Beyond Prosocial Motivations to Empathize

by

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The above committee determined that the thesis is acceptable in form and content and that a satisfactory knowledge of the field covered by the thesis was demonstrated by the candidate during an oral examination. A signed copy of the Certificate of Approval is available from the School of Graduate and Postdoctoral Studies.

Abstract

This study aimed to re-evaluate the lay assumption that empathic concern is entirely guided by prosocial motivations. To this end, the Empathic Concern Motivations Scale was created to measure the magnitude of one's prosocial *and/or* antisocial motivations to manifest empathic concern for another person. Participants reported both prosocial and antisocial motivations for empathic concern, and these motivation types were uncorrelated, independent constructs. The degree of prosociality of participants' motivations varied by target types, such that more prosocial motivations were reported for ingroup targets while more antisocial motivations were reported for outgroup targets. Responses to the scale were subsequently compared to established measures of empathy (the Interpersonal Reactivity Index) and antisocial personality (the Psychopathic Personality Inventory – Revised). These comparisons indicated that the relationship between motivations to empathize and the IRI depended on valence of motivation, but not target type, such that prosocial motivations were positively correlated with IRI's measurement of empathy. As for psychopathic personality traits, motivation reports depended on both the valence of motivation (i.e. prosocial or antisocial) and the target of one's empathic concern, such that PPI-R scores were positively correlated with antisocial motivations and uncorrelated with prosocial motivations. Furthermore, those higher in psychopathic traits did not show the heightened prosocial motivations towards ingroup targets, as was demonstrated across the sample more generally. These findings support a broader conceptualization of empathic concern that considers the potential for more than just prosocial antecedents, while reiterating the importance of the empathizer-target relationship.

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BEYOND PROSOCIAL MOTIVATIONS TO EMPATHIZE

Introduction

Empathy is important for understanding the motivations, intentions, and viewpoints of others. Unfortunately, empathy has been heterogeneously defined for as long as scientists have been studying it. While diverse conceptualizations of the construct mirror to some extent its complexity, they also impair the ability to fully understand the construct itself, and to reconcile the often inconsistent and difficult to interpret research findings. Before appropriate conclusions can be drawn from the inconsistent findings, a clearer grasp of the construct itself needs to be achieved. Similar sentiments lamenting the heterogenous conceptualizations of empathy have been expressed by numerous empathy researchers (Decety & Moriguchi, 2007; Gerdes et al., 2010; Mar, 2011; Wispé, 1986; Zaki, 2014). In line with these concerns, the present thesis seeks to reach some additional clarity regarding the specific motivations underlying the engendering of empathy.

In particular, the work presented within aims to re-evaluate the lay assumption that empathic concern – the affective component of empathy – is entirely guided by prosocial motivations (Batson, 1991; Davis, 1983; Eisenberg et al., 2015). Rather, the possibility that people may be prosocially and/or antisocially motivated to empathize will be explored in several ways. To this end, a few examples of different potential motivations to empathize may be useful: First, one might be concerned with the thoughts or feelings of another person because he or she feels compassion or concern for the other person's wellbeing. This is the lay understanding of what empathic concern is, and it implies a prosocial motivation to empathize. Alternatively, one might be concerned with the thoughts or feelings of another person because understanding that information may allow for more successful manipulation of the other person. While less aligned

with lay understandings of empathy, this more self-serving motive may also emulate a true motivation for understanding others thoughts/feelings. It is likely the case that people will be prosocially motivated to empathize in some situations and towards certain people, while antisocially motivated to empathize in some situations and towards certain other people (Bubandt & Willerslav, 2015; Galinsky et al., 2008). Berger and colleagues (2015) show support for this as well, with findings that aggression and prosociality can co-exist within the same individual. While the underlying motivations may differ in important ways, they may still both result in an increased desire/attempts to understand the thoughts and/or feelings of another person. Thus, a full conceptualization of empathy may require incorporation of both prosocial and antisocial motivations (Bubandt & Willerslav, 2015; Zaki, 2014). This study aims to empirically test this theoretical possibility.

To explore potential prosocial and antisocial motivations underlying empathy, I created and validated a new scale intended to quantify the extent to which people report either prosocially or antisocially motivated to empathize. In a second phase of the study I sought to evaluate convergent and divergent validity of the scale, by evaluating the extent to which data from the scale related to other conceptually related emotional/personality measures (ie. empathic concern, perspective taking, psychopathic traits). First, an in-depth background into the construct of empathy will be provided, followed by a detailed consideration of the motivations that may underlie its manifestation. Methods and results from both phases of the study will then be reported, followed by a consideration of the impact of these results on the conceptualization and measurement of empathy.

Defining Empathy

Empathy has been conceptualized and compartmentalized in a multitude of ways, and so a precise, agreed upon definition of the construct has remained elusive. Broadly, and most commonly, empathy is conceptualized as a multidimensional social construct that improves our ability to understand and anticipate the thoughts, emotions, and behaviours of others. However, variation exists with regard to whether empathy is automatic or controlled (De Greck et al., 2012; Hodges & Wegner, 1997; Singer et al., 2004), whether it is a state or a trait (Banissy et al., 2012; Coleman, 2009; Van der Graaff et al., 2016), and whether emotions elicited by empathizing can be incongruent or must be congruent (Lishner, Batson, & Huss, 2011; Preston, 2007; Vachon & Lynam, 2016). Recently, Cuff and colleagues' (2014) conducted a review of current conceptualizations in the field, and they reported that a cognitive-affective distinction between empathy's components is the most discussed distinction, and frequently serves as a starting point for identifying what empathy is (Cuff et al., 2014). Each of this components will therefore be described in turn.

