A Person-centered Approach

to the Role of Empathy in Negotiations

By
Shayda Maria Sobhani

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Approved:	Dr. Debra Gilin Oore	Supervisor
Approved:	Dr. Kevin Kelloway	Committee Member
Approved:	Dr. James Cameron	Committee Member
Approved:	Dr. Damian O'Keefe	External Examiner

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Abstract: Negotiation is a critical component of job performance across a variety of occupations. Though many factors influencing negotiation performance have been studied, research on individual (specifically personality) traits has lagged behind. The current research addresses this gap by studying individual-level empathy and its impact on negotiation performance. Using archival data, latent profile analyses were conducted to identify profiles based on the Interpersonal Reactivity Index (IRI), a measure of four empathy facets (Davis, 1983). ANOVAs were used to link profiles to distributive and integrative negotiation outcomes. Four empathy profiles emerged that were replicated across two samples. The profiles showed no significant relationships with negotiation performance, however, significant correlations were found with the Big Five personality traits and Emotional Intelligence. Results contribute to the realm of negotiation and empathy research by testing the underlying factors of Dual Concern Theory and discovering empathy profiles that broaden the possibilities of future research.

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The study of personality and negotiation has fluctuated over time; some researchers have

implied the topic will yield little fruit (e.g., Rubin & Brown, 1975), while others have recently

called for a resurgence of new research (e.g., Elfenbein, 2015; Sharma, Elfenbein, Foster, &

Bottom, 2018). The present study will contribute to the literature by studying the influence of

empathy on negotiation outcomes.

The measure of empathy that has been used in the context of conflict and negotiation is

the Interpersonal Reactivity Index created by Davis (1983). Davis considered empathy to be a

personality trait describing stable reaction tendencies, rather than a temporary state one enters in

response to a situation. Davis pioneered the multidimensional view of empathy, and qualitatively

and quantitatively distinguished between four facets of empathy: Perspective-Taking, Empathic

Concern, Fantasy, and Personal Distress. In conflict and negotiation research however, only the

first two facets have thus far been considered (e.g., Gilin, Maddux, Carpenter, & Galinsky, 2013;

Galinsky, Maddux, Gilin, & White, 2008; Longmire & Harrison, 2018).

One of the most prominent individual-focused models of conflict and negotiation was

first proposed by Blake and Mouton (1964). They proposed five types of conflict handling styles

of managers on a grid with two dimensions: concern for production and concern for people.

Since Blake and Mouton's seminal work, different researchers have built upon the five-type two-

dimensional model and expanded it to apply to any individual, not exclusively managers.

Notably, Thomas and Kilmann (1978), Pruitt and Rubin (1986), and Rahim and Magner (1995).

Consistent with Blake and Mouton's work, all of the above researchers included five conflict

handling types which can be summarized as: competition, collaboration, avoiding,

accommodation, and compromise. The two dimensions specified by each pair of researchers can be distilled down to concern for self and concern for others. Pruitt and Rubin (1986) dubbed this model as the well-known 'Dual Concern Theory', while Thomas and Kilmann (1978) and Rahim and Magner (1995) created measures to classify individuals into each type. There are differences between researchers in how the styles are labelled, but these are decidedly semantic in nature and not reflective of true construct differences. Therefore, from this point forward 'Dual Concern Theory' will be used to refer to the overall concept, rather than a specific researcher's perspective.

The two dimensions of concern for self versus others are especially pertinent to the current research. These dimensions are a core underlying tenet of Dual Concern Theory; the inherent assumption being that the extent to which one is oriented towards the self and others will largely determine one's approach to a negotiation or conflict situation. As will be discussed in further detail, it is also possible to view empathy as self- or other-focused (Atwood & Gilin Oore, 2013). The current research will contribute to our understanding of Dual Concern Theory as it aims to explicitly test a specific trait (i.e., empathy) that can be linked to the underlying assumption that self- and other-orientation form the basis of how one handles conflict. Research has somewhat addressed this by studying prosocial versus egoistic motivations (De Dreu, Weingart, & Kwon, 2000), however, the focus was on negotiation-specific behaviours rather than broader personality traits. By using a specific trait measure of empathic tendencies, the current study will be adding measurement rigour and theoretical clarity to the Dual Concern approach.

To accomplish this task, I will examine the IRI in relation to negotiation outcomes from a novel perspective. Specifically, whether there are latent empathy profiles within measurements of the IRI in archival datasets, and determine if these latent profiles can be linked to distributive

and integrative negotiation performance. Analyzing the IRI through latent profile analysis will enable the study of the empathy-negotiation relationship in a novel way that will contribute to our understanding of individual conflict-handling styles.

Individual Characteristics and Negotiation

Intuitively, it is easy to imagine and pleasing to believe that what we bring as individuals to the negotiation table weighs heavily on the outcome. However, if one was to go by articles published on the subject, the conclusion would be that who you are has nothing to do with how you negotiate. Until recently, the study of individual differences in relation to negotiation has struggled to avoid stagnating. The abandonment of the topic has been attributed mainly to Rubin and Brown's (1975) paper, which made a strong statement that individual differences do not play a large role in negotiation success – a claim that has retroactively been deemed unjustified (e.g., Elfenbein, 2015; Sharma et al., 2018). There is now a call to resume research on the connection between individual differences negotiation performance(e.g., Elfenbein, 2015; Elfenbein, Curhan, Eisenkraft, Shirako, & Baccaro, 2008).

Elfenbein and colleagues (2008) assumed the responsibility to firmly establish that individual differences can predict negotiation performance. Across a series of integrative negotiations, they found that individual differences accounted for almost half of the variance (46%) in objective outcomes, and one-fifth (19%) of the variance in subjective outcomes. Interestingly, although the authors included around two-dozen trait measures, only a handful were statistically significant. Their results imply that although individual differences account for a large portion of objective negotiation outcomes, commonly studied variables explain very little of that variance. Elfenbein et al. (2008) suspected one of the main reasons for this phenomena is the typical lack of multiple negotiations over which to measure outcomes. Most negotiation

studies tend to collect outcomes at only one time point, thereby limiting statistical power. Therefore, focusing on one personality trait across multiple negotiations may be a way to overcome this challenge.

Some individual differences (e.g., demographic differences) have been studied at length, such as gender (e.g., Mazei, Hüffmeier, Freund, Stuhlmacher, Bilke, & Hertel, 2015) and ethnicity or culture (e.g., Adair, Taylor, & Tinsley, 2009; Aslani et al., 2016). Personality traits have been studied as well, but with less frequency. Negotiation performance has positive associations with positive affect (Elfenbein et al., 2008), prosocial tendencies (De Dreu et al., 2000), ambition and likeability (Sharma et al., 2018), and is negatively linked to attachment anxiety (Bear & Segel-Karpas, 2015), negative affect (Elfenbein et al., 2008), and agreeableness (Dimotakis, Conlon, & Ilies, 2011). Negotiation performance is also influenced by empathy, but the findings are mixed (e.g., Batson & Ahmad, 2001; Cohen, 2010; Galinsky et al., 2008; Longmire & Harrison, 2018) and will be discussed in more detail in subsequent sections.

Empathy and the IRI

In the proposed research, empathy is being studied as a personality trait which is generally stable over time, causing individuals to react consistently to empathy-provoking situations. It has long been established that empathy is considered to have both cognitive and affective components that are expressed depending on the situational context (e.g., Davis, 1983; Duan & Hill, 1996; Gladstein, 1983). These two facets of empathy were initially studied independently. Dymond (1949) defined empathy as "…the imaginative transposing of oneself into the thinking, feeling and acting of another and so structuring the world as he does" (p. 127). Though this definition may seem to include an emotional component, the test Dymond devised was clearly a cognitive task; it asked participants to imagine how another participant might

answer the given questions. Empathic ability was then determined by how accurately the participant predicted the other's ratings. Similarly, Kerr and Speroff (1954) designed an empathy test that asked participants to anticipate the reactions of an 'average person' to a variety of questions. Again, it was a test influenced by the idea that empathy is a cognitive response. Stotland and Walsh's (1963) work is representative of the opposing 'emotional camp' by defining empathy as "…an individual experiencing the same emotion because he perceives another to experience this emotion" (p. 610). The emphasis in this study and in others purporting empathy as an emotional reaction tended to focus on physical measurements, i.e., palms sweating, flinching (e.g., Berger, 1962; Stotland & Walsh, 1963).

As research on empathy progressed, it began to move away from a unipolar (cognitive *or* affective) conceptualization and operationalization. Feshbach (1975) agreed with Stotland and Walsh (1963) to the extent that an empathic response required a match between the response of the perceiver and that of the 'other'. At this point Feshbach diverged and declared that viewing empathy as cognitive *or* affective was a false dichotomy. Instead, a three component model of empathy was proposed: the ability to discriminate another's perspective and role (two cognitive components), and emotional capacity and responsiveness (one emotional component). Feshbach (1975) stated all three were necessary to have an empathic response. This perspective and that of others (e.g., Coke, Batson, & McDavis, 1978) began a paradigm shift to empathy being both a cognitive and affective response, existing within an individual simultaneously.

Davis (1983) was a pioneer in the approach of measuring empathy as a multidimensional construct with the development of the Interpersonal Reactivity Index (IRI); a measure of individual differences in empathic tendencies. In his seminal paper, Davis (1983) argued that empathy consisted of four correlated but clearly distinguished facets, based on cognitive and

affective types of empathy. Perspective-Taking (PT) is the tendency to cognitively adopt the viewpoint of others. Empathic Concern (EC) encompasses what is classically thought of as empathy; feelings of sympathy and concern for others. Fantasy (FS) is the tendency to put one's self using imagination into the feelings and actions of fictitious characters in books, movies, etc. Personal Distress (PD) involves anxious and uneasy feelings directed towards the self in tense interpersonal situations.

In Davis' original definitions, EC refers to "other-oriented" feelings of concern, while PD involves "self-oriented" feelings, seemingly to helpfully distinguish between the two constructs that describe emotional reactions. Atwood and Gilin Oore (2013) expanded the use of these terms to list both EC and PT as other-oriented and PD and FS as self-oriented, creating two broader categories within the IRI that assist in conceptualizing the constructs. I agree with dividing the facets as self- and other-oriented, because it is clear from Davis' (1983) definitions that PT is focused on the "other" by considering another's cognitive perspective, while FS is clearly focused on the "self" because it involves projecting oneself into a fictional story or character. The division also allows a higher-level analysis of empathy-related outcomes. Self-oriented empathy, for example, has been associated with higher compassion fatigue and burnout, and lower mental health and job performance or efficacy (López-Pérez, Carrera, Ambrona, & Oceja, 2014; Thomas, 2013). Other-oriented empathy has generally been associated with more positive outcomes: increased compassion satisfaction, negotiation performance and helping behaviours, and decreased aggression (Batson, 1991; Galinsky et al., 2008; Gleichgerrcht & Decety, 2013). It is important to note that within competitive negotiation contexts, EC (not PT), is considered a liability to performance (e.g., Batson et al., 2003; Batson & Ahmad, 2001; Gilin et al., 2013).

