessed by researchers directly involved with the study. The information collected will be stored in an electronic database on a secure server which is password-protected. When downloaded, the data will be kept on an encrypted USB and on a secure computer in a locked office. Your name and email will be required for compensation but it will be deleted once the bonus marks have been assigned and semester grades have been submitted. The information from this study may be published at a later date but only group information, and not personally-identifying information, will be discussed. In accordance with the guidelines of the American Psychological Association, your data will be kept for five years following the last publication of the data. If the data are not used for subsequent research or will not be published, the data will be destroyed.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you sign up for this study, you may withdraw at any time without penalty by exiting the questionnaire. However, all data provided before withdrawing from the study will be retained. Thus, closing the browser will not remove data provided up to that point. If you choose to withdraw before completing the study to the end, you will not receive compensation. You may choose not to answer any questions you do not want to answer and still remain in the study. If you wish to withdraw from the survey, please scroll to the end of the survey before exiting the browser. Here, you will find an information sheet and list of resources. The investigator may withdraw you from this research if you do not engage with the study in a meaningful manner. More specifically, if you (a) complete the study in less than 15 minutes, (b) do not complete the study through to the end, and (c) fail the bot/validity checks (i.e., $2 + 2$; *choose never for this response*) your data will not be considered viable and you will not receive compensation.

FEEDBACK OF THE RESULTS OF THIS STUDY TO THE SUBJECTS

A summary of research findings will be available to you upon completion of the project on the Research Ethics Board website, <http://www1.uwindsor.ca/reb/study-results>.

Date when results are available: December 2019.

SUBSEQUENT USE OF DATA

The data from this study may be used in future research.

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. If you have questions regarding your rights as a research participant, contact:

Research Ethics Coordinator,

University of Windsor

Windsor, ON, N9B 3P4

Telephone: 519-253-3000 ext. 3948

Email: ethics@uwindsor.ca

SIGNATURE OF RESEARCH SUBJECT/LEGAL REPRESENTATIVE

I understand the information provided for the study “Behavioural Styles in Romantic Relationships: Their Impact and Measurement” as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. By clicking “I agree” I know that I am consenting to participating in this study.

You may print this page for your records.

I agree

I do not agree

Appendix L: Positive Mood Induction Procedure

Now we would like you to focus on a positive memory that you have about your current romantic partner or your relationship with them. Please describe this memory in as much detail as possible in the space below. **Please do not provide identifying information about your partner (e.g., their name).**

[open-ended]

Appendix M: Letter of Information for University of Windsor Students (Part 1)

Thank you for your participation! Please do not hesitate to contact me (XXX) or my supervisor (XXX) if you have any questions or concerns about this study. More information regarding the purpose of this study will be provided when you complete Part 2 of the study in two weeks. Once the study is finished, you will be able to view the results from the study on the Research Ethics Board website at uwindsor.ca/reb. Sometimes when people have questions or problems they may not know who to talk to or where to get help. This list contains contact information for various community services in case you wish to contact someone to talk about some of your current or past experiences with romantic partners.

Mental Health Resources in Windsor-Essex County

<p>Student Counselling Centre The Student Counseling Centre at the University of Windsor provides free, confidential counseling to registered students as well as consultation and referral services for University of Windsor faculty and staff. Services are provided by Psychologists, a Clinical Therapist, a Registered Nurse, and Master's-level graduate students. CAW Centre Phone: 519-253 3000 ext 4616.</p>	<p>Psychological Services and Research Centre The Psychological services provide support to students in immediate distress and as well as longer services in form of psychotherapy to enhance growth and functioning. University of Windsor Phone: 519-973-7012 or 519-253-3000 ext 7012</p>
<p>Teen Health Centre The Teen Health Centre helps teenagers aged 13-24 with issues related to physical and emotional health. Phone: 519-253-8481</p>	<p>Sexual Assault / Domestic Violence & Safekids Care Center Located in the Windsor Regional Hospital Phone: 519-255-2234</p>
<p>Distress Centre of Windsor-Essex County Crisis Phone: (519)-256-5000 For Persons in Distress</p>	<p>Community Living Essex County 372 Talbot Street North Essex, ON N8M 2W4 www.communitylivingessex.org mainmail@communitylivingessex.org 519-776-6483, 1-800-265-5820 Supports families of children, youth, and adults with intellectual disabilities</p>
<p>Hiatus House Phone: 519-982-8916, 1-800-265-5142 Website: http://www.hiatushouse.com Confidential interventions for victims of domestic violence</p>	<p>Essex Community Services-Community Information Essex Victoria Place, 35 Victoria Ave Unit 7, Essex, ON www.essexcs.on.ca, ecs@essexcs.on.ca 519-776-4231 Community information center providing referrals and community information about services in Essex</p>
<p>Canadian Mental Health Association 1400 Windsor Ave www.cmha-wecb.on.ca, infor@cmha-wecb.on.ca (519) 255-7440 Mental health services for people 16 years and up</p>	

Lesbian Gay Bi Youth Line Tel: 1-800-268-YOUTH Help for youth who are 26 and under who live anywhere in Ontario.	For other general information about community services and resources in communities across Ontario, dial '211' or go to www.211ontario.ca.
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Thank you for your participation!

Appendix N: Letter of Information for University of Windsor Students (Part 2)

Thank you for your participation and for keeping the information in this letter confidential. We are interested in studying how coercive control and aggression are related in romantic relationships and how they affect well-being and mental health. We are also interested in improving the way in which control in romantic relationships is measured and understood. Please do not hesitate to contact me (XXX) or my supervisor (XXX) if you have any questions or concerns about this study. Once the study is finished, you will be able to view the results from the study on the Research Ethics Board website at uwindsor.ca/reb. Sometimes when people have questions or problems they may not know who to talk to or where to get help. This list contains contact information for various community services in case you wish to contact someone to talk about some of your current or past experiences with romantic partners.

