

UNIVERSITÉ DU QUÉBEC À MONTRÉAL

REPRÉSENTATIONS MENTALES RELATIONNELLES ET RÉPONSES PRO-
SOCIALES : ÉTUDE DES EFFETS DANS LES RELATIONS INTIMES ET DES
EFFETS DE TRANSFERT

THÈSE

PRÉSENTÉE

COMME EXIGENCE PARTIELLE

AU DOCTORAT EN PSYCHOLOGIE

PAR

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JUIN 2021

UNIVERSITÉ DU QUÉBEC À MONTRÉAL
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REMERCIEMENTS

Cette thèse s'inscrit dans une volonté de célébrer les relations intimes qui enrichissent notre quotidien et elle fut inspirée par les personnes formidables qui m'entourent depuis de nombreuses années et sans qui la vie ne serait pas aussi splendide. Je vous remercie profondément pour vos encouragements, votre soutien, votre présence et bien plus encore.

Je souhaite d'abord remercier mon directeur de thèse, Frédérick Philippe, qui a soutenu mon autonomie et mon développement professionnel tout au long de mes études doctorales. Frédérick, je te remercie pour ta supervision incomparable, pour toutes les rencontres stimulantes qu'on a eues ensemble et pour la confiance que tu as eue en moi dès le début. Ces précieux cadeaux sont inscrits dans ma mémoire et continueront à animer ma passion pour la psychologie humaine.

À mes collègues de laboratoire qui ont fait partie de cette grande aventure qu'est le doctorat en psychologie. Merci pour votre camaraderie, vos encouragements et le réconfort que vous m'avez apporté dans les moments plus difficiles.

Je souhaite aussi remercier les membres de mon jury de thèse : le Dr. Robert J. Vallerand (UQAM), le Dr. Stéphane Dandeneau (UQAM) et le Dr. Richard Koestner (McGill).

Je tiens également à souligner la contribution des organismes subventionnaires et regroupements qui ont facilité mon investissement dans mes études doctorales, le

Fonds de recherche du Québec, Société et Culture (FRQSC) et la Faculté des sciences humaines de l'UQAM.

Un remerciement particulier va également à mes amies et amis avec qui j'ai pu partager mes défis et accomplissements ainsi que des moments de pur bonheur. Que nous nous soyons rencontrés par le biais d'un stage, d'un internat, d'un cours, d'expériences de recherche ou bien par le biais d'activités sportives comme la danse ou le main à main, je me sens choyée de vous compter parmi mes amies et amis. Je suis reconnaissante de vous avoir dans ma vie.

À mes parents auprès de qui j'ai développé mes premières représentations relationnelles et qui m'ont toujours accueilli avec amour, respect et estime. Sans vous, un tel parcours professionnel serait unimaginable. Un merci énorme pour les fondements à partir desquels je me suis développée, pour vos encouragements constants, pour votre complète confiance en moi et pour l'authentique intimité qui caractérise nos relations. Marie-Claude Fréchette et Gaétan Guilbault, je suis chanceuse de vous avoir pour parents.

Un merci tout spécial à ma sœur, ma confidente, ma meilleure amie. Sophie, tu es l'inspiration ultime à partir de laquelle cette thèse s'est construite. C'est en réfléchissant à notre relation que j'ai commencé à songer à l'empathie, à ce qui rend les relations intimes riches et satisfaisantes. Un immense merci pour ta présence chaleureuse, pour la candeur de ton affection, pour cette profonde amitié que tu m'offres jour après jour, et pour toutes ces caractéristiques exceptionnelles qui font de notre relation un lien durable.

Merci à mon amoureux avec qui j'ai la chance de partager des moments d'une grande sensibilité et authenticité. Stéphane, je te remercie pour ta disponibilité et ton soutien dans cette période de développement personnel et professionnel. Ton affection sincère,

ta joie de vivre et ta générosité m'accompagnent dans tous mes projets et je suis ravie de continuer à partager mes passions et mes projets avec toi.

Finalement, un petit mot pour la présence réconfortante de Rubis et Mia, mes sœurs à la fourrure douce et à l'enthousiasme débordant. La vie est plus légère en votre compagnie.

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RÉSUMÉ

La présente thèse, qui se développe en cinq chapitres, vise à mieux comprendre le rôle des représentations mentales relationnelles dans le fonctionnement interpersonnel des individus en investiguant leurs effets sur les attitudes et comportements pro-sociaux au sein des relations intimes. Parmi les attitudes et comportements qui favorisent un fonctionnement interpersonnel optimal, on retrouve les attitudes et comportements pro-sociaux (Hadden, Smith, & Knee, 2014) qui démontrent un souci pour le bien-être d'une autre personne (Batson & Powell, 2003; Zaki & Mitchell, 2013). Les recherches visant à documenter ce qui promeut de tels attitudes et comportements ont identifié des traits de personnalité tels que l'empathie comme facteur d'influence (e.g., Van der Graaff, Carlo, Crocetti, Koot & Branje, 2018; Zaki, Bolger, & Ochsner, 2008). Les traits de personnalité constituent un type de représentations mentales incorporées dans le Soi des individus, mais le Soi inclut également des représentations mentales du Soi en relation avec les autres, c'est-à-dire, des représentations mentales relationnelles (Andersen, Tuskeviciute, Przybylinski, Ahn, & Xu, 2016; Baldwin, 1995).

La présente thèse adopte une perspective issue de la littérature sur le Soi et les cognitions sociales pour étudier le rôle des représentations mentales dans l'adoption d'une orientation pro-sociale dans les relations intimes. Une telle perspective soulève la possibilité de prendre avantage des effets de transfert caractérisant les représentations relationnelles en investiguant les effets de l'activation des représentations relationnelles en dehors du contexte relationnel dans lequel elles se sont développées. De ce fait, la présente thèse vise aussi à vérifier si l'activation d'une représentation mentale relationnelle en dehors de son contexte relationnel peut avoir un effet sur les orientations pro-sociales des individus envers des personnes inconnues ainsi qu'en général.

Le premier chapitre présente le cadre théorique dans lequel la présente thèse s'inscrit. Ce chapitre présente des recherches issues du domaine des relations intimes, des comportements pro-sociaux et du Soi pour soulever de possibles facteurs d'influence à ces marqueurs pro-sociaux.

Le second chapitre présente le premier article de thèse. L'objectif de cet article était d'étudier comment le souvenir d'événements significatifs de couple, un type de représentation relationnelle, est représenté dans la mémoire de chaque partenaire

impliqué dans une relation amoureuse et comment les représentations de chaque partenaire sont associées à une attitude pro-sociale dans le couple : l'engagement. Des dyades amoureuses ont été recrutées pour cette étude. Les participants ont rapporté un souvenir significatif de couple et évalué leur propre souvenir en plus de celui de leur partenaire amoureux. Chez les femmes, l'évaluation de leur propre souvenir était associée positivement et directement à leur engagement dans le couple. La même relation a été observée chez les hommes, mais indirectement par le biais de leur évaluation de la relation de couple. Également, l'évaluation des hommes de leur souvenir était associée positivement à l'engagement des femmes dans la relation, mais un tel effet dyadique n'était pas apparent entre l'évaluation des femmes de leur propre souvenir et l'engagement des hommes.

Le troisième chapitre fait le pont entre le Chapitre 1 et 2 et introduit un autre type de représentations relationnelles qui sera à l'étude dans l'Article 2 : les représentations de personne.

Le quatrième chapitre présente le second article de la thèse dont l'objectif était de distinguer la représentation de trait d'empathie de la représentation de personne; de documenter les effets des deux types de représentations sur les attitudes et comportements pro-sociaux au sein d'une relation intime; et de tester les effets de transfert d'une représentation de personne sur les attitudes et intentions comportementales pro-sociales à l'extérieur de la relation intime. Les résultats de six études réalisées auprès d'individus et de dyades suggèrent que l'empathie comme attribut d'une représentation de personne influence les attitudes et comportements pro-sociaux dans la relation avec cette personne et qu'il est possible de transférer ces effets envers des personnes inconnues et en général en activant la représentation de personne.

Finalement, le cinquième chapitre présente une discussion des principaux résultats de la thèse en inscrivant cette discussion dans une analyse des contributions originales et des implications de la présente thèse. Cette section se termine par une réflexion sur les pistes de recherches futures soulevées par les études réalisées.

Mots clés : représentations relationnelles, représentations de personne, réponses pro-sociales, empathie, souvenirs épisodiques

ABSTRACT

The objective of the present thesis, which consists of five chapters, is to provide a better understanding of the role of relational mental representations (i.e., mental representations of the self with others) in people's interpersonal functioning by investigating their impact on prosocial attitudes and behaviors within intimate relationships. Attitudes and behaviors characterized by a prosocial orientation have been identified as factors that promote such functioning (Hadden, Smith, & Knee, 2014). These prosocial orientations imply that the person cares about the well-being of the other person with whom they are in a relationship (Batson & Powell, 2003; Zaki & Mitchell, 2013). Research documenting factors that promote such orientations towards other people have identified personality traits such as empathy (e.g., Van der Graaff, Carlo, Crocetti, Koot & Branje, 2018; Zaki, Bolger, & Ochsner, 2008). Although personality traits represent one type of mental representations incorporated within the Self, the Self also includes mental representations of the self in relation to others (Andersen, Tuskeviciute, Przybylinski, Ahn, & Xu, 2016; Baldwin, 1995).

The present thesis is thus grounded in literature on the Self and social cognitions to study the effects of mental representations on prosocial outcomes in intimate relationships. Such a perspective also raises the possibility of studying transfer effects that characterize relational representations by investigating the effects of the activation of representations outside of the relationship context in which they were developed. Consequently, the present thesis also aims at testing the effect of the activation of a relational mental representation on prosocial orientations with strangers and in general.

The first chapter presents the theoretical background from which the thesis has been developed. This chapter presents research from literature on intimate relationships, prosocial behaviors, and the Self to identify potential factors that may influence such prosocial markers.

The second chapter presents the thesis' first article. The objective of this article was to study how a relational mental representation, namely significant couple-related memories, are represented within the Self and how they relate to each of these partners' prosocial attitude, namely their level of commitment, in an independent and additive fashion. Dyads of romantic couples were recruited for this study. Participants reported a significant couple-related memory and rated the quality of their own memory as well as that of their partner's memory. For women, the ratings of their own memory were positively associated with their relationship commitment. The same relationship was observed for men, but indirectly through men's ratings of the relationship. In addition, men's ratings of their own memory were associated with women's commitment while controlling for women's ratings of men's memory. Yet, no such cross-partner effects were found for women.

The third chapter bridges Chapters 1 and 2 and introduces another type of relational mental representations that will be studied in Article 2: person-based representations.

The fourth chapter presents the thesis' second article. The objective of this article was to distinguish trait-based and person-based representations of empathy; to document the effects of both types of empathy on prosocial attitude and behaviors within an intimate relationship; and to test transfer effects of person-based representations outside of this intimate relationship. Results from the six studies conducted with individuals and dyads suggest that empathy as an attribute of a person-based representation influences prosocial attitudes and behaviors in the relationship with that person. They also suggest that it is possible to use transfer effects to affect prosocial

responding towards strangers as well as in general by activating the person-based representation.

Finally, Chapter 5 present a discussion of the primary results of the studies included in the thesis by analyzing their original contributions and the implications. This section ends on a reflection about future research ideas raised by the present thesis.

Keywords: relational representations, person-based representations, prosocial responding, empathy, episodic memories

CHAPITRE I

INTRODUCTION GÉNÉRALE

De nombreuses recherches suggèrent que la capacité à former des relations intimes de qualité contribue au fonctionnement optimal des individus. En effet, les relations interpersonnelles sont associées à une myriade d'avantages tels qu'une meilleure santé physique et psychologique (Cacioppo, 2018; Fagundes, Bennet, Derry, & Kiecolt-Glaser, 2011; Feeney & Collins, 2018; Holt-Lunstad, 2018; Kitchen, Williams, & Chowhan, 2012; Uchino, Cacioppo & Kiecolt-Glaser, 1996). Toutefois, au-delà de la simple présence des relations intimes, il semble que la qualité de celles-ci doit être considérée (e.g., Proulx, Helms, & Buehler, 2007) et que certains comportements et attitudes soient centraux dans le développement de relations intimes de qualité. Parmi ceux-ci, on retrouve les attitudes et comportements pro-sociaux (Hadden, Smith, & Knee, 2014), c'est-à-dire qui démontrent un souci envers le bien-être de l'autre (Batson & Powell, 2003; Zaki & Mitchell, 2013). Les recherches cherchant à expliquer les caractéristiques des individus qui les poussent à adopter des attitudes et comportements pro-sociaux au sein de leurs relations se sont surtout concentrées sur les traits de personnalité tels que l'empathie (e.g., Eisenberg et al., 1999; Van der Graaff, Carlo, Crocetti, Koot & Branje, 2018; Zaki, Bolger, & Ochsner, 2008). Pourtant, les recherches en cognitions sociales suggèrent que les représentations mentales du Soi ne se limitent pas aux traits de personnalité, mais qu'elles incorporent également les relations interpersonnelles de l'individu formant ainsi des représentations mentales relationnelles (Andersen, Tuskeviciute, Przybylinski, Ahn, & Xu, 2016; Baldwin,

1995). Ces représentations relationnelles sont organisées en différents niveaux d'abstraction (McConnell, 2011) allant de représentations exemplaires (*exemplars*, e.g., souvenirs épisodiques spécifiques à une relation) à des représentations de personne (i.e., ensemble des représentations liées à une personne spécifique). Différents champs d'étude se sont intéressés à l'effet des représentations sur les attitudes et les comportements en général (e.g., Biondolillo & Pillemer, 2015; Fletcher, Overall, Friesen, & Nicolls, 2018; Smith & Queller, 2001). Par contre, les représentations relationnelles exemplaires n'ont à ce jour pas été étudiées en lien avec les attitudes pro-sociales au sein de la relation. Par ailleurs, bien que l'empathie ait été identifiée comme prédicteur des réponses pro-sociales (Van der Graaff et al., 2018; Zaki et al., 2008), les recherches sur l'empathie ont utilisé différents niveaux d'abstraction de cette représentation, sans les distinguer les uns des autres et sans investiguer systématiquement les contributions des différents niveaux (Hall & Schwartz, 2019). Également, peu d'études ont élargi leur investigation des représentations relationnelles à différents types de relations intimes, se concentrant principalement sur les relations de couple. Pourtant, les relations d'amitié intimes font également partie des relations importantes dans lesquelles les adultes s'investissent (Perlman, Stevens, & Carcedo, 2015).

L'objectif de la présente thèse est d'investiguer comment les représentations de trait et les représentations relationnelles de différents niveaux d'abstraction (i.e., souvenirs épisodiques de couple, représentations de personne) peuvent contribuer à expliquer le fonctionnement interpersonnel des individus par le biais d'attitudes et de comportements pro-sociaux. Un tel programme de recherche permettra d'acquérir une compréhension plus juste des facteurs qui favorisent le maintien de relations interpersonnelles durables et profitables aux deux partenaires. Également, il permettra d'investiguer le rôle des représentations mentales relationnelles dans l'établissement de nouvelles relations en étudiant le transfert des représentations relationnelles à de nouvelles personnes. De telles connaissances pourraient être mises à profit dans le

développement d'interventions pour soutenir le développement et le maintien de relations harmonieuses et bienveillantes au sein desquelles chacun a à cœur le bien-être de l'autre.

1.1 Les Attitudes et Comportements Pro-sociaux

Un aspect crucial du fonctionnement interpersonnel est la propension des individus à adopter des attitudes et comportements pro-sociaux envers l'autre. Ces attitudes et comportements sont décrits comme pro-sociaux en ce sens qu'ils impliquent une considération bienveillante de l'autre et favorisent son bien-être en général ou dans la relation (Batson & Powell, 2003; Zaki & Mitchell, 2013). L'adoption de ce type d'attitudes par un des partenaires d'une relation a été positivement associée à sa propre satisfaction relationnelle ainsi qu'à celle de son ou sa partenaire (Le, Impett, Lemay Jr, Muise, & Tskhay, 2018). Il semble ainsi que les attitudes et comportements pro-sociaux soient instrumentaux dans le maintien de relations de qualité dans lesquelles chacun considère le bien-être de l'autre.

1.1.1 Réponses Pro-sociales au Sein des Relations Intimes

Les recherches sur les relations intimes de couple suggèrent qu'une des attitudes pro-sociales adoptées par les partenaires est l'engagement dans la relation (Rusbult & Van

Lange, 2003). L'engagement implique un désir de poursuivre la relation sur le long terme et est associé à différents mécanismes comportementaux visant à maintenir la relation en tenant compte des besoins de l'autre. Parmi ceux-ci on note le fait d'accommoder son partenaire (Rusbult, Verrette, Whitney, Slovik, & Lipkus, 1991), de faire des sacrifices pour son partenaire ou pour la relation (Van Lange, Rusbult, Drigotas, Arriaga, Witcher, & Cox, 1997) et de pardonner les offenses de son partenaire (Finkel, Rusbult, Kumashiro, Hannon, 2002). Par ailleurs, le fait de s'engager dans une relation procure un sentiment de sécurité pour l'autre, car l'engagement est positivement associé à la longévité de la relation (Rusbult, Agnew, & Arriaga, 2012). On remarque ainsi que le fait qu'un partenaire soit engagé dans la relation est positivement associé à la satisfaction dans la relation pour cette personne et pour son partenaire (Rusbult et al., 2012).

Un autre aspect des relations intimes dans lequel il est possible d'observer les caractéristiques pro-sociales des partenaires réside dans la façon d'aborder les conflits. En effet, les recherches sur les relations intimes de couple et d'amitié à l'âge adulte indiquent que les conflits au sein de la relation sont inévitables et qu'un des aspects primordiaux à la satisfaction relationnelle des deux partenaires est la façon de répondre aux conflits (Canary, 2003; Gottman & Gottman, 2017; Murray & Holmes, 2011). Par exemple, lorsque les deux partenaires d'une relation abordent les conflits en considérant les sentiments de leur partenaire, leur relation se porte mieux que si l'un des partenaires cherche à éviter le conflit ou présente une attitude hostile et défensive (Busby & Holman, 2009).

La capacité à prendre en considération la perspective de l'autre et à se l'imaginer avec justesse représente également une habileté pro-sociale en ce sens qu'elle suggère un intérêt à comprendre les états mentaux de l'autre. La justesse de la prise de perspective, en conjonction avec une attitude empathique, a d'ailleurs été associée à des réactions plus sensibles (i.e., validation, affection, démonstration de la compréhension de l'autre)

chez des partenaires amoureux à qui on avait demandé de discuter en laboratoire d'évènements stressants au niveau personnel et dans leur relation (Winczewski, Bowen, & Collins, 2016). La justesse de la prise de perspective de l'autre est également associée à plus d'accommodements et un meilleur ajustement dyadique chez les couples dans leur première année de mariage (Kilpatrick, Bissonnette, & Rusbult, 2002).

Parmi les autres comportements pro-sociaux identifiés dans la littérature, l'aide et la coopération sont parmi les plus étudiés (Van Lange, 2006). Ces comportements pro-sociaux ont particulièrement été investigués dans des contextes où les individus sont amenés à interagir avec des inconnus. Par exemple, Batson et ses collègues ont réalisé de nombreuses études où ils ont manipulé expérimentalement l'empathie envers un inconnu en demandant aux participants de prendre la perspective de cet inconnu. Ces études montrent invariablement que ce genre de manipulation augmente l'empathie (Batson et al., 1997a, 1997b) et les comportements pro-sociaux tels que la coopération (Batson & Ahmad, 2001) et l'aide envers un inconnu (Coke, Batson, & McDavis, 1978; Batson, Duncan, Ackerman, Buckley, & Birch, 1981; Batson, O'Quin, Fultz, Vanderplas & Isen, 1983; Batson et al., 1988, 1997b). Ce faisant, l'engagement (Article 1), les stratégies de résolution de conflit, la justesse de la prise de perspective, l'aide et la coopération (Article 2) constitueront des aspects reliés aux comportements pro-sociaux dyadiques examinés dans la présente thèse

1.1.2 Facteurs d'Influence des Réponses Pro-sociales

Les recherches cherchant à déterminer les facteurs favorisant l'adoption d'attitudes et de comportements pro-sociaux ont rapidement identifié le rôle de traits de personnalités tels que l'empathie. De ce fait, le trait d'empathie est depuis longtemps reconnu comme un facteur favorisant les comportements d'aide (Batson, Fultz, & Schoenrade, 1987) et de soutien social (Devoldre, Davis, Verhofstadt, & Buysse, 2010). Néanmoins, l'empathie n'a pas seulement été investiguée comme un trait de personnalité. En fait, elle a également été conceptualisée comme un état qui fluctue selon les motivations situationnelles des individus (Decety & Jackson, 2004; Preston & Hofelich, 2012; Zaki, 2014) et selon la représentation mentale de soi et de l'autre impliquée (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997). Ces différentes conceptualisations de l'empathie réfèrent en fait à différents types de représentations au sein du Soi allant de représentations de trait à des représentations plus spécifiques et imbriquées dans un contexte relationnel. Une compréhension plus approfondie du Soi et des représentations mentales relationnelles est de mise afin d'enraciner l'étude des facteurs influençant les attitudes et comportements pro-sociaux.

1.2 Le Soi et les Représentations Relationnelles

Le Soi contient des représentations mentales qui sont organisées selon différents niveaux hiérarchiques. Au plus précis, on retrouve des représentations de type exemplaires (Klein & Loftus, 1993; Smith & Queller, 2001), tels que les souvenirs épisodiques. Les souvenirs épisodiques d'évènements importants représentent un des constituants à la base du Soi (Conway, Singer, & Tagini, 2004) et ont une influence sur les perceptions de soi et des autres (Conway & Pleydell-Pearce, 2000; Smith & Zarate,

1992). Certains souvenirs sont plus susceptibles d'être utilisés dans le traitement de nouvelles informations (Philippe, Koestner, Beaulieu-Pelletier, Lecours, & Lokes, 2012; Singer & Salovey, 1993), car ils sont chroniquement accessibles, c'est-à-dire que leur potentiel d'activation est plus élevé, les rendant ainsi plus susceptibles d'être activés par l'environnement (Conway & Pleydell-Pearce, 2000; Rasmussen & Berntsen, 2009). Des études ont d'ailleurs démontré l'influence des souvenirs activés sur le bien-être, les intentions, et les comportements des individus (Biondolillo & Pillemer, 2015; Kuwabara & Pillemer, 2010; Philippe et al., 2012; Pillemer, 2003). Il semble ainsi que les représentations exemplaires telles que les souvenirs épisodiques peuvent exercer une influence significative sur les attitudes et réactions des individus.

Au sein de la structure du Soi, les souvenirs épisodiques sont regroupés dans des réseaux d'association formant des représentations de plus en plus abstraites allant jusqu'aux traits de personnalité (Klein, Cosmides, Tooby, & Chance, 2002; Smith & Queller, 2001). Bien qu'étant regroupées sous ces représentations abstraites, les souvenirs conservent une relative indépendance à ces structures abstraites et les deux niveaux de représentations ne sont pas complètement redondants entre eux (Klein et al., 2002; Philippe, Koestner, Beaulieu-Pelletier, & Lecours, 2011). Considérant que les structures abstraites comme les traits de personnalité peuvent aussi avoir un effet sur les attitudes et comportements des individus (Conway & Pleydell-Pearce, 2000; Smith & Queller, 2001), il apparaît crucial de s'attarder à la fois aux niveaux plus précis et aux abstractions pour comprendre leurs influences sur les attitudes et comportements des individus.

Le Soi n'est pas uniquement composé de représentations individuelles telles que les souvenirs épisodiques et les traits de personnalité généraux. En fait, les représentations du Soi incorporent également des représentations de soi avec l'autre (Andersen & Saribay, 2005). Ces représentations relationnelles (i.e., faisant référence à une personne avec qui l'individu est en relation) sont particulièrement significatives pour le

fonctionnement interpersonnel des individus en ce sens qu'elles réfèrent spécifiquement à des contextes interpersonnels assez importants pour être inclus au sein du Soi (Andersen et al., 2016; Klein et al., 2002; McConnell, 2011). Ainsi, il convient de s'attarder à la façon dont les représentations mentales relationnelles sont intégrées au Soi.

1.2.1 Les Représentations Relationnelles

Les représentations mentales relationnelles sont un type particulier de représentations mentales et elles s'inscrivent dans la même structure hiérarchique du Soi. Ces représentations permettent d'organiser l'information relationnelle pertinente au fonctionnement social d'un individu (Glassman & Andersen, 1999a; Smith & Semin, 2007). Elles façonnent les attentes, réactions émotionnelles et motivations qu'un individu a par rapport à un autre avec qui il entre en relation (Andersen, Reznik, & Manzella, 1996). Ce faisant, elles peuvent contribuer à expliquer les attitudes et comportements d'un individu dans sa relation avec un autre au-delà des représentations mentales individuelles comme les traits de personnalité.

Parmi les représentations relationnelles plus précises on retrouve les souvenirs épisodiques impliquant le Soi et une personne spécifique (Philippe, Koestner, & Lokes, 2013). De la même façon que les souvenirs épisodiques individuels ont une influence sur les perceptions et attitudes des individus en général, les souvenirs épisodiques spécifiques à une relation influencent les perceptions et attitudes au sein de cette relation (e.g., Alea & Vick, 2010; Philippe et al., 2013).

Les représentations relationnelles peuvent également être plus abstraites et s'appliquer au comportement général d'un individu dans sa relation avec une personne spécifique. On parle alors de représentation de personne. Ce type de représentation incorpore les informations applicables à une personne spécifique (Andersen, Chen, & Miranda, 2002). Des exemples de représentations de personne ayant été abondamment étudiées sont les représentations d'attachement dans les relations parent-enfant et dans les relations de couple (Mikulincer & Shaver, 2018).