Although the four facets of empathy are generally accepted as distinct and present simultaneously within individuals, no research has been done looking at IRI scores holistically. In other words, a variable-centered approach has thus far been the norm. As highlighted above, Dual Concern Theory postulates that conflict handling styles are determined by the extent to which an individual is self- and other-oriented. The self- and other-focused empathic dimensions of the IRI can be used to test this assumption directly, and at the same time apply a new person-centered approach to studying empathy.

Multidimensional Empathy and Negotiation

Near the beginning of the 21st century, research on empathy and negotiation seemed to show that 'cognitive' empathy was good, and 'feeling' empathy was bad for negotiation outcomes. Studies by Batson and colleagues found that perspective-taking generally benefited negotiators, while empathy was linked with individuals choosing outcomes worse for themselves (Batson & Ahmad, 2001; Batson et al., 2003). Galinsky et al. (2008) found that in transactional negotiations, PT led to more creative deals and overall better gains, while EC was detrimental to outcomes.

More recently, studies have begun to explore the influence of contextual factors (e.g., nature of the negotiation task) which has contributed to a more nuanced understanding of PT and EC in negotiations. Building off of Galinsky et al.'s (2008) paper, Gilin et al. (2013) manipulated the negotiation context to try and appeal to the different strengths of EC and PT. As expected, PT was better at predicting distributive and integrative performance when it was necessary to understand an opponent's strategy and respond. Interestingly, EC outperformed PT when a coalition game required understanding and identifying interpersonal. The unique contribution of

this research was the understanding that PT and EC can both be beneficial to the individual in

negotiations depending on context, i.e., when there is a task-competency match.

As demonstrated in the research cited above, conflict and negotiation research has

primarily focused on PT and EC and how different levels of each predict negotiation outcomes

(e.g., Galinsky et al., 2008; Gilin et al., 2013; Longmire & Harrison, 2018). Research has not

investigated how the presence of PD and FS (the more deleterious, self-focused forms of

empathy) within an individual might influence the strength of those relationships. To answer this

question, I argue for a person-centered approach, operating under the assumption that individual

empathy profiles will account for more variance in negotiation performance than each empathy

subscale uniquely. This approach is directly applicable to the IRI as each facet is theoretically

and empirically distinguishable, but they can occur simultaneously within individuals (Davis,

1983; Galinsky et al., 2008).

Research Question: Are there consistent patterns among the four empathy facets within

individuals that indicate the existence of qualitatively and quantitatively different empathy

profiles that, in turn, differentially predict negotiation outcomes?

Profile-Outcome Expectancies

As previously conceptualized, the IRI may be divided into 'self-' and 'other-' focused

types of empathy. Unfortunately, almost no research has been done that might indicate how all

four facets may present themselves in individuals. However, in a meta-analysis looking at

empathy trends in youth across different generations by Konrath, O'Brien, and Hsing (2011), it

was found that PD and FS have remained stable over time, while PT and EC seem to be

decreasing. The reasons cited by the authors for this shift relate to changing societal trends

which, while interesting, are beyond the scope of this paper. Most importantly, the meta-analysis

shows that other-oriented and self-oriented facets have a tendency to fluctuate together, responding similarly to the environment due to their external versus internal focus, respectively. It is possible, then, that the self- and other-oriented empathy facets will vary similarly across profiles. Konrath et al.'s (2011) findings also argue against the possibility that the cognitive (PT and FS) and affective (EC and PD) would vary together instead. Thus;

Hypothesis 1: It is expected that the self-focused empathy facets (PD, FS) and other-focused facets (PT, EC) will generally hold together in profiles.

Aside from the self- and other-oriented facets sticking together within profiles, it is possible that profiles may be characterized by a single, dominant empathic trait.

Hypothesis 2: Profiles will emerge wherein one empathic trait is dominant relative to the other three.

The next logical question is how scoring high on any one facet will affect negotiation outcomes. What is known about the IRI in the context of negotiation is that PT is a consistent positive predictor of performance (e.g., Galinsky et al., 2008; Longmire & Harrison, 2018), to a greater extent than EC with few exceptions (e.g., Gilin et al., 2013). As of yet, FS and PD have not been studied within the negotiation context, and research on FS in general is sparse. However, research among health professional populations indicate that PD in particular and FS to a lesser extent have negative implications for individual functioning such as increased compassion fatigue and burnout (e.g., López-Pérez et al., 2014; Thomas, 2013). It is therefore expected that:

Hypothesis 2a: Individuals high in PT relative to the other facets will achieve the highest negotiation performance.

Hypothesis 2b: Individuals high in EC relative to the other facets will perform well (below those high in PT).

Hypothesis 2c: Individuals high in FS relative to the other facets will have low negotiation performance (above those high in PD).

Hypothesis 2d: Individuals high in PD relative to the other facets will have the worst negotiation performance.

It is important to acknowledge the exploratory nature of this research. The hypotheses above are based on what research exists or could be related to the development of empathy profiles, and it is possible that no profiles will emerge at all. Nonetheless, the research objective is as follows:

Research Objective: The purpose of this research is to investigate the existence of empathy profiles among individuals and their effect on negotiation outcomes. Empathy profiles will be determined via latent profile analysis. Once distilled, profiles will be linked with negotiation performance, indicated by measures of integrative and distributive performance.

Separation from Similar Constructs

The general conception of empathy in the proposed research is based on the premise that how one thinks and feels about another person (or oneself) is connected to one's responses in a negotiation or conflict. On the surface, it may be possible to confuse the current definition of empathy with the construct of emotional intelligence (EI), which has become highly discussed in recent years. The original conceptualization of EI by Salovey and Mayer (1990) is the ability to accurately appraise and regulate emotion in oneself and others, and to use emotions to achieve goals. The distinction between Davis' (1983) empathy construct and EI is that EI is more an active use of a perceptive ability, rather than a personality trait describing a tendency to react a

certain way depending on the situation. As Salovey and Mayer (1990) stated, EI "…does not include the general sense of self and appraisal of others…[it is] the recognition and use of one's own and other's emotional states to solve problems and regulate behaviour" (p. 189). If anything, the active nature of EI is reminiscent of what was previously studied as 'empathic accuracy' (e.g., Dymond, 1949; Kerr and Speroff, 1954), which involved making predictions about another's behaviour.

It is also possible to see similarities between empathy and the Big Five concept of personality, and to expect there to be correlations between the constructs. In a study with Spanish adolescents, Del Barrio, Aluja, and García (2004) looked for associations with a Spanish version of the Big Five and an empathy measure for children and adolescents. They found that empathy was most strongly linked positively to agreeableness, and to a lesser extent linked with extraversion, conscientiousness, and openness. However, when entered into a regression equation to predict empathy, all coefficients became negligible except for agreeableness. More recently, Melchers, Li, Haas, Reuter, Bischoff, and Montag (2016) studied adults across China, Germany, Spain, and the United States and measured the Big Five, the IRI, and EI. Agreeableness again was a strong predictor with positive links with EC across all countries, and conscientiousness was a positive predictor of PT but only for Chinese and German participants. FS was significantly positively related with openness, and PD was positively associated with neuroticism; both for all four countries. EI had correlations across all the Big Five dimensions, the strongest being with agreeableness and conscientiousness. Overall, the Big Five predicted 14-46% of EI responses depending on the country. For the IRI, the Big Five predicted 5-22% of the variance for EC, PT, and FS, while PD was more strongly predicted at 24-36%.

The research cited above is rather exploratory, and to my knowledge more focused, experimental research has not yet been done to connect empathy (or the IRI specifically) to the Big Five. I believe the research to date shows that the IRI does not completely map onto the Big Five or EI, and is measuring a distinct construct. However, due to the correlations that have been found, a subordinate or exploratory research question is how the empathy profiles may correlate with EI and the Big Five.

Method

The sample for this research consisted of archival data collected from four separate studies conducted as part of Dr. Gilin's research. The inclusion criteria was that the full IRI scale was used cross-sectionally, and the outcomes across samples were relatively similar (i.e., use of integrative and distributive outcomes). Three of the samples used undergraduate students and one sample consisted of MBA students. Each sample was collected independently for a different research purpose related to negotiation. All studies contained at least one conflict and negotiation task, therefore dyadic data were available for all participants. Below are more detailed descriptions of each source dataset regarding participants, study design, and tasks. The demographic data reported for each sub-sample are from the merged dataset, post-cleaning and screening of the data. Across the datasets, several people did not respond to each of the demographic questions, therefore the percentages of those who did respond are reported for each sample.

Social Anxiety Sample

This dataset consists of $n = 333$ Saint Mary's University (SMU) undergraduate students and was collected in 2006-7. Of the participants who chose to respond, 73.2% were female and 80.6% were White. The average age was 20.69 years old ($SD = 2.45$), 49.0% were majoring in

psychology, and around 68.2% were in their second or third year. There were three sessions conducted: Session 1 was a personality pretest that included the IRI and the Big Five, Session 2 was a market negotiation task (each person had many partners and their outcomes were totaled across deals), and Session 3 was a dyadic negotiation task. There were no manipulations, but for each task individuals were assigned to one of two roles. Session 3 is the focus of the current research, where participants assumed the role of a student finances or facilities leader to negotiate the allocation of funds for a hypothetical campus issue. There were five issues that participants could negotiate on (e.g., computer access, classroom renovations), and there was potential for distributive and integrative agreements to be reached. The outcome variables of interest include: points across five negotiation issues (distributive outcome) and the dyads combined points across five issues (integrative outcome). This is the only sample that measured the Big Five personality traits using the NEO Personality Inventory.

War Game Sample

This dataset also consists of SMU undergraduates, and there were 85 participants who completed the IRI and negotiation task. Of those who chose to respond, the participants were 58.5% female and 77.8% White. The average age was 20.71 years old ($SD = 1.95$), 30.9% were majoring in business, and 31.7% were in their first year. Participants completed a dyadic Disarmament Game on linked computers with periodic face-to-face negotiation. As summarized in Gilin et al. (2013), there were multiple rounds of an arms race with an opposing country, where each round required a decision to attack or disarm. Two winning strategies were possible: competitive or cooperative. There were no manipulations and no 'roles' were assigned – participants were representing their 'own country' against an enemy country. The IRI was the main predictor and was measured before the task. The outcome variables of interest are self

distributive gain from competitive tactics and self percent of all distributive gains in the game

(distributive outcomes), self integrative gains from peaceful tactics and percentage of joint gain

the self earned (integrative outcomes), and total joint gain from peaceful tactics (dyadic

integrative outcome).

MBA Negotiation Sample

This dataset consists of 66 MBA students in Belgium who completed the dyadic

negotiation task as 'part of their final exam'. Demographic data was not available for this

sample.[1] There was a low motivation (told they would get bonus points in the course

proportionate to their negotiation outcome points) and high motivation condition (active

deception; told their points would be a part of their actual final exam score). All manipulation

checks in both conditions indicated both were perceived as highly motivating, thus, there were

no differences between the conditions on process and outcome measures. Participants were also

randomly assigned a role as manager of a drug store or a product seller. The IRI was measured

before the task took place. The outcome variables of interest are: joint performance (dyadic

integrative outcome) and proportion of integrative profit (distributive outcome).