Mental Health Resources in Windsor-Essex County

<p>Student Counselling Centre The Student Counseling Centre at the University of Windsor provides free, confidential counseling to registered students as well as consultation and referral services for University of Windsor faculty and staff. Services are provided by Psychologists, a Clinical Therapist, a Registered Nurse, and Master's-level graduate students. CAW Centre Phone: 519-253 3000 ext 4616.</p>	<p>Psychological Services and Research Centre The Psychological services provide support to students in immediate distress and as well as longer services in form of psychotherapy to enhance growth and functioning. University of Windsor Phone: 519-973-7012 or 519-253-3000 ext 7012</p>
<p>Teen Health Centre The Teen Health Centre helps teenagers aged 13-24 with issues related to physical and emotional health. Phone: 519-253-8481</p>	<p>Sexual Assault / Domestic Violence & Safekids Care Center Located in the Windsor Regional Hospital Phone: 519-255-2234</p>
<p>Distress Centre of Windsor-Essex County Crisis Phone: (519)-256-5000 For Persons in Distress</p>	<p>Community Living Essex County 372 Talbot Street North Essex, ON N8M 2W4 www.communitylivingessex.org mainmail@communitylivingessex.org 519-776-6483, 1-800-265-5820 Supports families of children, youth, and adults with intellectual disabilities</p>
<p>Hiatus House Phone: 519-982-8916, 1-800-265-5142 Website: http://www.hiatushouse.com Confidential interventions for victims of domestic violence</p>	<p>Essex Community Services-Community Information Essex Victoria Place, 35 Victoria Ave Unit 7, Essex, ON www.essexcs.on.ca, ecs@essexcs.on.ca 519-776-4231 Community information center providing</p>
<p>Canadian Mental Health Association 1400 Windsor Ave www.cmha-weeb.on.ca, infor@cmha-weeb.on.ca (519) 255-7440 Mental health services for people 16 years and up</p>	<p>Essex Community Services-Community Information Essex Victoria Place, 35 Victoria Ave Unit 7, Essex, ON www.essexcs.on.ca, ecs@essexcs.on.ca 519-776-4231 Community information center providing</p>

	referrals and community information about services in Essex
Lesbian Gay Bi Youth Line Tel: 1-800-268-YOUTH Help for youth who are 26 and under who live anywhere in Ontario.	For other general information about community services and resources in communities across Ontario, dial '211' or go to www.211ontario.ca.

Thank you for your participation!

Appendix O: Letter of Information for Mechanical Turk Workers

Thank you for your participation and for keeping the information in this letter confidential. We are interested in studying how coercive control and aggression are related in romantic relationships and how they affect well-being and mental health. We are also interested in improving the way in which control in romantic relationships is measured and understood. Please do not hesitate to contact me (XXX) or my supervisor (XXX) if you have any questions or concerns about this study. Once the study is finished, you will be able to view the results from the study on the Research Ethics Board website at uwindsor.ca/reb. Sometimes when people have questions or problems they may not know who to talk to or where to get help. This list contains contact information for various services in case you wish to contact someone to talk about some of your current or past experiences with romantic partners.

Mental Health and Family Resources

<p>Canadian Mental Health Association 1400 Windsor Ave www.cmha-wecb.on.ca, infor@cmha-wecb.on.ca (519) 255-7440 Mental health services for people 16 years and up</p>	<p>Mental Health Line www.mentalhealthline.org/?n=8772825422 1-(888) 703-4554 Free 24/7 Mental Health Line</p>
<p>The National Domestic Violence Hotline https://www.thehotline.org 1-(800) 799-7233 The hotline staff offer safety planning and crisis help. They can connect you to shelters and services in your area.</p>	<p>Online Lifeline yourlifecounts.org Use this website to find a crisis line near you. Information is specific to country and province/state.</p>

Thank you for your participation!

Appendix P: Web Safety Instructions

This information provided is related to web safety. If you would like, this form can be printed and kept for your records.

Section 1: Clearing Your Internet Cache

The Internet cache helps pages load faster by storing images and web pages locally on your computer. This results in a possibility that an unwanted viewer can access this information if they look through the cache folder. Please see below for instructions on clearing your Internet cache. This can also be done any time after you use the Internet to help prevent security risks.

Directions for Clearing the Browser Cache

Browser	Win9x/NT/2000/Me	Mac OS
Internet Explorer	<ol style="list-style-type: none">1. From the menu bar select "Tools"2. Select the option "Internet Options..."3. Under the "General" Tab look for "Temporary Internet Files"4. Click on the "Delete Files..." button.5. Select the "Delete All Offline Content" checkbox and click "OK"6. Click "OK" once more to return to your browser.	<ol style="list-style-type: none">1. From the menu bar select "Edit"2. Select the option "Preferences..."3. Select the "Advanced" item in the left menu.4. Under "Cache" click "Empty Now".5. Click "OK" once more to return to your browser.
Netscape	<ol style="list-style-type: none">1. From the menu bar select "Edit"2. Select "Preferences..."3. Under the "Advanced" menu select "Cache"4. Click on the "Clear Memory Cache" button.5. Click on the "Clear Disk Cache" button.6. Click "OK" once more to return to your browser.	<ol style="list-style-type: none">1. From the menu bar select "Edit"2. Select the option "Preferences..."3. Under the "Advanced" headline in the left menu select "Cache".4. Click "Clear Disk Cache Now".5. Click "OK" once more to return to your browser.

Section 2: Removing Sites from Your Browser History

Browser history stores previous visits to web pages in an area that can be easily accessed at the click of a button. This is useful if you forget to bookmark a site that you later want to revisit. However, if you are viewing material that you would not like others to see, this is a possible security risk. For example, you may not want anyone to know that you completed this survey. Please see the below instructions for removing websites from your browser's history. This can be done any time after using the Internet to prevent security risks.

Directions for Removing Sites from Your Browser History

Browser	Win9x/NT/2000/Me	Mac OS
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Internet Explorer	<ol style="list-style-type: none"> 1. From the menu bar select “View”. 2. Highlight “Explorer Bar”. 3. Select “History”. 4. A bar will show up on the left of your browser. Select the item you wish to delete. 5. Right Click on the selected folder and select “Delete”. 	<ol style="list-style-type: none"> 1. From the menu bar select “Window”. 2. Select “History”. 3. Select the item you wish to delete. 4. Press the “Delete” key. 5. Click “OK”.
Netscape 6	<ol style="list-style-type: none"> 1. From the menu bar select “Tasks”. 2. Highlight “Tools” 3. Select “History” 4. Open the folder in which you wish to delete an item. 5. Open the Sites folder. 6. Select an item in the folder you wish to delete. 7. From the menu bar select “Edit” 8. Select “Delete entire domain...” 	
Netscape 4x	<ol style="list-style-type: none"> 1. From the menu bar select “Communicator” 2. Highlight “Tools” 3. Select “History” 4. Select the item you wish to delete. 5. Right click on the item. 6. Select “Delete”. 	