Cognitive Component. The cognitive component of empathy has been labeled in various ways within the extant literature, including perspective taking (Batson, Early, & Salvarani, 1997; Galinsky, Maddux, Gilin, et al., 2008) cognitive empathy (Cox et al., 2007; Smith, 2006), and theory of mind (Hughes & Leekam, 2004; Singer & Tusche, 2014); in this paper it will be identified as *perspective taking*. It encompasses the processes involved in cognitively understanding another person's thoughts or emotions. Some have previously suggested that it employs the cognitive skill of 'mentalizing', which involves recognizing and creating a mental representation of another person's mental state (Frith & Frith, 2006). Some have characterized this as a skill (Galinsky & Schweitzer, 2016; Kidder, 2017) that is used as a part of the empathic

process. Consistent with this notion, Galinsky & Schweitzer (2016) describe perspective taking as “a critical skill for navigating our social world,” (p. 33), perhaps particularly useful for leaders, who need to be able to motivate others. Empirical research finds that people differ in their ability to accurately infer the emotions of others (i.e. perspective take; Bernstein & Davis, 1982; Ickes et al., 1990; Zaki, Bolger, & Ochsner, 2008), and that some people are able to improve perspective taking skills through practice (Barone et al., 2005; Block-Lerner et al., 2007; Kidder, 2017). It may thus exist as an ability that can be improved, rather than a static trait.

While rarely referenced in the empirical literature, a small body of research does suggest that perspective-taking can be either prosocially or antisocially motivated. On one hand, it can be prosocial in instances when it is intended to reduce conflict (Galinsky, 2002) or minimize intergroup prejudice (Galinsky, Ku, & Wang, 2005). On the other hand, perspective taking has been described as an advantageous skill in contexts where it “pays to get inside the head of your opponent” (Galinsky et al., 2008). Galinsky and colleagues (2008) found that perspective taking skills are used strategically in negotiation and competition contexts. The measurement of prosociality or antisociality of motivations underlying empathy in the current study is therefore more novel to the affective component. For this reason, the affective component will be the greater focus of the current work.

Affective Component. The affective component of empathy is frequently labeled as *empathic concern*, and is described as an “other-oriented feeling of sympathy or concern for unfortunate others” (Davis, 1983). Some authors have conflated empathic concern with compassion, defining empathic concern as an emotional response of compassion (Niezink et al., 2012). Ohers emphasize isomorphism between the empathizer and the target by defining it as the

tendency to be in tune with others' feelings and perspectives (Chopik, O'Brien, & Konrath, 2017; Decety & Lamm, 2006). A common theme among the variety of empathic concern conceptualizations is an interest in another person.

There has been some debate regarding empathic concern's automatic versus motivated nature. Empathic concern has notably been described as an automatic process (Rameson et al., 2012; Singer & Lamm, 2009; Sonnby-Borgsrom, 2002), in part because of one of the sub-processes – emotional mimicry – that frequently gets grouped with empathic concern operationally (Decety & Meyer, 2008; Sato & Yoshikawa, 2007). This is the process by which one's physiological response to someone else's emotion, indicated by neural activity, is to mimic that response within the self (see Iacoboni, 2009 for review). More recently, though, scholars are beginning to recognize motivation's role in the process of empathic concern, highlighting that it may be more than just an automatic process. For example, Lockwood and colleagues (2017) explored the relationship between empathic concern and motivation through the use of an apathy scale (which measured lack of motivation). They found via factor analysis that empathic concern and emotional motivation were underpinned by the same latent factor, and that social and emotional motivation are associated with greater empathic concern (Lockwood et al., 2017). As proposed by Zaki (2014), "empathy is often a motivated phenomenon in which observers are driven either to experience empathy or to avoid it."

Motivating Empathy.

Zaki & Cikara (2015) posited that we need to know the specific nature and precursors of empathy to understand why people may or may not empathize (Zaki & Cikara, 2015). What tunes people towards or away from empathic concern (i.e. what motivates empathic concern) is important for a complete understanding of the construct. Consistent with this notion, empathic

concern appears to reflect not just the context one is in, but also the individuals' motives within that context (such as affect, affiliation, and social desirability; Weisz & Zaki, 2018; Zaki, 2014). Other authors have explored the different features that might deter one from empathic concern, such as the cost of cognitive effort, personal suffering, and material costs should that concern lead to, for example, monetary donation to someone in need (Cameron, 2016; Cameron, Inzlicht, & Cunningham, 2017). Investigating the different characteristics of the empathizer, target, and situation are some of the ways that researchers have attempted to make inferences about the motivational nature of empathy (Fraser et al., 2012; Gleichgerrcht & Decety, 2013; Hein & Singer, 2008).

Motivation and Empathic Concern. Researchers have at times emphasized the interconnectedness – sometimes even synonymy – of motivation and emotion (see review by Elliot, Eder, & Harmon-Jones, 2013). Furthermore, research has identified various situational and interpersonal variables that have been shown to impact one's tendency to demonstrate empathic concern (De Vignemont & Singer, 2007). For example, empathic concern is greater among those who are in a more positive mood (Nelson, 2009), and towards those with whom one is more familiar (Preston & De Waal, 2002). Interpersonal evaluations can also influence the neural indicators of empathic concern, such as was found in a study by Singer and colleagues (2006). Perceiving the target as someone who is unfair reduces activation in empathic concern regions of the brain (Singer et al., 2006; see also Lamm et al., 2007). This suggests that motivational factors may have the capacity to either increase or decrease one's motivation to manifest empathic concern.