Ultimatum Bargaining Sample

This dataset consists of SMU undergraduates. The study included a pretest (the IRI was

measured one week before the main session), and then participants came in to complete an

ultimatum game with another player. An ultimatum game involves one player receiving a sum of

money and being tasked with splitting it with the other player (Murnighan & Pillutla, 1995). The

receiver can either accept or reject the offer from the proposer. If they accept, the money is split

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[1] Personal communication with the lead researcher who was present for data collection reported that the characteristics of the sample were quite homogenous; all participants had around three years work experience, were gender balanced, and all in their mid-twenties (D. Gilin Oore, personal communication, May 28, 2019). This helps allay concerns that this particular sample – besides being European – is drastically different from the other three.

per the proposal, but if they reject it then both players get nothing. Four-hundred students completed the pretest, and 248 (134 dyads) returned for the ultimatum game. Post-data cleaning, there were 212 participants (106 dyads). Of those who chose to respond, the participants were 74.4% female and 80.5% White. The average age was 20.66 years old ($SD = 3.28$), 51.2% were majoring in psychology, and 59.1% were in their first or second year. There were three randomly assigned variables: role (proposer vs. receiver), information condition (low vs. high quality information about their partner's personality and background), motivational condition (low = $2 vs. high = $10), and a self-report measure of emotional intelligence. Manipulation checks for level of motivation and information determined that neither the information nor motivation condition had overall main effects on process variables or outcomes. There were some personality variables that predicted social accuracy outcomes (not the monetary outcomes used in the current study). These significant results were presented in (Gilin & Mestdagh, 2004). The outcomes of interest were the amount of money accepted, percent profit, and accuracy predicting partner's response. Among the four samples, it should be noted that this study is not quite a 'negotiation' task because it is merely the decision of one party and the denial/acceptance of the other. However, it is still a mixed motive, competitive dyadic task with economic decision-making outcomes, similar to one round of deal-making that one might engage in during a real estate sale or buying a car. It is also a large sample that completed the full IRI, and is therefore valuable in running the latent profile analysis.

Measures

Across all samples, participants were asked to complete demographic questions as well as the IRI. Although distributive and integrative outcomes were used in each sample, there are slight differences that necessitate discussion.

Demographics. Demographic data collected among the three undergraduate samples include age, gender, race/ethnicity, major of study, cumulative GPA, and year in university.

IRI. All participants completed the Interpersonal Reactivity Index (IRI; Davis, 1983). It is a 28-item scale containing four 7-item subscales to assess each empathy facet. Participants responded on a 5-point Likert scale the extent to which each statement describes them (1 = not well to 5 = very well). The facets of empathy are: Perspective Taking (e.g., "I sometimes try to understand my friends better by imagining how things look from their perspective"), Empathic Concern (EC; e.g., "I often have tender, concerned feelings for people less fortunate than me"), Fantasy (FS; e.g., "I really get involved with the feelings of the characters in a novel"), and Personal Distress (PD; e.g., "Being in an intense emotional situation scares me").

With regards to calculating alpha reliabilities for the IRI facets, raw item data was available for the Social Anxiety, MBA, and Ultimatum datasets[2]. For the Social Anxiety sample ($n = 333$), Cronbach's α for the scales are as follows: PT = .70, EC = .77, PD = .79, and FS = .77. For the War Game sample ($n = 85$): PT = .73, EC = .74, PD = .82, and FS = .69. For the MBA sample ($n = 66$): PT = .80, EC = .72, PD = .69, and FS = .74. For the Ultimatum sample ($n = 389$): PT = .71, EC = .67, PD = .72, and FS = .76. In a review by Davis (2017), numerous papers are cited that reflect similar IRI scale reliabilities to what have been presented here, around .61-.86 (e.g., De Corte, Buysse, Verhofstadt, Roeyers, Ponnet, & Davis, 2007; Fernández, Dufey, & Kramp, 2011; Huang, Li, Sun, Chen, & Davis, 2012).

Distributive and integrative performance. As was indicated in the description of each dataset, the main outcomes of interest are distributive and integrative negotiation performance. In

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[2] The War Game study was conducted on a sample of SMU undergraduate students, but unfortunately the raw item data was entered by another lab, and the researcher has since moved and is no longer available to request the data. However, the published article by Gilin et al. (2013) reports the alpha reliabilities for the sample, and that is what is reported here.

order to appropriately compare outcomes across the full sample (there were large differences across studies in the number of points possible), distributive and integrative outcomes were converted to z-scores, thus providing a standardized scale to use when linking with profile types.

Analytic Approach

As the current study is exploratory in nature, the variables of interest are continuous, and the data is cross-sectional, latent profile analysis (LPA) was the appropriate person-centered approach to test the hypotheses (Muthén & Muthén, 2000; Williams & Kibowski, 2016). LPA was used to investigate the existence of IRI profiles for individuals based on similar response patterns to the four subscales that reflect qualitatively and quantitatively distinct subgroups.

In order to replicate the LPA results, the four datasets were split in half; the first half was used to identify the latent profiles, and the second half was used to confirm the profiles. This was accomplished by randomly splitting each dyad into Sample 1 or Sample 2. The dyads were handled in this manner for two primary purposes. First, because the four studies involved negotiation tasks, participants were assigned different roles to play. Distributing role membership randomly across the two samples equalizes any effect role may have had on a participant's performance. Second, the approach of randomly splitting dyads (such that no dyads remained together in either sample) creates two parallel datasets that remove dyadic dependencies.

MPlus Version 8 (Muthén & Muthén, 1998-2015) was used for the latent profile analyses. An exploratory approach to LPA typically describes a process whereby the specification of the number of classes is increased by one until the fit statistics and model convergence indicate a stopping point; usually one more profile beyond the maximum number of profiles that theory would logically support (Masyn, 2013; Ram & Grimm, 2009; Williams & Kibowski, 2016). Then, the best model is selected using a number of fit statistics, in addition to evaluating the

theoretical feasibility of the solution. The fit statistics evaluated in LPA include the following:

the log-likelihood (LL), the Akaike Information Criterion (AIC), Bayesian Information Criterion

(BIC), Sample Size Adjusted BIC, (SSA-BIC), entropy (i.e., the probability of successfully

classifying participants into a latent profile (Masyn, 2013)), the Lo-Mendell-Rubin adjusted

likelihood ratio test (LMR; used for comparing nested latent class models (Lo, Mendell, &

Rubin, 2001)), and the bootstrap likelihood ratio test (BLRT). The best-fitting solution should

have the lowest LL, AIC, BIC, and SSA-BIC, and the entropy value (which ranges from 0 to 1)

should be closer to 1, indicating a higher probability of successfully sorting individuals into the

correct profiles (Williams & Kibowski, 2016). The LMR and BLRT should be significant,

indicating that the current model has better fit than the k-1 class model (Asparouhov & Múthen,

2012). According to a simulation study by Nylund, Asparouhov, and Múthen (2007), the most

reliable indicators of fit are the BIC and BLRT and should therefore be weighted more heavily in

determining the best-fitting profile solution. In addition, model selection should be informed by

relevant theory, parsimony, practical application, and meaning of the profiles (Berlin et al., 2013;

Masyn, 2013; Ram & Grimm, 2009).

  Once the above described process was completed on Sample 1, it was conducted on

Sample 2 in order to replicate and confirm the number of profiles. An additional replication step

was then taken, which was informed by Masyn (2013): to constrain the class means of Sample 2

to be equal to that of the Sample 1 solution. Afterwards, a chi-square difference test was

conducted to compare the Sample 2 unconstrained model to the constrained model, such that a

nonsignificant result would indicate no difference in fit between the Sample 2 solution forced to

Sample 1's means and the independently derived solution.

After the empathy profiles were determined and replicated in Sample 2, a categorical variable was created for each profile and used to assess outcomes (i.e., distributive and integrative performance). A series of ANOVAs were conducted to determine if profile types significantly predicted distributive and integrative negotiation performance.

Results

Preliminary Analyses

Prior to the analyses of interest, it was important to establish that combining the four source samples was statistically viable. First, the original samples were compared on each facet of the IRI using one-way ANOVAs. There were significant differences between the samples on EC (homogeneity of variances was violated; $F(3, 629) = 2.894$, $p = .035$), PD and FS (Table 9). Games-Howell post-hoc tests showed that the MBA sample ($M = 16.56$, $SD = 4.57$) was significantly lower on EC than the Social Anxiety ($M = 19.49$, $SD = 4.40$), War Game ($M = 18.75$, $SD = 3.76$), and Ultimatum ($M = 19.75$, $SD = 4.00$) samples. The MBA sample also scored significantly lower on PD ($M = 10.15$, $SD = 4.23$) than the Social Anxiety ($M = 11.99$, $SD = 4.62$) sample. Finally, the War Game sample ($M = 15.31$, $SD = 4.18$) scored significantly lower on FS than the Social Anxiety ($M = 16.86$, $SD = 5.03$) sample. With regards to how differences in indicator means may affect LPA results, Tein, Coxe, and Cham (2013) found in a simulation

Table 1
One-way ANOVA Results for Effect of Source Sample on IRI Facets

Variable	F	df	p
Perspective-Taking	1.226	(3, 629)	.299
Empathic Concern	9.402	(3, 200.55)	.000
Personal Distress	2.963	(3, 629)	.032
Fantasy	3.793	(3, 629)	.010

Note. Welch's robust test values are reported where assumption of homogeneity of variances was violated.

study that differences in means and variances on indicators did not meaningfully affect the extraction of the correct number of profiles. Their study was also conducted under the assumptions of multivariate normality and local independence, which was the case for the LPA done in the current study. In addition, the purpose of LPA is to identify the number of homogenous subgroups in what is assumed to be a heterogeneous population (Berlin et al., 2013; Masyn, 2013). It assumes that the population is composed of multiple probability distributions, with each cluster or profile having its own set of parameters (Kabins, Xu, Bergman, Berry, & Willson, 2016). Therefore, LPA takes into account the possibility that there is variation on indicators within the population, thus minimizing the likelihood that differences between samples on the empathy facets will have any negative effects on what profiles are extracted.

Second, the factor structure of the IRI in the current sample was assessed in order to confirm consistency with Davis' (1983) intended four-factor structure. The statistical program EQS version 6.1 was used to run a confirmatory factor analysis (CFA) on the IRI in the Social Anxiety and Ultimatum samples. Every item loaded significantly on its intended factor, resulting in a four-factor solution.