Section 3: Removing Cookies from your Hard Drive

Cookies are small pieces of information left behind by web pages to store information frequently requested. For example, if you click a checkbox that says “save this information for later” it would write a cookie onto the hard drive preventing you from having to enter the information again next time you visit the site. This is why it can be problematic to delete all of the cookie files. The instructions below tell you how to delete only the cookies from high risk site so that you do not end up deleting all of your stored passwords, user information, and preferences from various websites. This can be done any time after using the Internet to prevent security risks.

Directions for Removing Cookies from your Hard Drive

Browser	Win9x/NT/2000/Me	Mac OS
Internet Explorer	<ol style="list-style-type: none"> 1. From the menu bar select “Tools”. 2. Select the option “Internet Options”. 3. Under the “General” Tab look for “Temporary Internet Files”. 4. Click on the “Settings...” button. 5. Click on the “View Files” button. A list of cookies will appear. 6. Select the cookie you wish to delete. 7. Right mouse click and select “Delete”. 	<ol style="list-style-type: none"> 1. From the menu bar select “Edit”. 2. Select the option “Preferences...” 3. Select the “Advanced” item in the left menu. 4. Under “Cache” click “Empty Now”. 5. Click “OK” to return to

Netscape 6

1. From the menu bar select “Edit”.
2. Select “Preferences”
3. Under “Privacy & Security” select “Cookies”.
4. Click “View Stored Cookies”.
5. Select the cookie you wish to delete.
7. Click “Remove Cookie”

Warning: Do NOT check box titled “Don’t allow removed cookies to be reaccepted later.” This will add them to a list easily accessible through the “Cookie Sites” tab.

Browser

Netscape 4.x

Win9x/NT/2000/Me

It is not advisable to use Netscape 4.x to view sensitive material. Although they are difficult to find, cookies are stored on the machine without a means of removing them.

your browser.

1. From the menu bar select “Edit”.
2. Select the option “Preferences...”
3. Under the “Advanced” headline in the left menu select “Cache”.
4. Click “Clear Disk Cache Now”.
5. Click “OK” to return to your browser.

Mac OS

1. From the menu bar select “Edit”.
2. Select the option “Preferences...”
3. Under the “Advanced” headline in the left menu select “Cache”.
4. Click “Clear Disk Cache Now”.
5. Click “OK” to return to your browser.

Appendix Q: The Coercion in Intimate Partner Relationships Inventory (Victimization)

Answer the following questions in relation to your **current** intimate partner.

Sometimes, people demand or expect things from their intimate partners even without saying it in words. We are interested in knowing how often **your current partner** demanded certain things from you over the past 3 months of your relationship?

Using the following scale:

- 0 = This has never happened
- 1 = Once in the past 3 months
- 2 = Twice in the past 3 months
- 3 = 3 – 5 times in the past 3 months
- 4 = 6 – 10 times in the past 3 months
- 5 = 11 – 20 times in the past 3 months
- 6 = More than 20 times in the past 3 months
- 7 = Not in the past 3 months, but it did happen before

Please indicate how often **your current partner** demanded something of you related to:

1. Leaving the house (e.g., not want you to leave).
2. Eating.
3. Sleeping in certain places or at certain times.
4. Wearing certain clothes.
5. Maintaining a certain weight.
6. Using TV, radio, or the internet.
7. Viewing sexually explicit material.
8. Bathing or using the bathroom.
9. Answering the phone.
10. Reading certain things.
11. Talking on the phone.
12. Spending time with friends or family members.
13. Going to church, school, or other community activities.
14. Talking to a counselor, clergy, or someone else about personal or family matters.
15. Taking care of dependent relatives.

16. Taking care of pets.
17. Taking care of the house.
18. Buying or preparing foods.
19. Living in certain places.
20. Working.
21. Spending money, using credit cards, or bank accounts.
22. Learning another language.
23. Going to school.
24. Using the car or truck.
25. Using street drugs.
26. Using alcohol.
27. Going to the doctor.
28. Taking medication or prescriptions drugs.
29. Talking to your partner.
30. Spending time with your partner.
31. Separating or leaving the relationship.
32. Having sex.
33. Using birth control/condoms.
34. Doing certain sexual behaviors.
35. Having sex in exchange for money, drugs, or other things.
36. Photographing you nude or while having sex.
37. Talking to police or lawyer.
38. Doing things that are against the law.
39. Carrying a gun or knife.
40. Talking to landlord or housing authorities.
41. Filing citizenship papers.
42. Talking to the immigration authorities.
43. Immigration sponsorship.
44. Taking care of children.
45. Disciplining the children.
46. Making every day decisions about the children.
47. Making important decisions about the children.
48. Talking to child protection

authorities.

Please list any other expectations or demands made by your current partner over the past 3 months of your current relationship.

49. _____

50. _____

Please indicate how often **your current partner** did one of the following in order to know whether you did what he/she demanded. Use the following scale:

- 0 = This has never happened
- 1 = Once in the past 3 months
- 2 = Twice in the past 3 months
- 3 = 3 – 5 times in the past 3 months
- 4 = 6 – 10 times in the past 3 months
- 5 = 11 – 20 times in the past 3 months
- 6 = More than 20 times in the past 3 months
- 7 = Not in the past 3 months, but it did happen before

- 1. Checked or opened your mail or personal papers/journal.
- 2. Kept track of telephone/cell phone use.
- 3. Called you on the phone.
- 4. Told you to carry a cell phone or pager.
- 5. Checked your clothing.
- 6. Checked the house.
- 7. Checked receipts/checkbook/bank statements.
- 8. Checked the car (odometer, where parked).
- 9. Asked the children, neighbors, friends, family or coworkers.
- 10. Told you to report your behavior to him/her.
- 11. Used audio or video tape recorder.
- 12. Spied on, followed, or stalked you.
- 13. Your partner didn't need to check; your partner just acted like he/she knew.

Please list other things that your partner has done to check whether you complied with an expectation or demand over the past 3 months of your current relationship.