Though this line of work is sparse, recent electrophysiological work has focused on evaluating the potential motivational underpinnings of empathic concern. Tullett, Harmon-Jones,

and Inzlicht (2012) proposed a potential link between motivation and empathic concern (but not perspective taking), based on their findings regarding EEG asymmetry. In their study, greater frontal EEG asymmetry in areas associated with approach/withdrawal motivations, and positive/negative emotions, were associated with an increased likelihood of experiencing empathic concern when viewing emotional images. Activity within regions underlying motivational and emotional processes appeared to overlap in situations where subjects were empathizing with others' emotions. Interestingly, there was not a similar association between frontal asymmetry and the authors' measure of prosociality and helping intentions (Tullet et al., 2012). This suggests that while empathic concern is related to motivation, it is not necessarily associated with prosocial motivations.

Questioning Whether Empathic Concern is Always Prosocially Motivated. Many equate empathic concern with the prosocial constructs sympathy and compassion, but these terms are actually quite separate constructs. Empathic concern has been described as attuning to the feelings of others, while sympathy has been described as sorrow for another's unfortunate situation and/or a compassionate, loving response (Clarke, 2010; Sinclair et al., 2016; Soto-Rubio & Sinclair, 2018). In this way sympathy may be thought of as one possible motivation for empathy (Smith, 1969). In this vein, it has been suggested that having compassion for the target of one's empathy may *add* to empathy a warm and positive regard for the other (Chismar, 1988). Part of why empathic concern, specifically, has been assumed to be prosocial may be because of its frequent conflation with these other prosocial constructs. Emphasising its distinctiveness from these other constructs highlights that empathic concern need not be solely prosocial.

Empathic concern being perceived as a positive and desirable social construct (see Hoffman, 2001) is also due in part to its demonstrated association with prosocial behaviours.

While behaviours may not always be a reliable indication of motivation (Bagozzi, 1992), behaviours may nonetheless provide some insight into the underlying motivations to show concern. To this end, it is of note that empathic concern has been associated with greater self-reported charitable giving (Davis, 1983; Verhaert & Van den Poel, 2011, Bekkers, 2006), greater self-reported concern for the welfare of others (Batson, 1998), greater frequency in volunteering (Marjanovic, Struthers, & Greenglass. 2012), and overall greater self-reported prosocial tendencies (Carlo, Hausmann, Christiansen, & Randall, 2003). However, it's important to note that some studies suggest that empathic concern is not always a predictor of prosocial behaviours (Carlo, Allen, & Buhman, 1999; Einolf, 2008; see review by Underwood & Moore, 1982), or, if it is, only weakly so (see review by Eisenberg & Miller, 1987). Einolf (2008), in considering a wide range of helping behaviours, found that empathic concern was predictive of some forms of helping but not others. For instance, it was predicting of helping when the target was immediately present with the empathizer, but not when that target was remote (Einolf, 2008). Without a consistent, predictive relationship between empathy and prosocial behaviour, the field should not assume this association to establish empathy's theoretical basis as solely prosocial.These findings make it apparent that empathic concern is a contributor to prosocial outcomes, but how it actually motivates people to help is not yet understood (Penner et al., 2005).

Empathic Concern and Antisociality

As some have proposed, the literature's tendency to concentrate on empathy as a prosocial emotion has resulted in limited consideration of the possibility that empathy is can be manifested for less wholesome purposes (Bubandt & Willerslav, 2015; Prinz, 2011; Wispé; 1986). Indeed, reference has at times been made to the notion of "tactical empathy," whereby an

individual might be motivated by seduction, deception, manipulation, or violent intent to empathize with another person (Bubandt & Willerslav, 2015). Examples of such tactical empathy may include the reading of one's opponent during business negotiations (Galinsky et al., 2008) or the manipulation of one's victim to complete a grift or con (Gasser & Keller, 2009; Mullins-Nelson et al., 2006).

Further support for the notion that empathic concern may sometimes be antisocially motivated comes from the mixed findings regarding the presumed negative association between empathic concern and antisociality. Low empathic concern often predicts increased aggression (Batanova & Loukas, 2011), moral disengagement (Bussey et al., 2015), bullying (Endresen & Olweus, 2001; Kaukiainen et al., 1999), and affective/interpersonal abnormalities in psychopathic personalities (Seara-Cordoso et al., 2012). Moreover, having higher empathic concern for your ingroup members can motivate one to aggress towards outgroup members (see review by Cikara, Bruneau, & Saxe, 2011). Instances like this, where a prosocial motivation towards some others (e.g. to protect one's own group) may lead to an antisocial motivation towards others (e.g. to aggress towards the outgroup), demonstrate the importance of one's motivation for empathic concern in determining its relationship with behaviour.