The robust CFA fit statistics (see Table 1) were used to remain conservative in case of data issues. The Satorra-Bentler Scaled chi-square was chosen because it is a more robust test when smaller samples are being considered and if the data are non-normal (Tabachnick & Fidell, 2007). Hu and Bentler (1999) specified acceptable scores for the CFI (.95 or above) and RMSEA (.06 or less). As can be seen from Table 1, the chi-square test is significant, indicating poor fit of the data to the hypothesized factor structure which is consistent with the CFI. The RMSEA statistic however, meets the acceptable criterion. Inspection of the Lagrange Multiplier test revealed that fit would improve if several items were allowed to load onto a second factor. This

Table 2
Confirmatory Factor Analysis Fit Indices for IRI

Sample	χ^2	df	CFI	RMSEA	RMSEA CI$_{90}$	R^2 Range
Social Anxiety	711.49	344	.82	.06	.05, .06	.05-.51
Ultimatum	788.42	344	.78	.06	.05, .06	.06-.56

Note. Chi-square values significant at $p < .001$. In the Social Anxiety sample, one item for PT (Factor 2) had an R^2 below .10 (less than 10% of item variance explained by the factors): "If I'm sure I'm right about something, I don't waste much time listening to other people's arguments." In the Ultimatum sample, three items fell below .10: EC (Factor 4) "When I see someone being taken advantage of, I feel kind of protective towards them"; FS (Factor 1) "I daydream and fantasize, with some regularity, about things that might happen to me"; and PT "I sometimes find it difficult to see things from the "other guy's" point of view."

can be an indication of high factor inter-correlations, lower reliabilities, or most likely in this

case, lower R^2 values which indicate a low percent of item variance being explained by the

factors (see Table 2). However, these fit statistics are quite similar to past factor analyses done on

the IRI, even while spanning vastly different cultures and languages (e.g., De Corte et al., 2007;

Huang et al., 2012; Fernandez et al., 2011). Chrysikou and Thompson (2016) provided evidence

against combining factors, as they tested the hypothesis that the IRI could be split into a two-

factor model of 'cognitive' and 'affective' empathy, and found the model fit poorly. They also

added further support for the four-factor model and the distinctiveness of each facet. In addition,

Table 3
Factor Inter-correlations for the IRI

IRI Factors	Social Anxiety ($n = 332$)			Ultimatum ($n = 387$)		
	1	2	3	1	2	3
1. PT						
2. EC	.60			.52		
3. PD	-.07	.21		-.14	.24	
4. FS	.27	.43	.20	.30	.53	.21

Note. All correlations are significant at p < .05.

research has shown that the established IRI scales are valid and linked to different outcomes

(e.g., Atwood & Gilin Oore, 2017; Galinsky et al., 2008; Longmire & Harrison, 2018). To ensure

this applied to the data in the current study, multiple models were compared via a chi-square difference test (Table 3). The four-factor model was compared to a one-factor model, a two-factor model for cognitive and affective empathy, and a two-factor model for self- and other-oriented empathy. The difference tests indicated that a four-factor model was a significantly better fit than the other three competing models. Therefore, the fit indices for the present research were deemed adequate to proceed with merging the datasets and conducting the latent profile analyses.

Table 4

Confirmatory Factor Analysis Alternate Model Comparisons to Four-factor Model

Model	χ^2	*df*	χ^2 Difference (χ^2, *df*)
Social Anxiety			
1-factor model	1577.07	350	865.58, 6**
2-factor Cognitive vs. Affective	1395.28	349	683.79, 5**
2-factor Self vs. Other	1265.84	349	554.35, 5**
4-factor IRI model	711.49	344	-
Ultimatum			
1-factor model	1509.73	350	721.31, 6**
2-factor Cognitive vs. Affective	1331.79	349	543.37, 5**
2-factor Self vs. Other	1276.53	349	488.11, 5**
4-factor IRI model	788.42	344	-

Note. Chi-square values significant at *p* < .001. ** Significant difference in fit (between each model compared to the four factor IRI model) at p < .001. Satorra-Bentler Scaled chi-square are reported. Cognitive = PT and FS, Affective = EC and PD. Self = PD and FS, Other = EC and PT.

Prior to combining the four sub-samples, it was necessary to make them equivalent in terms of variable names, labels, coding, etc. In addition, each dyad was split randomly within the subsample (coded 1 or 2) in preparation for dividing the whole sample into two equal parts for LPA. Variables not pertaining to the hypotheses of interest were deleted from each dataset.

Participants missing data for any of the IRI subscales, or if they were missing a substantial

portion of outcome data were deleted. Participants who did not have partner data were also

deleted.[3] An issue among the datasets was that the outcomes for each sample occurred on very

different scales based on the negotiation scenarios in each study. For example, in the War Game

study, participants were negotiating in millions of dollars, while the MBA sample recorded

outcomes in the hundreds of points. In order to properly compare outcomes across subsamples,

the distributive and integrative outcomes were converted to z-scores so that each participant's

value reflected their relative position within their study.

The four datasets were then merged into one large dataset, with a combined sample size

of $n = 638$. Correlations and descriptive statistics for all study variables in Sample 1 and Sample

2 are presented in Tables 4 and 5. The participants were 71.5% female and 80.1% White. The

average age was 20.68 years old ($SD = 2.74$), 41.9% were majoring in psychology, and 32.4%

were in their second year.

The entire dataset was prepped for importing into Mplus (e.g., missing values coded,

variable names restricted to eight characters) before being split in half according to the random

assignment of dyad members mentioned above, resulting in two samples of $n = 319$. Each

sample was separately screened for multivariate outliers using Mahalanobis distance values

resulting in the deletion of one extreme case from Sample 1 ($n = 318$) and four cases from

Sample 2 ($n = 315$). Skewness and kurtosis were evaluated via visual inspection of histograms

for all study variables. In both samples, the outcome 'percent of joint profit' was quite leptokurtic

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[3] For the Social Anxiety sample, 65 cases were removed because they did not participate in Session 3. For War Game, 1 participant was deleted for not having a partner. In the Ultimatum dataset, 149 cases were deleted for not having any outcome data, 2 cases were deleted for having a nonsensical value for 'Role', 15 were deleted for not having a partner, and 1 was deleted for being the third member of a dyad.

Table 5
Correlations for Sample 1 Study Variables (N = 318)

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Perspective-Taking	16.36	4.41													
2. Empathic Concern	19.10	4.51	.41**												
3. Personal Distress	11.56	4.64	-.10	.31**											
4. Fantasy	16.27	5.09	.15**	.40**	.25**										
5. Openness (*n* = 133)	3.30	0.51	.30**	.22*	-.25**	.36**									
6. Conscientiousness (*n* = 133)	3.53	0.57	.28**	.22*	-.04	-.02	-.02								
7. Extraversion (*n* = 133)	3.58	0.47	.26**	.28**	.21*	.13	-.05	.36**							
8. Agreeableness (*n* = 133)	3.51	0.49	.40**	.40**	.21*	.15	-.01	.17	.24**						
9. Neuroticism (*n* = 133)	2.86	0.66	-.04	.25**	.39**	.30**	.05	-.31**	-.19*	-.17					
10. Emotional Intelligence (*n* = 111)	120.20	10.98	.39**	.28**	-.19*	.29**	-	-	-	-	-				
11. Distributive Gain (*n* = 205)	0.11	0.96	.04	.02	-.06	.08	.02	.13	.10	.01	.12	-			
12. Integrative Gain (*n* = 204)	-.04	1.18	-.07	-.05	-.11	.12	.06	.07	.04	-.04	.13	-	.40**		
13. Percent of Joint (*n* = 317)	46.28	19.32	-.01	-.01	.09	.03	-.03	.05	.08	.03	.10	.05	.43**	.13	
14. Trading Off (*n* = 133)	0.47	0.74	.06	.04	-.14	.07	.01	.16	.06	-.02	.11	-	.34**	.58**	.05

Note. * $p < .05$, ** $p < .01$. Not all outcomes were available for every sample, therefore pairwise deletion was used when conducting correlations. The *n* for each correlation is the same as the *n* for the overall sample unless otherwise stated.

Table 6

Correlations for Sample 2 Study Variables (N = 315)

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Perspective-Taking	16.84	4.13													
2. Empathic Concern	19.26	4.08	.42**												
3. Personal Distress	11.59	4.43	-.09	.14*											
4. Fantasy	15.97	4.69	.09	.21**	.18**										
5. Openness (*n* = 132)	3.26	0.50	.26**	.14	-.07	.41**									
6. Conscientiousness (*n* = 132)	3.56	0.56	.24**	.09*	-.24**	-.05	.03								
7. Extraversion (*n* = 132)	3.51	0.51	.22*	.19*	-.28**	.13	.11	.28**							
8. Agreeableness (*n* = 132)	3.56	0.48	.26**	.37**	-.21*	.16	.23**	.25**	.32**						
9. Neuroticism (*n* = 132)	2.88	0.70	-.03	.21*	.55**	.20*	-.09	-.33**	-.37**	-.18*					
10. Emotional Intelligence (*n* = 110)	121.73	13.24	.35**	.35**	-.23*	.26**	-	-	-	-	-				
11. Distributive Gain (*n* = 204)	-0.10	1.03	-.02	-.07	-.23**	-.14	-.06	.05	.05	-.09	-.21*	-			
12. Integrative Gain (*n* = 204)	-.04	1.14	-.07	-.14	-.02	-.07	-.13	.01	-.06	-.24**	-.12	-	.42**		
13. Percent of Joint (*n* = 314)	45.07	18.69	.03	-.05	-.12*	.02	-.05	.11	.08	.00	-.19*	.01	.33**	.26**	
14. Trading Off (*n* = 132)	0.47	0.73	-.12	-.17	-.04	-.10	-.03	-.01	-.11	-.11	-.10	-	.33**	.60**	.06

Note. * *p* < .05, ** *p* < .01. Not all outcomes were available for every sample, therefore pairwise deletion was used when conducting correlations. The *n* for each correlation is the same as the *n* for the overall sample unless otherwise stated.

and the outcome 'degree of trading off' was right-skewed. All other variables appeared to be

normally distributed. The Shapiro-Wilk's test was used to evaluate whether the assumption of

normality was violated for the outcomes in question. The value was significant, indicating that

the assumption was violated. However, according to Andy Field (2017), "…as sample sizes get

larger, the assumption of normality matters less because the sampling distribution will be normal

regardless of what our population (or indeed sample) data look like" (p. 187). In addition to large

samples being robust to violations of assumptions of normality, tests of normality are more likely

to be significant and should therefore not be a serious concern to researchers (Field, 2017).

Latent Profile Analyses

  Sample 1. To conduct the latent profile analyses, the four subscales of the IRI were used

as the indicator variables (i.e., the components that make up each profile). Following the iterative

approach to LPA as suggested by Masyn (2013) and Williams and Kibowski (2016), once the

one-profile solution is found as a baseline, each successive run of the analysis increases the

number of profiles by one until a statistically and/or theoretically unviable number of profiles is

reached. Fit indices for both samples can be found in Table 6. The solutions were then reviewed

and compared considering 1) the optimal number of profiles, and 2) the type and extent of

quantitative and qualitative differences between the most viable solutions (Ram & Grimm,

2009).

  In Sample 1, the LL can be seen to decrease in each successive model iteration, and was

replicated in all iterations. Examination of the information criterion data (AIC, BIC, and SSA-

BIC) revealed some conflicting optimal profile solutions (five, four, and four, respectively).