1.2.2 Le Rôle des Représentations Relationnelles dans les Réponses Pro-sociales

Les représentations mentales relationnelles activées de façon chronique ou situationnelle sont celles qui vont affecter les attitudes, attentes, et comportements à un moment donné (Baldwin, 1992; McConnell, 2011). L'influence des représentations relationnelles épisodiques au sein des relations de couple est soutenue empiriquement. Ainsi, des études ont démontré que se remémorer des souvenirs épisodiques positifs de couple rend les individus plus chaleureux envers leur partenaire amoureux (Alea & Bluck, 2007) et se remémorer un souvenir de couple impliquant un rire partagé augmente la satisfaction amoureuse (Bazzini, Stack, Martincin, & Davis, 2007). Une relation positive a par ailleurs été démontré entre la valence des souvenirs de couples et la satisfaction maritale (Alea & Vick, 2010) et une étude a révélé que les souvenirs de couple peuvent même prédire au fil du temps des augmentations de satisfaction relationnelle ou les ruptures amoureuses (Philippe et al., 2013). Malgré ces recherches sur la satisfaction en couple, on en connaît encore peu sur l'influence des souvenirs épisodiques de couple sur les attitudes et comportements pro-sociaux plus spécifiquement. L'Article 1 s'intéressera spécifiquement à des souvenirs positifs et

importants vécus dans la relation de couple en lien avec une attitude pro-sociale envers le partenaire amoureux.

En ce qui a trait aux représentations de personne, des études ont démontré qu'une caractéristique d'une représentation de personne, l'empathie envers un partenaire amoureux, était associée à une plus grande satisfaction relationnelle (Franzoi, Davis, & Young, 1985; Péloquin & Lafontaine, 2010) et à moins d'agression psychologique envers le partenaire (Péloquin, Lafontaine, & Brassard, 2011). D'autres recherches ont démontré que l'empathie situationnelle envers un inconnu dans le besoin était associée à plus de comportements d'aide envers cet inconnu (Batson et al., 1991; Batson, Eklund, Chermok, Hoyt, & Ortiz, 2007). Également, l'empathie envers un membre de l'endogroupe était associée à plus d'aide envers cette personne (Hein, Silani, Preuschhoff, Batson, & Singer, 2010). Malgré ces études suggérant une association entre l'empathie envers une personne et un comportement ou attitude pro-social, peu d'études se sont intéressées précisément au rôle des représentations de personne dans l'endossement d'attitudes et de comportements pro-sociaux au sein même de la relation intime. En fait, les recherches portant sur l'empathie comme prédicteur des comportements pro-sociaux ne distinguent généralement pas les différents niveaux de représentations de l'empathie, étudiant parfois l'empathie comme réaction situationnelle, et parfois comme trait de personnalité (Hall & Schwartz, 2019). Pourtant, il importe de déterminer d'où provient l'effet si l'on souhaite développer des interventions efficaces pour augmenter l'empathie des individus dans des différents contextes.

De nombreuses études se sont d'ailleurs intéressées à la possibilité de transférer les caractéristiques d'une représentation de personne à un inconnu. Ces recherches appuient l'hypothèse selon laquelle une représentation de personne pourrait être utilisée pour aborder une situation interpersonnelle nouvelle en démontrant que le contenu d'une représentation de personne peut être transféré à une personne inconnue

et ainsi affecter la perception de l'autre (Glassman & Andersen, 1999a). Dans les études d'Andersen et collègues, l'activation d'une représentation de personne est réalisée par la présentation d'un inconnu manifestant des attributs caractérisant cette personne. Le transfert est observé lorsque la personne attribue d'autres caractéristiques particulières à la représentation de personne (mais qui n'ont pas été utilisées pour l'activation) à cet inconnu. Une telle activation de représentation de personne affecte les réactions émotionnelles, attentes, et motivations envers cet inconnu (Andersen et al., 1996), de même que les comportements (Berk & Andersen, 2000; Fitzsimmons & Bargh, 2003; Shah, 2003) en fonction de la représentation activée. Plus précisément, une série d'études réalisées par Andersen et ses collègues (Andersen et al., 1996; Berk & Andersen, 2000) a démontré que l'activation d'une personne significative (i.e., importante) et positive amenait plus d'affects positifs, plus d'attentes positives et de motivation à connecter avec un inconnu et plus d'expression de sentiments positifs dans la communication avec un inconnu que l'activation d'une personne significative, mais négative. Finalement, une série d'études a démontré que l'activation d'une représentation de personne envers qui l'attachement est sécure affectait positivement l'évaluation d'un membre d'un groupe stigmatisé (Mikulincer & Shaver, 2001) et l'endossement de valeurs générales de bienveillance et de tolérance (Mikulincer et al., 2003), au-delà de l'effet des représentations de trait d'attachement. Ces études suggèrent que les représentations relationnelles peuvent affecter la valence des attitudes et comportements envers des inconnus par le processus de transfert, au-delà de l'effet des représentations de trait.

Par contre, mis à part les études sur l'attachement, peu d'études ont tenté d'étudier simultanément les représentations de trait et les représentations relationnelles. En outre, les études s'intéressant aux représentations relationnelles d'attachement se sont surtout concentrées sur les représentations de personne et on en sait encore très peu sur l'influence potentielle des représentations épisodiques sur les attitudes pro-sociales au sein des relations. Des études suggèrent pourtant que les représentations épisodiques

relationnelles peuvent influencer les attitudes des individus dans leur relation de couple (e.g., Alea & Vick, 2010; Philippe et al., 2013).

Les études regroupées dans la présente thèse s'intéressent à l'effet de différentes représentations mentales (i.e., représentations de trait et représentations relationnelles) sur les attitudes et comportements pro-sociaux au sein de relations intimes de différents types. Elles cherchent également à investiguer leur effet lorsqu'activées à l'extérieur de la relation intime selon un processus de transfert. Un premier aspect qui sera étudié est le rôle des souvenirs épisodiques d'une relation importante, soit une relation de couple, dans l'adoption d'attitudes pro-sociales au sein de cette relation de couple, soit l'engagement (Article 1). Un second aspect qui sera investigué est le rôle de l'empathie à différents niveaux d'abstraction (représentation de trait, représentation de personne) dans les attitudes et comportements pro-sociaux au sein de relations d'amitié intime (Études 1 à 4, Article 2) et le transfert de ces représentations relationnelles à d'autres personnes (Études 5 et 6, Article 2).

1.3 La Présente Thèse

La présente thèse a pour objectif d'étudier comment les représentations de trait et les représentations relationnelles affectent les attitudes et comportements pro-sociaux des individus au sein de leurs relations interpersonnelles et au-delà de celles-ci. Les représentations étudiées sont de deux types : les représentations de trait et les représentations relationnelles. Parmi les représentations relationnelles, les représentations épisodiques et les représentations de personne seront investiguées.

Dans un premier article, le lien entre les souvenirs épisodiques de couple et l'engagement dans le couple sera étudié dans une étude dyadique. L'étude dans un contexte dyadique permettra d'étudier simultanément les représentations épisodiques des deux partenaires de la relation par rapport à un même événement de couple afin de départager les effets acteurs et les effets partenaires de ces représentations. Dans un second article, la série d'études présentées visera à étudier le rôle de l'empathie en tant que représentation de trait et en tant que caractéristique de représentation de personne dans l'adoption d'attitudes et de comportements pro-sociaux dans cette relation. L'effet du transfert des représentations de personne y sera également investigué. Les hypothèses générales sont les suivantes : 1) Les représentations mentales relationnelles prédiront l'adoption d'attitudes et de comportements pro-sociaux au sein des relations intimes; 2) Les représentations mentales relationnelles démontreront une capacité à être transférées par le biais d'une activation implicite de la représentation et ce faisant, elles affecteront positivement les attitudes et intentions comportementales pro-sociales envers des inconnus ainsi qu'en général.

CHAPITRE II

ARTICLE 1

Commitment in Romantic Relationships as a Function of Partners' Encoding of Important Couple-related Memories

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Guilbault, V., & Philippe, F. L. (2017). Commitment in romantic relationships as a function of partners' encoding of important couple-related memories. *Memory*, 25(5), 595-606.

The authors declare no financial interest or benefit arising from the applications of this research. Correspondence concerning this article should be addressed to Valérie Guilbault, Psychology Department, University of Quebec at Montreal, P.O Box 8888, Station Centre-Ville, Montreal, Quebec, Canada, H3C 3P8. Email: guilbault.valerie@courrier.uqam.ca This research was supported by a Master's

scholarship from the Fonds de Recherche sur la Société et la Culture (FRQSC) awarded to Valérie Guilbault (scholarship number: 181482) and a grant from the Social Sciences and Humanities Research Council of Canada awarded to Frederick L. Philippe (grant number: 435-2012-1358).

RÉSUMÉ EN FRANÇAIS DE L'ARTICLE

L'objectif de cette étude était d'investiguer comment les événements significatifs de couples sont encodés dans la mémoire épisodique de chaque partenaire d'une relation amoureuse et comment ils sont associés à l'engagement de chaque partenaire de façon indépendante et cumulative. Chaque partenaire d'une relation de couple a rapporté un souvenir significatif de couple et a évalué son niveau de satisfaction des besoins dans l'évènement du souvenir. De plus, chaque partenaire a lu le souvenir de son/sa partenaire et a également évalué sa propre satisfaction des besoins dans l'évènement. Les résultats démontrent que la satisfaction des besoins des partenaires au sein de leur propre souvenir était positivement associée à leur propre engagement directement (pour les femmes) ainsi qu'à travers leur satisfaction des besoins en général dans la relation (pour les hommes). Par ailleurs, la satisfaction des besoins des hommes dans leur propre souvenir était associée à l'engagement de leur partenaire féminin, en prenant en considération la satisfaction des femmes dans le souvenir des hommes. La relation inverse (entre la satisfaction des besoins des femmes dans leur propre souvenir et l'engagement des hommes) n'était pas significative. En somme, les résultats de cette étude permettent une meilleure compréhension de la façon dont le souvenir d'un évènement propre à une personne peut avoir une influence sur les attitudes d'une autre

personne même en prenant en considération l'encodage du même évènement par l'autre personne.

ABSTRACT

The purpose of the present study was to investigate how significant couple-related events are encoded in the episodic memory of each partner of a romantic relationship and how they relate to each of these partners' level of commitment in an independent and additive fashion. Each partner of a couple reported a significant couple-related memory and rated their level of need satisfaction experienced during the event of the memory. In addition, each partner was shown his/her partner's memory and also rated their own level of need satisfaction for this event. Results showed that partners need satisfaction ratings of their own memory positively predicted their own commitment to the relationship directly (for women) as well as through their need satisfaction generally experienced in the relationship (for men). In addition, men's need satisfaction ratings of their own memory were associated with women's commitment while controlling for women's need satisfaction ratings of men's memory, but no such cross-partner effects were found for women. Overall, the findings shed light on an initial understanding of how a person's own memory of an event can impact another person's attitudes even when taking into account this other person's memory encoding of that same event.

Keywords: Episodic Memories, Need Satisfaction, Couple Relationship, Relationship Commitment

COMMITMENT IN ROMANTIC RELATIONSHIPS AS A FUNCTION OF PARTNERS' ENCODING OF IMPORTANT COUPLE-RELATED EVENTS

Memories are an important part of people's self and serve as its knowledge database (Conway & Pleydell-Pearce, 2000; Conway, Singer, & Tagini, 2004). While research has typically investigated how a person's memory can impact personal outcomes (such as his/her identity or well-being), little is known about how a person's memory can relate to another person's perceptions. When involved in a romantic relationship, partners experience important events together and encode them in their own way, thus creating two unique memories for a same event. In the present study, we sought to examine the interactive effects that couple-related memories may have on partners involved in a romantic relationship. Specifically, we sought to clarify how a couple-related memory that is represented in both partners' memory system can be differentially linked to each partner's perceptions about the relationship.

2.1 Episodic Memories

Episodic memories of personally significant events can have an influence on people's perceptions of themselves and of others. Some memories appear to be more chronically

accessible than others (i.e., their potential for activation is higher when processing new information), which makes them more likely to be triggered by contextual cues or thought about (Rasmussen & Berntsen, 2009; Conway & Pleydell-Pearce, 2000), and are therefore more likely to be shared (Alea & Bluck, 2003) or used in novel situations to appraise or evaluate the current context (Philippe, Koestner, Beaulieu-Pelletier, Lecours, & Lokes, 2012; Singer & Salovey, 1993). Activated memories have been found to affect well-being, intentions, and behaviors even without people's awareness of the influence of their memories (Biondolillo & Pillemer, 2015; Kuwabara & Pillemer, 2010; Pillemer, 2003; Philippe et al., 2012). Supporting this impact of memories in the relationship domain, Alea and Bluck (2007) showed that having people remember positive autobiographical memories about their current romantic relationship led to a subsequent increase in perceived warmth towards their partner. Similarly, Bazzini and colleagues (2007) showed that couples reminiscing about a past experience involving shared laughter reported subsequent increases in their relationship satisfaction. Other studies have also found that the valence of a couple-related memory was related to marital satisfaction (Alea & Vick, 2010) and that such memories could predict increases in relationship quality or relationship dissolution one and a half year later (Philippe, Koestner, & Lokes, 2013).

2.2 Need Satisfaction in Memories

An influential component of episodic memories is the satisfaction of three basic psychological needs (Philippe, Koestner, Beaulieu-Pelletier, & Lecours, 2011). Self-determination theory posits that humans strive to satisfy three innate and universal

psychological needs, namely autonomy, competence, and relatedness (Deci & Ryan, 2000). Autonomy is the need to feel authentic and to feel that actions come from oneself. Competence corresponds to the need to feel efficacious. Relatedness refers to the need to feel connected to others—to feel loved and cared for and to love and care for others. The satisfaction of these three innate psychological needs promotes daily as well as general well-being (Sheldon, Ryan, & Reis, 1996; Reis, Sheldon, Gable, Roscoe, & Ryan, 2000). Need satisfaction within different close relationships has been found to relate to attachment security within those particular relationships (La Guardia, Ryan, Couchman, & Deci, 2000). The satisfaction of these basic psychological needs has also been investigated in memories and has been found to be a core experiential component of memories and one of the best predictor of well-being (Philippe et al., 2011, 2015) and relationship quality (Philippe et al., 2013).

Episodic memories are thought to contribute to abstract self-knowledge, such as traits, attitudes, or self-perceptions (Conway & Pleydell-Pearce, 2000), but also to remain fairly independent of that self-knowledge (Klein, Cosmides, Tooby, & Chance, 2002; Philippe et al., 2011). One interesting aspect of need satisfaction is that it can be assessed as an experiential component of a memory, while at the same time being assessed as abstract self-knowledge within a particular context (perceived need satisfaction in one's couple) or in general (perceived need satisfaction in one's life). In that way, it is possible to test whether need satisfaction in particular memories only reflect people's self-knowledge of their need satisfaction in general or in a particular context, or if these memories have a specific effect of their own on important outcomes. For instance, need satisfaction in self-defining memories was found to contribute to well-being, over and above traits and general perceptions of need satisfaction (Philippe et al., 2011). Milyavskaya and colleagues (2013) have found that need satisfaction in memories could prospectively predict well-being over and above need satisfaction in the domain related to the memory (e.g., school or friends) and need satisfaction in general. Finally, need satisfaction ratings of couple-related memories have been found

to be positively associated with perceptions of relationship quality, over and above general perceptions of need satisfaction in the relationship, attachment, and other key relational variables (Philippe et al., 2013, Study 1).

Not only is need satisfaction in people's couple-related memories expected to be associated with important relational outcomes in a way that is independent from their general impression of need satisfaction in that relationship, it is also expected to relate to their partners' relational outcomes. For instance, one study (Philippe et al., 2013, Study 3) examined the effect of a single couple-related memory on both the participants' own as well as their partners' perceptions of relationship quality. Findings revealed that participants' need satisfaction ratings of a memory involving their current partner predicted the participants' as well as their partners' perceptions of relationship quality, over and above both the participants' and partners' general perceptions of need satisfaction in the relationship. One remaining question, however, is how important couple-related events represented differently in each partner's memory system may affect each partner in two independent and additive ways that is, through the person's own encoding of the event and through his/her partner's encoding of the event. Given that memories can be shared or direct people's feelings and behaviors, their effects through one partner's subjective experience, verbal expression, or behaviors are likely to be perceived by the other partner, which is likely to also affect this other partner's perceptions of the romantic relationship but in an independent manner. As a consequence, the way a couple-related memory is encoded in the memory system of a partner can affect his/her own relationship perceptions, but also his/her partner's perceptions of the relationship, independently of how this same memory is encoded in the memory system of this other partner.

2.3 Gender Differences in Memories and in Romantic Relationships

A recent review suggests that, while gender differences in memories are not found in all studies, there is some evidence suggesting significant differences in the way men and women remember life events (Gryzman & Hudson, 2013). Women have been found to recall more emotional memories than men (Bloise & Johnson, 2007; Davis, 1999; Gryzman, 2014; Ross & Holmberg, 1992) and to rate their memories as more significant than men (Ross & Holmberg, 1992). Women's memories also seem to be characterized by more specificity (Pillemer, Wink, DiDonato, & Sanborn, 2003) and more vividness (Alea & Vick, 2010; Ross & Holmberg, 1992) than men's memories. In addition, women's vivid memories generally include more interpersonal context and are more detailed than men's (Niedźwieńska, 2003). With regards to couple-related memories, while both men and women show an increase in feelings of warmth towards their romantic partner following the recall of a personally significant couple-related memory, only women show an increase in feelings of closeness (Alea & Bluck, 2007). In addition, women's (but not men's) self-reported intensity and rehearsal of their relationship-defining memory has been associated with their own marital satisfaction (Alea & Vick, 2010).

Some gender differences have also been documented in the literature on romantic relationships suggesting that women may be more affected by their romantic relationship than men are. Women's perceived unfairness of household division was found to predict their relationship quality, but men's perceptions did not relate to their own relationship quality (Britt & Roy, 2014). Men's self-determined motivation for sexual intercourse has been found to predict women's psychological well-being and relationship quality, but women's self-determined motivation does not predict men's well-being and relationship quality (Brunell & Webster, 2013). Also, when men report

a high score of neuroticism, both they and their female partner report lower marital satisfaction whereas women's report of high neuroticism is only linked to their own marital satisfaction (Ben-Ari & Lavee, 2005). In addition, social support provided by husbands has more impact on women's marital satisfaction than wives' social support has on men's marital satisfaction (Julien & Markman, 1991). Likewise, men's support provision to their female partner has been found to predict men and women's marital satisfaction, but women's support provision does not predict men's marital satisfaction (Jensen, Rauer, & Volling, 2013). Men's coping in the relationship was found to relate to both their own and their female partner's marital quality whereas women's coping is only associated with their own marital quality (Bodenmann, Pihet, & Kaiser, 2006). Together, these studies suggest that whenever cross-partner effects are examined within romantic relationships, women seem to be more affected by men's traits, attitudes, and actions, than men are affected by women's traits, attitudes, and actions. Consequently, gender differences in the association between men's and women's couple-related memories and their partners' perceptions of the relationship can be reasonably expected.

2.4 The Present Study

Although people's couple-related memories have been related to both their own and their partners' relationship quality (Philippe et al., 2013, Study 3), only the effect of one partner's memory on both partners' perceptions about their relationship was assessed. The effects of each partner's couple-related memory on both partners' perceptions have yet to be investigated. It is still unclear how people's couple-related

memories are represented in both their own memory system and their partners' and how each partner's important couple-related memory interacts to predict meaningful relationship outcomes for both partners. The present study sought to examine the association of both partners' significant couple-related memories on a key relational construct—commitment.

An important feature of romantic relationship is the commitment of the partners to the relationship (Sternberg, 1986). Commitment is characterized by a long-term orientation that involves a will to maintain the relationship even during hard times (Acker & Davis, 1992). Commitment of both partners to a romantic relationship has been associated with relationship maintenance behaviors (Ramirez, 2008) such as accommodation and willingness to sacrifice (Etcheverry & Le, 2005) and relationship persistence over time (Etcheverry & Le, 2005). It has also been associated with greater relationship satisfaction and is a consistent negative predictor of relationship dissolution across studies (Le et al., 2010). It thus constitutes a central relational variable. Therefore, in the present study, we examined the effect of partners' personally meaningful couple-related memories on their commitment to the relationship.

Following past research (Philippe et al., 2013), need satisfaction in each partner's memory was expected to be associated with one's own commitment ratings, as well as with one's partner's commitment ratings. In addition, given that episodic memories are expected to contribute to self-knowledge structures (Conway & Pleydell-Pearce, 2000) while still preserving an independent function (Milyavskaya et al., 2013; Klein & Loftus, 1993), these associations should be only partly mediated by perceived need satisfaction in the couple relationship. Given the documented gender differences in memories and in relationships, we also explored differences between men's and women's partner effects. Traits of extraversion, neuroticism, and agreeableness were also controlled in the present study, since those traits can influence romantic outcomes (e.g., Holland & Roisman, 2008).

2.5 Method

2.5.1 Participants

The sample included 138 people in couples (69 heterosexual couples) recruited through advertisements on a Canadian university campus and in a community journal. One couple was excluded from analyses since it was found to be a clear multivariate outlier (final $n = 68$ couples). This sample size is adequate to detect correlations of medium effect size (based on past research, see Philippe et al., 2013) with a power of .80. The mean age was 25.45 years ($SD = 7.10$) for women and 28.13 years ($SD = 8.87$) for men. All partners had been involved in their relationship for at least one year at the time of the study ($M = 4.46$ years, $SD = 2.74$). Length of the relationship was not associated with any study variable ($r_s < |.13|$, $p_s > .28$).

2.6 Measures

2.6.1 General Measures

2.6.1.1 Personality Traits

The *Ten Item Personality Inventory* (TIPI; Gosling, Rentfrow, & Swann, 2003) was used to assess extraversion, neuroticism, and agreeableness. Participants were asked to indicate how well each pair of adjectives described them on a 7-point Likert scale ranging from “*Strongly disagree*” to “*Strongly agree*.” Extraversion and neuroticism were assessed with two items each. Item inter-correlations were .53 for men’s extraversion, .62 for men’s neuroticism, .05 for men’s agreeableness, .70 for women’s extraversion, .27 for women’s neuroticism, and .04 for women’s agreeableness.

2.6.1.2 Need Satisfaction in the Relationship

The *Basic Need Satisfaction in Relationships Scale* (La Guardia et al., 2000) was used to assess satisfaction of the three basic psychological needs postulated by self-determination theory (i.e., autonomy, competence, relatedness) experienced within the romantic relationship. Each need was assessed with three items and an index of need satisfaction in the relationship was computed by averaging the scores of those nine items. Participants rated each item on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items include “When I am with my partner, I feel free to be who I am” (autonomy), “When I am with my partner, I feel like a competent person” (competence), and “When I am with my partner, I feel loved and cared about” (relatedness). Cronbach’s alpha coefficients were .85 for men and .87 for women in this study.

2.6.1.3 Commitment to the Relationship

Six items of the *Investment Model Scale* (Rusbult, Martz, & Agnew, 1998) were used to assess commitment to the current romantic relationship. Participants rated their commitment on a 7-point Likert scale ranging from “*Not at all*” to “*Strongly*.” A sample item is “I want our relationship to last for a very long time.” Alphas were .86 for men and .80 for women.

2.6.2 Memory Measures

2.6.2.1 Episodic Couple Memory

Participants and partners were asked to describe separately a significant (important) memory about their relationship. They were instructed to recall a positive event they had experienced within their current relationship that often came to their mind. They were instructed not to take too much time in choosing the perfect memory, but instead to select one that spontaneously came to mind. Instructions also stressed that they should not be preoccupied by their partners’ opinion about their memory. They were asked to report what happened, where it occurred, with whom, and how they and the other people present reacted. Finally, they were instructed to provide enough details so that we could understand what happened in the memory, as if they had to tell it to someone. Instructions for the memory were drawn from past research on this topic (Alea & Vick, 2010; Philippe, Koestner, and Lokes, 2013; Singer & Salovey, 1993).

2.6.2.2 Memory Need Satisfaction

Participants and partners were asked to rate the satisfaction of their three basic psychological needs in their memory: “Think back to how you experienced the event or moment you described above when it occurred and respond to each of the following statements.” Ratings were made on a 7-point Likert scale ranging from -3 (*strongly disagree*) to +3 (*strongly agree*), with 0 corresponding to “*Do not agree nor disagree or not applicable*”—this latter option indicating that there was either an equal level of both need satisfaction and need thwarting or that the event was neither characterized by need thwarting nor need satisfaction. Two items assessed each need and the six items were averaged to create a global score of memory need satisfaction. Sample items were “I felt free to do things and to think how I wanted” (autonomy), “I felt competent or capable” (competence), and “I felt connected to one or more people” (relatedness). Alphas were .77 for men and .71 for women. Participants and partners also rated the personal valence of the event on a scale ranging from -3 (*very negative*) to + 3 (*very positive*). An example of a participant’s memory is:

My boyfriend and I made a trip to New York. On a beautiful evening, we walked on the Brooklyn Bridge. It was so nice out there that we stopped to admire the view. At that very moment, he proposed to me. I could not believe it. Although we had not been together for a long time, I felt that the timing was right.”

2.6.2.3 Need Satisfaction in the Partner's Memory

All participants were presented with their partners' memory description and asked to rate their *own* level of need satisfaction when they experienced the event described by their partner's memory. Items and response scales were the same as those assessing need satisfaction in their own memory. Alphas were .63 for men and .80 for women. All participants also rated the personal valence of their partners' memory on a scale ranging from -3 (*very negative*) to + 3 (*very positive*). An example of a partner's memory is:

I can't get this image out of my head. When our first child was born, the doctor placed her in my girlfriend's arms. I remember the moment when she held our child for the first time. It was a beautiful moment.

2.6.2.4 Remembrance of the Partner's Memory

After being shown their partners' memory description, participants and partners were asked to what extent they recalled that event on a 7-point Likert scale ranging from "*Not at all*" to "*Strongly*." Mean recall was 6.75 ($SD = 0.63$) for men and 6.71 ($SD = 0.90$) for women, thus ascertaining that all partners' memories were, on average, well recollected by the other partner.