Nonetheless, while many suggest that people who commit criminal offences are characterized by empathic concern deficits (Bush, Mullis, & Mullis, 2000; Elliot et al., 2009; Lishner et al., 2012), the connection between empathy and offending (Joliffe and Farrington, 2004)is not as clear-cut as researchers often portray it to be (Kirsch & Becker, 2007). For example, one meta-analysis found that the relationship between low empathy and offending might be strong for some offenders but not others, and that the relationship even disappears when controlling for characteristics like intelligence and socioeconomic status (Jolliffe & Farrington,

2003). Another meta-analysis revealed that the relationship between empathy and aggression is surprisingly weak (r = -.11), and that this is consistently the case across various types of aggression. In an individual study, Goldstein (2001) found that nonviolent male offenders as a whole actually scored *higher* on empathic concern than a control group comprised of community members. These results support the notion that those who are aggressive or antisocial are not necessarily lacking a capacity for empathic concern, but perhaps are better characterized as having motivational differences from those who are not antisocial (Arbuckle & Shane, 2017; Gillespie et al., 2014; Meffert et al., 2013). It thus seems pertinent to consider characterizing the empathic concern that is presented by antisocial individuals, rather than dismissing the possibility that they have any empathic concern.

Current Study

Across two phases, a new scale was validated and its relationship with theoretically relevant measures was explored. Each phase will be described in turn.

Phase 1

Purpose. The purpose of Phase 1 was to create a scale that measures participants' motivations to concern themselves with the thoughts or feelings of others. Most importantly, the purpose of this scale was to include potential antisocial motivations for being concerned with the thoughts or feelings of others, in addition to stereotypical prosocial motivations. Furthermore, since there may be various reasons as to why someone might be concerned with the thoughts or feelings of others, participants were asked to indicate the extent of this concern across several specific motivations. Half were prosocial in nature, such as "I would care to know about what this person is thinking or feeling because it affects me greatly to see them in pain," while the other half were antisocial in nature, such as "I would care to know about what this person is

thinking or feeling because I may be able to manipulate them to get my way." Asking participants to report the extent to which they would be motivated for these various prosocial and antisocial reasons, across a wide range of target individuals, allowed us to explore the prevalence of prosocial motivations and antisocial motivations. It was important to incorporate a wide range of target individuals in the questionnaire because of the extensive literature that has established the importance of the empathizer-target relationship for the experience of empathic concern. A summary of the relevant literature regarding the measurement of empathy and the importance of the empathizer-target relationship are discussed, followed by Phase 1 research questions and predictions based on these literatures.

Background: Measuring Empathy. Probably the most common method for measuring empathy is administering self-report questionnaires, of which there are several. Interestingly, these questionnaires often differ regarding their concepualization of empathy, which has reduced cohesiveness of the empirical literature. For example, the once-popular Hogan Empathy Scale (Hogan, 1969) is generally rooted within a cognitive view of empathy, and thus includes items that query the individual's ability to perspective-while the Measure of Emotional Empathy scale (Mehrabian & Epstein, 1972) more closely evaluates one's tendency to vicariously experience the emotions of others (see Chlopan, 1985). More recently, multifaceted measures of empathy have been created that attempt to distinguish between the various affective and cognitive subcomponents of empathy and provide a more comprehensive evaluation of the construct. The first such measure, the Interpersonal Reactivity Index (Davis,1980) has proven itself a highly valid and reliable measure (Gilet et al., 2013), and remains widely used today. Strengths of the scale include attempts to identify the important contributions to empathy that are made by a person's ability to understand others' perspective and the visceral, emotional reaction to others'

emotions (Davis, 1983), and subsequently achieved a measure that quantified both. Subsequent measures of empathy have continued to distinguish between the cognitive and affective components of empathy. For example, the Empathy Quotient (EQ) has proven both valid and reliable (Lawrence et al., 2004; Allison et al., 2011).

New measures of empathy are developing alongside the development and further specification of the empathy construct itself. The trend as new measures of empathy develop is that they are becoming increasingly specific with how they break down the cognitive and affective components of empathy, which is a great avenue for more precise measurements of empathy as a whole. That said, current measurements of empathy are lacking in their ability to identify what motivates the construct. Further, if research starts to show that empathic concern can be prosocially *and* antisocially motivated, it would suggest that current conceptualizations (and therefore measurements) of empathic concern are incomplete. Prior to further specifying and quantifying empathic concern, we need to ensure that we have a complete comprehension of the construct. The present study sought to therefore investigate motivations for empathic concern, while also considering a broader range of motivations (both prosocial and antisocial).

Background: The Empathizer-Target Relationship. The relationship between an empathizer and his or her target is a particular contextual feature that influences empathic concern (See review by De Vignemont & Singer, 2006). Affiliation with others is an important social motivator that increases the cooperative nature of groups (Keltner, Oatley, & Jenkins, 2014), and influences empathy and empathic behaviour towards both in and out group-members. Stürmer et al. (2006), for example, found that empathy has a stronger influence on helping for those who are in our own cultural group, and that the empathy-helping relationship varies as a function of perceived similarities with the other person. Even at an individual level, Hoffman

(2001) found that people empathized to a greater degree with family, friends, and those close to them, compared to strangers (see also Mathur, Harada, Lipke, & Chiao, 2010). Specifically, empathic concern has been linked to willingness to help kin but not strangers, and research suggests that the factors that motivate prosocial behaviour in close relationships might be different from those that motivate prosocial behaviour towards strangers (Maner & Gailliot, 2007). Given the evidence for this social influence, researchers should consider potential social motivations, such as closeness to, or affiliation with, targets when determining what motivates empathic concern.

People tend to show less empathy for those in "other" groups (ie. other than the group one affiliates with; Galinsky, Ku, & Wang, 2005), and this may be because the level attachment to or connection with a person is important for arousing empathic concern (Stürmer et al., 2005). Consequently, empathic concern leads to increased helping for ingroup members than for outgroups members, and interacts with various interpersonal factors (Stürmer et al., 2005). It would be imprudent to neglect consideration of these interpersonal factors when investigating what motivates empathic concern. To this end, the interpersonal factors of closeness and affiliation were carefully evaluated within the present thesis.