Model comparisons (the LMR and BLRT) were also conflicted, with the LMR suggesting a two-

profile model, while the BLRT indicated a four-profile model was significantly better than the

three-profile solution. Entropy values favoured first a two-profile solution and then a five-profile

solution. Keeping in mind the study by Nylund et al. (2007) which found the BIC and BLRT to

Table 7

Fit Statistics for Empathy Profiles (Sample 1 and Sample 2)

No. of Profiles	LL	FP	AIC	BIC	SSA-BIC	LMR (p)	BLRT (p)	Entropy
Sample 1 ($n = 318$)								
1	-3759.911	8	7535.822	7565.919	7540.544	N/A	N/A	N/A
2	-3692.960	13	7411.920	7460.827	7419.594	.0000	.0000	.714
3	-3678.926	18	7393.852	7461.569	7404.476	.8010	.0000	.671
4	-3662.950	23	7371.899	7458.427	7385.476	.0636	.0000	.645
5	-3656.998	28	7369.995	7475.333	7386.523	.1091	.3500	.677
Sample 2 ($n = 315$)								
1	-3631.377	8	7278.755	7308.775	7283.401	N/A	N/A	N/A
2	-3596.061	13	7218.122	7266.905	7225.673	.0066	.0000	.634
3	-3583.332	18	7270.211	7270.211	7213.120	.1385	.0000	.596
4	-3572.199	23	7190.398	7276.707	7203.757	.3843	.0000	.564
5	-3564.402	28	7184.804	7289.876	7201.068	.5811	.0500	.618
Sample 2 (model constrained)								
4	-3,596.24	7	7206.484	7232.752	7210.55	.0000	.0000*	.599

Note. FP = free parameters. *77/120 bootstrap draws did not converge, likely due to decreased free parameters.

be the superior measures for determining the number of classes in mixture modeling, the four-

profile solution was chosen as the best solution statistically. However, the optimum profile

solution must also appease theoretical and practical interpretability (Masyn, 2013).

There is currently no hard guideline for determining when a class/profile size is too

small, but Nylund et al. (2007) reported issues with model fit when one of the classes in their

analyses had approximately 5% or less of the total n value. Using this rough guideline, all four

profiles had a reasonable sample size, with the smallest profile accounting for 8.8% of the total

sample (see Figure 1). Profile 1 (28.6% of sample) had moderate levels of PT and EC, and low

PD and FS. As a result, this profile was labelled Moderate Other-oriented. Profile 2 (26%) was

unique because no indicator mean was above 14 (each IRI subscale had a maximum score of 28),

resulting in a profile that could be clearly labelled as Low Empathy. Profile 3 accounted for 36%

of the total sample, and was characterized by the highest profile mean for PD, relatively high FS,

and a larger difference than the other profiles between EC and PT, with EC being higher. As this

profile describes individuals who are high relative to others on both facets of 'feeling' empathy,

the profile was labelled as High Affective. Lastly, Profile 4 (8.8%) had the highest levels of PT,

EC, and FS (18.04, 19.07, and 20.85 respectively), with low PD similar to the other profiles. This

profile avoids the one type of empathy (Personal Distress) that has been shown to be

unproductive (e.g., Davis, 1983; Thomas, 2013), while being very high on Perspective-Taking

which is the most broadly beneficial empathy trait one can possess (e.g., Longmire & Harrison,

2018). Interestingly, this profile also had the highest levels of Fantasy which signifies individuals

that can easily project themselves into the thoughts and feelings of characters without being

negatively affected (due to the low PD). An apt name for this group, then, would be High-

Functioning Empathy. This profile also seems to meet the requirements set out in Dual Concern

Theory that those who are high on focusing on the self and others will use an Integrating or

Collaborating approach to negotiations that maximizes the desires of both parties (De Dreu et al.,

2001; Rahim & Magner, 1995). The idea that a balance between self and other focus is ideal

aligns with the assessment of the High-Functioning Empathy group. Given the qualitative

difference between these profiles, coupled with the preference for the four-profile solution

statistically and that the profiles seem to comport with theory, this solution meets model

selection criteria (e.g., Masyn, 2013; Ram & Grimm, 2009). The labels applied at this stage were

tentative in nature and subject to change depending on what the second sample data revealed.

Sample 2. The same iterative process described for Sample 1 was carried out in Sample 2, to determine if the optimum number of profiles replicated across samples. Fit indices are shown in Table 6. Similar to Sample 1, the LL decreased in value and was replicated in each model. The AIC and the SSA-BIC favoured a five-profile solution, while the BIC suggested a three-profile solution. The LMR only remained significant for two profiles, and the fact that the BLRT significance goes to $p = .0500$ at a five-profile model may indicate that a four-profile solution is preferable. Entropy values mirrored those in Sample 1, with the two- and five-profile solutions having the values closest to 1. Although Nylund et al. (2007) suggest placing more emphasis on the BIC and BLRT, the two indices did not agree on the best number of profiles in this sample. However, upon examining the four-profile solutions for both Sample 1 and Sample 2, the class means and sizes match up quite closely (see Table 7). Figure 1 and Figure 2 show the plots of profile means on the four indicators for each sample and line patterns chosen highlight the similarity between the four profiles that emerged in both samples.

In Sample 2, Profile 4 is very similar to Profile 3 in Sample 1. Both represent the largest profiles that emerged from the data (39% and 36%, respectively), and both are characterized by higher PD relative to the other profiles in addition to a greater difference between PT and EC, thus in keeping with the label of 'High Affective'. Profile 3 mirrored Profile 1 in Sample 1, in that the profile was characterized by individuals moderately higher in PT and EC, and quite low on PD and FS, i.e., Moderate Other-oriented. In Sample 2, the difference between scores of other- and self-oriented empathy was slightly more pronounced. Profile 2 in both samples contained low scores on all the empathy facets, with the Sample 2 profile having a higher mean for FS, but the label of Low Empathy seemed to still be an appropriate description. Profile 1 in Sample 2 was marked by high PT and EC, low PD, and moderately high FS, similar to Profile 4 in Sample 1,

maintaining the label of High-Functioning Empathy. The main difference between the two was

that the means for PT and EC were not quite as high, and the drop to PD not as steep. Overall,

the four-profile solutions in Sample 1 and 2 were sufficiently similar to warrant the application

of the labels defined in Sample 1 onto the Sample 2 profiles.

Table 8
Estimated Means for Each Empathy Profile in the 4-Profile Solution (Sample 1 and Sample 2)

Profile	PT	EC	PD	FS	*n*	%
Sample 1						
1	18.04	19.07	9.80	13.95	91	28.61
2	13.07	13.68	9.60	13.58	84	26.42
3	15.71	21.71	15.10	19.00	115	36.16
4	22.23	24.57	9.94	20.85	28	8.81
Sample 2						
1	19.85	22.61	11.32	18.27	94	28.89
2	12.76	13.45	8.86	15.34	48	15.24
3	18.19	18.96	8.24	11.86	49	15.56
4	15.44	19.08	14.50	16.32	124	39.37

Note. IRI subscale scores can range from 0-28. Values for Sample 2 are from the unconstrained model.

Confirmatory LPA. To further test how similar the four-profile solutions were in each

sample, the LPA was run again but with the Sample 2 profile means constrained to be equal to

the means in Sample 1 (i.e., identical to what can be seen in Table 7). The fit indices for the

constrained model are included in Table 6, and are very similar to the original Sample 2 four-

profile solution, with the BIC actually showing improvement over the unconstrained model. In

addition, when constrained, the Sample 2 profiles that emerged also showed a similarly

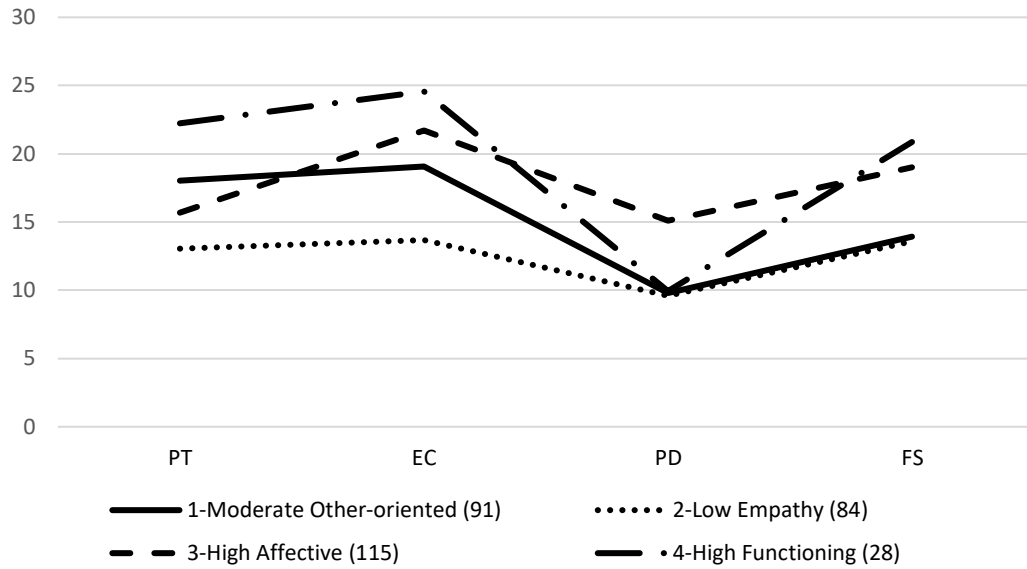proportioned distribution of individuals into each profile as in Sample 1. A chi-square

Figure 1. Four-profile solution for empathy in Sample 1. Size of each profile are in brackets.
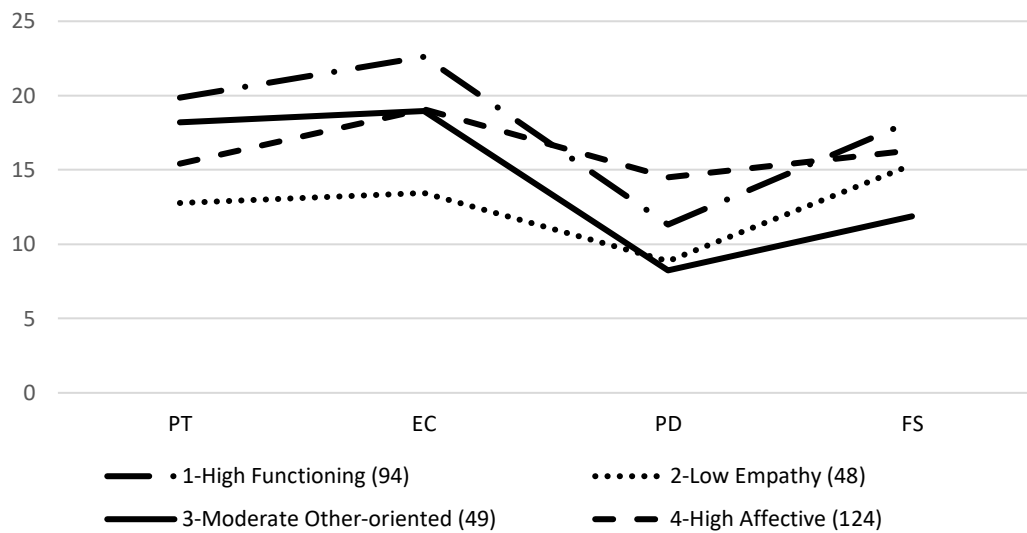

Figure 2. Four-profile solution for empathy in Sample 2 (prior to constraining means). Size of each profile are in brackets.

difference test was conducted on the Sample 2 freely generated model and the model where the

means in Sample 2 were constrained to those in Sample 1. A preferably nonsignificant result

would indicate that the Sample 1 profiles fit well onto Sample 2. The formula for the test is

$2 \times d$, where d is the difference between the log-likelihoods of the nested models. The degrees

of freedom are calculated as the difference between number of free parameters. The result was

$\chi^2_{\text{difference}} = 48.086$, $df = 16$. The corresponding cutoff score for $p < .001$ was 39.252, suggesting

there is a significant difference between the nested models. Although the chi-square difference

test is significant, the χ^2 statistic has been determined to be highly sensitive to sample size, such

that even very small differences between groups will result in a statistically significant result

when the sample is large (Bollen, 1989). Therefore, the χ^2 statistic is expected to be inflated in

this case ($n = 319$), and as recommended by Schermelleh-Engel, Moosbrugger, and Müller

(2003) and Vandenberg (2006), it was used in conjunction with other fit indices. Based on the χ^2

difference test and the improvement that was seen in the BIC and BLRT in the constrained

model, it was decided that the constrained model would be used to determine profile membership

in Sample 2. This allowed the grouping, or profile variable, to be identical across samples which

would improve the reliability of the outcome analyses.