- 14. _____
- 15. _____
- 16. _____

Please indicate how often **your current partner** made you think that he/she **might** do the following **if** you didn't do what he/she wanted over the past 3 months of your relationship. Use the following scale:

- 0 = This has never happened
- 1 = Once in the past 3 months
- 2 = Twice in the past 3 months
- 3 = 3 – 5 times in the past 3 months
- 4 = 6 – 10 times in the past 3 months
- 5 = 11 – 20 times in the past 3 months
- 6 = More than 20 times in the past 3 months
- 7 = Not in the past 3 months, but it did happen before

- 1. Say something mean, embarrassing or humiliating to you.
- 2. Keep you from seeing or talking to family or friends.
- 3. Tell someone else personal or private information about you.
- 4. Keep you from leaving the house.
- 5. Limit your access to transportation.
- 6. Physically hurt you.
- 7. Try to kill you.
- 8. Scare you.
- 9. Have sex with someone else.
- 10. Leave the relationship or get a divorce.
- 11. Not let you take medication.
- 12. Put you in a mental hospital.
- 13. Cause you to lose your job.
- 14. Keep you from going to work.
- 15. Cause you to lose your housing.
- 16. Hurt you financially.
- 17. Cause you legal trouble.
- 18. Have you arrested.
- 19. Threaten to have you deported.
- 20. Force you to engage in unwanted sex acts.
- 21. Force you to participate in or observe sex acts with others.
- 22. Destroy legal papers.
- 23. Destroy or take something that belongs to you.

24. Physically hurt or kill your pet or other animal.

25. Not let you see your child or take your children from you.

26. Threaten to commit suicide.

27. Actually attempt to harm or kill himself/herself.

28. Say something mean or hurtful to your friends or family members.

29. Physically hurt a friend or family member.

30. Try to kill a friend or family member.

31. Destroy property of family members or friends.

Please list any other things that your partner led you to believe he/she might do if you did not do what he/she wanted over the past 3 months of your relationship.

32. _____

Has your partner made you think that he or she would get anyone to help him/her to enforce a demand over the past 3 months?

- Yes (if yes, specify who)
- No

Please indicate how often **you** have done the following when your current partner expected or demanded something of you that you did not want to do. Use the following scale:

- 0 = This has never happened
- 1 = Once in the past 3 months
- 2 = Twice in the past 3 months
- 3 = 3 – 5 times in the past 3 months
- 4 = 6 – 10 times in the past 3 months
- 5 = 11 – 20 times in the past 3 months
- 6 = More than 20 times in the past 3 months
- 7 = Not in the past 3 months, but it did happen before

8 = This is not applicable to me

- 1. Did what your partner wanted, even though you didn't want to.
- 2. Refused to do what he/she said.
- 3. Tried to talk your partner out of wanting you to do it.
- 4. Lied about having done what your partner wanted.
- 5. Sought help from someone else.
- 6. Tried to distract your partner.
- 7. Tried to avoid him/her.
- 8. Fought back physically.
- 9. Used/threatened to use a weapon against him/her.
- 10. Left home to get away from him/her.
- 11. Ended (or tried to end) the relationship.
- 12. Argued back verbally.
- 13. Did nothing - just didn't do it.
- 14. Filed for a civil protection order.
- 15. Called the police.
- 16. Tried to get criminal charges filed.
- 17. Other: _____

Appendix R: The Coercion in Intimate Partner Relationships Inventory (Perpetration)

Answer the following questions in relation to your current intimate partner.

Sometimes, people demand things from their intimate partners even without saying it in words. We are interested in knowing what **you** have demanded or expected from your partner over the last 3 months.

Using the following scale:

- 0 = This has never happened
- 1 = Once in the past 3 months
- 2 = Twice in the past 3 months
- 3 = 3 – 5 times in the past 3 months
- 4 = 6 – 10 times in the past 3 months
- 5 = 11 – 20 times in the past 3 months
- 6 = More than 20 times in the past 3 months
- 7 = Not in the past 3 months, but it did happen before

Please indicate how often **you** have demanded something of your partner related to:

1. Leaving the house (e.g., not want your partner to leave).
2. Eating.
3. Sleeping in certain places or at certain times.
4. Wearing certain clothes.
5. Maintaining a certain weight.
6. Using TV, radio, or the internet.
7. Viewing sexually explicit material.
8. Bathing or using the bathroom.
9. Answering the phone.
10. Reading certain things.
11. Talking on the phone.
12. Spending time with friends or family members.
13. Going to church, school, or other community activities.
14. Talking to a counselor, clergy, or someone else about personal or family matters.
15. Taking care of dependent relatives.
16. Taking care of pets.

17. Taking care of the house
18. Buying or preparing foods.
19. Living in certain places.
20. Working.
21. Spending money, using credit cards, or bank accounts.
22. Learning another language.
23. Going to school.
24. Using the car or truck.
25. Using street drugs.
26. Using alcohol.
27. Going to the doctor.
28. Taking medication or prescriptions drugs.
29. Talking to you.
30. Spending time with you.
31. Separating or leaving the relationship.
32. Having sex.
33. Using birth control/condoms.
34. Doing certain sexual behaviors.
35. Having sex in exchange for money, drugs, or other things.
36. Photographing your partner nude or while having sex.
37. Talking to police or lawyer.
38. Doing things that are against the law.
39. Carrying a gun or knife.
40. Talking to landlord or housing authorities.
41. Filing citizenship papers.
42. Talking to the immigration authorities.
43. Immigration sponsorship.
44. Taking care of children.
45. Disciplining the children.
46. Making every day decisions about the children.
47. Making important decisions about the children.
48. Talking to child protection authorities.

Please list any other expectations or demands you have had of your current partner over the past 3 months:

49. _____

50. _____

Please indicate how often **you** have done one of the following in order to know whether your partner did what he/she was demanded to do. Use the following scale:

- 0 = This has never happened
- 1 = Once in the past 3 months
- 2 = Twice in the past 3 months
- 3 = 3 – 5 times in the past 3 months
- 4 = 6 – 10 times in the past 3 months
- 5 = 11 – 20 times in the past 3 months
- 6 = More than 20 times in the past 3 months
- 7 = Not in the past 3 months, but it did happen before

- 1. Checked or opened your partner's mail or personal papers/journal.
- 2. Kept track of telephone/cell phone use.
- 3. Called your partner on the phone.
- 4. Told your partner to carry a cell phone or pager.
- 5. Checked your partner's clothing.
- 6. Checked the house.
- 7. Checked receipts/checkbook/bank statements.
- 8. Checked the car (odometer, where parked).
- 9. Asked the children, neighbors, friends, family or coworkers.
- 10. Told partner to report behaviour to you.
- 11. Used audio or video tape recorder.
- 12. Spied on, followed, or stalked your partner.
- 13. Didn't need to check, you just knew.