To this end, participants' perceived closeness to each target was also measured. Social closeness is a broad term that can be characterized by the extent of interdependence (Kelley et al., 1983), or perceived self-other overlap (Aron, Aron, & Smollan, 1992; Aron, Mashek, & Aron, 2004) or similarity (Miller et al., 1998). This perception can come from various dimensions, such as age, gender, or personality traits (see Liviatan, Trope, & Liberman, 2009). Oppositely, social distance is a subjective perception based on interpersonal features such as a generally perceived differences between the self and the other, a distinction between one's own

group identity and that of the other, and a lack of familiarity (Magee & Smith, 2013). While people report greater closeness to ingroup members than outgroup members (Dorrough et al., 2015), it is useful to consider individuals' perceived social closeness in addition to presumed indices of closeness (such as biological or physical closeness). For instance, emotional closeness has been found to mediate the increase in prosocial behaviours towards targets who were identified as ingroup members because of genetic relatedness (Korchmaros & Kenny, 2001). Furthermore, research has indicated the mediatory effects that a perceived self-other overlap (Batson et al., 1997; Galinsky, Ku, & Wang, 2008; de Guzman et al., 2015) and emotional closeness (Beeney et al., 2011; Müller-Pinzler et al., 2015) can have on empathic processes. Thus, a measure of perceived closeness with targets may provide important insights beyond the pre-designated Target Types.

Predictions. I hypothesized that there would be significant differences in how participants were motivated (prosocially vs antisocially) for the different Target Types (ingroup, neutral group, and outgroup). Specifically, participants were expected to report the most prosocial motivations for ingroup targets and the most antisocial motivations for outgroup targets. If supported, I expected that Total Motivation scores would be highest for ingroup (and lowest for outgroup) members as a result of the heightened prosocial motivation for this group. Finally, I hypothesized that the ratio score would indicate the greatest difference between prosocial and antisocial motivations for ingroup targets, such that this group would show the greatest preference for prosocial motivations over antisocial motivations.

Phase 2

Purpose. Following scale validation, Phase 2 aimed to evaluate convergent validity of the new scale with a popular measure of empathy: the Interpersonal Reactivity Index (IRI).

Situating the quantification of empathic motivations among a commonly used measure of empathy identifies how the new scale is similar to yet divergent from more traditional empathy measures. Another main purpose of Phase 2 was to evaluate the extent to which clinically relevant personalities (namely, those with high levels of psychopathic traits) might show evidence of a motivation to empathize. Characterizing the prosociality or antisociality of empathic motivations for those with varying levels of psychopathic traits would have implications for how this more comprehensive conceptualization of empathic concern relates to, and might help to explain, empathy and antisociality. Current measures may obscure the empathic concern that antisocial populations exhibit because of the narrower conceptualization of the construct as solely prosocial, and so the scale developed in Phase 1 was used to address this limitation. The relevant literature for empathic concern and psychopathy is discussed next, followed by Phase 2 research questions and hypotheses.

Background: Empathic Concern and Psychopathy. Psychopaths comprise a clinically antisocial population, and so features of this population can be used to explore whether empathic concern can be antisocially motivated. The psychopath is partly defined by his low empathic concern (Hare, 1991) and this is supported by clinical (Domes et al., 2013) and subclinical (Dadds et al., 2009; Seara-Cardoso et al., 2012; Wai & Tiliopoulos, 2012) studies. For example, Mullins-Nelson and colleagues (2012) reported a moderate correlation ($r = -.406$) between empathic concern and psychopathic traits among undergraduate university students. These results are appealing, as they support a longstanding understanding of the psychopath, but there are some notable inconsistencies in the literature. For example, a series of two studies by Lishner and colleagues (2015) found little evidence of an association between empathic concern and psychopathic traits, except for with the trait of callous affect. These authors suggest that it may

just be the trait of callous affect that is responsible for the supposed link between psychopathy and an affective empathy impairment, rather than the psychopathic personality as a whole.

Alternatively, scientists are beginning to propose that it may not be a lack of *ability* for the psychopath to demonstrate empathic concern towards others, but rather a lack of *motivation* to do so. For example, Arbuckle and Shane (2016) and Meffert and colleagues (2013) found that, although antisocial individuals generally show a reduction in the neural network involved in empathic concern when viewing others in pain, they had the ability to consciously increase the activation of these networks when asked to increase their concern for the person they are viewing. Distinguishing between an ability and a propensity to empathize suggests that the deficits that psychopathic individuals exemplify could be at least partly motivational. The next step for researchers may then be to characterize what would motivate them to either approach or avoid empathy.

Research to date has yet to explore specifically what drives a psychopath to engage in empathic concern, as this population has long been thought incapable of such experience. Behavioural studies, which may be used as an indirect approximation of underlying motivations, have shown that psychopaths do engage in prosocial, empathic behaviors, but only when they are in public and there is a chance that they may receive credit for their actions (White, 2013). This may indicate that psychopaths are motivated to be empathically concerned for someone else when there is some sort of external gain. This motivation is important to understand, particularly if there is a chance that clinicians could encourage and motivate psychopathic individuals to engage in this concern for prosocial purposes. Some literature suggests that this would reduce the amount of antisocial behaviour that they engage in and potentially even increase their levels of

prosocial behaviour (Blair, 2005), but what motivates psychopaths to engage in empathic concern has been elusive to researchers to date.