2.6.2.5 Significance of the Partner's Memory

Participants were asked how significant (important) they found their own and their partners' memory on a 7-point Likert scale ranging from "*Not at all*" to "*Strongly*." Mean significance of men's memory was 6.43 ($SD = 0.85$) for men and 6.26 ($SD = 1.02$) for women and mean significance of women's memory was 6.40 ($SD = 0.79$) for women and 6.24 ($SD = 1.16$) for men. Paired t tests revealed no significant differences in perceptions of significance, $t(67) = 1.17$, ns for men's memory and $t(67) = 1.10$, ns for women's memory, thus confirming that men and women perceived the memory of their partners as significant as did their partners.

2.7 Procedure

For the purpose of clearly delineating the method used in the present procedure section, people who initially took part in the study will be designated as "participants," and their romantic partners, who were invited to participate afterwards, will be labeled "partners." The participants first completed an online questionnaire about their current romantic relationship. Participants completed the personality trait measure and indicated their need satisfaction in the relationship and their commitment to their partner. Next, participants were asked to describe a significant (important) memory about their

relationship.¹ After the memory description, participants were asked to rate the valence of their memory and were asked to rate their need satisfaction in the memory described. At the end of the questionnaire, participants were asked to provide the email of their partner. These partners were then invited to complete the same online questionnaire. At the end of the questionnaire, the partners were presented with the participants' memory description and asked to indicate their own level of need satisfaction for that event. Finally, participants were contacted again and presented with their partners' memory description and asked to rate their own level of need satisfaction experienced during the event described by their partners. The data analyzed in this study are part of a larger study, which involved a second phase in laboratory. Only the first phase will be analyzed in this article. Participants and partners each received \$25 in compensation for their time at the end of the second phase.

A total of 111 participants completed the first questionnaire and they all (except one participant) provided their partners' email. Of this number, 74 partners completed their questionnaire. Finally, 68 participants completed the last questionnaire and were retained for the final analyses. We tested whether couples that completed the whole study were significantly different from those who dropped out. There were no significant differences on all variables, except one. Commitment was higher for women who completed the study ($M = 6.30$, $SD = 0.80$) than for those who dropped out ($M = 5.89$, $SD = 1.19$), $t(109) = 2.16$, $p < .05$, $d = .41$. Effect-size was medium. Commitment

¹ Following Philippe and colleagues' (2015) recommendations, general questionnaires were assessed before memory questionnaires to avoid priming effects from memory descriptions.

was not significantly different between men who completed the study ($M = 6.10$, $SD = 0.96$) and those who dropped out ($M = 6.02$, $SD = 0.94$), $t(77) = 0.44$, *ns*.

2.8 Results

2.8.1 Data Analyses

Results were analyzed as a function of the gender of participants. Therefore, rather than distinguishing people by “participant” and “partner”, we now identify them as men and women. Reference to partners should thus be understood as any of the two romantic partners in a relationship. First, gender differences were tested with paired *t*-tests and correlational analyses were conducted at the dyad level between men’s and women’s variables.

A dyadic path analysis was conducted in Mplus 7 using the Actor-Partner Interdependence Model (APIM; Kenny, Kashy, & Cook, 2006) to test whether need satisfaction in the couple-related memory of each partner was related to their commitment. This analysis permits to control for the non-independence of the data and to investigate both actor effects (e.g., the effect of women’s memory need satisfaction on their own commitment ratings) and partner effects (e.g., the effect of women’s memory need satisfaction on their male partners’ commitment) at the same time. Gender differences were evaluated in the model (e.g., does the association between women’s memory need satisfaction and women’s commitment differ from the association between men’s memory need satisfaction and men’s commitment?) by

constraining specific paths coefficients across gender to be equal (see Kenny et al., 2006). Model fit discrepancies between the freely estimated model (original non-constrained model) and the constrained model provides information on whether the constrained coefficients differ from each other across gender (Kline, 2010). Based on Chen (2007) and Cheung and Rensvold (2001), Marsh and colleagues (2013) suggest not using only the chi-square, which is sample-size dependent, but to use the changes in the goodness of fit of the TLI and RMSEA. If the decrease in fit for the constrained model is less than .01 for the TLI and that the RMSEA increases by less than .015, then there is reasonable support for the constrained model.

In the path analysis, we also used bootstrapping to assess the robustness of each association. This technique consists in computerized draws of n cases with replacement from the current sample. For each draw, the association between x and y is calculated, and that for k draws (usually $k = 5000$). These estimates can be ordered from the lowest to the highest coefficient obtained for $x \rightarrow y$, from which a 95% confidence interval can be calculated. A bootstrap 95% confidence interval that does not include the value zero suggests that the effect is significant at $p < .05$. This technique approximates the sampling distribution of the population and therefore provides more robust coefficient estimates in small sample sizes.

Finally, it is also recommended to use bias-corrected bootstrap 95% confidence interval estimates to test for the significance of mediations and of their indirect effects in path analyses (Preacher & Hayes, 2008). Bootstrap 95% confidence intervals not including the value zero suggest that the indirect effect is significant at $p < .05$.

2.8.2 Gender Differences

Paired *t*-tests revealed that there was a marginal difference between men's ($M = 6.10$, $SD = 0.96$) and women's ($M = 6.30$, $SD = 0.80$) commitment, $t(67) = 1.78$, $p < .10$, showing that women were slightly more committed than men. In addition, the difference between women's ($M = 2.28$, $SD = 0.63$) need satisfaction ratings of their own memory and men's ($M = 1.99$, $SD = 0.88$) need satisfaction ratings of their own memory was significant, $t(67) = 2.27$, $p < .05$, thus suggesting that women rated their own memory as more need satisfying than men's ratings of their own memory. The difference between men's ($M = 2.07$, $SD = 0.74$) and women's ($M = 2.28$, $SD = 0.62$) need satisfaction ratings of women's memories was marginally significant, $t(67) = 1.98$, $p < .10$, whereas the difference between men's ($M = 1.99$, $SD = 0.87$) and women's ($M = 2.02$, $SD = 0.95$) need satisfaction ratings of men's memories was not significant, $t(67) = -0.31$, *n.s.*

2.8.3 Correlational Results

Table 1 shows the means, standard deviations, and correlational results of all study variables. As it is typically the case, both women's and men's commitment were positively correlated with each other ($r = .48$, 95% CI [.18, .68]), as well as were women's and men's ratings of need satisfaction in the relationship ($r = .24$, 95% CI [.02, .45]). Correlations among memory need satisfaction ratings were also examined. Women's need satisfaction ratings of their own memory were uncorrelated with men's need satisfaction ratings of their own memory ($r = .00$, 95% CI [-.22, .27]). Moreover,

men's need satisfaction ratings of their female partners' memory were also not correlated with women's need satisfaction ratings of their own memory ($r = .10$, 95% CI $[-.15, .32]$). In contrast, women's need satisfaction ratings of their male partners' memory were positively correlated with men's need satisfaction ratings of their own memory ($r = .45$, 95% CI $[.05, .70]$). These results suggest a perceived reciprocity about the relationship from both partners in terms of commitment and need satisfaction ratings of the relationship, but only women's need satisfaction experience of a past couple-related event seems to correspond to the need satisfaction experience of their male partners for the same event. Men's need satisfaction experience in a past event selected by their female partners seems to differ from how their female partners' experienced that event in terms of need satisfaction.

Furthermore, men's need satisfaction ratings of their own memory was positively correlated with men's need satisfaction ratings of their female partners' memory ($r = .37$, 95% CI $[.14, .58]$), but the same association was not supported for women's ratings ($r = .11$, 95% CI $[-.07, .34]$). These results suggest that men rated their own memory and their female partners' memory somewhat more similarly in terms of need satisfaction than did women. As a consequence, the correlation between men's need satisfaction ratings of their female partners' memory and women's need satisfaction ratings of their own memory was lower ($r = .10$) than the correlation between women's need satisfaction ratings of their male partners' memory and men's need satisfaction ratings of their own memory ($r = .45$), as explained above.

2.8.4 Dyadic Path Analysis

A dyadic path analysis was tested with women's and men's need satisfaction ratings of their own memory as well as of their partners' memory as exogenous variables. Women's and men's need satisfaction ratings of the relationship and commitment to the relationship were included as endogenous dependent variables, with relationship need satisfaction modeled to mediate the associations between memory need satisfaction and commitment. Covariances were estimated between partners' need satisfaction ratings of the relationship as well as between partners' commitment to account for their non-independence. The estimation method consisted of Robust Maximum Likelihood. The estimated model was a just-identified model therefore yielding a perfect fit to the data. Figure 1 presents the standardized path coefficients of the path analysis and the results of this model are described in the following sections.² Table 2 shows the coefficients and bootstrap 95% confidence intervals for all direct effects. First, direct effects of need satisfaction ratings of memories on commitment are outlined, followed by their indirect effects on commitment through need satisfaction ratings of the relationship (mediations), and finally their dyadic (cross-partner) effects.

Direct effect of one's memory on one's commitment. The path analysis showed a direct and positive effect of women's need satisfaction ratings of their own memory on women's commitment independently of their need satisfaction ratings of the relationship. No direct association of men's need satisfaction ratings of their memory

² The path analysis was conducted again while controlling for men's and women's extraversion, neuroticism, agreeableness, significance of their own and their partners' memory, remembrance of their partners' memory, or participants' age and valence of their memory and results remained virtually the same (significant paths remained significant at the same *p* value).

was found on men's commitment. An equality constraint was imposed on these paths (men's coefficient constrained to equal women's coefficient). Results revealed almost no changes in the goodness of fit, therefore suggesting that the size of the coefficients do not differ between men and women (see Table 3, C1).

Women's need satisfaction ratings of their male partners' memory did not predict women's commitment, and men's need satisfaction ratings of their female partners' memory did not relate to men's commitment. Therefore, the pattern of association between memory and commitment seems to be driven by the memory self-selected as significant, but not by the one selected by the partner.

2.8.4.1 Indirect Effect of Memories on Commitment

As for the association between memory need satisfaction and relationship need satisfaction, results indicated that men's need satisfaction ratings of their own memory were associated with men's need satisfaction ratings of the relationship. On the other hand, women's need satisfaction ratings of their own memory were not associated with women's need satisfaction ratings of the relationship. A model with an equality constraint on these paths revealed virtually no change in goodness of fit, thus suggesting that these coefficients are not significantly different for men and women (see Table 3, C2).

Results also showed that men's need satisfaction ratings of their female partners' memory were associated with men's need satisfaction ratings of the relationship. However, women's need satisfaction ratings of their male partners' memory were not

related to women's need satisfaction ratings of the relationship. A model constraining these two paths to be equal revealed large fit discrepancy, therefore suggesting that these paths are characterized by gender differences (see Table 3, C3).

Results further showed that men's need satisfaction ratings of their own memory and of their female partners' memory had an indirect association with their own commitment through men's need satisfaction ratings of the relationship. Bias-corrected bootstrap 95% confidence interval suggested that these mediations are significant [.02; .29] and [.00; .29] respectively, $p < .05$. However, there was no indirect influence of women's need satisfaction ratings of their own or of their male partners' memory on women's commitment through women's need satisfaction ratings of the relationship since women's memory ratings were not associated with their need satisfaction ratings of the relationship. Bias-corrected bootstrap 95% confidence interval further suggests these mediations to be non significant [-.02; .24] and [-.10; .09], respectively.

2.8.4.2 Direct Dyadic (Cross-partner) Effect of Memories

Men's need satisfaction ratings of their own memory were positively associated with women's commitment. However, there was no direct effect of women's need satisfaction ratings of their own memory on men's commitment. An equality constraint between men and women on these paths revealed large model fit discrepancy, therefore suggesting that the coefficients for this particular path differ between males and females (see Table 3, C4). Thus, how men (but not women) perceive important past events related to their current romantic relationship in terms of need satisfaction seems

to be directly associated with their partners' commitment, over and above both partners' perceived need satisfaction ratings of the relationship.

2.8.4.3 Indirect Dyadic (Cross-partner) Effect of Memories

Results showed that men's need satisfaction ratings of their own memory were related to women's need satisfaction ratings of the relationship. Yet, women's need satisfaction ratings of their own memory were not related to men's need satisfaction of the relationship. An equality constraint between men and women on these paths revealed large model fit discrepancy, therefore suggesting that there is a significant gender difference for this relationship (see Table 3, C5). As for the association between ratings of the partners' memory and ratings of the relationship, men's need satisfaction ratings of their female partners' memory were not related to women's need satisfaction ratings of the relationship nor were women's need satisfaction ratings of their male partners' memory related to men's need satisfaction ratings of the relationship.

Results further showed that men's need satisfaction ratings of their own memory was indirectly associated with women's commitment through women's need satisfaction ratings of the relationship. Bias-corrected bootstrap 95% confidence intervals suggested this indirect effect to be significant [.01; .34], $p < .05$. No indirect effect of women's need satisfaction ratings of their own memory was found on men's commitment through men's need satisfaction ratings of the relationship since women's need satisfaction ratings of their own memory were not related to men's need satisfaction ratings of the relationship. Bias-corrected bootstrap 95% confidence intervals suggested that this indirect effect is not significant [-.13; .07], *ns*. Overall,

these results suggest that men's perceptions of important couple-related events relate to women's commitment, both directly and indirectly.

2.9 Discussion

The objective of the present study was to provide a better understanding of how memories can differentially influence both partners of a romantic relationship. Results revealed that men's need satisfaction ratings of their own memories were related to men's need satisfaction ratings of their female partners' memories, whereas women's need satisfaction ratings of their own memories was less strongly associated with their need satisfaction ratings of their male partners' memories. This result suggests that men may tend to remember different events related to their relationship as more similar than women do. In line with this finding, previous research has demonstrated that women think about their romantic relationship with more complexity than men (Acitelli & Young, 1996). In addition, women reported higher scores of need satisfaction for their own memory as compared to how men rated their female partners' memory, while women's and men's need satisfaction ratings of men's memories did not differ significantly. This latter result may suggest that women chose couple-related memories that were more need satisfying or that they tend to rate their own couple-related memories as being more need satisfying than men. Previous research showing that women rate their couple-related memories as having more personal importance than men suggests that the latter hypothesis could be more likely (Ross & Holmberg, 1992). Also noteworthy is that each partner's need satisfaction ratings of their own memory were associated with their own commitment to the relationship directly (for women

and men) as well as through their own need satisfaction ratings of the relationship (for men). Of importance, men's need satisfaction ratings of their own memories was positively linked to women's commitment, over and above both partners' perceptions of need satisfaction in the relationship. However, no such cross-partner effects emerged for women.

2.9.1 Memories are Related to One's Own Commitment Directly and Indirectly

Partners' own memories were found to be related to their own commitment to the relationship directly (for women and men) and indirectly (for men) through their own need satisfaction ratings of the relationship. The association between couple-related memories and relationship quality is supported by previous research on memories (Alea & Vick, 2010; Philippe et al., 2013). This study adds to the current literature by showing that need satisfaction ratings of a couple-related memory relate not only to people's ratings of their relationship, but also to their commitment to the relationship. Significant couple-related memories are likely to be chronically accessible and may be triggered by environmental cues, thought-about, or shared more frequently (Alea & Bluck, 2007; Philippe et al., 2013). The recurrent activation of need-satisfying memories about the relationship will shape partners' attitude towards the romantic relationship and result in a perception that the relationship satisfies their psychological needs, which, in turn, is likely to lead to greater commitment to the relationship. In support of this hypothesized sequence, Kuwabara and Pillemer (2010) found that the activation of a positive personal memory had an impact on people's subsequent intentions and behavior. Additionally, others have found that remembering a couple-related memory has an influence on people's perceptions of their romantic relationship

(specifically, that it increases feelings of warmth for men and women, and closeness for women only; Alea & Bluck, 2007). The present study suggests that these activated memories will directly shape partners' commitment to the relationship so that significant memories that are highly need satisfying will lead to greater commitment to the relationship. For men, this relationship is also mediated by their need satisfaction ratings of the relationship such that the more need satisfying they rated their couple-related memory, the more need satisfying they perceived their relationship to be, which was associated with higher commitment to the relationship.

2.9.2 Cross-partner Effects of Couple-related Memories

A noteworthy finding of the present study is that men's memory encoding was related to women's reported commitment directly as well as through women's need satisfaction ratings of the relationship, independently of the way women remembered the events of men's memories. This is the first study to our knowledge that shows that a person's own memory can be linked to his/her romantic partners' engagement. It may be that partners' encoding and subsequent reconstruction of important couple-related events influence their attitudes and behaviors towards their partners. To the extent that they hold significant need-satisfying couple-related memories, their behavior towards their partner will be shaped in a way that is consistent with how these memories are represented in their memory system, and they will therefore act with a more caring or committed attitude towards their partner. These behaviors will lead their partner to feel more committed to the relationship and perceive their needs to be more satisfied in the relationship, which will in turn also lead to more commitment. This interpretation is in accordance with past research on couple-related memories (e.g., Philippe et al., 2012,

2013). Furthermore, in the relationship literature, studies have found that people's behaviors in a romantic relationship influence partners' satisfaction (Brock & Lawrence, 2009; Jensen et al., 2013) and commitment (Stafford & Canary, 1991; Stanley, Markman, & Whitton, 2002), and that people's perceptions of the relationship relate to their relationship satisfaction (Buunk, 2001; Neff & Karney, 2003).

In the present study, this pattern of results was only found between men's memories and women's commitment (and not between women's memories and men's commitment). This gender difference is in line with research suggesting that women may be more sensitive to their partners' behaviors in the relationship (Acitelli & Antonucci, 1994; Acitelli, 1992; Acitelli & Young, 1996; Julien & Markman, 1991), perhaps because they have been socialized to attend more to relational cues than men (Crawford & Chaffin, 1997). Correspondingly, several studies have found that men's behaviors affect women's attitudes, but not the inverse. For example, social support provided by husbands influences women's marital satisfaction more than wives' social support affects men's marital satisfaction (Julien & Markman, 1991). Men's support provision is predictive of both men's and women's marital satisfaction, whereas women's support provision does not relate to men's marital satisfaction (Jensen et al., 2013). Greater discussion of the relationship by men in an interview is associated with higher relationship satisfaction for women, whereas this effect is not observed for men (Acitelli, 1992). Overall, it seems that women's perceptions about the relationship are consistently more affected by men's attitudes and behaviors than men's perceptions about the relationship are by women's behaviors. Thus, it is possible that men's memories have a stronger effect on women than women's memories have on men. However, the postulate that the effect of memories is transmitted through behaviors toward the other partner cannot be confirmed by the present study so further research will be needed to shed more light on the specific process through which memories influence partners' attitudes and perceptions.

2.9.3 Limitations

Some limitations regarding the present study should be underscored. First, the data analyzed are cross-sectional which does not allow us to determine whether partners' memories influence commitment or whether commitment affects the encoding and reconstruction of couple-related memories or both. Longitudinal studies will be required to tease out the direction of this relationship. A second limitation is that all measures are self-reported. Although need satisfaction either self-reported or coded from judges are strongly correlated (Philippe et al., 2011) and that cross-partner effects are shown in the present study, it would still be informative to show that couple-related memories can have an impact on actual couple-related behaviors. Third, this study only assessed *positive* couple-related memories. An interesting avenue for future research would be to look at the impact of negative couple-related memories as well as positive ones on partners' commitment and investigate if results are the same across both types of memories. A fourth limitation concerns our sample. The sample consisted of highly committed couples (high means on commitment for both men and women and women who dropped out from the study were slightly lower on commitment). Therefore, results may not apply directly to couples with lower levels of commitment. Also, participants had been involved in their romantic relationship for an average of four years and a half. Results may not generalize to couples that have been together for a decade or more. In addition, the sample of this study was moderate in size. Thus, although most results are consistent with the literature (e.g., Jensen et al., 2013; Bodenmann et al., 2006; Philippe et al., 2013), results of this study should be replicated within a larger sample. Nonetheless, the present research provides initial findings

showing that a person's own memories can impact another person's attitudes even when controlling for the other person's memories of the same event.

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Tableau 2.1

Table 1

Means, Standard Deviations, and Correlations between need satisfaction in memories, in the relationship and commitment.

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. W's extraversion	4.71	1.54	—												
2. M's extraversion	4.51	1.33	-.13	—											
3. W's neuroticism	4.20	1.09	-.05	-.01	—										
4. M's neuroticism	3.04	1.30	-.24 [†]	.08	-.10	—									
5. W's agreeableness	4.37	0.84	.20 [†]	-.12	-.47**	.10	—								
6. M's agreeableness	4.33	1.00	.03	-.14	.09	-.50**	-.08	—							
7. W's NS in the relationship	5.87	0.85	.08	-.12	-.33**	-.21 [†]	.19	.12	—						
8. M's NS in the relationship	5.67	0.85	-.06	.27*	-.21 [†]	-.16	-.03	-.04	.24*	—					
9. W's commitment	6.30	0.80	-.11	-.14	-.15	-.16	.04	.01	.54**	.15	—				
10. M's commitment	6.10	0.96	-.20	.11	-.21 [†]	.09	-.09	.06	.29*	.45**	.48**	—			
11. W's NS in own memory	2.28	0.63	.22 [†]	-.18	.06	-.16	.09	.19	.16	-.02	.29*	.04	—		
12. M's NS in own memory	1.99	0.88	-.25*	-.06	-.22 [†]	-.08	-.05	.18	.32**	.42**	.37**	.35**	.00	—	
13. W's NS in partners' memory	2.02	0.95	-.17	-.18	-.20	-.10	.14	.23 [†]	.20 [†]	.05	.20	-.02	.11	.45**	—
14. M's NS in partners' memory	2.07	0.75	-.10	.12	-.18	.04	-.07	.09	.04	.39**	.01	.35**	.10	.37**	-.01

Note. $N = 68$. W = Women; M = Men; NS = need satisfaction.

[†] $p < .10$, * $p < .05$, ** $p < .01$.

Tableau 2.2

Table 2

Standardized path coefficients estimated from the model (P) and bootstrap 95% confidence intervals for these estimates (95% CI).

Predictors	W's NS in the relationship		M's NS in the relationship		W's commitment		M's commitment	
	P	95% CI	P	95% CI	P	95% CI	P	95% CI
W's NS in own memory	.17	[-.10; .47]	-.04	[-.35; .21]	.25*	[.01; .62]	.01	[-.37; .48]
M's NS in own memory	.34*	[.03; .64]	.38**	[.09; .64]	.33*	[.03; .58]	.18	[-.05; .57]
W's NS in partners' memory	.04	[-.26; .23]	-.11	[-.30; .09]	-.06	[-.23; .13]	-.15	[-.36; .09]
M's NS in partners' memory	-.10	[-.37; .19]	.26*	[-.03; .56]	-.14	[-.36; .05]	.17	[-.10; .50]
W's NS in the relationship	—	—	—	—	.42**	[.19; .58]	.19	[-.12; .60]
M's NS in the relationship	—	—	—	—	-.03	[-.20; .16]	.26*	[.06; .63]

Note. N = 68. W = Women; M = Men; NS = need satisfaction; CI = confidence intervals.

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

Tableau 2.3

Table 3

Fit indices of the constrained models across men and women.

Equality constraints	χ^2	<i>df</i>	<i>CFI</i>	<i>TLI</i>	<i>RMSEA</i>
C1. W's NS in own memory → W's commitment & M's NS in own memory → M's commitment	0.33	1	1.00	1.17	.00
C2. W's NS in own memory → W's NS in the relationship & M's NS in own memory → M's NS in the relationship	0.56	1	1.00	1.11	.00
C3. W's NS in partners' memory → W's NS in the relationship & M's NS in partners' memory → M's NS in the relationship	1.79	1	.99	.80	.11
C4. W's NS in own memory → M's commitment & M's NS in own memory → W's commitment	1.40	1	1.00	.90	.08
C5. W's NS in own memory → M's NS in the relationship & M's NS in own memory → W's NS in the relationship	4.90	1	.96	.01	.24

Note. Original non-constrained model has zero degree of freedom and has therefore a perfect fit to the data

with $\chi^2 = 0$, $CFI = 1.00$, $TLI = 1.00$, and $RMSEA = .00$. It is possible for the TLI and $RMSEA$ in constrained models to yield better values of fit given that these indices incorporate a penalty for lack of parsimony (constrained models are more parsimonious, see Marsh et al., 2013).

C = Constraint; W = Women; M = Men; NS = need satisfaction;

Figure 2.1

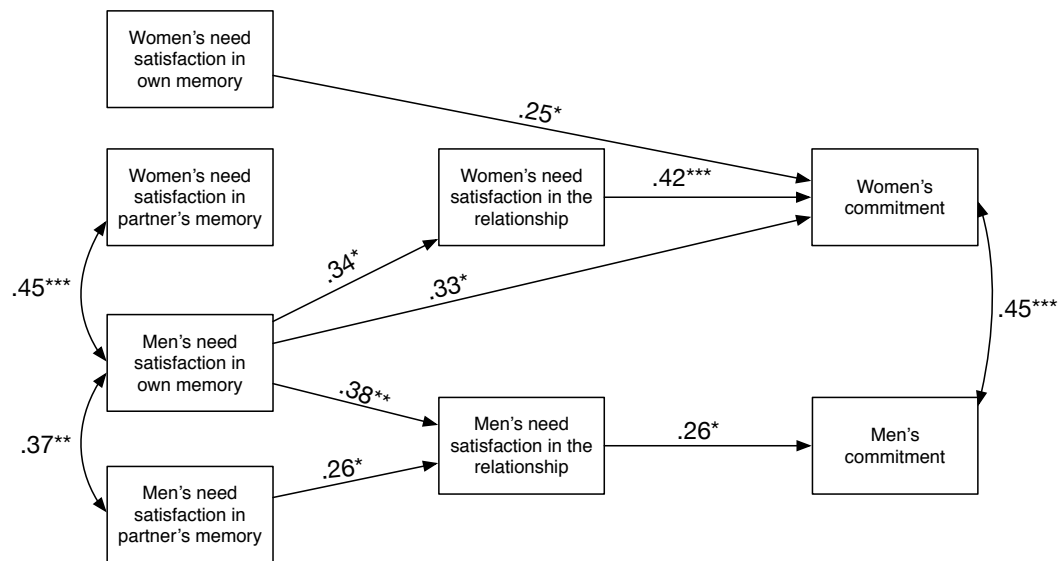


Figure 1. Path analysis of the association between need satisfaction in couple-related memories and commitment.