Please list other things that you have done to check whether your partner complied with an expectation or demand over the past 3 months.

- 14. _____
- 15. _____
- 16. _____

Please indicate how often **you** made your partner think that you **might** do the following **if** he/she didn't do what you wanted over the past 3 months. Use the following scale:

- 0 = This has never happened
- 1 = Once in the past 3 months
- 2 = Twice in the past 3 months
- 3 = 3 – 5 times in the past 3 months
- 4 = 6 – 10 times in the past 3 months
- 5 = 11 – 20 times in the past 3 months
- 6 = More than 20 times in the past 3 months
- 7 = Not in the past 3 months, but it did happen before

1. Say something mean, embarrassing or humiliating to your partner.
2. Keep your partner from seeing or talking to his/her family or friends.
3. Tell someone else personal or private information about your partner.
4. Keep your partner from leaving the house.
5. Limit your partner's access to transportation.
6. Physically hurt your partner.
7. Try to kill your partner.
8. Scare your partner.
9. Have sex with someone else.
10. Leave the relationship or get a divorce.
11. Not let your partner take his/her medication.
12. Put your partner in a mental hospital.
13. Cause your partner to lose her/his job.
14. Keep your partner from going to work.
15. Cause your partner to lose her/his housing.
16. Destroy your partner financially.
17. Threaten your partner with legal trouble.
18. Have your partner arrested.

19. Threaten to have your partner deported.
20. Force your partner to engage in unwanted sex acts.
21. Force your partner to participate in or observe sex acts with others.
22. Destroy legal papers.
23. Destroy or take something that belongs to your partner.
24. Physically hurt or kill your partner's pet or other animal.
25. Not let your partner see her/his child or take her/his children from her/him.
26. Threaten to commit suicide.
27. Actually attempt to harm or kill yourself.
28. Say something mean or hurtful to your partner's friends or family members.
29. Physically hurt your partner's friend or family member.
30. Try to kill your partner's friend or family member.
31. Destroy property of your partner's family members or friends.

Please list any other things that you led your partner to believe you might do if your partner did not do what you wanted over the past 3 months.

32. _____

Have you made your partner think that you would get anyone to help you enforce a demand over the past 3 months?

- Yes (if yes, specify who)
- No

Appendix S: Other Components and Information about Coercion

1. How frequently did **you** demand something of your current romantic partner over the past 3 months? Choose the option that best describes your experience. * **to be completed after CIPR**

perpetration questions

- 0 = I never made demands
- 1 = I made demands on a daily basis
- 2 = I made demands on a weekly basis
- 3 = I made demands on a monthly basis

2. How frequently did **you** threaten your current romantic partner over the past 3 months?

Choose the option that best describes your experience. * **to be completed after CIPR**

perpetration questions

- 0 = I never made threats
- 1 = I made threats on a daily basis
- 2 = I made threats on a weekly basis
- 3 = I made threats on a monthly basis

3. How frequently did **you** check up on your romantic partner (directly or indirectly) to see whether or not he/she complied with a demand over the past 3 months? Choose the option that best describes your experience. * **to be completed after CIPR perpetration questions**

- 0 = I never checked up on my partner
- 1 = I checked up on him/her on a daily basis
- 2 = I checked up on him/her on a weekly basis
- 3 = I checked up on him/her on a monthly basis

4. How frequently did **your current romantic partner** demand something of you over the past 3 months? Choose the option that best describes your experience. * **to be completed after CIPR**

victimization questions

- 0 = My partner never made demands
- 1 = My partner made demands on a daily basis
- 2 = My partner made demands on a weekly basis
- 3 = My partner made demands on a monthly basis

5. How frequently did **your partner** threaten you over the past 3 months? Choose the option that best describes your experience. * **to be completed after CIPR victimization questions**

- 0 = My partner never made threats
- 1 = My partner made threats on a daily basis
- 2 = My partner made threats on a weekly basis
- 3 = My partner made threats on a monthly basis

6. How frequently did **your partner** check up on you (directly or indirectly) to see whether or not you complied with a demand over the past 3 months? Choose the option that best describes your experience. * **to be completed after CIPR victimization questions**

- 0 = My partner never checked up on me
- 1 = My partner checked up on me on a daily basis

- 2 = My partner checked up on me on a weekly basis
- 3 = My partner checked up on me on a monthly basis

Please answer the next 2 questions using the following scale:

- 0 = This has never happened
- 1 = Once in the past 3 months
- 2 = Twice in the past 3 months
- 3 = 3 – 5 times in the past 3 months
- 4 = 6 – 10 times in the past 3 months
- 5 = 11 – 20 times in the past 3 months
- 6 = More than 20 times in the past 3 months
- 7 = Not in the past 3 months, but it did happen before

7. Over the past 3 months of your current relationship, how often has **your partner** done all of the following things: (a) demanded or expected that you do something, (b) threatened to do something negative if you did not comply to the specific demand, **AND** (c) checked up on you (directly or indirectly) to see whether or not you complied with the specific demand or expectation? * **to be completed after CIPR victimization questions**

0 1 2 3 4 5 6 7

8. Over the past 3 months of your current relationship, how often **have you** done all of the following things: (a) demanded or expected something of your partner, (b) threatened to do something negative if they did not comply to the specific demand, **AND** (c) checked up on them (directly or indirectly) to see whether or not they complied with the specific demand or expectation? * **to be completed after CIPR perpetration questions**

0 1 2 3 4 5 6 7

9. On average, to what extent did **you** believe that your partner would follow through with threatened negative consequences for not complying with his or her demands over the past 3 months? * **to be completed after CIPR victimization questions**

0- I did not believe that he/she would follow through with threats

- 1
- 2
- 3
- 4
- 5-Neutral
- 6
- 7
- 8
- 9

10- I strongly believed that he/she would follow through with threats

10. On average, how fearful were **you** when your partner threatened negative consequences for not complying with his or her demands over the past 3 months of your current relationship? * **to be completed after CIPR victimization questions**

0- I was not fearful at all

- 1
- 2
- 3
- 4
- 5-Neutral
- 6
- 7
- 8
- 9

10- I was extremely afraid

11. When did **your current romantic partner** begin to demand or expect things of you? * **to be completed after CIPR victimization questions**