With little work in the realm of empathic concern and antisociality, conceptually similar constructs can be consulted as a guide for how we might approach this largely uncharted territory. Research has found, for example, that males with higher psychopathic traits, in addition to those who are high in emotional intelligence (which includes empathy), are more emotionally manipulative (Grieve & Mahar, 2010). In this instance, emotional intelligence is used antisocially, with the goal to manipulate the emotions of others. Grieve (2011) also found that social cue understanding is particularly important for emotional manipulation, and with cognitive social understanding (i.e. perspective taking) often intact in psychopathic populations (see Blair, 2006 for review), it thus follows that psychopaths may be quite able to employ these social skills when interacting with others. Most often, however, the psychopath will choose to employ such social skills maliciously. Such malicious intentions could apply in the context of empathic concern as well, not just emotional intelligence more generally, and in fact the results of Phase 1 do provide preliminary evidence of this possibility.

The prosociality or antisociality of one's motivations may also be inferred from the individual's perceived personal benefit of his or her actions. For example, White (2014) found that the affective characteristics of the psychopath are associated with *increased* public prosocial behaviour, and only decreased prosocial behaviour when it was anonymous. It thus appears that the psychopath may not always lack empathic concern, and may show this concern to employ intact social skills when it benefits himself (i.e. to improve public image rather than for altruistic motives). Therefore, the idea that empathic could be prosocially or antisocially motivated may be

the missing link to explain the inconsistent findings regarding the empathic deficits of antisocial populations.

Predictions. I anticipated that scores on the established measures of empathy and psychopathic traits would predict motivations to empathize. Regarding the IRI, I predicted that prosocial motivations would be predicted by empathic concern because of the prosocial basis on which this subscale was created, but I did not have a hypothesis about the relationship with perspective taking. It was unclear how antisocial motivations would—or would not—relate to the IRI, as motivations for empathic concern are not measured by the IRI. It was also unclear whether the IRI subscales would predict the motivations differently for the different target types.

Next, I predicted that psychopathic traits might be positively related to Total Motivation. This would suggest an *increased* overall motivation for those with heightened psychopathic traits. The reason for this prediction is based on the hypothesis that those with psychopathic traits would report much more antisocial motivations. As a result of the inherent antisociality associated with psychopathic traits, I predicted fewer prosocial motivations to be reported by those who scored higher on this measure. While the precise pattern of motivation for the different target types among those with higher psychopathic traits was uncertain, I predicted that the pattern of higher antisocial motivations would remain regardless of Target Type.

Method

Participants

Participants were 144 UOIT students in Introduction to Psychology or Abnormal Psychology who received partial course credit for their participation. The first ten participants were used for pilot data, after which we expanded the questionnaire to include a longer list of targets. These ten participants were excluded from analyses due to the differences in their

questions compared to subsequent participants. Furthermore, one participant was removed for responding abnormally on key variables (i.e. was an outlier on motivations to empathize, closeness, and empathic concern). Participants were also removed if they neglected to complete enough of the Empathic Concern Motivations Scale. If more than 1/3 of the targets in ingroup, neutral group, or outgroup were skipped by a participant, then that participant was removed from analyses. Consequently, nine participants were removed who failed to respond to more than one third of at least one target type (ingroup, neutral, or outgroup). Additionally, there were 3 participants removed because of missing personality measures. This left 126 participants for validation analyses. There were 34 males (27.6%) and 89 females (72.4%). The ages of participants ranged from 17 years old to 33 years old, with a mean age of 19.48 years (SD = 2.27).

Measures

Empathic Concern Motivation Scale (ECMS). I developed a self-report questionnaire to assess the extent to which people experience prosocial and/or antisocial motivations to empathize for a wide variety of targets (family and friends, opponents and strangers).

ECMS Instructions.

To complete the scale, participants received the following instruction:

> "Below you are going to see a list of titles for people you know. For each title, think of one person. We will ask you to indicate how well you know that person, and how you would care to know what that person is thinking or feeling at any given moment. If an option does not apply to you (for example, you do not have a brother), then please leave that section blank. If an option applies to you more

than once (for example, you have more than one brother), you will have to choose just one person to complete the section for."

Following these instructions, for each and every target, participants indicated the extent to which they would care to know what the person was thinking or feeling (on a scale from 1 = not at all to 7 = very much) for the following reasons

… because I may be able to manipulate them to get my way

… because it's wise to get information that you can use against people later on

… because of what I can get for them

… because I have tender concerned feelings for them

… because I want to protect them

… because it affects me greatly to see them in pain"

After all motivations were rated for a given target, participants were asked to indicate "how close are you to this person?" as a measure of the strength of the relationship between the target and the participant. This was done to account for the possibility that the a priori Target Type creation strategy (i.e. to establish ingroup, neutral group, and outgroup targets) might not fit perfectly for each participant. For full questionnaire, see Appendix 1.