Note. Only significant paths and covariances are reported. Standardized coefficients are shown in the figure. Exogenous covariances represent correlations between variables.

* $p < .05$, ** $p < .01$, *** $p < .001$.

CHAPITRE III

INTRODUCTION À L'ARTICLE 2

L'Article 1 de la thèse a mis en lumière les associations entre les représentations relationnelles épisodiques des deux partenaires d'une relation de couple et leurs attitudes pro-sociales au sein de la relation. L'attitude pro-sociale à l'étude dans cet article était l'engagement dans la relation de couple. Les résultats suggèrent des effets acteurs et partenaires des représentations relationnelles épisodiques sur les attitudes pro-sociales au sein de la relation. L'Article 2 vise à élargir le champ d'investigation des représentations pouvant avoir un effet sur les attitudes et comportements pro-sociaux en étudiant à la fois une représentation individuelle, le trait d'empathie, et une représentation relationnelle plus abstraite que les représentations épisodiques, les représentations de personne. Alors que l'Article 1 ne permettait pas de tester la direction de l'effet observé, l'Article 2 présente des études expérimentales qui permettent d'inférer la causalité des représentations mentales sur les attitudes et comportements.

Considérant le lien déjà établi dans la littérature scientifique entre l'empathie et les comportements pro-sociaux (Eisenberg et al., 1999; Van der Graaff et al., 2018; Zaki, Bolger, & Ochsner, 2008), l'empathie sera étudiée en tant que trait et en tant que représentation de personne dans l'Article 2 afin de départager les effets des deux types de représentations sur les attitudes et comportements pro-sociaux (Études 1 à 3). Par ailleurs, alors que l'Article 1 s'est concentré sur les relations de couple adulte, l'Article 2 élargira sa population aux relations d'amitié intime à l'âge adulte. Également,

l'Article 2 investiguera différentes attitudes et comportements pro-sociaux susceptibles d'être observés au sein des relations d'amitié intime : les réactions aux conflits (Études 2 et 3), la justesse de la prise de perspective (Étude 3), ainsi que les comportements d'aide (Étude 6) et de coopération (Étude 4). Finalement, l'Article 2 investiguera comment les représentations de personne peuvent se transférer d'une personne à l'autre suivant leur activation par des indices externes (Études 5 et 6).

CHAPITRE IV

ARTICLE 2

Beyond trait: Investigating person-based empathy as a motivational drive predicting prosocial outcomes

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Manuscript in preparation for submission at *Emotion*.

The authors declare no financial interest or benefit arising from the applications of this research. Correspondence concerning this article should be addressed to Valérie Guilbault, Psychology Department, University of Quebec at Montreal, P.O Box 8888, Station Centre-Ville, Montreal, Quebec, Canada, H3C 3P8. Email: guilbault.valerie@courrier.uqam.ca This research was supported by a doctoral scholarship from the Fonds de Recherche sur la Société et la Culture (FRQSC) awarded to Valerie Guilbault (scholarship number: 191621), and a grant from the Social Sciences and Humanities Research Council of Canada awarded to Frederick L. Philippe (grant number: 435-2017-1358).

RÉSUMÉ EN FRANÇAIS DE L'ARTICLE

Les représentations de personne sont des représentations mentales d'une personne spécifique permettant d'organiser les informations sur cette personne et la relation avec cette personne au sein du Soi. Dans la présente recherche, nous posons l'hypothèse que le niveau d'empathie ressenti envers une personne est une caractéristique importante des représentations de personne qui (a) est distincte de l'empathie comme représentation de trait, (b) influence les comportements pro-sociaux envers cette personne et (c) peut être activé par des indices externes pour influencer l'empathie envers d'autres personnes et promouvoir une orientation pro-sociale générale. L'Étude 1 a utilisé des analyses factorielles confirmatoires pour distinguer l'empathie comme représentation de personne et comme représentation de trait. Les Études 2 et 3 ont démontré que l'empathie envers une personne est associée à des stratégies de résolution de conflit, des styles de communication adaptatifs, et à la justesse de la prise de perspective en étudiant des individus et des dyades, au-delà de l'influence du trait d'empathie. En étudiant des dyades, l'Étude 4 a montré que l'empathie envers une personne était associée à des comportements pro-sociaux dans un jeu de société. Finalement, les Études 5 et 6 ont démontré que l'empathie envers une personne pouvait être activée et transférée à une personne inconnue (Étude 5) ou en des attitudes et intentions pro-sociales générales (Étude 6). La présente recherche enrichit la compréhension de l'empathie comme un processus motivationnel imbriqué au sein des représentations de personne et suggère des pistes de réflexion intéressantes pour aider le développement d'interventions visant à améliorer les orientations pro-sociales des individus.

ABSTRACT

Person-based representations are mental representations of a specific person that organize attributes of that person or of the relationship with that person within the self. In the present research, we argue that the level of empathy felt toward a person is a key attribute of person representations that (a) is distinct from trait-based empathy, (b) affects prosocial behaviors toward that person, and (c) can be activated by external indices to affect empathy toward other targets and promote general prosocial outcomes. Study 1 used confirmatory factorial analyses to distinguish person-based empathy from trait-based empathy. Studies 2 and 3 showed that person-based empathy was related to conflict resolution strategies, communication styles, and empathic accuracy using individuals and dyads, over trait-based empathy. Using dyads, Study 4 showed that person-based empathy was related to observable prosocial behavior in a board game. Finally, Studies 5 and 6 showed that person-based empathy can be activated and transferred to another unrelated person (Study 5) or as general prosocial attitudes and intentions (Study 6). The present research enhances our understanding of empathy as a motivational process embedded in person-based representations and suggests novel ways of designing interventions to improve prosocial responding.

Keywords: Empathy, Trait, Prosocial behaviors, Person-based representations, Transference.

BEYOND TRAIT: INVESTIGATING PERSON-BASED EMPATHY AS A MOTIVATIONAL DRIVE PREDICTING PROSOCIAL OUTCOMES

Empathy is widely thought to elicit prosocial behaviors such as helping others in need (Batson, Fultz, & Schoenrade, 1987; Carlo & Randall, 2002; Hoffman, 2008) and foster positive interpersonal relationships (Davis, 1994). Although empathy has been conceptualized as a stable trait representing people's typical empathic abilities, more recent developments have also regarded empathy as a motivation (e.g., Decety & Jackson, 2004; Preston & Hofelich, 2012; Zaki, 2014). As such, people could be motivated to experience more empathy toward certain targets, such as close others, than toward other types of target, such as strangers (e.g., Cialdini, Brown, Lewis, Luce, & Neuberg, 1997). If that is the case, two conclusions are in order. First, this motivated empathy toward a specific person, or person-based empathy, should predict adaptive social and prosocial outcomes and behaviors toward that specific person over and above the variance explained by trait-based empathy. Second, this person-based empathy should be part of a person representation in the same way that other attributes pertaining to a relationship have been found to characterize person representations (Andersen, Reznik, & Manzella, 1996). It should also follow the same rules as those of person-based representations—that is, when a person representation is activated, its associated empathy attribute should be potentially transferrable to another target (Andersen et al., 1996). The purpose of the present research was to examine a conceptualization of person-based empathy and investigate its association to prosocial attitudes and behaviors, independently of trait-based measures of empathy, as well as its capacity to promote prosocial attitudes and intentions toward other targets and in general, when triggered.

4.1 Empathy

Although there is still some debate about what exactly constitutes empathy, a consensus that empathy incorporates both an emotional and a cognitive facet is emerging (e.g., Cuff, Brown, Taylor, & Howat, 2014; Zaki, 2014). Correspondingly, empathy has been defined as people's tendency to be affected by others' situations and imagine their mental states or perspective (Davis, 1994; Decety, 2011; Hoffman, 2000). Empathy has been found to be associated with prosocial behaviors (Carlo & Randall, 2002) such as helping others in need (e.g., Batson et al., 1987). It has also been negatively associated with antisocial behaviors (Eisenberg, Eggum, & Di Giunta, 2010) such as interpersonal aggression (e.g., Richardson, Hammock, Smith, Gardner, & Signo, 1994).

Empathy has often been studied as a stable trait that represents individuals' abstract self-knowledge about their own empathic abilities (Baldner & McGinley, 2014; Davis, 1994). According to this perspective, people's general ability to be touched by others' misfortune and imagine themselves in other people's shoes should be related to prosocial behaviors (Davis, 1994). Several studies have supported this view (Carlo & Randall, 2002; Eisenberg et al., 2010).

Recent reviews have suggested that empathy could also be conceptualized as a motivation (Decety & Jackson, 2004; Preston & Hofelich, 2012; Zaki, 2014). A motivated model of empathy implies that individuals may choose to approach or avoid empathy as a function of their situational motives (for a review of motives affecting empathy, see Zaki, 2014). Overall, this perspective suggests that situational variations

in a person's motives to approach or avoid empathy should influence the level of empathy experienced toward a social target.

4.2 Person-based Empathy

Motivational models of empathy (e.g., Zaki, 2014) focus on situational factors that may affect empathy toward a social target. However, they do not address how the social target is represented cognitively (Smith & Queller, 2001). Yet, the way others are mentally represented has been found to affect social judgment and behaviors (Martin, Strack, & Stapel, 2001). Research on social cognition proposes that individuals automatically form mental representations of social targets (Srull & Wyer, 1989) and that these depend on individuals' situational and chronic motives (Brewer, 1988; Smith & Zárate, 1992). When people are exposed to a social target, they may experience high or low motivation to feel empathy (Zaki, 2014). The mental representation they form of that target will thus be characterized by the level of empathy they experienced. Over time, person-based representations may be updated to incorporate changes in empathy modulated by the different situational motives experienced, which are preserved in a stable person-based representation of which one attribute is its level of empathy toward that one specific person (Smith & Semin, 2007).

This perspective is in line with research on significant-other representations showing that such representations include specific motives toward significant-others (Andersen et al., 1996). Following this literature, once formed, this person-based empathy attribute could be activated whenever the representation of the target is triggered, which

would in turn affect prosocial behaviors toward the target (Smith & Queller, 2001). However, given that mental representations of others can be implicitly primed and transferred to other social targets (Andersen et al., 1996; Smith & Queller, 2001), we also propose that person-based empathy may be activated outside consciousness and affect attitudes and behaviors toward other unrelated social targets.

4.3 Three Guiding Principles

The above claims can be elaborated into the following three principles derived from the literature on empathy and social cognition.

4.3.1 Principle 1: Person-based Empathy and Trait-based Empathy Are Distinct but Related

Social cognitive and neuroscience literature suggests that information about the self and about others is encoded in distinct but related repertoire of representations (Conway & Pleydell-Pearce, 2000; Decety & Sommerville, 2003). These representations of the self and others are also organized within different hierarchical levels of specificity (Klein & Loftus, 1993; Srull & Wyer, 1989). Because they rely on distinct levels of mental representations, trait-based empathy and person-based empathy should correspond to two complementary ways to act empathically. First, trait

empathy has implications for how people behave in general, across relationships (Baldner & McGinley, 2014). Thus, people characterized by higher trait-based empathy should behave empathically with people across contexts, making them also more likely to be empathic towards a specific target. Second, person-based empathy implies that individuals experience an additional motivation to be empathic toward a specific person when a person representation characterized by high levels of empathy is activated. According to these conceptualizations, considering person-based empathy in addition to trait-based empathy should help provide a more accurate prediction of people's prosocial behaviors in specific contexts or relationships.

4.3.2 Principle 2: Person-based Representations Are Characterized by a Level of Empathy Toward that Person, which Drives Prosocial Outcomes

Research has shown that person-based representations include specific attributes of the person (Smith & Zárate, 1992) or of the relationship with that person (Andersen & Chen, 2002; Andersen, Chen, & Miranda, 2002; Baldwin, 1992). For example, significant-other representations include attributes of closeness, affects, and expectations that are particular to that relationship (Andersen et al., 1996). We propose that empathy is a key attribute characterizing person-based representations, which motivates prosocial attitudes and behaviors toward the represented person. Studies that investigated empathy toward specific people tend to support the present conceptualization. For instance, it was found that empathy toward a romantic partner was related to higher relationship satisfaction (Franzoi, Davis, & Young, 1985; Péloquin & Lafontaine, 2010) and to less psychological partner aggression (Péloquin, Lafontaine, & Brassard, 2011). Situational empathy towards a stranger in need has also

been related to helping (Batson et al., 1991; Batson, Eklund, Chermok, Hoyt, & Ortiz, 2007). In addition, Hein and colleagues (2010) showed that empathy was higher toward an ingroup member than an outgroup member and that only empathy toward the ingroup member predicted helping this ingroup member. Unfortunately, few studies have investigated person-based empathy as embedded in a close relationship. Still, studies to date provide indirect evidence that varying levels of empathy towards a specific other can predict prosocial behaviors. However, few studies have accounted for both person-based and trait-based empathy in predicting prosocial outcomes (but see Batson, Bolen, Cross, & Neuringer-Benefiel, 1986). Therefore, it is still unclear how complementary person-based and trait-based empathy are.

4.3.3 Principle 3: Person-based Empathy Can Be Transferred

Drawing from the social cognitive literature on the priming of mental representations (Smith & Zárate, 1992; Smith & Queller, 2001) and on the transference of significant-other representations (Andersen et al., 1996; Andersen & Chen, 2002; Andersen et al., 2002), we argue that person-based representations can be activated by contextual cues, which trigger the empathy attribute of the person representation. Activation of such a representation can occur when the person thinks of a social target or interacts with this person, or when the representation is activated by external cues (Andersen & Chen, 2002; Glassman & Andersen, 1999). Once triggered, a person-based representation can influence the person's emotions, attitudes, and behaviors within the context (Andersen et al., 1996; Andersen, Tuskeviciute, Przybylinski, Ahn, & Xu, 2016). However, on certain occasions, person-based representations can also affect attitudes and behaviors toward an unknown social target through a process called transference (Andersen et al.,

1996; Glassman & Andersen, 1999). Specifically, if a person encounters an unknown target after a person-based representation is activated (i.e., because the unknown target is similar to the person of the representation or because the context has previously activated this representation), the attributes of the person-based representation (herein empathy) will be transferred to the unknown target (Andersen et al., 2002). This empathy transference will thereby enhance the likelihood that the person acts in a prosocial manner toward the target if the situation requires it, such as if the target is in need or in distress (Eisenberg et al., 2010; Hoffman, 2008). Moreover, activated person-based empathy should also affect general prosocial attitudes and behaviors and temporarily result in greater endorsement of prosocial attitudes (e.g., altruism, compassion) and intentions to help in general (e.g., intention to do volunteer work).

4.4 The Present Research

The objective of the present research was to demonstrate through a series of six studies that person-based empathy is related to, but distinct from trait-based empathy (Principle 1), and that person-based empathy predicts unique part of variance in prosocial outcomes (Principle 2), over and above trait-based empathy. Moreover, it was designed to demonstrate that person-based empathy can be transferred to another person and affect prosocial attitudes and intentions toward that other person or in general (Principle 3). In Studies 1, 2, 3, and 5, we assessed person-based empathy in close friendships. Studies 4 and 6 used relationships with different levels of closeness. Study 1 provided evidence with confirmatory factor analyses that person-based empathy differs from trait-based empathy. Study 2 tested the incremental validity of

person-based empathy in predicting prosocial outcomes, over and above trait-based empathy. Studies 3 and 4 investigated with dyads the predictive value of person-based empathy on actual prosocial behavior, that is, empathic accuracy (Study 3) and observable prosocial behaviors in a board game (Study 4). Finally, Studies 5 and 6 examined how person-based empathy can be activated and transferred to predict prosocial attitudes toward unknown targets (Study 5) or general prosocial attitudes and intentions towards others (Study 6).

4.5 Study 1

A first objective of Study 1 was to select a valid measure of person-based empathy and show that it was related to, but distinct from trait-based empathy. To do so, we turned to a widely used empathy scale (Gerdes, Segal, & Lietz, 2010), the Interpersonal Reactivity Index (IRI: Davis, 1980). Based on this scale, Péloquin and Lafontaine (2010) have developed and validated a scale of empathy toward a specific other: The Interpersonal Reactivity Index for Couples (IRIC). Using confirmatory factor analyses, we hypothesized that person-based empathy, as measured by the IRIC, and trait-based empathy, as measured by the IRI, would load onto separate factors. A second objective was to provide initial evidence of the incremental validity of person-based empathy over trait-based empathy in its association with prosocial outcomes. In the present study, we used positive interpersonal relationships as the basic marker of prosocial outcomes and measured it through relationship satisfaction and frequency of conflict with a close friend. We therefore expected that person-based empathy with respect to a close friend would be positively associated with relationship satisfaction with that

friend and negatively associated with conflict frequency with that friend, over and above trait-based empathy.

Although literature regarding gender differences in empathy is somewhat inconsistent (Baldner & McGinley, 2014; Klein & Hodges, 2001), some studies do report an advantage for women in empathic dispositions, especially when measured through self-report (e.g., Eisenberg & Lennon, 1983; Rueckert & Naybar, 2008). In addition, past findings have shown that women report more intimate and supportive friendships than men (Bank & Hansford, 2000). Therefore, gender will be included as a factor in the analyses. Interested readers will also find tests of gender differences in study variables in the supplementary materials.

4.5.1 Method

4.5.1.1 Participants and Procedure

The sample included 345 participants (215 females, 130 males) recruited from Crowdfunder, an online crowdsourcing data acquisition platform. Their mean age was 38.85 years ($SD = 13.55$ years). The advertisement described a 5 to 10 minutes online study on friendships and participants were compensated \$0.25 CAN for completing the questionnaire. A Monte Carlo simulation showed that a sample size of 300 participants was sufficient to test a model of four factors (6 or 7 observed variables each) with minimal factor loadings of .40 and a power of at least .80. Participants first completed the trait empathy scale before being asked to choose their closest friend and complete scales about their relationship with this friend, including their empathy towards that

friend. All studies of the present research have received the approval of a research ethics committee and this information will not be reiterated in the following studies.

4.5.1.2 Measures

Trait-based empathy. Based on recent recommendations (Baldner & McGinley, 2014), only two of the four subscales of the IRI (Davis, 1980) were used to assess participants' trait-based empathy. A first subscale assesses perspective taking, which corresponds to the tendency to try to adopt the point of view of others. The second subscale measures empathic concern, which is defined as feelings of sympathy for others when unfortunate. Each subscale consists of 7 items.³ Participants were asked to indicate the degree to which the items described them well on a 5-point Likert-scale ranging from “*Does not describe me well*” to “*Describes me very well*”. Sample items were “I try to look at everybody's side of a disagreement before I make a decision” for perspective taking and “When I see someone being taken advantage of, I feel kind of protective toward them” for empathic concern. A confirmatory factor analysis with Robust Maximum Likelihood as the estimator showed adequate fit for a model with two first-order factors corresponding to perspective taking and empathic concern and one second-order trait empathy factor, $\chi^2 (df = 31, n = 345) = 60.42, p < .01, CFI = .98$,

³ A transcription error in the questionnaire caused one item to be missing from the perspective taking subscale for a third of the sample. Multiple imputations were computed using Mplus 8.

RMSEA = .053 [.033; .072], SRMR = .034, with factor loadings for the indicators of the first-order factors ranging from .36 to .66 (except for one at .28, but still significant), and factor loadings for the second-order factor of .84.⁴ Because we were interested in the effect of empathy as a combination of its emotional and cognitive sub-aspects, a global index of trait empathy was computed by averaging scores of the two subscales (Cronbach's alpha = .85).

Person-based empathy. The IRIC (Péloquin & Lafontaine, 2010) was used to assess participants' person-based empathy in relation to their closest friend. This scale has demonstrated adequate evidence of convergent validity with other empathy scales (Péloquin & Lafontaine, 2010) and of discriminant validity with attachment anxiety and avoidance (Péloquin et al., 2011), and length of relationship (Péloquin & Lafontaine, 2010). In this study, items were modified so that instead of referring to participants' "partner", they referred to their "friend". In the validation study of the scale, an item adapted from the IRI had factor loadings lower than .30 on the two factors and was thus dropped from the IRIC (Péloquin & Lafontaine, 2010), thus resulting in 13 items assessing perspective taking and empathic concern. Participants were asked to indicate the degree to which the items described them well in relation to their closest friend on a 5-point Likert scale ranging from "*Does not describe me well*" to "*Describes me very well*". Sample items were "I sometimes try to understand my friend better by imagining how things look from his/her perspective" for perspective taking, and "When I see my friend being taken advantage of, I feel kind of protective toward him/her" for empathic concern. A confirmatory factor analysis with Robust Maximum

⁴ For identification purposes, the loadings of the two first-order factors onto the second-order factor were constrained to be equal.

Likelihood as the estimator showed adequate fit for a model with two first-order factors corresponding to perspective taking and empathic concern and one second-order person-based empathy factor, $\chi^2 (df = 23, n = 345) = 42.67, p < .01$, CFI = .99, RMSEA = .050 [.025; .073], SRMR = .026, with factor loadings for indicators of first-order factors ranging from .40 to .73 (except for one at .23, but still significant), and factor loadings for the second-order factor of .95.⁵ A global index of person-based empathy was computed by averaging the two subscales. Cronbach's alpha for the global index was .89.

Relationship characteristics. The satisfaction and conflict subscales of the *Networks of Relationship Inventory – Relationship Qualities Version* (NRI-RQV; Buhrmester & Furman, 2008) were used to assess core relationship characteristics. The satisfaction subscale assesses how positively one feels about a specific relationship, and the conflict subscale assesses how frequently conflicts occur in the relationship. Each subscale has three items. Participants indicated the frequency to which they did the listed behaviors with their closest friend on a 5-point Likert scale ranging from “*Never or hardly at all*” to “*Always or extremely much*”. A sample item is “How satisfied are you with your relationship with this person?” for satisfaction and “How often do you and this person argue with each other?” for conflict. Items from each subscale were averaged to form two distinct scores ($\alpha = .84$ for satisfaction, and .91 for conflict).

⁵ Again, the loadings of the two first-order factors onto the second-order factor were constrained to be equal.

4.5.2 Results and Discussion

T-tests examining gender differences in all study variables and correlations can be found in supplementary materials (see Table S1). First, a series of confirmatory factor analyses were conducted on Mplus 8 using Robust Maximum Likelihood as the method of estimation to test for the distinctiveness of trait-based empathy (i.e., the IRI) and person-based empathy (i.e., the IRIC). This is a stringent test because items of the IRIC are derived from the IRI, with the only difference that IRIC items focus on a close friend. We also used correlated uniqueness to account for the positive and negative valence of the items of both scales. Given that both scales are divided into two subcomponents of perspective taking and empathic concern, we tested a first model in which all items loaded onto two factors of perspective taking and empathic concern, regardless of the scale they belonged to. Fit indices for the two-factor model were just adequate: χ^2 ($df = 237$, $n = 345$) = 567.79, CFI = .90, RMSEA = .064 [.057, .070], SRMR = .070, and AIC = 22 703.66, with factor loadings ranging from .26 to .73. Next, we tested an alternative model in which items of the two scales loaded onto four factors: a *trait* perspective taking factor, a *trait* empathic concern factor, a *person-based* perspective taking factor, and a *person-based* empathic concern factor. Fit indices for the four-factor model were slightly better than for the two-factor model: χ^2 ($df = 232$, $n = 345$) = 554.82, CFI = .90, RMSEA = .064 [.057, .070], SRMR = .069, and AIC = 22 692.58 with factor loadings ranging from .43 to .73. Adjusted chi-square difference and AIC values revealed the models to be significantly different, $\Delta\chi^2(5) = 12.63$, $p < .05$, $\Delta AIC = 11.08$. Thus, separating trait-based empathy from person-based empathy better represented the data even though both measures were based on the same items.

Next, two hierarchical multiple regression analyses were conducted on relationship satisfaction and conflict frequency to test the incremental validity of person-based

empathy, over and above trait-based empathy. Given that there were gender differences in some of the key variables of this study, gender was included as a control variable in the analyses and interactions were examined. At Step 1, gender (0 = female, 1 = male), and trait-based empathy were entered. Person-based empathy was entered at Step 2. These results are presented in Table 1. Results showed that gender was marginally significantly related to relationship satisfaction. Trait-based empathy was significantly related to relationship satisfaction in Step 1, but not when person-based empathy was entered in Step 2 ($\beta = -.04, p = .55$). At Step 2, person-based empathy was significantly associated with relationship satisfaction. With regards to conflict frequency, gender and trait-based empathy were significantly related to conflict frequency, but trait-based empathy was no longer related to conflict frequency when person-based empathy was entered at Step 2 ($\beta = .09, p = .15$). Person-based empathy was associated with conflict frequency at Step 2.⁶ Overall, person-based empathy explained 16% of the variance of each outcome more than trait-based empathy. Thus, as expected, person-based empathy showed incremental validity in predicting relationship characteristics over and above trait empathy, which did not relate to these variables when person-based empathy was taken into account.

In sum, results from Study 1 suggest that person-based empathy is related to, but also distinct from trait-based empathy. Indeed, they loaded onto distinct factors, and person-based empathy was related to self-reported perceptions of the relationship when

⁶ There were no interactions between gender and person-based empathy on relationship satisfaction and conflict frequency $ts < |0.42|, ps > .68$.

controlling for trait-based empathy, which was no longer related to them when person-based empathy was taken into account.

4.6 Study 2

An important and yet potentially destructive aspect of interpersonal relationships is conflict (Canary, 2003). The capacity to resolve interpersonal conflict and communicate adaptively is therefore a key prosocial behavior in relationships (Murray & Holmes, 2011). The purpose of Study 2 was to extend the results of Study 1 by testing the predictive validity of person-based empathy on conflict resolution behaviors with a close friend and replicate it in two samples. To do so, we used two different methods: a self-reported scale of conflict resolution strategies with a close friend (Sample 1) and a hypothetical vignette of conflict with a close friend (Samples 1 and 2). Responses from vignettes offer a way to study participants' spontaneous responses to hypothetical situations without requiring participants to understand or be aware of the concepts studied, as responses are freely provided and are later coded by independent judges (Hughes & Huby, 2002).