       With the empathy profiles determined to be replicable in both samples, some of the

hypotheses can now be addressed. Hypothesis 1 was that the self-focused empathy facets (PD,

FS) and other-focused facets (PT, EC) would generally hold together in profiles. Upon observing

the four profiles, there is a general pattern that PT and EC are higher than PD and FS and that the

other-oriented facets generally increase together. This is consistent across Profile 1 (Moderate

Other-oriented), Profile 2 (Low Empathy), and Profile 4 (High-Functioning Empathy). The

pattern does not hold true for Profile 3 (High Affective) as PT is quite a bit lower than EC; but

considering this profile is characterized by the more feeling-based empathy facets, it follows that

such individuals would naturally be lower on the most cognitively-focused facet. In light of this,

Hypothesis 1 was supported. Hypothesis 2 stated that profiles would emerge wherein one

empathic trait was dominant relative to the other three. In all profiles, EC had the highest mean,

but no profile emerged where there was clearly one dominating empathic tendency. Thus,

Hypothesis 2 was not supported.

Empathy Profile ANOVAs

Following the latent profile analyses, a categorical variable was created that assigned

each participant a value indicating profile membership. The data were then imported back into

SPSS and ANOVAs were conducted separately on each sample.[4] A series of one-way ANOVAs

were used to assess the observed differences in negotiation outcomes between empathy profiles.

None were significant, as can be seen in a summary of all statistics in Table 8. In Sample 1,

Levene's test indicated unequal variances for integrative gain (F (3, 200) = 2.909, p = .036) and

in Sample 2 for percent of integrative gain (F (3, 310) = 2.666, p = .048). The one-way ANOVA

Table 9
One-way ANOVA Results for Effect of Profile on Outcome Variables for Sample 1 and Sample 2

	Sample 1			Sample 2		
Variable	F	df	p	F	df	p
Distributive Gain	1.285	(3, 201)	.281	1.327	(3, 200)	.267
Integrative Gain	0.838	(3, 56.89)	.479	1.244	(3, 200)	.295
% Integrative Gain	0.905	(3, 313)	.439	1.345	(3, 97.34)	.264
Trading Off	0.832	(3, 129)	.478	0.388	(3, 128)	.762

Note. Welch's robust test values are reported where assumption of homogeneity of variances was
violated.

results indicated that profile type does not have an effect on negotiation outcomes. To check that

the original samples (i.e., Social Anxiety, War Game, etc.) were not interacting with the profiles,

two-way ANOVAs were conducted with originating sample added as a fixed factor. In Sample 1,

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[4] Due to the decision to constrain the means of Sample 2 to Sample 1's means, the ANOVAs were
conducted separately on each sample to be conservative in case of any data issues. To be certain, ANOVAs for the
effect of profiles on negotiation outcomes were also conducted on the full sample, and there were still no significant
differences for outcomes.

there was only a marginally significant profile by sample interaction for percent of integrative gain (F (9, 301) = 1.875, p = .055), Levene's test was violated (F (15, 301) = 11.829, p = .000). There were no significant interactions between profile type and sample in Sample 2. These results together indicate that there is no support for Hypotheses 2a-2d, which were concerned with the effects of profiles that had one facet more dominant relative to the others.

Looking further into the marginally significant interaction of profile and sample for percent of integrative gain in Sample 1, the simple main effects were examined with a one-way ANOVA, splitting the output by originating sample. The only sample where the effect of profile type was significant was for the Ultimatum sample (F (3, 107) = 3.207, p = .026); Levene's test was violated (F (3, 107) = 9.524, p = .000). The Brown-Forsythe robust F test remained significant despite violating homogeneity of variances (F (3, 59.285) = 3.259, p = .028). Post-hoc tests revealed that there was a significant difference between the Moderate Other-oriented profile (M = 39.59, SD = 20.76) and the High Affective profile (M = 49.88, SD = 7.59), such that Moderate Other-oriented individuals achieved significantly lower percentages of integrative gain. These results should be interpreted with caution however, as the sample sizes for each profile once the data were split by the original source became quite small (n = 12-42), resulting in low power for the analyses.

Empathy profiles and the Big Five personality traits. A secondary purpose to the current research was to see if the empathy profiles that emerged were significantly different on the Big Five and EI. For the purpose of answering these questions, the data were merged back into one file to give more power to the analyses and because dyadic data issues did not apply to the personality measures as they were taken before any negotiation tasks. The ANOVA statistics can be found in Table 10, and the assumption of homogeneity of variances was not violated in

any case. As presented in Table 10, the effect of profile type was found to be significant for each

aspect of the Big Five. The means of each Big Five trait for all profiles has been plotted in Figure

3. Beginning with the Low Empathy profile, individuals in this group scored the lowest on every

facet of the Big 5, particularly agreeableness where the difference was significant for all profiles.

The High Affective profile is primarily characterized by having the highest mean neuroticism,

with fairly moderate scores on the other four traits. The Moderate Other-oriented profile can be

described as quite average across all trait scores, with slightly above-average conscientiousness.

Finally, the High-Functioning Empathy group is distinguished by being significantly higher on

openness than the other profiles, and high as well on conscientiousness and agreeableness.

Table 10
One-way ANOVA Results for Effect of Profile on Big Five Personality Traits

Variable	F	df	p
Openness	9.498	(3, 261)	.000
Conscientiousness	5.748	(3, 261)	.001
Extraversion	4.642	(3, 261)	.004
Agreeableness	13.747	(3, 261)	.000
Neuroticism	13.425	(3, 261)	.000

Note. N = 265.

Empathy profiles and emotional intelligence. A one-way ANOVA showed that there

was a significant effect of profile type on EI; the assumption of homogeneity of variances was

violated (F (3, 217) = 2.654, p = .049), so Welch's robust test was used, F (3, 75.67) = 12.972, p

= .000. Means for EI for each profile are graphically represented in Figure 4. Tukey's post-hoc

tests revealed that those that were High-Functioning Empathy (M = 131.48, SD = 8.86) had

significantly higher EI than all other profiles. Low empathizers (M = 114.48, SD = 12.61) scored

significantly lower on EI than the other profiles. The High Affective profile (M = 120.46, SD =

12.78) and the Moderate Other-oriented group ($M = 121.47$, $SD = 10.30$) scored very similarly

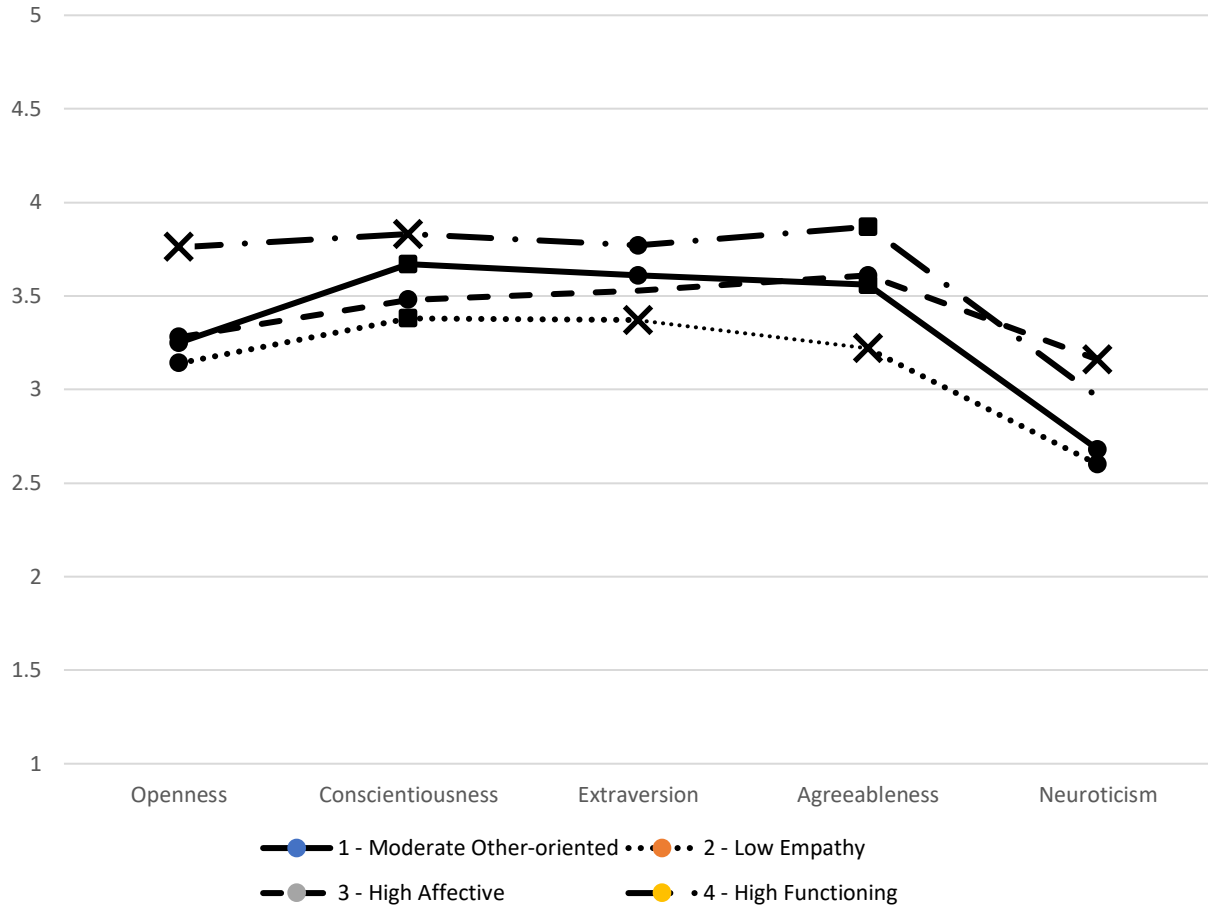and were not significantly different from each other.