ECMS Construction: Strategy for Determining Targets. In creating the list of targets for this measure, graduate and undergraduate students brainstormed a broad range of potential and hypothetical individuals with whom participants might have an opportunity to empathize with. Within this list of targets, Target Types were established by labelling targets as "ingroup, "neutral group," and "outgroup" based on existing social psychological research. We considered these categories because group status (i.e., ingroup vs. outgroup) of the target of one's empathy has been shown to have a significant influence on the extent and accuracy of one's empathy (see

Eisenberg, Eggum, & Di Giunta, 2010 and Cikara, Bruneau, & Saxe, 2017 for reviews). Group status may be based on various characteristics of another person (see Lickel & Hamilton, 2001), such as similarity to (Shkurko, 2014), or familiarity with, the other person (Krill & Platek, 2009), common goals or a common enemy (Rothbart & Park, cited by Hamilton, 2007, p. 1080), or even estimations about future contact with the other person (see Shkurko, 2014).The broad terms "ingroup" and "outgroup" typically encompass a broad range of identities or affiliations that a person may have. The assessment of group status is therefore understandably complex and more continual than is implied by the dichotomy of ingroup and outgroup labels (Shkurko, 2014). To include targets who are expect to be categorized clearly as ingroup and outgroup might then limit responses to a) prosocial motivations towards ingroup targets and b) antisocial motivations towards outgroup targets. Therefore, the middle category ("neutral") was established to better encompass the continuousness of group differences. The addition of this Target Type was intended to elicit a wider range of repsonses, as some might feel prosocially motivated towards these targets while others might feel antisocially motivated.

The strategy for target brainstorming was to create a list of targets that encompassed the wide range of potential characteristics that one might use to classify the target as an ingroup or an outgroup member. This was intended to create a comprehensive list of potential or hypothetical empathy targets. Following the creation of the target list, the ingroup consisted largely of family members and friends (such as mother, best friend, and teammate), the neutral group consisted largely of people one might encounter but may not feel any attachment to (such as a teacher, a restaurant server, and someone crying on the street), and the outgroup consisted largely of competitors or disliked others (such as someone you're jealous of, somone who took advantage of you, or your opponent in a strategy game). While participants may respond

similarly to each other on ingroup and outgroup targets, the neutral group was added as a target type that is likely to result in more varied responses, which in turn might point out greater individual differences.

ECMS Outcome Variables. The format of this measure allowed for the calculation of multiple scores for analyses within and between participants. Each of these scores (mean prosocial motivation, mean antisocial motivation, total motivation, and motivation ratio) were calculated across all targets for an overall description of participants' motivations, as well as for each of the Target Types to explore potential intergroup differences in motivation. Should intergroup differences in motivation for empathic concern be found, as has been found with other measures of empathic concern, then the outcome scores should be considered separately for each Target Type. The various possible outcome scores that the scale can produce are beneficial because different scores can be utilized to answer different research questions. Each measurement and relevant research questions are discussed in turn.

Mean Motivations. Mean scores were calculated for the prosocial motivations and antisocial motivations across all targets for each participant. This score provided a measure of the average degree of motivation for each of the motivation types separately. With this measure, the following research questions could be addressed:

1. Are people sometimes antisocially motivated to empathize?
2. Does Target Type influence the extent to which people are prosocially or antisocially motivated?

I hypothesized that people would report both motivation types, at least to some extent, though one may be reported more frequently than the other. I predicted that people would report greater prosocial motivations than antisocial motivations on average, but this measure would not

specifically indicate whether one Motivation Type is more frequently reported than the other at an individual level (i.e. it is possible that if mean scores for the two motivation types are equal, then half of participants reported one type while the other half reported the other type). Finally, I also hypothesized that prosocial and antisocial motivations would differ by Target Type, such that the highest prosocial motivations would be reported for ingroup targets and the highest antisocial motivations would be reported for outgroup targets.

Total Motivation. As a measure of participants' total motivation, a sum score was calculated by adding together the mean prosocial motivations and the mean antisocial motivations. This score indicated the magnitude of motivation, both prosocial and antisocial, for each participant, and can answer the following research question:

1. Are there significant differences in Total Motivation (i.e. overall motivation regardless of valence) between the different Target Types?

Because of the affiliation and likely contact with ingroup targets, I expected that this Target Type would produce the highest Total Motivation. However, it was also possible that higher Total Motivation scores could be reported for the outgroup targets. If participants were to report particularly high antisocial motivations for outgroup targets, then this would increase Total Motivation for this group as well. I anticipated that the neutral group would not generate as much motivation overall.

The Ratio of Prosocial to Antisocial Motivation. Two methods were possible to achieve a score that indicated the relationship between prosocial and antisocial motivations within each participant. First, a difference score was calculated by subtracting the antisocial motivation mean from the prosocial motivation mean for each participant. This was done for all Target Types together and each target type individually. Second, a ratio score was calculated by

dividing prosocial motivation means by antisocial motivation means overall and for each target type individually.

In order to determine which computation method to use as a measure of the relationship between prosocial and antisocial motivations within each participant, each method was assessed for its relationship with relevant variables, namely empathic concern, perspective taking, and psychopathic traits. This indicated which method was most relevant to these variables of interest, and thus which score to use in subsequent analyses. The difference score and the ratio score consistently correlated with the variables of interest across all Target Types, and also correlated highly with each other ($r = .915$, $p < .001$). There were instances where the difference score was more highly correlated with the variables of interest than the ratio score and vice versa. The correlation between outgroup difference score and perspective taking was only marginally significant ($r = .157$, $p = .074$), while the ratio score was significantly correlated with all variables of interest across all Target Types. Relationships of difference scores and ratio scores to empathic concern, perspective taking, and psychopathic traits therefore did not provide an indication that one score was more relevant. The decision to choose the ratio score over the difference score was made due to the possibility that some participants' difference scores could be a negative value if they fell below zero (e.g. if someone had a higher mean antisocial score and it was subtracted from a lower prosocial motivation score, the outcome variable would be a negative value). The ratio score was therefore chosen as the best indicator of the extent to which one Motivation Type exceeded another within each participant.