Study 2 also incorporated a number of improvements as compared to Study 1. First, a more extensive set of empathy-related traits was used in Study 2 to measure trait-based empathy (i.e., emotion expression, emotion perception, emotion regulation, and empathy). Second, we controlled for the effect of potential confounders. Since person-based empathy is conceptualized as a motivational drive, it should be more than a mere reflection of how harmonious, satisfying, or less conflictual a relationship is. It should

also go beyond how close people are to their friend in terms of the amount of time spent interacting with that friend. Therefore, in Sample 2, we controlled for discord, closeness, and proximity (i.e., how frequently participants talked and spent time with their friend) in the association between person-based empathy and adaptive conflict resolution behaviors in the vignette.

We expected person-based empathy to be related to prosocial outcomes such as more constructive and softening self-reported conflict resolution strategies (integrating, compromising, obliging), less self-reported destructive conflict resolution strategies (dominating, avoiding), and more adaptive communication strategies in the conflict vignette, over and above trait-based empathy and control variables.

4.6.1 Method

4.6.1.1 Participants and Procedure

The first and second samples included respectively 209 (144 females, 65 males) and 151 (108 females, 43 males) undergraduate and graduate students, both recruited from a Canadian university. In the first sample, one participant did not respond to the vignette, leaving 208 participants to include in the statistical analyses involving vignette responses. These sample sizes are adequate for detecting small to medium effect sizes in multiple regressions with one predictor tested among a total of five predictors ($f^2 = .06$) with a power of .80. The mean age was 28.70 years ($SD = 9.16$ years) and 30.01 years ($SD = 9.72$ years) for Samples 1 and 2, respectively. Participants were contacted through their university email and informed that an online study was

currently being conducted on friendships. As an incentive for their participation, they were entered into a drawing for one of three prizes of \$125 CAN. Participants first completed the trait empathy scale. They were then asked to think of their closest friend and indicate how frequently they interacted with their friend. They also indicated their person-based empathy as well as their habitual conflict resolutions strategies with this friend and relationship characteristics (Sample 2 only for this latter scale). Finally, they were asked to imagine themselves in a hypothetically conflicting situation with their close friend and to indicate what would their own reaction and their friend's reaction be in that situation.

4.6.1.2 Measures

Trait-based empathy. Four subscales of the *Trait Emotional Intelligence Questionnaire* (TEIQue; Petrides & Furnham, 2003) were used to assess participants' trait empathy: emotion expression, emotion perception, emotion regulation, and empathy. Participants were asked to indicate their degree of agreement with each of the 52 statements on a 7-point Likert scale ranging from 1 "*Strongly disagree*" to 7 "*Strongly agree*".⁷ Sample items include "It is easy for me to find the right words to describe my

⁷ A transcription error in the questionnaire caused items to be missing in Sample 1 (only 26 items were used out of the 52 original items, resulting in at least 5 items per subscales). Alphas were comparable for Samples 1 and 2.

feelings” (emotion expression), “I’m able to “read” most people's feelings like an open book” (emotion perception), “I’m usually able to calm down quickly after I’ve got mad at someone” (emotion regulation), and “Understanding the needs and desires of others is not a problem for me” (empathy). A global index of trait empathy was computed by averaging all subscales ($\alpha = .86$ and $.89$ for Samples 1 and 2, respectively). A pilot study showed this index to be strongly correlated to the IRI global score used in Study 1 ($r = .51$, 95% CI $[.38; .64]$, $p < .01$).

Person-based empathy. Again, the modified version of the IRIC (Péloquin & Lafontaine, 2010) was used to assess participants’ person-based empathy with their closest friend ($\alpha = .74$ and $.76$ in Samples 1 and 2, respectively).

Relationship characteristics (Sample 2 only). As in Study 1, the NRI-RQV (Buhrmester & Furman, 2008) was used to assess closeness and discord in the relationship. In this study, we used all relationship characteristics, not only the satisfaction and conflict subscales, to control for a more comprehensive set of relationship aspects. The closeness subscale ($\alpha = .89$) was an average of 5 subscales of 3 items each, sample items are in parentheses: companionship (“How often do you and your friend go places and do things together?”), disclosure (“How often do you tell your friend everything that you are going through?”), emotional support (“How often do you turn to your friend for support with personal problems?”), approval (“How often does your friend praise you for the kind of person you are?”), and satisfaction (“How satisfied are you with your relationship with this person?”). The discord subscale ($\alpha = .86$) was an average of 5 subscales of 3 items each: pressure (“How often does your friend pressure you to do the things that he or she wants?”), criticism (“How often does your friend criticize you?”), dominance (“How often does your friend get their way when you two do not agree about what to do?”), exclusion (“How often does it seem like your friend ignores you?”), and conflict (“How often do you and this person argue with each other?”).

Proximity (Sample 2 only). To assess participants' proximity to their friend, they were asked to indicate how frequently they interacted with their friend with two items ("How often do you usually communicate with your friend?" and "How often do you usually spend time with each other?") using a 9-point Likert scale ranging from 1 (*everyday*) to 9 (*at least once every 10 years*) with the middle point being 5 (*once every season*). Inter-item correlation was high ($r = .76$, 95% CI [.64; .84], $p < .01$), therefore we computed a composite score of proximity by averaging answers to the two items, first reversing the scores on each item so that high scores were indicative of high proximity.

Conflict resolution strategies (Sample 1 only). *Rahim's Organizational Conflict Inventory* (ROCI; Rahim, 1983) was used to assess participants' tendency to use five conflict resolution strategies with their closest friend: avoiding, dominating, obliging, integrating, and compromising. Participants were asked to indicate the extent to which the 28 items applied to them when they are experiencing a conflict with this friend on a 5-point Likert scale ranging from "*Almost never*" to "*Almost always*". Sample items are "I try to stay away from disagreements with my friend" for avoiding ($\alpha = .80$), "I am usually firm in pursuing my side of an issue" for dominating ($\alpha = .73$), "I usually accommodate the wishes of my friend" for obliging ($\alpha = .78$), "I try to investigate an issue with my friend to find a solution acceptable to us" for integrating ($\alpha = .89$), and "I 'give and take' so a compromise can be made" for compromising ($\alpha = .77$).

Hypothetical conflict with a friend and communication strategies. Participants were asked to imagine themselves in the following conflict vignette with their closest friend:

You promised your friend to spend the evening with him/her, but have to cancel at the last minute. It's the second time that you have to cancel that way lately, but you tell yourself that he/she has also cancelled recently so he/she will probably not be too upset. However, when you call your friend to tell him/her, he/she is very offended and blames you for always cancelling at the last minute. What happens next?

Instructions stressed participants to imagine and write how both themselves and their friend would react in that situation. They were asked to provide details about how they would feel when cancelling and following their friend's reaction, what they would do next, how they thought their friend would answer back, how their friend would feel, and how the conflict would end.

Following Overall and her colleagues (Overall, Fletcher, Simpson, & Sibley, 2009), responses were coded for communication strategies. In the original coding scheme, two romantic partners discuss an ongoing conflict and six categories of communication strategies (i.e., coercion, autocracy, manipulation, supplication, soft positive, and reasoning) are coded. For the present conflict vignette, only three categories could be reliably coded as too few participants described reactions that included coercion, manipulation, and supplication. Raters coded for the presence of strategies of autocracy, soft positive, and reasoning using a 7-point scale in which 1 to 2 indicated absence or low presence of the communication strategy, 3 to 5 indicated a moderate presence, and 6 to 7 was indicative of high use of a particular communication strategy.

Autocracy corresponds to the extent to which participants seemed to believe themselves as superior to their friend. Attitudes such as taking a non-negotiation stance, invalidating the friend's point of view and implying that the participant was better able to handle this conflict situation than the friend were coded as high autocracy. Soft positive is a strategy in which participants attempt to soften the blow on their friend and try to create a favorable environment for discussion. Attitudes such as using positive affect and humor, acknowledging and validating the friend's feelings and point of view toward the situation, concentrating on the positive, and trying to compensate for the harm done were coded as high soft positive. Reasoning is a strategy that involves an explanation and a reasonable presentation of facts. Attitudes such as asking accurate information from the friend, using logic and rational reasoning, explaining the reasons for the cancellation and making effort so that the friend will understand them,

encouraging the friend to explain their point of view toward the situation, and trying to find a solution by exploring alternatives were coded as high reasoning. Sample narratives for high scores on each category can be found in Supplemental Material as well as inter-correlations among categories for each sample.

Principal components analyses conducted on the three categories revealed one factor accounting for 51.35% and 55.30% of the total variance for Samples 1 and 2, respectively, including autocracy (-.79 and -.73 for Samples 1 and 2, respectively), soft positive (.73 and .78 for Samples 1 and 2, respectively), and reasoning (.62 and .73 for Samples 1 and 2, respectively). This result is consistent with the conceptualization of Overall and colleagues (2009), who highlighted that autocracy is a negative communication behavior that should hinder conflict resolution, whereas soft positive and reasoning are adaptive strategies that should promote conflict resolution. Therefore, a global index of adaptive communication strategies was computed by averaging standardized scores of autocracy (reversed), soft positive, and reasoning ($\alpha = .52$ and $.60$, Sample 1 and 2 respectively). In Sample 1, 50% of narratives were also coded by a second judge to provide inter-rater reliability. Intra-class correlations were .69 for autocracy, .77 for soft positive, and .80 for reasoning.

4.6.2 Results and Discussion

T-tests examining gender differences in all study variables and correlations can be found in supplementary materials for the purpose of maintaining results presentation as concise as possible (see Tables S2, S3 and S4). Gender differences were comparable to those found in Study 1. A series of multiple hierarchical regressions were conducted

on all self-reported conflict resolution strategies with a close friend and on communication strategies in a hypothetically conflicting situation. As in Study 1, gender was included as a control variable in the analyses. Gender (0 = female, 1 = male), and trait empathy were entered in Step 1, and person-based empathy was entered in Step 2. Table 2 presents the coefficients of all these regressions.

For the self-reported conflict resolution strategies, person-based empathy was associated with more obliging, integrating, and compromising strategies, and less self-reported dominating strategies, controlling for gender, and trait empathy. However, person-based empathy was not related to avoidance strategies. As for communication strategies in the conflict vignette, person-based empathy was positively related to the use of adaptive communication strategies with a friend, over and above control variables.⁸ In Sample 2, controlling for closeness, discord, and proximity did not alter the results. Trait empathy in Step 1 ($\beta = .22$, $B = .23$, $SE = .08$, 95% CI [.07; .39] $p < .01$) and person-based empathy in Step 2 ($\beta = .19$, $B = .28$, $SE = .13$, 95% CI [.02; .54], $p < .05$) were positively related to communication strategies. Closeness was marginally related to communication strategies ($\beta = .13$, $B = .19$, $SE = .11$, 95% CI [-.04; .41], $p = .098$), but proximity ($\beta = -.09$, $B = .05$, $SE = .04$, 95% CI [-.13; .03], $p = .25$) and discord ($\beta = -.07$, $B = .10$, $SE = .11$, 95% CI [-.32; .13], $p = .40$) were not. These results support the hypothesis that person-based empathy is associated with the use of constructive (and less use of destructive) conflict resolution strategies and adaptive communication strategies in a conflicting situation with a friend, over and above trait-based empathy. Results from Sample 2 also suggest that person-based

⁸ There were no interactions between person-based empathy and gender, all $ts < |1.72|$, $ps > .088$.

empathy is more than mere relationship characteristics, as it was related to communication strategies even when controlling for these variables.

In sum, Study 2 further supported the distinction person-based and trait-based empathy using a more comprehensive set of dispositions than in Study 1. Results also supported the incremental validity of person-based empathy over trait-based empathy, this time predicting behavioral tendencies when in conflict with a close friend using a questionnaire and a hypothetical vignette.

4.7 Study 3

The main goal of Study 3 was to extend the range of prosocial outcomes predicted by person-based empathy by examining dyadic relational outcomes. Because investigating dyadic outcomes permits to control for potential partner effects, we modeled both actor and partner effects. Thus, the first objective of this study was to investigate the effect of participants' person-based empathy on prosocial outcomes, controlling for the friend's person-based empathy, and both participants' and their friends' trait empathy and proximity to one another. First, to replicate findings of Study 2, participants and their friend completed the same hypothetical vignette as in Study 2. Second, to extend the range of prosocial outcomes studied to more objective ones, participants were also asked to imagine themselves (and their friend) in everyday hypothetical situations and indicate how they (and their friend) would react in these situations. These responses were used to calculate a score of empathic accuracy. This type of measurement also permits to control for the participants' perception of similarity between their own

behaviors and those of their friend in such hypothetical situations. Study 3 thus tested the incremental validity of person-based empathy on communication strategies and on a well-studied empathic behavior, empathic accuracy, using a dyadic design. We expected participants' person-based empathy to predict their own communication strategies and empathic accuracy, controlling for their friend's person-based empathy, and both their trait-based empathy and proximity to one another.

4.7.1 Method

4.7.1.1 Participants and Procedure

A total of 102 participants (51 mixed-gendered friend dyads) were recruited from a Canadian university to participate in this study. Participants' mean age was 31.59 years ($SD = 12.50$ years). The sample included 12 mixed-gendered dyads, 27 female dyads, and 12 male dyads. A priori power analyses showed that a sample of 55 dyads was sufficient to detect actor and partner effect sizes of $\beta = .25$ with a correlation of .40 between actor and partner variables and between errors with a power of .80, making the study slightly underpowered. Yet, post-hoc power analyses showed that this sample size was enough to detect actor and partner effects of .257 with a power of .80. As an incentive for their participation, participants and their friend were entered into a drawing for one of three prizes of \$125. Participants were recruited through their university email and invited to participate in a study on close friendships. They were also told that they would be asked to invite their friend to participate in the study by entering their friend's email at the end of the questionnaire. Both friends completed the same questionnaire separately and both questionnaires were completed online. They

first completed the trait-based empathy scale and indicated how they would react to two everyday hypothetical scenarios. Then, they were asked to think of their closest friend and indicate their proximity as well as their person-based empathy. Next, they were presented with the same hypothetical scenarios but were now asked to indicate how they thought *their friend* would react in these hypothetical situations. Finally, they were asked to imagine themselves in the same hypothetically conflicting vignette with their friend, as in Study 2. Participants in this study will be treated as indistinguishable dyads since there is no theoretically relevant way to distinguish both members of the dyads (Olsen & Kenny, 2006). Therefore, Cronbach's alpha and other reliability indices will be presented for the whole sample ($N = 102$).

4.7.1.2 Measures

Trait empathy. The same subscales of the TEIQue (Petrides & Furnham, 2003) as in Study 2 were used to assess trait empathy ($\alpha = .88$).

Proximity. The same items as in Study 2 were used to assess participants' proximity to their friend. Again, inter-item correlation was high ($r = .79$, 95% CI [.71; .86], $p < .01$), therefore we computed a composite score of proximity by averaging answers to the two items, first reversing the scores on each item so that high scores were indicative of high proximity.

Person-based empathy. Again, the modified version of the IRIC (Péloquin & Lafontaine, 2010) was used to assess person-based motivated empathy with their closest friend ($\alpha = .82$).

Empathic accuracy and assumed similarity. Participants were asked to imagine themselves in two scenarios taken from the Emotion Regulation Styles questionnaire (Houle, Philippe, & Beaulieu-Pelletier, 2019). The hypothetical situations were as follow:

You are part of a work committee in which you are greatly invested. Recently, you are under the impression that your colleagues do not include you as much as before in decision-making processes and that they do not invite you anymore to join them in activities outside the committee. You feel excluded and rejected. How do you react?

and “*Your boss announces you that you did not get the position of higher responsibility you long desired in the enterprise. How do you react to this news?*” Participants had to indicate the degree to which 12 proposed reactions for each scenario corresponded to how they would react on a 100-point scale by sliding a button on a line ranging from “*Does not correspond at all*” to “*Corresponds perfectly*”. Their response was attributed a specific value between 0 and 100 depending on the position of the slider-button on the line, but that value was hidden from the participants. Sample statement reactions for the second scenario are: “*I cry in front of my boss*”, “*I reflect on the reasons I did not get the position in order to better understand the direction’s decision*”, and “*I’m ashamed, I feel incompetent*”. The same scenarios were presented again, but this time, instructions stressed participants to imagine how *their friend* would react. Instructions were:

This time you will be asked to indicate the reactions you think your friend might have in the described situation. Respond according to what you think your friend’s reaction would be, not according to what you think he/she should do.

Using the participants’ and their friend’s responses to the scenarios, two indices were calculated. The first is empathic accuracy and is an index of how a person’s inferences about his/her friend’s reactions matched the reactions his/her friend indicated he/she

would have in the scenarios (e.g., Ickes, 1993). It thus represents accuracy of inferences about the friend's reactions in hypothetical situations. It was computed by using the absolute difference between the friend's reported reactions to the scenarios and the participant's inference of how their friend would react in the scenarios (Ma-Kellams & Blascovich, 2012). Empathic accuracy = $|\text{participant's assumed friend's response} - \text{friend's actual response}|$. This score was reversed so that a high degree of accuracy between a person's reaction and their friend's inference will be indicative of a high score of empathic accuracy.

The second index is an index of assumed similarity, which represents the degree of resemblance between how a person reported they would react and how they thought their friend would react to the scenarios (Kenny & Acitelli, 2001; Thomas, Fletcher, & Lange, 1997). It was computed by using the absolute difference between the participants' responses to each item of the scenarios and their inference of their friend's reactions to each of those items. Assumed similarity = $|\text{participant's own response} - \text{assumed friend's response}|$. Again, the score was reversed so that a high degree of resemblance will be indicative of a high score of assumed similarity.⁹

Communication strategies. As in Study 2, responses to the hypothetical conflict vignette were coded for communication strategies of autocracy, soft positive, and reasoning. Principal components analyses conducted on the three categories revealed one factor accounting for 55.10% of the total variance, including autocracy (-.77),

⁹ Because the use of difference scores has sometimes been criticized, we have also run the analyses using a moderation technique drawn from the Truth and Bias Model (West & Kenny, 2011) and results remained virtually the same.

reasoning (.76) and soft positive (.69). Responses were averaged into a single communication strategies index as in Study 2 ($\alpha = .61$)

4.7.2 Results and Discussion

Results from *t*-tests examining gender differences in study variables and correlations can be found in supplementary materials (see Table S5). We used multilevel modeling with indistinguishable dyads (Kenny, Kashy, & Cook, 2006) on SPSS to test for the incremental validity of participants' person-based empathy on their communication strategies and on their empathic accuracy. Following the recommendations of Olsen and Kenny (2006), we used a pairwise dataset in which each dyad is represented twice in the dataset: once with the first participant as the actor and their friend as the partner, and once with the first participant as the partner and their friend as the actor. Therefore, in the following results, the term "participant" refers to all participants in the study while "friend" represents the other dyad member for each entry in the dataset. Predictor variables include both participants' and their friends' person-based empathy, trait-based empathy and perceived proximity in the relationship for the analysis on communication strategies and empathic accuracy, and both participants' and their friend's assumed similarity for the analysis on empathic accuracy.

Participants' person-based empathy was a significant predictor of their use of adaptive communication strategies ($b = .29$, $SE = .14$, 95% CI [.01; .56], $p < .05$) (actor effect). However, friends' person-based empathy was not related to participants' communication strategies ($b = .13$, $SE = .14$, 95% CI [-.15; .40], $p = .36$) (no partner effect). In other words, the level of person-based empathy of one of the friends was not

facilitating the other friend's use of adaptive communication strategies. Conversely, neither participants' nor friends' trait-based empathy ($b = .10$, $SE = .14$, 95% CI [-.18; .38], $p = .47$, and $b = .05$, $SE = .14$, 95% CI [-.22; .33], $p = .70$, respectively) or proximity ($b = .13$, $SE = .18$, 95% CI [-.23; .48], $p = .48$, and $b = -.09$, $SE = .18$, 95% CI [-.44; .27], $p = .63$, respectively) predicted participants' communication strategies.

As for accuracy at predicting a friend's behaviors, participants' person-based empathy significantly predicted their own empathic accuracy ($b = .21$, $SE = .10$, 95% CI [.01; .41], $p < .05$) (actor effect) whereas friends' person-based empathy did not predict participants' empathic accuracy ($b = .11$, $SE = .10$, 95% CI [-.09; .31], $p = .26$) (no partner effect). In other words, each person's own person-based empathy predicted this person's accuracy in anticipating his/her friend's responses to the scenario. Again, neither participants' nor their friend's trait-based empathy ($b = .06$, $SE = .10$, 95% CI [-.14; .25], $p = .56$, and $b = .04$, $SE = .10$, 95% CI [-.16; .23], $p = .70$, respectively) or proximity ($b = .05$, $SE = .11$, 95% CI [-.17; .28], $p = .63$, and $b = -.01$, $SE = .11$, 95% CI [-.23; .21], $p = .93$, respectively) predicted participants' empathic accuracy. Finally, both participants' and friends' assumed similarity ($b = .26$, $SE = .09$, 95% CI [.08; .44], $p < .01$, and $b = .23$, $SE = .09$, 95% CI [.05; .41], $p < .05$, respectively) (actor and partner effects) were significant predictors of participants' empathic accuracy as might be anticipated given previous studies (e.g., Kenny & Acitelli, 2001; Wilhelm & Perrez, 2004). This suggests that assumed similarity contributes to empathic accuracy in close friendships, as has been hypothesized by others (Nickerson, Butler, & Carlin, 2009).

This result also shows that person-based empathy is distinct from assumed similarity and that it predicts empathic accuracy over and above similarity.¹⁰

Overall, these results replicate the association between person-based empathy and communication strategies from Study 2 using a dyadic design. Moreover, results revealed that person-based empathy could predict more objective prosocial outcomes, such as empathic accuracy, than self-reported ones. Findings indeed suggest that person-based empathy is related to higher accuracy when predicting one's friend's reactions in hypothetical situations, over and above trait-based empathy of both friends and the friend's person-based empathy. Moreover, person-based empathy was independent of assumed similarity in its prediction of empathic accuracy, providing further evidence that person-based empathy reflects a motivation for understanding the states and actions of others, unconfounded with perceived similarity.

4.8 Study 4

¹⁰ Including either participants' or their friends' gender as a covariate did not alter the results on communication strategies and empathic accuracy, and gender did not predict the outcomes ($ps > .165$). In addition, interactions between participants' or their friends' person-based empathy and participants' gender or their friends' gender were not significant ($ts < |1.33|$, $ps > .19$).

Study 4 provided two improvements over Studies 1 to 3. First, all previous studies outcomes were based on self-reported or anticipated actions. Study 4 was designed to examine whether person-based empathy would predict observable prosocial behaviors toward that person in a real-life setting. Second, in Studies 1 to 3, person-based empathy only included close friends. Results from Studies 2 and 3 showed that proximity was not a significant predictor of the prosocial outcomes, although proximity was fairly high among close friends so there might not have been enough variability to detect proximity effects. Study 4 recruited dyads with varying levels of relationship length and proximity, this time using a more qualitative measure of proximity (i.e., the nature of the relationship such as acquaintances, friends, romantic partners, family members), thereby allowing us to examine whether person-based empathy could be differentiated from proximity and relationship length in a more diverse sample of relationship types. In this study, participants in dyads played a cooperative board game to provide a context in which observable prosocial behaviors could be displayed. The game was designed to facilitate the observation of two prosocial behaviors: cooperation and approval among dyads. We expected person-based empathy to predict those behaviors as displayed during the game. Moreover, because these are dyadic prosocial behavior occurring in a joint interaction (i.e., one cannot cooperate alone or approve of nobody), we expected that person-based empathy of both members of each dyad would predict these prosocial behaviors. Although Study 3 showed no such partner effects, Study 3 also did not implicate joint interactions between partners as in Study 4. Trait empathy was not assessed in this study to keep the initial questionnaire short and because the primary interest was to investigate the capacity of person-based empathy across dyads of various types in predicting observable prosocial behaviors.

4.8.1 Method

4.8.1.1 Participants and Procedure

A total of 150 participants (75 mixed-gendered friend dyads) were recruited in parks and other public areas of the metropolitan region of Montreal. Participants' mean age was 31.18 years ($SD = 13.04$ years). The sample included 40 mixed-gendered dyads, 27 female dyads, and 8 male dyads. The sample was diversified and included 8 acquaintances, 29 friends, 34 romantic partners, and 4 family members, as self-reported by participants. A priori power analyses showed that a sample of 55 dyads was sufficient to detect actor and partner effect sizes of $\beta = .25$ with a correlation of .40 between actor and partner variables and between errors with a power of .80. This sample size is adequate for detecting such effects. As an incentive for their participation, participants and their partner were each given \$2 CAD.

Two experimenters approached people that were already hanging out together in dyads in large parks to invite them to participate in a 5- to 10-minute study involving a brief questionnaire and a cooperative game. There were two experimenters so that both could observe participants' behaviors during the game to allow for inter-rater reliability analyses. First, both partners completed the same questionnaire on separate electronic tablets in which they reported their person-based empathy toward their partner and the type of relationship to their partner (i.e., acquaintance, friend, romantic partner, family member). Dummy coded variables were used for each type of relationship. Participants also indicated how long they had known their partner in number of years. Responses of each partner were confidential. Next, the experimenters explained that partners would play a game called Boom Boom Balloon (Rookmaaker, 2012) in which they would be asked, each in turn, to push sticks into a plastic structure enclosing an inflated

balloon. When pushing the sticks in the notches of the structure, the balloon would be deformed until it would finally explode, which ends the game. The experimenter would determine the number of notches to be pushed per turn by rolling a virtual dice on an electronic tablet. In fact, the number of notches per turn was predetermined and was the same for each dyad (between 1 and 3 notches per turn). Participants were told that the objective of the game was to make decisions regarding where to push the sticks so that they would together make as many notches as possible before the balloon exploded. Each participant had to decide where to put the notches in *their friend's turn*, but they were told that they could consult each other prior to making a decision. This setup was chosen because the participant then became responsible for the balloon bursting in his/her partner's face, thus increasing the probability of tension and conflict, but also providing opportunities for cooperative behavior. While the participants played the game, the experimenters observed participants' behavior so that when the game was over, they would independently report the behaviors they observed for each dyad member. As in Study 4, participants will be treated as indistinguishable dyads as there is no theoretically relevant way of distinguishing them (Olsen & Kenny, 2006). Therefore, Cronbach's alpha and other reliability indexes will be presented for the whole sample.