- 0 – never
- 1 – 1 week into the relationship
- 2 – 2-3 weeks into the relationship
- 3 – 1 month into the relationship
- 4 – A few months into the relationship (i.e., 2 – 6 months)
- 5 – Several months into the relationship (i.e., 7 – 12 months)
- 6 – After a year or longer

12. When did **your current romantic partner** begin to threaten consequences for not complying with demands? * **to be completed after CIPR victimization questions**

- 0 – never
- 1 – 1 week into the relationship
- 2 – 2-3 weeks into the relationship

- 3 – 1 month into the relationship
- 4 – A few months into the relationship (i.e., 2 – 6 months)
- 5 – Several months into the relationship (i.e., 7 – 12 months)
- 6 – After a year or longer

13. When did **your current romantic partner** begin to monitor whether or not you complied with demands? * **to be completed after CIPR victimization questions**

- 0 – never
- 1 – 1 week into the relationship
- 2 – 2-3 weeks into the relationship
- 3 – 1 month into the relationship
- 4 – A few months into the relationship (i.e., 2 – 6 months)
- 5 – Several months into the relationship (i.e., 7 – 12 months)
- 6 – After a year or longer

14. When did **you** begin to demand or expect things of your current romantic partner? * **to be completed after CIPR perpetration questions**

- 0 – never
- 1 – 1 week into the relationship
- 2 – 2-3 weeks into the relationship
- 3 – 1 month into the relationship
- 4 – A few months into the relationship (i.e., 2 – 6 months)
- 5 – Several months into the relationship (i.e., 7 – 12 months)
- 6 – After a year or longer

15. When did **you** begin to threaten consequences for your current romantic partner not complying with demands? * **to be completed after CIPR perpetration questions**

- 0 – never
- 1 – 1 week into the relationship
- 2 – 2-3 weeks into the relationship
- 3 – 1 month into the relationship
- 4 – A few months into the relationship (i.e., 2 – 6 months)
- 5 – Several months into the relationship (i.e., 7 – 12 months)
- 6 – After a year or longer

16. When did **you** begin to monitor whether or not your current romantic partner complied with demands? * **to be completed after CIPR perpetration questions**

- 0 – never
- 1 – 1 week into the relationship
- 2 – 2-3 weeks into the relationship
- 3 – 1 month into the relationship
- 4 – A few months into the relationship (i.e., 2 – 6 months)
- 5 – Several months into the relationship (i.e., 7 – 12 months)
- 6 – After a year or longer

Appendix T: Checklist of Controlling Behaviors (Victimization)

For each of the statements below, please select the option that best explains how often you have unwantedly ex

- | | Never
0 | Rarely
1 | Occasionally
2 | Frequently
3 | Very frequently
4 |
|-----|------------|-------------|-------------------|-----------------|----------------------|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 20. | | | | | |
| 21. | | | | | |
| 22. | | | | | |
| 23. | | | | | |
| 24. | | | | | |
| 25. | | | | | |
| 26. | | | | | |
| 27. | | | | | |
| 28. | | | | | |
| 29. | | | | | |
| 30. | | | | | |
| 31. | | | | | |

32. My partner made me ask for money for the basic necessities
33. My partner used my fear of not having access to money to control my behaviour
34. My partner made me account for the money I spent
35. My partner tried to keep me dependent on him/her for money

36. My partner moved toward me when he/she was angry
37. My partner pounded his/her fists on the table
38. My partner hit the wall
39. My partner smashed or broke something
40. My partner threw or kicked something
41. My partner used angry facial gestures
42. My partner drove angrily or recklessly

43. My partner threatened to hit or kill me
44. My partner threatened to turn others against me
45. My partner threatened to take the children (if any) away
46. My partner threatened to make sure I didn't have money
47. My partner threatened to show up unexpectedly or to always be watching me
48. My partner threatened to come after me if I left
49. My partner threatened to have me committed

50. My partner denied that he/she had abused me
51. My partner told me I was lying about being abused
52. My partner insisted that what he/she did was not so bad
53. My partner told me to forget about what he/she did and leave it in the past
54. My partner told me that abuse was a normal part of relationships
55. My partner told me that he/she couldn't remember hurting me
56. My partner told me I hurt myself when I fell

57. My partner blamed me for his/her abusive behaviour saying "it was my fault"
58. My partner blamed me for his/her abusive behaviour saying "I deserved it"
59. My partner blamed me for his/her abusive behaviour saying "he/she has to teach me a lesson"
60. My partner blamed me for his/her abusive behaviour saying "I provoked him/her"
61. My partner blamed me for his/her abusive behaviour saying "it takes two to tango"
62. My partner blamed me for his/her abusive behaviour saying "I hurt him/her first"
63. My partner blamed me for his/her abusive behaviour saying "I asked/dared him/her to hit me"

64. My partner told me I couldn't do something
65. My partner forbade me or stopped me from seeing someone
66. My partner monitored my time or made me account for where I was
67. My partner restricted my use of the car
68. My partner restricted my use of the telephone
69. My partner listened to my telephone conversations

70. My partner pressured me to stop contacting my family or friends
71. My partner made it difficult for me to get a job or pursue a vocation
72. My partner kept me from getting medical attention
73. My partner tried to turn people against me

74. My partner demanded obedience
75. My partner treated me like a servant
76. My partner treated me like an inferior
77. My partner expected me to meet their sexual needs regardless of my needs
78. My partner treated me like I was helpless or incapable
79. My partner told me I couldn't get along without him/her
80. My partner had or demanded the final say in decisions
81. My partner did not allow me to do the things that he/she thought he/she had a right to do

Appendix U: Checklist of Controlling Behaviors (Perpetration)

For each of the statements below, please select the option that best explains how often you have acted in one of the following ways towards your partner (without their consent) during the past 3 months of your current romantic relationship.