Figure 3. Plotted Big Five means for each empathy profile. Significant Tukey's post-hoc tests are indicated by the different shape/colour for each data point. For example, for agreeableness, Profile 2 is significantly different than Profiles 1, 3, and 4 (where the "x" is the point of reference). And Profile 1 and 4 are significantly different from each other (indicated by the square markers). All differences were significant at $p < .05$.
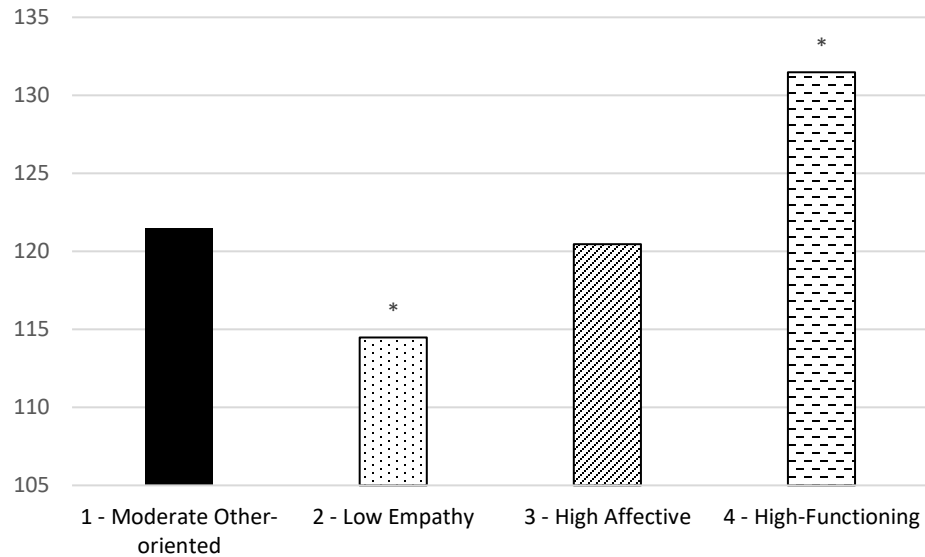
Figure 4. Means of EI for each empathy profile. * indicates significantly different from all other profiles, p < .05.

Discussion

The goal of the present research was to use latent profile analysis on the four facets of the IRI, a commonly used multidimensional measure of empathy, to elucidate qualitatively and quantitatively distinct empathy profiles that could then be linked to negotiation outcomes. Using a split-sample validation process, the LPA revealed four profiles that can be clearly distinguished from each other: Moderate Other-oriented, Low Empathy, High Affective, and High-Functioning Empathy. However, there was no support for the empathy profiles differentially predicting negotiation outcomes (except one marginally significant effect in Sample 1 for the Ultimatum sample).

The present research also investigated how the empathy profiles correlated with the Big Five personality traits and Emotional Intelligence. Although the profiles were not linked to negotiation outcomes, the results of this secondary objective support the idea that there are indeed distinct empathy profiles that can be connected to consistent and theoretically sound patterns in other personality measures.

Empathy Profiles

A contribution of this paper to the literature on the IRI and negotiation was to analyze all four facets together and investigate their effects on outcomes holistically. The results of the latent profile analysis on the IRI revealed four qualitatively and quantitatively distinct profiles: Moderate Other-oriented, Low Empathy, High Affective, and High-Functioning Empathy. The Moderate Other-oriented profile represents what might otherwise be referred to as 'average empathy', in that individuals in this group were in the middle of the other-oriented facets (PT and EC) and low on the self-oriented (PD and FS). The Low Empathy group was the simplest to label as these individuals scored lowest on every facet. The High-Affective empathy profile was characterized primarily by the having the highest PD score, and the steepest difference between EC and PT, with EC being higher. Lastly, the High-Functional Empathy profile is what could be considered as the most ideal empathy profile; while PD (the most detrimental facet) remained low, all other facets were the highest among the profiles. Recall that it was also expected the self- and other-oriented empathy facets would fluctuate together within individuals. This was based on Konrath et al.'s (2011) study looking at changing empathic tendencies in youth over time, where PT and EC were decreasing while PD and FS remained stable. For the most part, the empathy profiles reflected this tendency of the self- and other-oriented facets to 'hang together'.

The concern for self versus others is the theoretical foundation of Dual Concern Theory. This research tested a specific trait (empathy) that could be linked to a global orientation that determines conflict management style, which in itself is a novel theoretical contribution. I was not able to link the profiles to negotiation outcomes, but as will be later discussed, the profiles' associations with personality measures help to illuminate how empathic tendencies may explain one's approach to conflict or negotiation.

Laverdière, Kealy, Ogrodniczuk, and Descôteaux (2019) recently published the only other paper to use LPA on the IRI, while looking at the empathic abilities of psychotherapists. They also found that a four-profile solution fit their data best, with some of the profiles being quite similar to those found in the current study. In particular, a group labelled 'empathic immersion' characterized by above-average levels of PT, FS, and especially EC, was similar to the High-Functioning Empathy profile. There was also an 'average' group that mirrored the Moderate Other-oriented profile, with average levels of PT and EC with lower PD and FS. The remaining two profiles found by Laverdière and colleagues seem unique, however, it is important to remember that they studied a specific professional group where having very little empathy (i.e., Low Empathy) or being very emotional (i.e., High Affective) would likely be unproductive. Overall, their paper lends strong support to the existence of empathy profiles based on the IRI.

Empathy Profiles and Negotiation Outcomes

Up until the current study, although the full IRI has often been measured in negotiation research (e.g., Galinsky et al., 2008; Gilin et al., 2013), only PT and EC have thus far been variables of interest. Despite all four IRI facets being used in the present study, no significant effects were found linking profile type with distributive or integrative negotiation outcomes. After adding in source sample as a factor, only one significant main effect of profile type was found for the percent of integrative gain in the Ultimatum sample. Moderate Other-oriented individuals achieved significantly lower percentages of integrative gain than High Affective individuals. To understand this result it is important to look at the nature of an ultimatum game; one player is tasked with splitting a sum of money with another player (Murnighan & Pillutla, 1995). The offer can either be accepted as is or rejected, in which case both players get nothing. The interaction time between participants is minimal, as the game takes place over one round.

Additionally, participants are limited to either making an offer, or deciding to accept or reject the offer given them. Due to the lack of future meetings, and the simplicity and impersonal nature of the task, it follows that participants would not need to engage in trying to understand the behaviour or feelings of the other person. In other words, the game encourages acting in one's own self-interest, either to get what one can, or refusing a low offer out of spite. Batson and Ahmad (2001) studied a prisoner's dilemma game where they told the second participant that the first had already defected (meaning if they defect, both get a low amount, and if they cooperate they get nothing and the other participant gets a large amount). The task, therefore, essentially became an ultimatum game. They found that normally, only 5% chose to cooperate, but when primed to feel empathy that percentage rose to 45%. In the words of the authors: "self-interest counsels defection; empathy-induced altruism counsels not" (p. 25). For this type of task, empathy is a liability, which comports with more recent research (e.g., Batson et al., 2003; Gilin et al., 2013). In the present study, the High Affective profile performed better and it is most likely because this profile has the highest mean for Personal Distress, and second highest mean for Fantasy – both classified as self-oriented empathic tendencies. Even though this profile also has the second highest mean for Empathic Concern, having such high relative PD and FS provides a strongly self-interested force, making it more likely that participants with this profile will perform better in an ultimatum game. Again, this result should be interpreted with caution, as the effect was only found in Sample 1, and the sample sizes were quite small.

The most likely reason for the lack of significant differences between profiles and outcomes is that it simply did not work to combine studies with such disparate tasks and experiments. For example, as explained previously, ultimatum-type games promote self-interested behaviour that is best won by being unconcerned with the other person. However, in

the Social Anxiety task, participants needed to look for ways to integrate their own interests with their partners because that would also ideally maximize their personal (i.e., distributive) gain. In a situation like this, PT is clearly an advantage (e.g., Gilin et al., 2013; Galinsky et al., 2008), and requires in general far more cognitive involvement from the participants. In other words, it is likely that the negotiation tasks across the samples demanded different strategies or skills to be perform successfully, and none of the studies were explicitly testing empathy-related effects.[5] There were also many methodological factors across the studies that were simply beyond control (e.g., time between IRI and negotiation task, setting, researcher, different incentives for participation, etc.). There was, however, only one marginally significant interaction effect of profile and sample, bolstering the idea that the profiles themselves were not really influenced by the source sample; it was the tasks from each of the four studies being too different for the outcomes to show a meaningful relationship with the profiles.

Empathy Profiles and Personality

A subordinate research question in this paper was to correlate the empathy profiles with well-established personality measures, namely the Big Five personality inventory from the Social Anxiety sample and a measure of Emotional Intelligence that was included in the Ultimatum sample. Despite the smaller sample, the correlations of each profile with the Big Five and EI were all statistically significant. The results of the correlation analyses helped further elucidate qualitative and quantitative differences between each of the empathy profiles.

The results of the Big Five and the empathy profiles follows what would be expected given previous research on personality, empathy, and negotiation. Melcher et al. (2016) found positive associations for PD with neuroticism, FS with openness, PT with conscientiousness, and

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[5] This is corroborated by the fact that there was a main effect of sample on each outcome when sample was included as a factor in the ANOVA analyses

EC with agreeableness. Agreeableness is the only Big Five facet that shows a consistent

(negative) relationship with negotiation performance (Dimotakis et al., 2011). The High

Affective profile was highest on PD, and also highest on neuroticism. The linkage between PD

and neuroticism is further strengthened by the research among health professionals indicating PD

is a detrimental trait to functioning in stressful situations (e.g., López-Peréz et al., 2014; Thomas,

2013). The High-Functioning Empathy profile achieved both the highest FS and openness, which

significantly differed from all three of the other profiles, as well as the highest agreeableness

score. Those who are Moderate Other-oriented scored moderately on EI and relatively high on

conscientiousness. PT and conscientiousness are positively correlated, and this profile reflects

that by having the second highest PT score. Lastly, the Low Empathy profile was lowest on EI

and every facet of the Big Five, suggesting overall a group of individuals who tend to be non-

reactive in general. Based on these results, the empathy profiles show up on the Big Five and EI

measures in ways that align with past research. As explained above, it is quite likely that the lack

of associations between the empathy profiles and negotiation outcomes was due to the disparate

nature of the procedural aspects and negotiation tasks used in each of the separate studies.

However, given that the associations of the empathy profiles with personality measures were

congruent with theory and past research, it is worth exploring potential connections to

negotiation outcomes.