4.8.1.2 Measures

Person-based empathy. The IRIC (Péloquin & Lafontaine, 2010) was used again to assess participants' person-based empathy toward the person they were currently with ($\alpha = .77$).

Interpersonal behaviors during the game. Observers coded for the presence of two prosocial behaviors that could be reliably observed during the game: cooperation and approval. These behaviors were chosen as they contribute to pleasant and constructive interactions between dyad members (Canary, 2003). In this study, cooperation corresponded to the extent to which the participant was trying to work with his/her partner instead of making decisions alone so that they would together make as many notches as possible before the balloon explodes. Therefore, behaviors such as soliciting the partner's input before deciding where to push the sticks and asking for his/her opinion before making a decision were coded as high cooperation. To be coded as high cooperation, it was important that the participant was not only relinquishing the decision to his/her partner but was really asking for his/her partner's opinion or input before making a decision. Approval corresponded to the extent to which the participant showed support and approval for the choices proposed by his/her partner whenever the partner voiced his/her opinion, instead of dismissing them. Behaviors such as verbally supporting or encouraging the partner when they suggested a move, or nodding in approbation of the partner's opinion were coded as high approval. Raters coded for the presence of these behaviors using a 7-point scale in which 1 to 2 indicated a low presence of the behavior, 3 to 5 indicated a moderate presence, and 6 to 7 was indicative of a high use of a particular behavior. Intra-class correlations between the two observers were .71 for cooperation and .61 for approval, which is high given that it was a field study and that judges had to code these behaviors during their immediate and live occurrence. Observations were averaged across observers for each participant and partner separately.

4.8.2 Results and Discussion

Again, *t*-tests for gender differences in study variables and correlations can be found in supplementary materials (Table S6). As in Study 3, we used multilevel modeling with indistinguishable dyads (Kenny et al., 2006) using SPSS to test for the predictive value of participants' person-based empathy on their cooperation and approval. Each analysis includes participants' and their partners' person-based empathy. On a second block, relationship length and dichotomous variables for relationship types were entered. As in Study 3, we used a pairwise dataset (Olsen & Kenny, 2006). Therefore, in the following results, the term "participant" refers to all participants in the study while "partner" represents the other dyad member for each entry in the dataset. As expected, participants' person-based empathy predicted their own cooperation ($b = .37$, $SE = .16$, 95% CI [.06; .69], $p < .05$) and approval ($b = .46$, $SE = .15$, 95% CI [.15; .76], $p < .01$) (actor effects). In addition, partner's person-based empathy predicted participants' cooperation ($b = .36$, $SE = .16$, 95% CI [.05; .68], $p < .05$) and approval ($b = .35$, $SE = .15$, 95% CI [.04; .65], $p < .05$) (partner effects). On a second block, relationship length and dichotomous variables dichotomous variables for acquaintances, dating partners, and family members were entered and compared to friends. Relationship length did not significantly predict cooperation ($b = .00$, $SE = .01$, 95% CI [-.02; .02], $p = .98$) or approval ($b = .02$, $SE = .01$, 95% CI [-.01; .04], $p = .18$). Finally, acquaintances ($b = -.23$, $SE = .20$, 95% CI [-.63; .16], $p = .24$, and $b = .21$, $SE = .24$, 95% CI [-.26; .68], $p = .38$), dating partners ($b = -.15$, $SE = .23$, 95% CI [-.60; .29], $p = .50$, and $b = -.45$, $SE = .23$, 95% CI [-.91; .01], $p = .055$) and family members ($b = -.11$, $SE = .43$, 95% CI [-.96; .73], $p = .79$, and $b = .33$, $SE = .48$, 95% CI [-.61; 1.27], $p = .49$) did not significantly differ from friends in terms of cooperation and approval, respectively. Moreover, there were no significant moderations of participants' or partners' person-

based empathy by relationship type or relationship length ($ts < |1.84|, p = .069$).¹¹ These results provide evidence that person-based empathy is unconfounded with relationship type and relationship length and can predict observable prosocial behaviors. Moreover, results suggest that participants' person-based empathy predict not only their own display of prosocial behaviors but also their partners' when assessed in a joint task.

4.9 Study 5

The purpose of Study 5 was to examine how person-based empathy can be activated and transferred to unknown social targets to predict prosocial attitudes toward these targets (Principle 3). Studies 1 to 4 suggested that person-based empathy was associated with prosocial outcomes, yet this person-based empathy was bound to an existing relationship. Drawing from the literature on significant-other representations and transference (Andersen & Chen, 2002; Andersen et al., 2002), we posited that a person's representation for their closest friend encompasses their person-based empathy. Thus, activating the mental representation of that person should activate its

¹¹ Including either participants' or their friends' gender as a covariate did not alter the results and neither participants' gender nor their partners' gender were related to cooperation or approbation ($ps > .53$). Moreover, there were no interactions between participants' or their partners' person-based empathy and participants gender or their partners' ($ts < |1.03|, ps > .31$).

related person-based empathy, which could then be transferred to unknown targets in need or in distress and increase empathy toward them.

In Study 5, we activated the representation of participants' closest friend prior to exposing them to distressing stories of unknown targets.¹² Studies have shown that being exposed to a strangers' distressing situation can elicit both feelings of empathy and personal distress (Batson et al., 1991). Yet, only empathy toward a stranger's situation is likely to lead to prosocial behaviors whereas feelings of personal distress generally backfire, making people more self-centered and less likely to help the stranger in need (Batson et al., 1987). Therefore, we assessed participants' empathy and personal distress toward two strangers. In addition, to rule out a potential mood induction by the experimental condition, we also tested whether the conditions differed on how sad and negative the strangers' situations were perceived to be. We expected the activation of a close friend representation to induce more empathy toward two unknown targets, but not more personal distress and not more perceived negativity, as compared to a control condition in which no close friend representation was activated. To ensure that effects were driven by the experimental manipulation and solely by

¹² A pilot study was conducted to confirm that close friend representations are characterized by higher levels of person-based empathy than representations of any other friend so that the priming of this representation would activate high levels of empathy. In an online study, 133 students from a Canadian university were asked to report their empathy on a 1 to 5 Likert scale toward their closest friend and toward another friend using the IRIC. Results indeed revealed higher levels of person-based empathy toward the closest friend ($M = 4.07$, $SD = 0.52$) than toward another friend ($M = 3.91$, $SD = 0.58$), $t(132) = 3.77$, $p < .01$.

participants' empathic dispositions, we controlled for participants' trait-based empathy and also tested for moderations.

4.9.1 Method

4.9.1.1 Participants and Procedure

A total of 175 participants from the general population were recruited for this study. They had been randomly recruited in various public areas in a large metropolitan city to participate in various psychological studies. Based on past research using priming of person representations, we expected medium effect sizes ranging from $f = .24$ to $.33$ (Glassman & Andersen, 1999; Mikulincer, Shaver, Gillath, & Nitzberg, 2005). This sample size is adequate to detect medium effect sizes in an ANCOVA with two groups and one covariate ($f = .24$) with a power of $.80$. Participants' mean age was 38.87 years ($SD = 15.61$ years). They were invited to participate in an online study in which they would be asked to evaluate two life stories ostensibly written by participants from another study that could be used in future studies. As an incentive for their participation, they were entered into a drawing for one of three prizes of \$125 CAD. First, participants completed a general personality questionnaire in which items assessing their trait empathy were inserted among the items, so as to conceal the purpose of the study and avoid potential social desirability. Next, participants answered a series of filler demographic questions that inquired about an activity they liked and the number of books they read in the last year. Among these questions was also included either a key question inquiring about the name of their closest friend [prime condition] or the name of their hometown [control condition]. This question was

designed to either activate their close friend representation and associated person-based empathy or to activate no such representation, but a similar positive representation. Indeed, a pilot study indicated that people feel as positive about their hometown as they feel about a close friend (see supplementary materials). This question was presented within other filler questions so as not to draw conscious attention to this particular question and that the activation of the representation remained supraliminal.

Next, participants completed a buffer word counting task that lasted 6 minutes. This task's sole purpose was to introduce a delay between the priming conditions and the measured outcomes. Finally, they were presented with the life stories of two fictitious participants and asked to evaluate them on a number of aspects, including filler items. Among the evaluative questions, participants were asked to report their empathy and personal distress toward each target, and the perceived negativity of the story of each target. One of the stories exemplified a low-to-moderate level of distress, whereas the other one was of high distress, so as to examine whether the priming would be effective with targets displaying either low or high distress. Finally, participants were fully debriefed with regards to the fictitious life stories and thanked for their participation.

4.9.1.2 Measures

Trait-based empathy. Four items from the IRI (Davis, 1980) were used to assess trait-based empathy through two subcomponents: empathic concern and perspective taking. These items were chosen as they best represent each subcomponent as suggested by their strong factor loadings in Study 1's CFA (e.g., "I have tender, concerned feelings for people less fortunate" for empathic concern and "I sometimes try to understand

people better by imagining how things look from their perspective.” for perspective taking). The four items were averaged into a single empathy index (Cronbach’s alpha was .67). Based on Study 1 data, this four-item scale correlated at .85 with the complete IRI scale. These items were hidden within the 60 items of the Big Five Inventory-II (Soto & John, 2017a).

Life stories to evaluate. Participants were presented with two ostensibly real-life stories collected from other participants—one relating a set of moderately negative personal events and a second one representing a more extreme set of negative events. In reality, both life stories were fictitious. This cover story was used to increase participants’ engagement with the stories. The first life story, moderate in intensity, was from Jonathan, a university student in administration:

A few weeks ago, I received my grades for two exams that I thought had gone well. The grades I got were way below the group mean. I was disappointed, I thought I understood everything well. On top of that, I wanted to contact a professor from one of those two classes to maybe get to work with him. I now doubt that I should. Besides with these grades, I fear I won't be accepted for a Master's degree.

The second life story was from Myriam, a university student in finances, and was adapted from Batson and colleagues (1988, 1991):

Last year, my parents and one of my sisters were killed in a car accident. My brother of 10 years old and my sister of 12 years were not in the car at the moment of the accident. I was keeping them at home. Since my parents' death, I am desperately trying to take care of my surviving younger brother and sister while trying to finish my last year of BA studies. It is really hard, because I have classes every day and I have to finish my studies. If I do not finish my studies in finances, I will not be able to earn enough money to support them and I will have to put them up for adoption. I do not want this. I promised my parents that I would take care of them.

After each life story, participants completed the same questions to ostensibly collect their evaluation of the life stories. Six items from the IRIC (Péloquin & Lafontaine, 2010) were modified to assess empathy toward Jonathan and Myriam through its empathic concern and perspective taking subscales. Only items that could easily be adapted to a relationship with a stranger were retained (e.g., “I tried to understand Jonathan [Myriam] better by imagining what he [she] felt.”). Items were averaged into a single empathy index. Cronbach’s alphas were .82 and .74 for empathy toward Jonathan and Myriam, respectively. Two items, derived from work on dysregulated mental state (Beaulieu-Pelletier, Bouchard, & Philippe, 2013) were generated to capture participants’ feelings of personal distress about Jonathan’s and Myriam’s life stories. Items were “Jonathan’s [Myriam’s] life story has put me in a distressed state that was difficult to manage” and “I found Jonathan’s [Myriam’s] life story too sad and have been greatly affected by it”. An index was created by averaging the two items. Inter-item correlations were .57 and .67 for Jonathan’s and Myriam’s life stories, respectively. Participants were also asked to evaluate life stories in terms of its negativity. Items were “This story is sad” and “This story is negative”. An index was created by averaging the two items. Inter-item correlations were .52 and .35 for Jonathan’s and Myriam’s life stories, respectively. These items were presented within 8 filler items such as “The story lacks details about the event experienced by Jonathan [Myriam].”

4.9.2 Results and Discussion

A series of 2 (Conditions: prime vs. control) X 2 (Gender) ANCOVAs were conducted on empathy, and personal distress toward Jonathan and Myriam. Trait-based empathy

was used as a covariate. The ANCOVA on empathy toward Jonathan revealed a marginal main effect of condition, $F(1, 171) = 3.69, p = .056, \eta_p^2 = .02$, showing that participants primed with a close friend representation ($M = 3.71, SD = 0.71$) experienced more empathy toward Jonathan than those in the control condition ($M = 3.48, SD = 0.88$). There was also a main effect of gender, $F(1, 171) = 4.53, p < .05, \eta_p^2 = .03$, as women ($M = 3.67, SD = 0.82$) reported more empathy toward Jonathan than men ($M = 3.33, SD = 0.72$). Trait-based empathy was significantly related to empathy for Jonathan, $F(1, 171) = 28.04, p < .01, \eta_p^2 = .14$. Similarly, the ANCOVA on empathy toward Myriam revealed a significant main effect of condition, $F(1, 171) = 4.54, p < .05, \eta_p^2 = .03$, indicating that participants primed with a close friend representation ($M = 4.19, SD = 0.58$) reported more empathy toward Myriam than those in the control condition ($M = 3.99, SD = 0.68$). There was also a main effect of gender, $F(1, 171) = 15.88, p < .01, \eta_p^2 = .09$, showing that women ($M = 4.18, SD = 0.56$) reported more empathy toward Myriam than men ($M = 3.73, SD = 0.78$). Again, trait-based empathy was significantly related to empathy for Myriam, $F(1, 171) = 21.35, p < .01, \eta_p^2 = .11$. On the other hand, the ANCOVA on personal distress toward Jonathan or Myriam did not reveal conditions, $F_s(1, 171) < 1.88, p_s > .17$, or gender effects, $F_s(1, 171) < 0.19, p = .66$. Trait-based empathy was related to more distress toward Myriam, $F(1, 171) = 4.92, p < .05, \eta_p^2 = .03$, but not toward Jonathan, $F(1, 171) = .00, p = .97$. In the above ANCOVAs, there were no interactions between conditions and gender as well as between conditions and trait empathy on empathy and personal distress, $F_s(1, 170) < 1.48, p_s > .23, \eta_{ps}^2 < .01$. Finally, there were no main effect or interaction on negativity of Jonathan's or Myriam's life story, $F_s(1, 171) < 1.71, p_s > .19, \eta_{ps}^2 < .01$.

Overall, Study 5 results provided support for Principle 3 that person-based empathy can be transferred to other unknown targets, particularly when the target's distress is high. The same transference effects were not found for personal distress or negativity, thus suggesting that the activation of a person-based representation specifically influenced empathy towards the target.

4.10 Study 6

The purpose of Study 6 was to further investigate the mechanism of transference of person-based empathy to produce prosocial attitudes and behaviors towards others in general. The activation of person-based representations characterized by high levels of empathy should motivate a voluntary concern toward the welfare of others (i.e., benevolence) and a greater willingness to help in general (e.g., Batson, O'Quin, Fultz, Vanderplas, & Isen, 1983; Dovidio, Allen, & Schroeder, 1990; Stürmer, Snyder, Kropp, & Siem, 2006).

Study 6 also addressed two important shortcomings of Study 5. First, Study 5 revealed that the activation of a close friend representation increased empathy toward unknown targets. However, Study 5 could not ascertain that the level of empathy characterizing the close friend representation was driving the effect. This is due to the fact that close friend representations are typically all characterized by high level of empathy. In Study 6, we investigated relationships that varied in terms of their level of person-based empathy by assigning participants to a specific partner for an interaction, some of them being total strangers to the participants. They then reported the level of empathy they felt toward their interaction partner. In an ostensibly unrelated second experiment, participants were primed with their interaction partner's name (experimental condition) or with the name of another participant's interaction partner (control condition). They were then asked to report their values of benevolence in general and their willingness to help in other experiments. As a way to ensure that the experimental condition did not simply result in more endorsement of personal values in general, participants also

reported on another personal value, namely power, which reflects people's endorsement of a self-enhancement value implying a desire to gain resources for oneself. We expected that person-based empathy would lead to higher endorsement of benevolence and intentions to help, but only for participants primed with their interaction partner, not for those in the control group. However, we expected that endorsement of power would not be affected by the manipulation. Indeed, contrary to benevolence, which reflects endorsement of values of self-transcendence that imply a concern for the other's welfare, power reflects ideals that related to self-enhancement, and should not be affected by activation of a person-based representation (Schwartz, 1992). Study 6 therefore sought to show that the level of empathy characterizing a person-based representation can motivate prosocial attitudes and intentions towards others in general, but only when this person-based representation is triggered. Second, we also controlled for trait-based empathy to specifically show that person-based empathy is an independent predictor of trait-based empathy when a specific person-based representation is triggered.

4.10.1 Method

4.10.1.1 Participants and Procedure

A total of 195 undergraduates (97 dyads) were recruited in two large introductory psychology classes (about 115 students in each) in a Canadian university and asked to participate in two ostensibly unrelated studies. Participants' mean age was 24.57 years ($SD = 6.16$ years). The sample included 36 mixed-gendered dyads, 60 female dyads, and 1 male dyad. This sample size is adequate for detecting medium actor and partner

effect sizes (partial $r_s = .19$) with a power of .80. As an incentive for their participation, participants were entered into a drawing for one of three prizes of \$50 in each class.

Before the beginning of the study, every participant was assigned an ID number and was told to keep this same number for both seemingly unrelated studies so that we could pair their demographic data from the first study with their answers to the second study. Each study was presented by a different female experimenter posing as a graduate student asking them to participate in her own research project. In the first part of the study, participants were told that they would take part in a study on the effect of interpersonal communication on attitude formation. Participants were then randomly paired with another student from the class. Then, they entered the online questionnaire each using their own ID number on their own computer, electronic tablet, or phone. They first completed a general personality questionnaire in which items assessing their trait-based empathy were inserted among personality items, as in Study 5. Then, they were asked to write down the ID (so that we could pair their data) and the first name of their interaction partner in the questionnaire. Next, participants were asked to talk for five minutes with their interaction partner. The interaction took place in the class and was unstructured, but sample questions were provided to both partners to help start the conversation (e.g., “Do you practice a sport or activity that you are passionate about?”, “What are your career aspirations?”, “What would be your definition of a good day/evening?”). Following the interaction, participants were asked to complete the remainder of the questionnaire alone and to hide their responses from their partner. They indicated whether they already knew their interaction partner (43.6% of participants reported having never had interactions with their partner before the study). They reported their empathy toward their interaction partner as well as some demographic questions for their partner (i.e., indicate the gender of their partner and estimate his/her age, ethnicity, and mother tongue).

In the second part of the study (presented by a second experimenter as a separate study), participants used their own ID number to enter a different online questionnaire. They were first asked to complete a task, the Bunnies and Lions task (Philippe & Bernard-Desrosiers, 2017), which was introduced as a task to remove their daily thoughts before completing other scales. This task was in fact used to subliminally prime participants with their interaction partner's name. Participants were asked to count the number of times the words "Bunny" and "Lion" appeared among words and non-words rapidly presented on the screen. Embedded within these words and non-words was the name of their interaction partner [control group: the name of the interaction partner of someone else] presented repeatedly for 60ms each time. Next, participants completed a buffer classification task lasting 6 minutes and completed the values questionnaire in which they reported their endorsement of benevolence, and power. Then, they were asked if they would want to participate in other studies run in the lab and to provide their email if they accepted. Similar to what other researchers have done in the past (e.g., Hallows & Breault, 2009), their answer was used as a measure of helping intentions. Finally, a funnel debriefing was done to inquire about participants' suspicion of the studies being related and awareness of the priming ("During the Bunnies and Lions task, have you seen other words than animal words and non-words?"). No participant reported suspicion about the link between the two studies and no participant saw the name that was primed during the Bunnies and Lions Task.

4.10.1.2 Measures

Trait-based empathy. The same four items from the IRI (Davis, 1980) as in Study 5 were used to assess participants' trait-based empathy through two subcomponents:

empathic concern and perspective taking. These items were hidden within the 15 items of the Big Five Inventory-II Extra-Short Form (Soto & John, 2017b). The four items were averaged into a single empathy index (Cronbach's alpha was .55).

Person-based empathy. Again, the modified version of the IRIC (Péloquin & Lafontaine, 2010) was used to assess participants' person-based empathy toward their interaction partner (Cronbach's alpha was .84).

Endorsement of values. Subscales from the Schwartz's Value Survey (Schwartz, 1992) were used to reflect participants' endorsement of benevolence, and power. For both values, participants were asked to indicate the extent to which each item represented a guiding principle in their life on a 9-point Likert scale ranging from "*Opposed to my values*" to "*Of supreme importance*". The 9-item benevolence subscale reflected participants' endorsement of benevolence (i.e., preservation and enhancement of the welfare of others). Sample item are "Helpful (working for the welfare of others)" and "Forgiveness (willing to pardon others)". Cronbach's alpha was .80. Finally, the 5-item power subscale reflected participants' endorsement of power values (i.e., attainment of social status, and control over people and resources). Sample item are "Wealth (material possessions, money)" and "Authority (the right to lead or command)". Cronbach's alpha was .77.

Helping intentions. Participants were asked with one item whether they would like to participate in other studies and answered "yes" or "no". They were then asked to provide their email so that we could contact them (58.5% of participants answered yes and provided their email).

4.10.2 Results and Discussion

Preliminary analyses testing differences between classrooms, and media on which the questionnaire was completed can be found in Supplementary Materials. These analyses revealed no effects of those variables on the outcomes. We used multilevel modeling with indistinguishable dyads (Kenny et al., 2006) using SPSS to test for the moderation of person-based empathy and priming conditions on the outcomes: benevolence, power, and helping intentions. In all multilevel analyses, gender (actor and partner), trait-based empathy (actor and partner), person-based empathy (actor and partner), and priming conditions were entered. In a second block, the interactions between participants' person-based empathy and priming conditions were tested (see Table 3 for results on benevolence and helping intentions). Results from the multilevel modeling on benevolent attitudes showed a main effect of participants' trait-based empathy on their benevolent attitudes (actor effect), which suggests that participants with higher empathic tendencies were more likely to endorse benevolent attitudes in general. Results also revealed a main effect of person-based empathy and priming conditions. These results suggest that participants who experienced higher empathy toward their interaction partner reported more benevolent attitudes. In addition, participants who were primed with their interaction partner reported more benevolent attitudes. No partner effects reached significance and gender (actor and partner) was not a significant predictor. However, contrary to what was expected, these main effects were not qualified by a significant interaction term between person-based empathy and priming conditions. Results were not moderated by whether participants knew their interaction partner or not (dichotomously coded), $t_s < |1.52|$, $p_s > .129$. Thus, it seems that interacting with a partner toward whom they experienced high levels of empathy led them to endorse greater benevolent attitudes. Moreover, being primed with this

interaction partner also increased endorsement of benevolent attitudes, independently of the level of empathy experienced toward that partner.

As for the endorsement of power, results revealed no main effects of gender (actor or partner), trait-based and person-based empathy (actor or partner), or priming condition (actor), $ts < |1.33|$, $ps > .19$. At Step 2, there was no interaction between participants' person-based empathy and priming conditions, $ts = 1.03$, $p = .30$. This is in line with the hypothesis that the activation of a person-based representation should affect primarily values related to concern for the welfare of others and should not affect values related to self-enhancement.

With regards to helping intentions, there were no main effects of gender (actor and partner), trait-based empathy (actor or partner), person-based empathy (actor or partner), and priming conditions, but there was a significant interaction between participants' person-based empathy and priming conditions. Simple effects revealed that participants' person-based empathy was positively related to helping intentions, but only when they were primed with their interaction partner ($b = .11$, $SE = .05$, 95% CI [.01; .22], $p < .05$). Person-based empathy did not predict helping intentions in the control group ($b = -.03$, $SE = .05$, 95% CI [-.14; .08], $p = .58$). Results were not moderated by whether participants knew their interaction partner or not, $ts < |1.26|$, $ps > .21$. These results suggest that, for participants who were primed with an interaction partner, the more they felt empathy toward their interaction partner, the more likely they were to want to help.

Although there was an interaction between priming conditions and person-based empathy on the prediction of helping intentions, the same interaction did not significantly predict the endorsement of benevolent attitudes, only the main effects of both priming conditions and person-based empathy were significant. Therefore, being activated with a person-based representation and reporting high person-based empathy

both independently increased endorsement of benevolent attitudes. Examination of the mean level of person-based empathy reported for the interaction partner revealed that it was fairly high ($M = 4.07$, $SD = 0.52$ on a 1-to-5 point), as most conversations were agreeable and cordial. Thus, like in Study 5, just being activated with the representation of a person toward whom one feels a high level of empathy might be enough to increase general benevolent attitudes towards others. However, to motivate the extra effort required for an actual commitment toward helping (providing one's email to be contacted), the activation of a person representation characterized by a very high level of empathy (+1SD) might be needed, which is presumably why the interaction term was significant for the helping intentions variable only.

4.11 General Discussion

The present research sought to investigate the predictive value of a person-based approach to empathy on prosocial outcomes while also taking into account trait-based empathy. Across studies, trait-based and person-based empathy were shown to be distinct constructs. Person-based empathy was found to predict various prosocial outcomes such as self-reported perceptions in the relationship, adaptive communication strategies, and accurate prediction of a friend's behaviors, independently of trait-based empathy. Moreover, results revealed that person-based empathy can be transferred—thereby affecting prosocial outcomes with other targets, even unknown ones. Trait-based empathy also seems to have a general effect across relationships. Finally, person-based empathy was shown to be unconfounded with relationship characteristics, such as discord, closeness, or proximity. Moreover, in

Study 6, the transference of person-based empathy was unaffected by whether participants already knew or not before the study the person-based representation that was primed. In addition, the effects of transference appeared to be specific to the realm of interpersonal relationships, as another value, namely power, was unaffected by activated person-based empathy. Overall, the present research provided support for three guiding principles derived from the empathy and social cognition literature.