Never	Rarely	Occasionally	Frequently	Very frequently
0	1	2	3	4

1. I threw something at my partner
2. I pushed or grabbed my partner
3. I pulled my partner's hair
4. I choked my partner
5. I pinned my partner to the wall, floor, or bed
6. I hit, kicked, or punched my partner
7. I hit or tried to hit my partner with something
8. I threatened my partner with a knife, gun or other weapon
9. I spit at my partner
10. I tried to block my partner from leaving

11. I physically forced my partner to have sexual intercourse
12. I pressured my partner to have sex when he/she said no
13. I pressured or forced my partner into other unwanted sexual acts (e.g., oral, anal, etc.)
14. I treated my partner like a sex object
15. I inflicted pain on my partner during sex
16. I pressured my partner to have sex after a fight
17. I was insensitive to my partner's sexual needs
18. I made jokes about parts of my partner's body
19. I blamed my partner because others found him/her attractive

20. I insulted my partner in front of others
21. I put down my partner's sexual attractiveness
22. I made out my partner was stupid
23. I criticized my partner's care of children or home
24. I swore at my partner
25. I told my partner he/she was crazy
26. I told my partner he/she was irrational
27. I blamed my partner for my problems
28. I made untrue accusations of my partner

29. I did not allow my partner equal access to the family money

30. I told my partner or acted as if it were “my money, my house, my car, etc.”
31. I threatened to withhold money from my partner
32. I made my partner ask for money for the basic necessities
33. I used my partner’s fear of not having access to money to control his/her behaviour
34. I made my partner account for the money he/she partner spent
35. I tried to keep my partner dependent on me for money

36. I moved toward my partner when I was angry
37. I pounded my fists on the table
38. I hit the wall
39. I smashed or broke something
40. I threw or kicked something
41. I used angry facial gestures
42. I drove angrily or recklessly
43. I threatened to hit or kill my partner
44. I threatened to turn others against my partner
45. I threatened to take the children (if any) away
46. I threatened to make sure my partner didn’t have money
47. I threatened to show up unexpectedly or to always be watching him/her
48. I threatened to come after my partner if my partner left
49. I threatened to have my partner committed
50. I denied that I had abused my partner
51. I told my partner that he/she was lying about being abused
52. I insisted that what I did was not so bad
53. I told my partner to forget about what I did and leave it in the past
54. I told my partner that abuse was a normal part of relationships
55. I told my partner that I couldn’t remember hurting him/her
56. I told my partner he/she hurt themselves when he/she fell

57. I blamed my partner for my abusive behaviour saying “it was my partner’s fault”
58. I blamed my partner for my abusive behaviour saying “my partner deserved it”
59. I blamed my partner for my abusive behaviour saying “I had to teach him/her a lesson”
60. I blamed my partner for my abusive behaviour saying “my partner provoked me”
61. I blamed my partner for my abusive behaviour saying “it takes two to tango”
62. I blamed my partner for my abusive behaviour saying “my partner hurt me first”
63. I blamed my partner for my abusive behaviour saying “my partner asked/dared me to hit him/her”

64. I told my partner he/she couldn’t do something
65. I forbade my partner or stopped him/her from seeing someone
66. I monitored my partner’s time or made him/her account for where he/she was
67. I restricted my partner’s use of the car
68. I restricted my partner’s use of the telephone

69. I listened to my partner's telephone conversations
70. I pressured my partner to stop contacting his/her family or friends
71. I made it difficult for my partner to get a job or pursue a vocation
72. I kept my partner from getting medical attention
73. I tried to turn people against my partner

74. I demanded obedience from my partner
75. I treated my partner like a servant
76. I treated my partner like an inferior
77. I expected my partner to meet my sexual needs regardless of his/her needs
78. I treated my partner like he/she was helpless or incapable
79. I told my partner that he/she couldn't get along without me
80. I had or demanded the final say in decisions
81. I did not allow them to do the things that I thought I had a right to do

Appendix V: The PTSD Checklist for DSM-5 (PCL-5)

Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been **bothered by that problem in the past month**.

Use the following scale when answering:

Not at all	A little bit	Moderately	Quite a bit	Extremely	
0	1	2	3	4	
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4
2. Repeated, disturbing dreams of the stressful experience?	0	1	2	3	4
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	0	1	2	3	4
4. Feeling very upset when something reminded you of the stressful experience?	0	1	2	3	4
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?	0	1	2	3	4
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0	1	2	3	4
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	0	1	2	3	4
8. Trouble remembering important parts of the stressful experience?	0	1	2	3	4
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	0	1	2	3	4
10. Blaming yourself or someone else for the stressful experience or what happened after it?	0	1	2	3	4
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4

12. Loss of interest in activities that you used to enjoy?	0	1	2	3	4
13. Feeling distant or cut off from other people?	0	1	2	3	4
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0	1	2	3	4
15. Irritable behavior, angry outbursts, or acting aggressively?	0	1	2	3	4
16. Taking too many risks or doing things that could cause you harm?	0	1	2	3	4
17. Being “superalert” or watchful or on guard?	0	1	2	3	4
18. Feeling jumpy or easily startled?	0	1	2	3	4
19. Having difficulty concentrating?	0	1	2	3	4
20. Trouble falling or staying asleep?	0	1	2	3	4

Appendix W: Demographics Questionnaire

The following questions are asked to help us get a better sense of who is responding to this survey. We know that many of these categories may not fully capture the complexities of each individual's experience; however, they are an attempt to reflect the diversity of people's identities.

1. Which gender do you identify with?
 - Male
 - Female
 - Transgender
 - Gender neutral
 - Other (specify)
2. How old are you (in years)?
3. Where were you born?
 - Canada
 - US
 - Outside Canada or US (please specify what country)
4. Are you currently enrolled as a student at the University of Windsor?
 - Yes (specify major)
 - No
5. Are you currently enrolled as a student at another college or university?
 - Yes (specify major)
 - No
6. What is the highest level of education you have completed?
 - Less than High School
 - High School Diploma
 - Vocational / Technical School
 - College Diploma
 - Bachelor's Degree
 - Master's Degree
 - Doctoral Degree
 - Professional Degree (e.g., MD)
 - Other (specify)
7. What is your racial or ethnic identity (check all that apply)?
 - Arab / Middle Eastern
 - Black / African-Canadian / Caribbean-Canadian
 - East Asian / Pacific Islander
 - South Asian
 - White / Caucasian / European Canadian
 - Aboriginal / Native Canadian / Inuit / Metis

Hispanic / Latino
Biracial / Multiethnic (specify)
Other (specify)

8. What is your sexual orientation?

Heterosexual
Lesbian/Gay
Bisexual
Pansexual
Asexual
Other (specify)
Unknown

9. Who do you currently live with (check all that apply)?

I live alone
Parent(s) or other Family Member(s)
Roommate(s) who is not my current romantic partner
Dating partner
Common law partner
Married spouse
Other (specify)