It is compelling to ask which profile would result in the best or worst negotiation

performance. In ultimatum game scenarios and more complex negotiations, emotionally-based

empathy (EC) has been considered a liability (e.g., Batson & Ahmad, 2001; Galinsky et al.,

2008; Longmire & Harrison, 2018). The current study showed that empathy profile levels of EC

reflected how each profile scored on agreeableness, which is also negatively associated with

negotiation performance (Dimotakis et al., 2011). If we were to only focus on agreeableness to predict performance, that would suggest that the Low Empathy profile would perform best in negotiations. This view is of course overly simplistic since it has been shown that PT is the most beneficial empathy facet in negotiation (e.g., Longmire & Harrison, 2018). If the profile with the highest PT was chosen as the best, that would lead to the High-Functioning Empathy group which has the highest agreeableness score. The High Affective profile has the second highest agreeableness and relatively low conscientiousness. That leaves the Moderate Other-oriented profile, with close to the lowest score on neuroticism (low PD and FS), average agreeableness and second highest on conscientiousness (i.e., PT). If Dual Concern Theory is applied to this profile, what is seen is an apparent balance between the more detrimental self-focused empathy facets and the positive other-focused facets. The Integrating or ultimate negotiating style requires high concern for self and others (Rahim & Magner, 1995). Although the Moderate Other-oriented profile is low on PD and FS, this does not necessarily connote a lack of concern for self, merely responses to the thoughts and feelings of others that are *not* counterproductive. As hypothesized originally, it was expected that higher PD and FS would indeed lead to worse negotiation outcomes. Therefore, being low on those facets may more aptly describe an individual who is not easily threatened by the emotions of another, and is more capable of advocating for themselves in a calm, rational manner while also being effective at considering the other's view. It seems most possible for the Moderate Other-oriented profile to reflect the ideal balance of concern for self and others that makes an excellent negotiator, but further research linking the profiles to outcomes is certainly needed.

      To further discuss the potential differential influence of the empathy profiles in negotiation, we now turn to Emotional Intelligence. Recall that EI is defined as the accuracy with

which one can appraise and regulate emotion in oneself and others, and use that to accomplish one's goals (Salovey & Mayer, 1990). The seemingly most empathic profile – High-Functioning Empathy – also achieved the highest scores on EI, followed by Moderate Other-oriented, High Affective, and then Low Empathy. However, there is still ambiguity in which profile would be most effective in negotiations. Foo, Elfenbein, Tan, & Aik (2004) studied how the EI of an individual and their negotiation partner leads to outcomes. They used mixed-motive negotiation designed to elicit both distributive and integrative gains for the participants to uncover. Individuals high in EI reported more positive negotiation experiences, however, they actually claimed less distributive gain for themselves. Instead, having a partner with high EI meant better objective outcomes (i.e., distributive points) for the self. Foo et al. (2004) concluded that although emotionally intelligent individuals are good at creating value and positive experiences in a negotiation, their high EI may result in showing too much sympathy or being too trusting of the other party, resulting in being conciliatory towards or exploited by their partner.

The idea that EI creates greater sensitivity to another's interests has been supported in more recent research (e.g., Schlegel, Mehu, van Peer, and Scherer, 2018; Sharma, Bottom, Elfenbein, 2013). Higher EI helps to increase positive negotiation outcomes, but it is more beneficial for distributive gains to be the individual with lower EI in the negotiation.

Based on the discussion of the Big Five and profiles, it seemed that the Moderate Other-oriented profile could potentially perform the best in negotiations. However, in light of the potentially detrimental effects of EI explored above, and the fact that the Moderate Other-oriented profile has the second highest EI, any concrete statements on this would be premature. In this discussion it is also important to acknowledge that the nature of the negotiation task may play a role. Foo and colleagues (2004) acknowledged that EI may be more effective in

negotiations that occur repeatedly over time, and other researchers have emphasized the

advantage that high EI has in building ongoing relationship-capital (e.g., Gelfand, Major, Raver,

Nishii, & O'Brien, 2006; Sharma et al., 2013). Again, it is too early to decide which profile

would perform the best in negotiations without linking them to outcomes across different

negotiation tasks.

The patterns observed with the empathy profiles and personality measures seem to show

consistent variations at the individual-level that offer preliminary support for the stability and

distinctiveness of the profiles. Overall, the results are in line with Davis' (1983) original thinking

that empathy is a multidimensional, but stable personality trait. The current research has merely

added another layer with which to perceive empathy in individuals, and further studies will

clarify how and why these differences exist.

Limitations and Future Research

The foremost limitation of this research was that it was exploratory in nature, and failed

to link the empathy profiles with negotiation outcomes. As already expounded upon, the

methodological differences of the negotiation tasks were substantive, although care was taken to

evenly distribute individuals from each study into the two samples. To address the issue of

different study methodologies, a future study could first obtain a large sample of new

individuals, administer the IRI, and confirm the empathy profiles. Then, participants would

complete a negotiation task that is carefully attuned to allow the individual profiles to distinguish

themselves. An integrative negotiation task would be an effective option, as the potential is there

to elicit both self- and other-focused behaviours in achieving distributive and integrative gains.

To contribute to the validity of the profiles, a measure of conflict handling style could also be

included to determine if the performance of each profile is indeed congruent with an individual's

classification under DCT.

A related limitation is that the source samples significantly differed on some facets of the

IRI. Most of the differences had to do with the MBA sample, while the War Game sample was

significantly different than the Social Anxiety sample in one case. This may be considered a

threat to the validity of the empathy profiles, however, that concern is somewhat mitigated by the

fact that only one marginally significant interaction effect of profile and sample was found. In

addition, the research cited previously by Tein et al. (2013) found that differences in indicator

means and variances did not affect profile extraction. Furthermore, Kabins et al.'s (2016)

conducted a study that involved a multilevel LPA based on multiple archival datasets. They

specifically recommended LPA for use on combined archival datasets because it already assumes

the population is composed of a mixture of distributions. It is therefore unlikely that mean

differences between samples on the IRI facets would exert any influence on the number and

shape of the profiles that emerged.

For conducting the latent profile analyses and ANOVAs, common method variance was

not of concern because the different studies all had varying methodology. However, when

looking at the associations with the Big Five and EI, the data came from the Social Anxiety and

Ultimatum studies, respectively. The data in these cases may have been subject to common

method variance due to the self-reporting/common rater bias (Podsakoff, Whiting, Welsh, & Mai,

2013). Therefore, the interpretation of the empathy profile – personality results was done with

caution.

Another limitation related to the studies used in this research is that in each case the

empathy facets of interest were PT and EC. Although PD and FS were measured as part of the

IRI in every study, they were not primary variables of interest. It is possible that because PT and

EC have been more studied with regards to negotiation, the tasks used in the studies were

tailored to highlight differences between PT and EC (which was specifically the case in Gilin et

al., 2013), rather than look at all four facets simultaneously. This would of course influence how

the profiles correlate with the outcomes.

The nature of the data used was mostly correlational in nature, and prevents any causal

inferences from being made. In addition, LPA and ANOVA only assess the extent to which the

variables are associated. This is a common challenge for similar research designs, and does not

detract from the unique contributions of the present study.

At present, the results of this study are generalizable mainly to other university students

or individuals within that typical age group. As demonstrated in the research by Laverdière et al.

(2019), it is quite possible that empathy profiles differ significantly depending on profession or

life stage. Therefore, claims regarding applicability and use of the profiles should remain

conservative until further research is conducted with broader, more varied samples. To further

investigate the generalizability of the empathy profiles, it would be beneficial to test them among

different sub-populations, particularly those that work in emotionally demanding environments,

i.e., trauma workers (e.g., paramedics, social workers, firefighters, etc.). It is quite possible that

these professions attract individuals where the empathy profiles are more homogenous, or reveal

potentially different profiles, as seen in the work of Laverdière and colleagues (2019).

Finally, the profiles uncovered in the study may not represent actual subgroups within the

population. It would be possible for the non-normality of the data, or nonlinear relationships

between the variables, to lead to the erroneous conclusion that the subgroups are indeed a result

of the LPA and represent true homogenous subgroups (Williams & Kibowski, 2016). To address

this threat to validity, the data was screened for multivariate outliers and non-normality, and the data for the LPA indicators and negotiation outcomes met assumptions of normality. In addition, this threat was mitigated by the decision to randomly split the sample in two and validate the profiles on both sub-samples.

Theoretical and Practical Implications

The implications of this research do need to be discussed cautiously, due to the nonsignificant results for linking the empathy profiles with negotiation outcomes. Though it is clear that further research needs to be conducted, the confirmatory process for determining the four profiles in addition to the relationships found with personality variables are encouraging results for future studies to establish clear links between empathy profiles and negotiation outcomes. Potential implications for the use of the IRI and conflict handling styles in organizations in particular should be considered strictly speculative.

This work has helped support the idea that empathic tendencies can be measured and viewed holistically, in a way that comports with existing research on personality and individual conflict-handling styles. A new avenue of research has been opened for studies on Dual Concern Theory that target the underlying self- vs. other-orientation which can be used to predict an individual's approach to conflict. For example, conflict-handling style and empathy profile can be used in conjunction to provide a more complete picture of individual tendencies in negotiation contexts, and contribute to greater predictive validity. In addition, using the IRI allows for the underlying mechanism of conflict handling style (i.e., self- vs. other-focus) to be targeted more directly with interventions designed to increase negotiation performance. This connection creates opportunities to apply empathy-based interventions to bring someone closer to the ideal Integrating style. For example, by priming them to participate in more Perspective-Taking and

therefore be more sensitive to solutions that satisfy the interests of both parties (e.g., Gilin et al., 2013). Overall, the person-centered approach applied in the current study allows for a more nuanced view of the role of empathy in negotiation (as opposed to studying the facets as completely separate variables), and following further research, will likely help in unraveling the link to outcomes as well.

Sharma et al. (2018) identify that one of the benefits of studying individual characteristics is the state-trait distinction, such that personality research can help identify when our natural tendencies need to be adjusted. Following the work of Gilin et al. (2013) that showed the differential positive effects of PT and EC depending on negotiation context, the current research applies a more granular focus to the IRI when studied in relation to negotiation performance. By utilizing the distinct profiles to predict performance, we can look at the efficacy of conflict interventions on different types of individuals, and possibly tailor them to be maximally effective depending on the participant's profile. There is also the possibility that empathy profiles and their corresponding interventions could be created to satisfy the needs of unique professions, beyond even the negotiation context. As seen in the research by Laverdière et al. (2019) with psychotherapists, there may be homogenous subgroups within specific professional populations that attract or require different types of profiles. For instance, Atwood and Gilin Oore (2017) studied trauma workers (e.g., social workers, paramedics). One might expect that as a whole, individuals in trauma-related professions would need to have high empathy, but not of the kinds that are self-oriented and detrimental in stressful situations (i.e., PD and FS). This research could make the IRI a more useful tool accross diverse organizations – particularly in providing targeted coaching.

Conclusion

The present research revealed four distinct empathy profiles that correlated in a theoretically sound way with two measures of personality. This is the first time that a person-centered approach has been applied to the study of empathy and negotiations, which extends existing literature and demonstrates a different method of analysis. Four homogenous subgroups within the population were identified through a confirmatory process that contributes to the refinement of how empathy is studied in the negotiation context. This research has also offered a novel way to directly measure the self- and other-focused dimensions of Dual Concern Theory, thereby adding clarity to our understanding of what determines conflict handling style. Upon further research and replication of the empathy profiles unearthed here, there are tangible implications for negotiation coaching within organizations. By beginning to understand that there are latent empathy profiles within individuals, greater latent potentialities for research on individual differences and negotiation performance have also been uncovered.

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