4.11.1 Principle 1: Person-based Empathy is Distinct from Trait-based Empathy

A first objective of this research was to demonstrate that person-based empathy is distinct from trait-based empathy. First, through a series of CFAs, person-based empathy and trait-based empathy measures were best represented as separate constructs than as combined (Study 1). In addition, person-based empathy was shown to predict various prosocial outcomes independently of trait-based empathy. Trait-based empathy represents people's evaluation of their general level of empathic abilities (Baldner & McGinley, 2014) and our results showed that it predicted some prosocial outcomes (i.e., more relationship satisfaction, less conflict frequency, more empathy toward unknown targets, and more benevolent attitudes). Yet, for all these outcomes, person-based empathy predicted an additional part of variance independent from trait-based empathy. Finally, Studies 5 and 6 revealed that, although trait-based empathy was associated with more empathy toward unknown targets in Study 5 and more benevolent attitudes in general in Study 6, person-based representations of empathy predicted those outcomes independently of the level of trait-based empathy. Empathy is increasingly recognized as a flexible human ability (Decety & Jackson, 2004) that may be recruited or not depending on the context (Zaki, 2014). By focusing

solely on people's general empathic tendencies, trait-based measures of empathy often neglect to take into consideration the contextual forces that push people toward or away from experiencing empathy. A person-based approach to empathy shows that people's situational empathic reactions may be also driven by the person representations that are activated at the moment.

4.11.2 Principle 2: Person-based Representations Are Characterized by the Level of Empathy Toward that Person, which Drives Prosocial Outcomes

A second objective of the present research was to investigate empathy as an attribute of person-based representations, which specifically drives prosocial outcomes. The present findings provided support for the hypothesis that empathy is represented in person-based representations. First, representations of close friends were characterized by high levels of empathy across all studies using close friends, and of higher levels compared to another friend or stranger. Thus, person-based representations were found to vary in their characteristic level of empathy. Second, our data suggest that when a person representation characterized by high levels of empathy is activated, it motivates a prosocial orientation to others. Across Studies 1 to 4, person-based representations characterized by high levels of empathy were reflective of heightened feelings of closeness, less frequent conflicts, more effective conflict resolution strategies, more adaptive communication style, higher levels of empathic accuracy, and more prosocial behaviors. In addition, in Study 5, merely asking participants to provide the name of their closest friend resulted in more empathy toward unknown targets. These findings suggest that empathy is part of person-based representations and that the activation of

a person-based representation characterized by high levels of empathy motivates people to behave in a prosocial manner.

The present findings also extend past research, which had revealed that significant-other representations encompass closeness (Andersen et al., 1996), by suggesting that empathy is also an attribute of these representations. However, rather than being specific to significant-other representations, we posit that any person that has personal relevance to the individual will be represented mentally (Brewer, 1988; Srull & Wyer, 1989; Smith & Zárate, 1992). Like for significant-other representations, attributes attached to this person-based representation become more accessible once the representation is activated. Then, depending on the context that triggers the person representation (e.g., the person I care for is in distress), the most relevant attributes will be activated (e.g., empathy) (Mischel & Shoda, 1995).

These results parallel theories on the self and how aspects of the self are contextually activated and affect ways of responding to the environment. According to McConnell's multiple self-aspect framework (2011), the self is made up of multiple context-dependent selves. When one self-aspect is activated, the personal attributes associated with it also become more accessible. The present studies are in line with this proposition and suggest that person-based representations might also follow the same rule. When the mental representation of someone is activated (e.g., a close friend), the level of empathy associated with it (the attribute) is also likely to be activated. As a result of this activation, the person may react empathically when the other person is in distress (e.g., if my close friend is feeling down, I might offer emotional support).

Similarly, our findings are in line with research on relational schemas (Baldwin, 1995), which supposes that representations of prototypic others (e.g., a romantic partner) also incorporate scripts about how interactions typically unfold in this relational context (i.e., *if-then* rules such as “when my partner is hurt, I offer him support”). These scripts

specify the type of reactions one is likely to have toward a prototypic other given a particular circumstance. Our results are consistent with this hypothesis but applied to specific rather than prototypic others. They suggest that, in order for the empathy attribute of the person-based representation to be specifically activated, the person-based representation must be activated *and* the situation encountered must be an empathy-relevant situation (e.g., my friend is hurt and is showing signs of distress). Then, its activation within a relevant context may render the person more likely to react in a prosocial manner (e.g., use constructive communication strategies instead of destructive ones). Therefore, it may be that, for person-based empathy to exert its effect, a person representation *and* an empathy-relevant situation are both required. Future research could specifically investigate different types of situations in relation to person-based empathy activation to test this hypothesis.

4.11.3 Principle 3: Person-based Empathy Can Be Transferred

A third objective was to demonstrate that, as person-based empathy is part of a person representation, it can be transferred to other targets (Andersen et al., 2002). Supporting our hypothesis, Study 5 revealed that the activation of a person-based representation in transference resulted in heightened empathy toward unknown social targets, compared to a control condition in which no such representation was activated. Study 6 also showed that the activation of the representation of an interaction partner can situationally trigger benevolent attitudes and helping intentions towards others in general.

These results extend past research on the transference effects of significant-other representations (Andersen et al., 1996; Andersen & Chen, 2002) by showing that transference can occur even for representations of near strangers (i.e., 46% of the participants in Study 6 had never interacted with their study partner). Yet, these near strangers situationally became of personal relevance to the participants as they engaged in a communication task together. Therefore, as long as a perceiver finds it relevant to focus his/her attention on the person, regardless of whether the person is a significant other (e.g., a romantic partner) or a near stranger, the person will be represented cognitively and least temporarily stored in memory (Smith & Zárate, 1992). Then, inasmuch as a person representation is stored in memory, it can be activated by contextual cues and affect concurrent attitudes and behaviors (Smith & Queller, 2001). Some person representations may be more chronically accessible than others (i.e., we probably think more often of our spouse than of a past classmate), which are therefore more likely to be activated by contextual cues (Glassman & Andersen, 1999), but any person representation can be activated by a relevant cue (Smith & Semin, 2007). In sum, our results revealed that, once any person representation is activated, it can affect prosocial attitudes and behavioral intentions toward others in general as a function of its attribute of empathy.

These findings also complement research on the effects of attachment security priming on prosocial responding (e.g., Mikulincer et al., 2001, 2005). Past research has used priming to activate a sense of attachment security and have found positive effects on helping behaviors (Mikulincer et al., 2005). In this research, participants were primed with the name of someone who served attachment functions and were consequently more willing and more likely to help unknown others in need than if they were primed with a close other not serving attachment function, or an acquaintance. However, the present research showed that priming mental representations of people that did not represent attachment figures (some of which were near strangers few minutes prior to the priming) still resulted in an increase in prosocial attitudes and behaviors. Thus, it

might be that people typically experience higher empathy for figures serving attachment functions, but that the person-based empathy attribute of these person representations is driving the effect on prosocial behavior. Thus, person-based empathy might be an important mediator in these attachment studies. Future research will be needed to support this hypothesis.

4.1.1.4 Empathy is Interpersonal and Can be Motivated

Understanding empathy as an interpersonal phenomenon can inform us in developing better interventions to increase empathy toward those in need. Some of the previous attempts at increasing empathy have turned to interventions such as perspective taking manipulations (i.e., explicitly asking individuals to take the perspective of another) (e.g., Batson, Eklund, Chermok, Hoyt, & Ortiz, 2007; Leong, Cano, Wurm, Lumley, & Corley, 2015; Van Lange, 2008). Yet, people sometimes down-regulate their empathic reaction to another's suffering, especially if they anticipate it to be costly (for a review, see Zaki, 2014). Our research suggests that another way to increase empathy toward a social target is the activation of the mental representation of a person characterized by high levels of empathy. Interventions such as asking individuals to think of someone towards whom one feels high levels of empathy may activate an affiliation motive or a mindset characterized by interpersonal openness that can then be applied to a distinct social situation, thus resulting in heightened empathy and prosocial responding. As empathy has been argued to be a promising way for improving intergroup attitudes and relations (Batson & Ahmad, 2009), future research could look at interventions grounded on person-based representations activation to

increase empathy and prosocial responding to outgroup members (e.g., Mikulincer & Shaver, 2001).

4.11.5 Limitations and Future Directions

Some limitations must be underscored regarding the present research. First, person-based empathy was measured through self-reports. Future research could ask participants to infer their partner's thoughts and feelings and use this empathic accuracy score as a measure of person-based empathy as has been done in the past to avoid biases related to self-reports (e.g., Ickes, 1993). Second, we used two measures of trait empathy across studies, one that was derived from the TEIQue and the IRI. Although we made this decision so that we could control for a broader range of empathy-related dispositions in Studies 2 and 3, readers should keep this information in mind while comparing results across the present studies. Third, despite the fact that we used various prosocial outcomes across the six studies, only Study 6 investigated a prosocial outcome with broader societal implications (helping intentions). Future studies could look at the impact of person-based empathy on broader societal or civically engaged behavior, such as donating blood, giving money to a charity, or actual help of a person in need. Fourth, some of the present studies looked at behavioral intentions (e.g., communication styles in a conflict vignette, and helping intentions) instead of actual helping behaviors. Future studies should test whether and under which conditions these intentions may translate into behaviors. Fifth, the present set of studies did not look at the mechanisms through which person-based empathy affects prosocial outcomes. Although we hypothesized that person-based empathy might be related to affiliation motives and that its activation may result in a heightened openness to others, future

research will be needed to test whether these effects can be mediated or moderated by such motives or mindsets (Zaki, 2014). Finally, future research could also look at how knowledge derived from the present studies might be used to design interventions aimed at facilitating prosocial attitudes and behaviors in more challenging contexts such as intergroup contact.

In sum, literature on empathy has shown that empathy relates to prosocial behaviors such as helping others in need (e.g., Batson et al., 1991). Recent theoretical developments on empathy have focused on understanding what makes people empathic toward a social target and have identified motivation as a key process in the empathic reaction (Zaki, 2014). The present set of studies showed that person-based empathy was part of person representations and, as such, could be activated and transferred to other unknown targets, which could in turn increase prosocial attitudes and intentions. As activated person-based empathy has been related to numerous prosocial outcomes, these results suggest interesting avenues for increasing empathy toward strangers, by recruiting already available mental representations of others and transferring their associated empathy to them.

4.12 References

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Tableau 4.1

Table 1

Hierarchical regressions of person-based empathy and control variables on satisfaction and conflict frequency: Study 1

Predictor	Satisfaction			Conflict frequency			
	ΔR^2	β	B (SE)	95% CI for B	β	B (SE)	95% CI for B
Step 1	.11**						
Gender		-.10 [†]	-.15 (.08)	[-.30; 0]	.17**	.38 (.12)	[.15; .61]
Trait-based empathy		.29**	.34 (.06)	[.22; .46]	-.24**	-.44 (.10)	[-.63; -.25]
Step 2	.16**						
Person-based empathy		.53**	.56 (.07)	[.43; .69]	-.54**	-.90 (.10)	[-1.10; -.70]
Total R^2	.26**						

Note. N = 345. SE = Standard Error; CI = Confidence Intervals.

[†] $p < .10$, * $p < .05$, ** $p < .01$.

Tableau 4.3

Table 3

Multilevel modeling model of person-based empathy, priming condition, control variables, and interactions between person-based empathy and priming condition on benevolence and helping intentions: Study 6

Predictor	Benevolence			Helping intentions		
	<i>b</i>	SE	95% CI	<i>b</i>	SE	95% CI
Step 1						
Gender	-.10	.15	[-.39; .19]	-.10	.09	[-.28; .08]
Gender (partner)	.04	.15	[-.25; .33]	.15	.09	[-.04; .34]
Trait-based empathy	.31	.06	[.19; .43]	.01	.04	[-.07; .08]
Trait-based empathy (partner)	.01	.06	[-.11; .13]	.02	.04	[-.05; .09]
Person-based empathy	.14	.06	[.02; .27]	.05	.04	[-.03; .13]
Person-based empathy (partner)	.01	.06	[-.11; .13]	-.01	.04	[-.08; .08]
Conditions (1 = primed, 0 = control)	.24	.11	[.01; .46]	.04	.07	[-.10; .18]
Step 2						
Person-based empathy X Conditions	.08	.11	[-.15; .30]	.14	.07	[.01; .28]

Note. SE = Standard Error; CI = Confidence Intervals.

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

CHAPITRE V

DISCUSSION GÉNÉRALE

Ce dernier chapitre contient une discussion des objectifs de la thèse avec une ouverture sur les implications des résultats obtenus et des pistes de réflexions pour des recherches futures. Il est divisé en trois sections. La première section reprend les objectifs de la thèse et résume les principaux résultats issus des études réalisées dans le cadre de la thèse. La seconde section explore les contributions originales de la thèse de même que les implications théoriques et pratiques des études réalisées. Finalement, la dernière section décrit les limites inhérentes aux études présentées ainsi que des pistes de recherche futures.

5.1 Principaux Résultats

Le premier objectif de la thèse était d'investiguer le rôle des représentations relationnelles et des représentations de trait dans les attitudes et comportements pro-sociaux au sein des relations intimes à l'âge adulte. Le premier article de thèse s'est intéressé aux représentations relationnelles épisodiques au sein de relations de couple et à leur association à une attitude pro-sociale bénéfique au fonctionnement en couple :

l'engagement. Cette étude a été réalisée auprès des deux partenaires de relations de couple afin d'investiguer à la fois les effets acteurs et les effets partenaires des représentations épisodiques. Les résultats démontrent une association positive entre les représentations relationnelles épisodiques de partenaires amoureux et leur propre engagement dans la relation. Un effet partenaire a aussi été relevé. Les résultats suggèrent une association positive entre la représentation relationnelle épisodique de partenaires masculins et l'engagement de leur partenaire féminin envers la relation, mais la relation inverse n'était pas significative. Ces résultats ont été obtenus en prenant également en considération la représentation relationnelle épisodique correspondante chez le partenaire amoureux. Les effets ne semblent donc pas dû à l'évènement rapporté dans la représentation épisodique, mais plutôt à l'expérience idiosyncratique que chaque partenaire retient de cet évènement. Les résultats démontrant des liens directs entre la représentation épisodique et l'engagement ont été obtenus en prenant en considération l'effet de la satisfaction des besoins dans le couple, une représentation relationnelle plus abstraite et générale que la représentation épisodique. Ces résultats démontrent que les représentations relationnelles épisodiques sont associées à des attitudes pro-sociales dans la relation au-delà de d'autres représentations relationnelles plus abstraites et au-delà de la façon dont la représentation épisodique existe dans le répertoire de mémoire de l'autre partenaire et suggèrent même la présence d'effets dyadiques de ces représentations.

Le second article de thèse s'est penché sur des représentations relationnelles plus abstraites en s'intéressant aux représentations de personne. Considérant les liens déjà établis entre l'empathie et les comportements pro-sociaux dans la littérature scientifique (Van der Graaff et al., 2018; Zaki et al., 2008), l'attribut de la représentation de personne à l'étude pour prédire les attitudes et comportements pro-sociaux était l'empathie. Cette représentation de personne a été contrastée avec la représentation de trait du même concept afin de départager les effets du trait et de la représentation de personne. Les résultats de ces études démontrent que l'empathie en

tant qu'attribut de représentation de personne prédit les attitudes et comportements pro-sociaux dans la relation avec cette personne (Études 1 à 4), et ce même en prenant en considération l'effet de la représentation de trait d'empathie (Études 1 à 3). Les résultats suggèrent aussi un effet général du trait d'empathie sur certains comportements et attitudes pro-sociaux.

Le second objectif de la thèse était d'étudier l'effet du transfert d'un attribut d'une représentation relationnelle (i.e., l'empathie) sur les attitudes et intentions comportementales pro-sociales envers des inconnus et en général. Les Études 5 et 6 de l'Article 2 ont ainsi démontré que l'empathie comme attribut d'une représentation de personne peut effectivement être transférée à d'autres personnes et contextes et ainsi affecter les attitudes pro-sociales envers ces nouvelles personnes de même que les attitudes et intentions pro-sociales en général. Ces études permettent de soutenir l'hypothèse selon laquelle les représentations mentales sont une source d'influence sur les attitudes et intentions pro-sociales par le biais d'un devis expérimental. Encore une fois, les effets ont été observés même en tenant compte des effets de la représentation de trait qui, elle aussi, était associée aux orientations pro-sociale.

En somme, la présente thèse confirme les hypothèses initiales selon lesquelles les représentations mentales relationnelles peuvent prédire les attitudes et comportements pro-sociaux au sein des relations intimes et avançant qu'elles peuvent être activées pour affecter les attitudes et intentions comportementales pro-sociales envers des inconnus et en général.

5.2 Contributions Originales et Implications

5.2.1 Différents Comportements et Attitudes Pro-sociaux à l'Étude

La présente thèse est novatrice dans son étude de différents comportements et attitudes pro-sociaux au sein d'un même programme de recherche. En effet, les comportements et attitudes pro-sociaux à l'étude incluaient l'engagement dans la relation, les stratégies de communication adaptatives dans les conflits, la justesse de la prise de perspective telle que démontrée par la prédiction adéquate des comportements de l'autre dans différentes situations, ainsi que des comportements de coopération, d'approbation et d'aide. La littérature s'est intéressée à ces attitudes et comportements de façon séparée et montre qu'ils contribuent au fonctionnement interpersonnel (e.g., Murray & Holmes, 2011; Rusbult & Van Lange, 2003; Winczewski et al., 2016) en signalant une considération bienveillante de l'autre (Batson & Powell, 2003; Zaki & Mitchell, 2013). L'avantage de les étudier dans une perspective globale est de considérer un vaste répertoire d'attitudes et de comportements dont l'effet est similaire afin de chercher des facteurs d'influence qui affectent globalement ce répertoire. Une meilleure compréhension des facteurs d'influence dans une investigation d'une telle ampleur pourrait aider à élaborer des interventions pour développer les orientations pro-sociales des individus dans leurs relations avec les autres.

5.2.2 Une Perspective d'Interdépendance

Un élément notable de la présente thèse est l'inscription de l'analyse des facteurs d'influence des orientations pro-sociales au sein des relations intimes dans une perspective qui reconnaît la fondamentale interdépendance qui caractérise les relations intimes (Murray & Holmes, 2011). En effet, les facteurs d'influence à l'étude dans cette thèse sont des représentations mentales relationnelles qui impliquent une interrelation substantielle entre le Soi et l'autre. La présente thèse s'inscrit ainsi dans une riche tradition en psychologie sociale qui considère le Soi non seulement comme une entité individuelle, mais également comme imbriqué dans les contextes relationnels dans lequel il s'est développé et dans lequel il évolue (Andersen & Saribay, 2005; Aron & Aron, 1992; Mikulincer & Shaver, 2018; Fletcher et al., 2018; Markus, 1977).

Cette perspective issue des cognitions sociales permet de poser des hypothèses quant à la façon dont les représentations relationnelles influencent les orientations pro-sociales observées dans la présente thèse. Étant intégrées au Soi, les représentations épisodiques (Conway et al., 2004; Klein & Loftus, 1993) et des représentations de personne (Andersen et al., 2016; Baldwin, 1992) devraient être soumis aux processus d'activation propres aux composantes du Soi. Elles sont ainsi susceptibles d'être activées au quotidien par des éléments de l'environnement afin d'aider l'individu à faire sens de nouvelles informations (Conway & Pleydell-Pearce, 2000; McConnell, 2011) et à réagir à de nouvelles situations interpersonnelles (Baldwin, 1997). Une fois une représentation activée, son contenu affectera les attitudes et comportements de l'individu de façon cohérente avec la représentation activée (Conway & Pleydell-Pearce, 2000; Fletcher et al., 2018; Martin, Strack & Stapel, 2001; Smith & Queller, 2001). Par ailleurs, les représentations mentales importantes pour l'individu sont susceptibles d'être chroniquement accessibles et ainsi d'être plus souvent activées par l'environnement, de façon consciente ou non (Alea & Bluck, 2007; Andersen, Glassman, Chen, & Cole, 1995; Philippe et al., 2013). La fréquente activation d'une représentation dans un contexte relationnel va modeler les attitudes d'une personne

envers son partenaire de relation de sorte qu'elle pourrait expliquer des tendances générales au sein de la relation (Fletcher et al., 2018). Les résultats des études présentées dans le cadre de la présente thèse suggèrent que la qualité d'un souvenir épisodique de couple est associée à l'endossement d'une attitude pro-sociale envers le partenaire amoureux et qu'une représentation de personne caractérisée par une haute empathie influence positivement orientations pro-sociales envers la personne représentée.

Cette perspective relationnelle contraste avec l'étude traditionnelle des dispositions pro-sociales telles que les comportements d'aide. D'une part, les recherches visant à déterminer les caractéristiques personnelles prédisposant les individus à agir de façon pro-sociale se sont tournée vers l'empathie comme trait de personnalité (Davis, 1994) et ont démontré des liens significatifs entre celui-ci et des comportements pro-sociaux (Batson et al., 1987; Davis, 1994; Devoldre et al., 2010). D'autre part, les recherches qui ont investigué les facteurs d'influence situationnels aux comportements pro-sociaux ont également constaté l'importance de l'empathie (Batson & Shaw, 1991). Dans les deux cas, l'analyse de l'effet de l'empathie n'était pas imbriquée dans une compréhension globale du Soi et des différents niveaux d'abstraction de l'empathie. Les résultats des études sur l'empathie ont été rassemblés sous un seul construit sans égard aux différents niveaux d'analyse adoptées dans les différentes études, contribuant à la confusion par rapport à la définition même du terme *empathie* (Hall & Schwartz, 2019). La perspective d'interdépendance adoptée dans la présente thèse permet de clarifier les différents niveaux d'abstraction du concept d'empathie et les études décrites dans l'Article 2 permettent de contraster les effets de l'empathie selon deux niveaux d'abstraction : la représentation de trait et la représentation de personne.

Par ailleurs, une telle perspective forme un pont entre le domaine des comportements pro-sociaux et celui des relations intimes et permet l'investigation de facteurs d'influence n'ayant pas été considérés par le passé pour expliquer les orientations pro-

sociales. L'étude présentée dans l'Article 1 souligne une association positive entre un souvenir de couple et l'engagement dans la relation de couple. Bien que la méthodologie ne permette pas d'investiguer la direction de cette association, d'autres études ont démontré un effet des souvenirs épisodiques sur les attitudes et comportements. En effet, la littérature scientifique sur les souvenirs épisodiques démontre que l'activation de souvenirs épisodiques influence le bien-être, les attitudes et les comportements en général (Biondolilli & Pillemer, 2015; Kuwabara & Pillemer, 2010; Philippe et al., 2012; Pillemer, 2003) ainsi qu'au sein de relations intimes (Alea & Bluck, 2007; Bazzini et al., 2007; Philippe et al., 2013). Par ailleurs, les Études 5 et 6 de l'Article 2 soutiennent l'effet causal des représentations relationnelles (de personne) sur les attitudes et intentions pro-sociales dans un devis expérimental. À la lumière de ces études, il semble envisageable que les souvenirs épisodiques de couple aient un effet directif sur les attitudes pro-sociales dans le couple. De futures recherches seront nécessaires pour soutenir cette hypothèse spécifiquement. En somme, les représentations que l'on conserve en mémoire des relations avec d'autres personnes peuvent avoir une influence sur les orientations pro-sociales au sein de ces relations.

5.2.3 Le Transfert des Représentations Mentales Relationnelles

Étant ancrée dans la littérature sur les cognitions sociales et le Soi, la présente étude des facteurs d'influence des orientations pro-sociales au sein des relations intimes suggère la possibilité d'utiliser les processus de transfert propres aux représentations mentales relationnelles pour affecter les orientations pro-sociales des individus. Ainsi, la présente thèse a démontré qu'un attribut de représentation de personne (c'est-à-dire l'empathie) peut effectivement être transféré à d'autres personnes ou à d'autres

contextes et affecter les attitudes et comportements pro-sociaux dans ces nouveaux contextes.

Nombre de recherches sur les orientations pro-sociales se sont tournées vers des interventions qui demandent explicitement aux participants de prendre la perspective d'une personne inconnue pour augmenter de façon situationnelle leur empathie et leurs réactions pro-sociales envers cette personne (e.g., Batson et al., 2007; Leong, Cano, Wurm, Lumley, & Corley, 2015; Van Lange, 2008). Pourtant, il apparaît que les individus sont parfois motivés à éviter de ressentir de l'empathie, particulièrement s'il semble que ressentir de l'empathie pourrait être coûteux sur le moment (Zaki, 2014). De telles interventions explicites pourraient échouer de par l'habileté des individus à réguler leurs réponses empathiques (Zaki, 2014). La présente thèse suggère une nouvelle avenue à explorer. En effet, les études de l'Article 2 suggèrent qu'il est possible de recruter des représentations mentales déjà contenues dans le Soi des individus afin d'influencer leurs réponses pro-sociales. En ancrant les interventions dans des représentations du Soi, il est possible que les effets des interventions soient plus durables que des interventions ponctuelles de prise de perspective (Glassman & Andersen, 1999b). Alors que des auteurs ont affirmé que l'empathie pourrait être utilisée pour améliorer les relations intergroupes (Batson & Ahmad, 2009) et que des études ont démontré les effets du transfert envers des membres d'un exogroupe (Kraus, Chen, Lee, & Straus, 2010), cette avenue semble prometteuse. De futures recherches pourraient tester l'effet de telles interventions à court et à long terme.