10. How many children do you have:

0
1
2
3
4+

11. How old were you when you first started dating (in years)?

12. How many people have you dated?

13. How many sexual partners have you been with?

14. What was the average length of your past romantic relationships (in months)?

15. In your past romantic relationships, have you ever experienced emotional, physical, or sexual abuse? ___ Yes ___ No

16. As a child, did you experience emotional, physical, or sexual abuse? ___ Yes ___ No

17. As a child, did you grow up in a home where your primary caregivers were abusive to one another? ___ Yes ___ No

18. Have you ever experienced a traumatic event unrelated to your current romantic partner or relationship? ___ Yes ___ No
19. If you answered yes to question 27, what was the traumatic event?
20. What is the gender of your current romantic partner?
 Male
 Female
 Transgender
 Gender neutral
 Other (specify)
21. How long have you been in a relationship with your current romantic partner?
 _____ Years and _____ Months
22. How would you classify your relationship with your current romantic partner?
 Casual Dating
 Exclusive Dating
 Committed Relationship
 Engaged
 Married
 Other (specify)
23. On average, approximately how many hours per week do you and your partner spend together:
 Physically together (i.e., in the same room) _____
 On the telephone _____
 Communicating through text messages _____
 Communicating through the Internet (e.g., Facebook, Skype, etc.) _____
33. How committed are you to your relationship with your current romantic partner?
 0-Extremely uncommitted to 10-Extremely committed
34. How satisfied are you with your relationship with your current romantic partner?
 0-Extremely dissatisfied to 10-Extremely satisfied
35. How likely is it that you will end your relationship with your current romantic partner in the next three months?
 6-Extremely unlikely
 5-Moderately unlikely
 4-Slightly unlikely
 3-Neither likely nor unlikely

- 2- Slightly likely
- 1-Moderately likely
- 0-Extremely likely

36. Is sex a part of your relationship with your current romantic partner?

Yes

No

I prefer not to say

37. How did you hear about this study?

Through the Participant Pool website at the University of Windsor

Through Amazon's Mechanical Turk website

Appendix X: Marlowe-Crowne Social Desirability Scale Short-Form C

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is *true* or *false* as it pertains to you personally.

- | | | |
|---|------|-------|
| 1. It is sometimes hard for me to go on with my work if I am not encouraged. | True | False |
| 2. I sometimes feel resentful when I don't get my way. | True | False |
| 3. On a few occasions, I have given up doing something because I thought too little of my ability. | True | False |
| 4. There have been times when I felt like rebelling against people in authority even though I knew they were right. | True | False |
| 5. No matter who I'm talking to, I'm always a good listener. | True | False |
| 6. There have been occasions when I took advantage of someone. | True | False |
| 7. I'm always willing to admit it when I make a mistake. | True | False |
| 8. I sometimes try to get even rather than forgive and forget. | True | False |
| 9. I am always courteous, even to people who are disagreeable. | True | False |
| 10. I have never been irked when people expressed ideas very different from my own. | True | False |
| 11. There have been times when I was quite jealous of the good fortune of others. | True | False |
| 12. I am sometimes irritated by people who ask favors of me. | True | False |
| 13. I have never deliberately said something that hurt someone's feelings. | True | False |

Appendix Y: The Proposed CIPR Short-Form

Response to victimization subscale

1. Tried to get criminal charges filed
2. Called someone for help (e.g., the police, a friend)
3. Fought back physically (with or without a weapon)
4. Filed for a civil protection order.
5. Did what your partner wanted, even though you didn't want to
6. Refused to do what he/she wanted (e.g., argued back verbally)
7. Tried to avoid him/her

Demand Subscale (victimization and perpetration)

1. Leaving the house (e.g., not want you to leave)
2. Sleeping in certain places or at certain times
3. Wearing certain clothes
4. Maintaining a certain weight
5. Access to/use of entertainment (TV, radio, internet, reading material)
6. Viewing sexually explicit material
7. Bathing or using the bathroom
8. Talking on the phone
9. Spending time with friends, family, or community members
10. Talking to a counselor, clergy, or someone else about personal or family matters
11. Taking care of the household (e.g., cooking, cleaning)
12. Living in certain places
13. Working
14. Spending money, using credit cards, or bank accounts

15. Going to school/learning
16. Using the vehicle
17. Using alcohol or drugs
18. Health (e.g., taking medication or prescriptions drugs, going to the doctor)
19. Spending time with your partner
20. Separating or leaving the relationship
21. Using birth control/condoms
22. Having sex or doing certain sexual behaviors
23. Photographing you nude or while having sex
24. Talking to authorities (e.g., police, lawyer, landlord, child protection services, immigration officer)
25. Doing things that are against the law
26. Immigration (e.g., sponsorship, citizenship)
27. Taking care of dependents (e.g., children, aging parents, pets)
28. Making decisions about the children

Threat victimization Subscale (victimization and perpetration)

1. Keep you from seeing or talking to your family or friends
2. Tell someone else personal or private information about you
3. Keep you from leaving the house
4. Physically hurt you
5. Try to kill you
6. Have sex with someone else
7. Leave the relationship or get a divorce
8. Hurt you financially
9. Threaten you with legal trouble
10. Force you to engage in unwanted sex acts (with or without others)
11. Destroy or take something that belongs to you

12. Physically hurt or kill your pet or other animal

13. Not let you see your child(ren) or take your child(ren) from you

14. Threaten or attempt to harm oneself/commit suicide

15. Harm friend/family member (through words or actions) or their property

Surveillance Subscale (victimization and perpetration)

1. Told you to report your behavior to him/her
2. Spied on/followed/stalked
8. Checked your personal items (e.g., car, house, clothing, mail, journals, receipts, bank information)
3. Told you to carry communication device (e.g., cell phone, pager)
9. Asked other people (e.g., children, neighbors, friends, family, coworkers)
4. Kept track of telephone/cell phone use
5. Your partner didn't need to check; your partner just acted like he/she knew
6. Called you on the phone

VITA AUCTORIS

NAME: Kathleen Wilson

PLACE OF BIRTH: Oshawa, ON

YEAR OF BIRTH: 1993

EDUCATION: Trent University, B.Sc. (Hons) in Psychology,
Peterborough, ON, 2016

University of Windsor, M.A. in Child Clinical
Psychology, Windsor, ON, 2019