5.2.4 Une Perspective Dyadique

Un aspect méthodologique important de la présente thèse est son adoption d'une perspective dyadique dans l'étude de l'effet des représentations mentales au sein des relations intimes à l'âge adulte. En effet, plusieurs des études réalisées dans le cadre de la thèse se sont intéressées aux processus dyadiques en étudiant à la fois les effets d'acteurs et les effets de partenaires des représentations mentales relationnelles au sein de dyades. Ce type d'analyse permet une étude plus complète des processus en jeu au sein des relations en prenant en considération l'interdépendance statistique qui caractérise les relations intimes (Kenny, Kashy, & Cook, 2006). Considérant la nature relationnelle des concepts étudiés, une perspective dyadique dans la méthode et les analyses est de mise et a permis de relever certains effets partenaires des représentations relationnelles dans les relations intimes.

Ainsi, dans l'Article 1, les représentations épisodiques des hommes étaient associées à un plus grand engagement dans la relation chez leur partenaire féminin. Dans l'Article 2, les représentations de personne caractérisées par une haute empathie étaient associées à des comportements plus coopératifs et approbateurs chez le partenaire de relation, sans égard au sexe des participants. Il semble ainsi que les représentations relationnelles d'une personne puissent affecter les attitudes et comportements de l'autre personne dans la relation. Les études décrites ici ne permettent pas d'identifier par quels mécanismes ces liens s'opèrent, ni la direction du lien. Néanmoins, la littérature sur les relations intimes suggère une avenue intéressante à considérer. Une possibilité est que les représentations mentales d'une personne influencent ses propres attitudes et comportements dans la relation et que ces derniers ont une incidence sur les attitudes et comportements du partenaire de relation. Des études ont en effet démontré que les comportements d'une personne dans une relation intime affectent directement la satisfaction relationnelle de son partenaire (Brock & Lawrence, 2009; Jensen, Rauer, & Volling, 2013) ainsi que son engagement dans la relation (Stafford & Canary, 1991; Stanley, Markman, & Whitton, 2002). De futures recherches pourraient investiguer la médiation des effets observés dans les Articles 1 et 2 par les comportements de la

personne au sein de la relation en prenant avantage d'un devis longitudinal pour explorer la direction de la relation. La littérature sur la satisfaction et l'engagement dans les couples suggère que les comportements de soutien et les réactions lors de discussions de conflit pourraient médier ces effets (e.g., Jensen et al., 2013; Stafford & Canary, 1991).

5.2.5 L'Étude de Différentes Relations Intimes

Cette thèse est également novatrice dans sa considération de différents types de relations intimes à l'âge adulte. Bien que la plupart des modèles référant aux représentations mentales de relations intimes incluent théoriquement les relations d'amitié intime (e.g., Chen & Andersen, 1999), celles-ci sont plus rarement étudiées. Considérant que les adultes s'investissent aussi dans des relations d'amitié et que celles-ci contribuent au bien-être et à la santé (Blieszner & Ogletree, 2018; Perlman et al., 2015), il semble important d'investiguer aussi ce type de relations. Ainsi, l'Article 2 a investigué dans les relations d'amitié des réponses pro-sociales typiquement étudiées dans les couples (e.g., stratégies de communication lors des conflits). Les études de cet article s'inscrivent dans les recherches sur les relations intimes démontrant des effets des représentations relationnelles de couple sur les attitudes et comportements dans la relation (Mikulincer & Shaver, 2018). Elles suggèrent que l'effet des représentations relationnelles sur les réponses pro-sociales est aussi observable dans les relations d'amitié.

5.3 Limites et Pistes de Recherches Futures

Des limites à la recherche présentée dans cette thèse doivent être soulignées. D'abord, il apparaît important de souligner que l'Article 1 présente une étude avec un devis corrélational. Ainsi, la direction de l'effet n'a pu être testée au sein de cette étude. Des études futures pourraient prendre avantage d'un devis longitudinal ou de l'utilisation d'une étude avec journaux quotidiens pour étudier la direction de l'effet. Par ailleurs, nombre de réactions pro-sociales à l'étude consistaient en des attitudes ou intentions comportementales pro-sociales (e.g., engagement, stratégies de communication dans les conflits, bienveillance, intention d'aide). De futures études pourraient vérifier si de telles réactions pro-sociales se traduisent en de véritables comportements pro-sociaux. Les Études 3 et 4 de l'Article 2 suggèrent que c'est le cas, car les représentations de personne dans ces études ont permis de prédire des réactions pro-sociales au sein des relations intimes. Néanmoins, des études supplémentaires sont nécessaires pour vérifier ces hypothèses. Également, la littérature sur l'empathie suggère que la motivation pro-sociale des individus pourrait varier en fonction de l'intensité du contexte (Batson et al., 1983; Zaki, 2014). Dans la présente thèse, les situations interpersonnelles à l'étude n'ont pas été systématiquement variées pour vérifier si l'effet des représentations relationnelles sur les réactions pro-sociales changeait en fonction de certaines variables contextuelles. De futures études pourraient se tourner vers cette question afin de mieux comprendre des obstacles contextuels à l'empathie (Zaki & Cikara, 2015). Aussi, bien que les attitudes et comportements pro-sociaux investigués étaient variés, certains comportements pro-sociaux avec une implication sociale importante restent à étudier. De futures études pourraient tester les effets de l'activation d'une représentation de personne caractérisée par une haute empathie sur des comportements tels que donner du sang, faire du bénévolat ou s'impliquer dans des causes sociales pour aider les plus

démunis. Finalement, tel que suggéré plus haut, de futures études pourraient s'intéresser au développement d'interventions pour induire l'empathie envers des membres d'un exo-groupe ou dans d'autres contextes où l'empathie représente un défi.

En somme, la présente thèse s'inscrit dans une riche tradition de recherche en psychologie sociale et fait le pont entre le domaine des cognitions sociales, des relations intimes, et de l'étude des comportements d'aide. Les résultats des études présentées suggèrent que les représentations mentales relationnelles prédisent les réactions pro-sociales au sein des relations intimes et qu'elles peuvent être utilisées pour induire des réactions pro-sociales envers des inconnus et en général. De tels résultats suggèrent des avenues d'intervention stimulantes à partir desquelles de nouvelles recherches pourront être conçues afin de mieux comprendre les réactions pro-sociales et l'effet des représentations mentales relationnelles.

ANNEXE A

MATÉRIEL SUPPLÉMENTAIRE ASSOCIÉ À L'ARTICLE 2

SUPPLEMENTARY MATERIALS

These supplementary materials contain preliminary statistical analyses, sample narratives, and pilot study results. They have been reported here in order to ensure a concise presentation of the paper's main findings, while also providing interested readers with such information.

Study 1 *t*-tests and correlations

A series of *t*-tests were conducted to assess gender differences in all study variables and correlations were computed to verify associations among the measured constructs. Table S1 shows the means, standard deviations, *t*-tests, and correlational results of all study variables. Results showed that women reported significantly higher trait-based empathy, person-based empathy, and relationship satisfaction, and lower conflict frequency than men. Correlational results revealed that trait-based empathy and person-based empathy were strongly correlated, which is in line with past research (Péloquin & Lafontaine, 2010). Finally, trait-based empathy showed a moderate correlation with relationship satisfaction and conflict frequency, whereas person-based empathy was strongly correlated with both.

Study 2 sample narratives of the communication strategies

Here are some sample narratives indicate of high scores on each subcategory that was rated from the conflict vignette. In the following sample narrative, the person would receive a high score on autocracy:

I would not understand why he reacted that way. I can't come and I won't come, even if he tries to make me feel bad about it. I'd tell him that I'll talk to him when he'll be calm again.

In this next narrative, the person would receive a high score on soft positive:

I would apologize and say I'm very sorry to cancel on him that way. I'd understand his reaction and try to soften it all by making jokes, making him laugh and would definitively make it up to him by saying 'Next time is on me!' Plus, I would remind him that we've been through worst situations!

In this last sample narrative, the person would receive a high score in reasoning:

I would make sure to explain in detail why I can't come tonight so that she would understand I'm not cancelling because I don't want to see her. I wouldn't want any misunderstandings between us. Also, I would try to understand why she reacted that way because this reaction may cover something bigger that is happening in her life right now. I would look for a way to see her as soon as possible.

Study 2 inter-correlations between categories of communication strategies

Inter-correlations between categories of communication strategies were moderate. Autocracy was negatively associated with soft positive ($r = -.36$, 95% CI $[-.47; -.25]$, $p < .01$ in Sample 1 and $r = -.35$, 95% CI $[-.48; -.20]$, $p < .01$ in Sample 2) and reasoning ($r = -.27$, 95% CI $[-.36; -.16]$, $p < .01$ in Sample 1 and $r = -.28$, 95% CI $[-.41; -.14]$, $p < .01$ in Sample 2), and reasoning was positively associated with soft positive ($r = .18$, 95% CI $[.04; .30]$, $p < .05$ in Sample 1, and $r = .35$, 95% CI $[.21; .49]$, $p < .01$ in Sample 2).

Study 2 *t*-tests and correlations

Table S2 shows the means, standard deviations, and *t*-tests for all variables in Study 2 and Tables S3 and S4 show correlational results between all study variables. Reported

results concern both samples unless otherwise specified or for variables assessed only in one sample. As in Study 1, women reported significantly higher person-based and trait-based empathy than men (in Sample 1 only). Consistent with Study 1 and past findings regarding men and women's friendships (Bank & Hansford, 2000), women reported higher closeness and proximity, and lower discord with their close friend than men. There were no gender differences in self-reported avoiding and obliging. However, men reported using more dominating strategies than women, and women reported using more integrating and compromising strategies than men. These results are in concordance with past research (Ann & Yang, 2012; Stolarski et al., 2011). The use of communication strategies did not differ according to gender in Sample 1, but women reported using more adaptive communication strategies than men in Sample 2.

Then, correlational analyses were conducted to document associations between all independent and dependent variables. Person-based empathy was moderately associated with trait-based empathy. Person-based empathy was significantly associated with both indices of relationship characteristics as was trait-based empathy. This was expected since trait-based empathy has been related to self-reported prosocial and aggressive interpersonal behaviors (Smits, Doumen, Luyckx, Duriez, & Goossens, 2011). In addition, person-based empathy was associated with all self-reported conflict resolution strategies, except avoiding. Trait-based empathy was associated with all these strategies, except obliging. Person-based empathy was positively associated with communication strategies in a hypothetically conflicting situation with a close friend in both samples. On the other hand, trait-based empathy was only associated with communication strategies in Sample 2.

Study 3 *t*-tests and correlations

All supplementary analyses from Study 3 treat participants and their friend as indistinguishable dyad members (Olsen & Kenny, 2006). Therefore, results apply to

the whole sample and reference to “participants” should be understood as a reference to all participants. As in Study 2, *t*-tests (see Table S5) revealed that person-based empathy was significantly higher for women than for men whereas, as in Sample 2 of Study 2, trait-based empathy and proximity did not differ significantly according to gender. In addition, there were no gender differences for communication strategies, empathic accuracy, and assumed similarity.

Correlational analyses (see Table S5) showed a moderate relationship between person-based empathy and trait-based empathy, thus reproducing results of Study 2. Similarly to Study 2, person-based empathy was also significantly associated with communication strategies, whereas trait-based empathy was only marginally related to communication strategies. In addition, person-based empathy was significantly associated with empathic accuracy and assumed similarity. This result suggests that person-based empathy is not only linked to more accuracy at inferring a friend's potential reactions in different situations but is also related to perceiving the friend's potential reactions in these situations as more similar to one's own reactions. On the other hand, trait-based empathy was only associated with empathic accuracy. Proximity was not associated with any of the variables.

Study 4 *t*-tests and correlations

As in Studies 1 to 3, person-based empathy in Study 4 was significantly higher for women than for men (See Table S6). However, there were no gender differences in cooperation and approval. Results further showed a positive relation between person-based empathy and cooperation as well as approval. In addition, cooperation and approval were moderately correlated, which was expected as they represent two types of prosocial behaviors.

Study 5 pilot study

An online pilot study was conducted to ensure that the primed representation in the control condition in Study 5 did not significantly differ from the one in the experimental condition. A total of 70 participants were recruited from Mturk, an online crowdsourcing data acquisition platform. This sample size is enough to detect small to medium effect sizes ($d_z = .35$) in a two-tailed paired t -test with a power of .80. They were asked to report how positive they felt about four different targets on a 100-point scale by sliding a button on a line ranging from “*Very negative*” to “*Very positive*”. Their response was attributed a specific value between 0 and 100 as a function of the position of the slider-button on the line, but that value was not shown to participants. They were asked to indicate how they felt towards “poison”, “the last book you read”, “your hometown”, and “your closest friend”. Results revealed that participants felt significantly less positive about poison ($M = 27.34$, $SD = 28.42$) and about the last book they read ($M = 74.36$, $SD = 21.68$) than about their closest friend ($M = 80.27$, $SD = 13.56$), $t_s > -2.25$, $p_s < .028$. However, there was no significant difference between how positive participants felt about their hometown ($M = 76.54$, $SD = 18.32$) and their closest friend ($M = 80.27$, $SD = 13.56$), $t(69) = -1.53$, $p = .13$. While participants were able to distinguish their closest friend from the last book they read and poison, results suggest that they felt as positive about their hometown as their closest friend.

Study 6 preliminary analyses

In Study 6, participants from each classroom were equivalent in terms of age, trait-based empathy, person-based empathy, benevolence, power and helping intentions, $t_s < |0.96|$, $p_s > .34$. In addition, entering classroom as a factor in the analyses did not alter results and classroom did not significantly interact with study variables to predict the outcomes, $t_s < |1.64|$, $p_s > .10$. Finally, the media on which participants completed

the questionnaire had no effect on the outcomes ($ts < |1.29|$, $ps > .20$) and no moderations were found by media ($ts < |1.84|$, $ps > .067$).

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Table S1

Means, Standard Deviations, t-tests, Cohen's d and Correlations between empathy and relationship characteristics: Study 1.

Variables	Female		Male		<i>t</i> (343)	<i>d</i>	1	2	3
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>					
1. Trait-based empathy	3.73	0.59	3.40	0.53	5.25**	.59	—		
2. Person-based-based empathy	4.05	0.63	3.66	0.62	5.67**	.62	.65**	—	
							[.57; .71]		
3. Satisfaction	4.29	0.68	4.03	0.69	3.96**	.38	.32**	.52**	—
							[.20; .42]	[.43; .60]	
4. Conflict	1.97	1.01	2.50	1.14	-4.47**	-.49	-.29**	-.51**	-.36**
							[-.38; -.19]	[-.59; -.44]	[-.46; -.27]

Note. Numbers in brackets represent bootstrap 95% confidence intervals.

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

Table S2

Means, Standard Deviations, t-tests, Cohen's d for person-based empathy, trait-based empathy, relationship characteristics, conflict resolution strategies, and communication strategies: Study 2

Variables	Sample 1						Sample 2					
	Female		Male		<i>t</i>	<i>d</i>	Female		Male		<i>t</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Person-based empathy	4.07	0.45	3.73	0.48	4.93**	.74	4.00	0.47	3.82	0.51	2.13*	.37
Trait-based empathy	4.95	0.65	4.59	0.71	3.61**	.54	4.67	0.70	4.72	0.76	-0.39	.07
Closeness	—	—	—	—	—	—	4.14	0.49	3.80	0.56	3.66**	.65
Discord	—	—	—	—	—	—	1.87	0.44	2.25	0.65	-4.13**	.68
Proximity	—	—	—	—	—	—	7.31	1.28	6.65	1.68	2.58*	.44
Avoiding	2.96	0.88	3.01	0.74	-0.40	.06	—	—	—	—	—	—
Dominating	2.37	0.73	2.71	0.63	-3.19**	.49	—	—	—	—	—	—
Obliging	3.24	0.59	3.19	0.48	0.59	.09	—	—	—	—	—	—
Integrating	4.15	0.60	3.96	0.57	2.13*	.32	—	—	—	—	—	—
Compromising	3.94	0.62	3.71	0.59	2.47*	.38	—	—	—	—	—	—
Communication strategies	0.05	0.71	-0.10	0.73	1.37	.21	0.16	0.73	-0.39	0.63	4.33**	.81

Note. Sample 1: N = 209, except for analyses including communication strategies, N = 208. Sample 2: N = 151.

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

Table S3

*Correlations between person-based empathy, trait-based empathy, conflict resolution strategies, and communication strategies:
Study 2, Sample 1*

Variables	1	2	3	4	5	6	7	8
1. Person-based empathy	—							
2. Trait-based empathy	.30** [.17; .43]	—						
3. Avoiding	-.12† [-.25; .01]	-.34** [-.46; -.21]	—					
4. Dominating	-.28** [-.41; -.13]	-.18* [-.32; -.03]	.21** [.05; .36]	—				
5. Obliging	.22** [.08; .36]	-.03 [-.18; .13]	.28** [.14; .41]	.07 [-.08; .22]	—			
6. Integrating	.54** [.43; .63]	.36** [.22; .50]	-.29** [-.41; -.15]	-.23** [-.36; -.07]	.16** [-.02; .32]	—		
7. Compromising	.43** [.29; .55]	.16* [.00; .30]	-.03 [-.19; .13]	-.21** [-.35; -.07]	.21** [.06; .34]	.73** [.63; .81]	—	
8. Communication strategies	.21* [.09; .34]	.10 [-.04; .25]	-.21** [-.34; -.07]	-.19* [-.33; -.06]	.12† [-.04; .27]	.14* [-.01; .29]	.08 [-.06; .22]	—

Note. N = 208. Numbers in brackets represent bootstrap 95% confidence intervals.

† $p < .10$, * $p < .05$, ** $p < .01$.

Table S4

Correlations between person-based empathy, trait-based empathy, relationship characteristics, and communication strategies: Study 2 Sample 2

Variables	1	2	3	4	5	6
1. Person-based empathy	—					
2. Trait-based empathy	.30** [.12; .48]	—				
3. Closeness	.46** [.32; .59]	.22** [.50; .38]	—			
4. Discord	-.30** [-.45; -.15]	-.16* [-.31; .00]	-.17* [-.31; -.02]	—		
5. Proximity	-.04 [-.19; .12]	-.10 [-.22; .05]			—	
6. Communication strategies	.33** [.19; .48]	.26** [.13; .38]	.26** [.12; .42]	-.24** [-.37; -.08]	-.04 [-.20; .13]	—

Note. N = 151. Numbers in brackets represent bootstrap 95% confidence intervals. Comm. strategies = communication strategies.

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

Table S5

Means, Standard Deviations, t-tests, Cohen's d and Correlations between trait-based empathy, person-based empathy, communication strategies, assumed similarity, and empathic accuracy: Study 3

Variables	Female		Male		<i>t</i>	<i>d</i>	1	2	3	4	5
	M	SD	M	SD							
1. Person-based empathy	4.09	0.50	3.75	0.64	2.99**	.60	—				
2. Trait-based empathy	4.88	0.71	4.63	0.79	1.59	.32	.43**	—			
							[.26; .56]				
3. Proximity	7.33	1.24	7.53	1.04	-.83	.17	.00	-.01	—		
							[-.16; .20]	[-.18; .19]			
4. Communication strategies	1.59	1.33	1.48	1.23	0.41	.09	.27**	.18 [†]	.05	—	
							[.10; .43]	[.01; .35]	[-.14; .25]		
5. Empathic accuracy	24.69	7.67	27.12	6.83	-1.59	.32	-.32**	-.22*	-.02	-.35**	—
							[-.47; -.11]	[-.37; -.04]	[-.20; .16]	[-.52; -.15]	
6. Assumed similarity	21.95	7.50	21.70	8.16	0.16	.03	-.25*	-.13	.06	-.31**	.38**
							[-.45; .01]	[-.33; .09]	[-.14; .26]	[-.49; -.15]	[.17; .55]

Note. N = 102. Numbers in brackets represent bootstrap 95% confidence intervals.

[†] $p < .10$, * $p < .05$, ** $p < .01$.

APPENDICE A

CERTIFICAT ÉTHIQUE DE L'ÉTUDE DE L'ARTICLE 1



Comité institutionnel d'éthique de la
recherche avec des êtres humains

No. 701718

Le Comité institutionnel d'éthique de la recherche avec des êtres humains de l'UQAM a examiné le projet de recherche suivant :

Responsable(s) du projet: Frédéric Philippe

Unité(s) : Département de psychologie

Co-chercheur(s):

Titre du projet : «Le rôle des souvenirs dans les relations de couple».

Stagiaire postdoctoral :

Étudiant(s) réalisant leurs projets de mémoire ou de thèse dans le cadre du présent projet ou programme :

Ce protocole de recherche est jugé conforme aux pratiques habituelles et répond aux normes établies par le Cadre normatif pour l'éthique de la recherche avec des êtres humains de l'UQAM (1999) et l'Énoncé de politique des trois Conseils : Éthique de la recherche avec des êtres humains (2010).

Le présent certificat est valide jusqu'au 1^{er} novembre 2012.

Rapport du statut du projet (renouvellement du certificat ou fin de projet) attendu pour le : 30 novembre 2012.

<http://www.recherche.uqam.ca/ethique/humains-suivi-continu.htm>

Membres du Comité

Membres	Fonction/Discipline	Département ou organisme externe
Marc Bélanger	Ph.D. (sciences neurologiques)	Kinanthropologie
René Binette	Représentant du public	Écomusée du fier monde
Louise Cossette	Ph.D. (psychologie)	Psychologie
Andrée De Serres	PH.D. (administration)	Stratégie, responsabilité sociale et environnementale
Christa Japel	Ph.D. (psychologie)	Éducation et pédagogie
Maria Nengeh Mensah	Ph.D. (Communications)	École de travail social
Christian Saint-Germain	Ph.D. (théologie)	Philosophie

Date de la réunion : 23 mars 2012

Date d'émission initiale du certificat : 2 avril 2012

Date(s) de renouvellement du certificat :

R-1 : R-2 : R-3 : R-4 : R-5 :

Remarque :

Marc Bélanger, Ph.D., Président

APPENDICE B

CERTIFICAT ÉTHIQUE DES ÉTUDES 1 À 4 DE L'ARTICLE 2



No du certificat : S-701327 (1)

CERTIFICAT D'ÉTHIQUE

Le Comité institutionnel d'éthique de la recherche avec des êtres humains de l'UQAM, a examiné le protocole de recherche suivant et jugé conforme aux pratiques habituelles et répond aux normes établies par le Cadre normatif pour l'éthique de la recherche avec des êtres humains de l'UQAM (juin 2012).

Protocole de recherche

Chercheur(e) principal(e) : Frédérick L. Philippe
Unité de rattachement : Département de psychologie
Co-chercheur(s) : s/o
Stagiaire postdoctoral(e) : s/o
Étudiant(s) réalisant leurs projets de mémoire ou de thèse (incluant les thèses de spécialisation) dans le cadre du présent protocole de recherche : Valérie Guilbault (doctorat en psychologie)
Titre du protocole de recherche : *La détection des émotions en lien avec la résolution de conflits chez les amie(s) intimes/Le rôle des souvenirs épisodiques et des traits dans les comportements interpersonnels.*
Organisme de financement : FRQSC (2012-2015)

Modalités d'application

Le présent certificat est valide pour le projet tel que soumis au CIEREH. Les modifications importantes pouvant être apportées au protocole de recherche en cours de réalisation doivent être communiquées au comité¹.

Tout événement ou renseignement pouvant affecter l'intégrité ou l'éthicité de la recherche doit être communiqué au comité.

Toute suspension ou cessation du protocole (temporaire ou définitive) doit être communiquée au comité dans les meilleurs délais.

Le présent certificat d'éthique est valide jusqu'au **5 novembre 2014**. Selon les normes de l'Université en vigueur, un suivi annuel est minimalement exigé pour maintenir la validité de la présente approbation éthique. Le rapport d'avancement de projet (renouvellement annuel ou fin de projet) est requis pour le : **5 octobre 2014** : <http://www.recherche.uqam.ca/ethique/humains/comites-reunions-formulaires-eth-humains/cier-comite-institutionnel-dethique-de-la-recherche-avec-des-etres-humains.html>

5 novembre 2013

Gilles Dupuis
 Professeur
 Président

Date d'émission initiale du certificat

¹ Modifications apportées aux objectifs du projet et à ses étapes de réalisation, au choix des groupes de participants et à la façon de les recruter et aux formulaires de consentement. Les modifications incluent les risques de préjudices non-prévus pour les participants, les précautions mises en place pour les minimiser, les changements au niveau de la protection accordée aux participants en termes d'anonymat et de confidentialité ainsi que les changements au niveau de l'équipe (ajout ou retrait de membres).

APPENDICE C

CERTIFICAT ÉTHIQUE DES ÉTUDES 5 ET 6 DE L'ARTICLE 2

CERTIFICAT D'APPROBATION ÉTHIQUE

Le Comité d'éthique de la recherche pour les projets étudiants impliquant des êtres humains (CERPE 4: sciences humaines) a examiné le projet de recherche suivant et le juge conforme aux pratiques habituelles ainsi qu'aux normes établies par la *Politique No 54 sur l'éthique de la recherche avec des êtres humains* (Janvier 2016) de l'UQAM.

Titre du projet:	L'activation de schémas relationnels et l'empathie envers des personnes inconnues
Nom de l'étudiant:	Valérie GUILBAULT
Programme d'études:	Doctorat en psychologie
Direction de recherche:	Frédéric PHILIPPE

Modalités d'application

Toute modification au protocole de recherche en cours de même que tout événement ou renseignement pouvant affecter l'intégrité de la recherche doivent être communiqués rapidement au comité.

La suspension ou la cessation du protocole, temporaire ou définitive, doit être communiquée au comité dans les meilleurs délais.

Le présent certificat est valide pour une durée d'un an à partir de la date d'émission. Au terme de ce délai, un rapport d'avancement de projet doit être soumis au comité, en guise de rapport final si le projet est réalisé en moins d'un an, et en guise de rapport annuel pour le projet se poursuivant sur plus d'une année. Dans ce dernier cas, le rapport annuel permettra au comité de se prononcer sur le renouvellement du certificat d'approbation éthique.



Thérèse Bouffard
Présidente du CERPE 4 : Faculté des sciences humaines
Professeure, Département de psychologie

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(CHAPITRES 1, 3 ET 5)

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