As this ratio was created by dividing prosocial motivations by antisocial motivations, we can infer whether individual participants are generally more prosocial or generally more antisocial. A ratio score of 1 is indicative of an equal degree of prosocial and antisocial

motivations. If the score is greater than 1, then prosocial motivations are greater than antisocial motivations, and if the score is less than 1, then the antisocial motivations are greater than the prosocial motivations. As scores get further from 1, this would mean that the preference for one motivation time over the other is increasingly strong. This measure was used to answer the following research questions:

1. Are people generally more prosocial than antisocial?
2. Does a preference for prosociality over antisociality differ depending on Target Type?

I hypothesized that people would report greater prosocial motivations than antisocial motivations at an individual level, but that this preference for prosociality over antisociality would decrease from ingroup to neutral group to outgroup targets. That is, I predicted that the preference for prosociality would be strongest for ingroup targets and weakest for outgroup targets.

IRI. This scale was used to measure empathy's multiple components. It is comprised of 4 inter-related subscales that measure empathic concern, perspective taking, personal distress, and fantasy (Davis, 1983). The IRI acknowledges the fact the empathy is a multidimensional construct and it involves both cognitive and affective components by measuring each component individually. Initial validation was provided by Davis (1983), and confirmed by many others (e.g., Carey, Fox & Spraggins, 1988; Cliffordson, 2001, Pulos et al. 2004; Hawk et al., 2013). For the purposes of this study, the empathic concern and perspective taking subscales were analyzed. Participants rated items from 1 (*Does not describe me*) to 5 (*Describes me very well*). The empathic concern subscale includes items such as "I often have tender concerned feelings for people less fortunate than me," while the perspective taking subscale includes items such as

"I sometimes try to understand my friends better by imagining how things look from their perspective." Each of these subscales is created from a sum of 7 separate items.

The IRI was measured in the current study to answer the following research questions:

1. Do empathic concern or perspective taking (as measured by an established empathy measure) predict mean prosocial or mean antisocial motivations to empathize?
2. Are empathic concern or perspective taking predictive of an overall motivation to empathize at all, regardless of motivation valence?
3. Do empathic concern or perspective taking predict a preference for prosocial motivations over antisocial motivations?
    a. Does the ability for these subscales to predict prosocial motivations over antisocial motivations differ based on Target Type?

I hypothesized that prosocial motivations might be predicted by the empathic concern subscale of the IRI, but not antisocial motivations. This prediction is based on the IRI's prosocial conceptualization of empathy, rather than the prediction that the IRI measures motivations to empathize. It was unclear how Total Motivation or a preference for one motivation type over another (i.e. Ratio scores) would be predicted by empathic concern or perspective taking.

PPI-R. This scale was used to measure psychopathic traits. The PPI-R has demonstrated high reliability and validity in both general community and male/female forensic samples (e.g., Hughes & Stout, 2013). Although the average level of psychopathic traits is low in non-forensic samples for some of the items, studies show that there is sufficient response variability to allow for interpretation (Falkenback et al., 2007, Levenson et al., 1995). It is comprised of 154 questions that can be divided into 3 factors: self-centered/impulsivity (e.g. "If I want to, I can get people to do what I want without them ever knowing"), fearlessness/dominance (e.g. "When I'm

in a frightening situation, I can "turn off" my fear almost at will"), and coldheartedness (e.g. "I look out for myself before I look out for anyone else"). Participants respond to the question "how false or true is each statement in describing you?" on a scale of "false," "mostly false," mostly true," and "true."

The PPI-R was measured in the current study to answer the following research questions:

1. Are psychopathic traits predictive of an overall motivation to empathize, regardless of motivation valence?
2. Do psychopathic traits predict mean prosocial or mean antisocial motivations to empathize?
3. Do psychopathic traits predict a preference for prosocial motivations over antisocial motivations?
    a. Does the ability for psychopathic traits to predict prosocial motivations over antisocial motivations differ based on Target Type?

I hypothesized that psychopathic traits will either be unrelated to Total Motivations, or positively related to Total Motivations. This was because I predicted a particularly high report of antisocial motivations by those who scored high on psychopathic traits. While these individuals were predicted to score low on prosocial motivations, the heightened antisocial motivations could outweigh the lack of prosocial motivations to ultimately produce an increase in Total Motivation to empathize. While a preference for antisocial motivations over prosocial motivations (i.e. a low ratio score) was expected for those with higher psychopathic traits, it was unclear how this might differ based on Target Type.

Demographics Questionnaire. Participants were asked for general demographics information, including age and gender. These questions were used to describe the sample.

Procedure

The students were seated at computers in a quiet lab, where they were unable to view the responses of others. Once seated, they read and signed the consent form, and then completed multiple self-report questionnaires, described next, to assess empathy and personality characteristics. At the end of the study, participants were taken for debriefing and thanked for their participation.

Results: Phase 1

Scale validation: Verifying Targets and Target Types. As this was a new scale, it was important to consider whether all targets on the questionnaire were valid. Participant responses on the ECMS were explored to determine if there were any targets that lacked variance or were too highly correlated with other targets to provide unique value to the scale. Factor analyses categorized targets into Target Types to confirm the presence a priori groups (ingroup, neutral group, and outgroup). Calculations of reliability and internal consistency also aimed to identify if there were targets that should be removed for future iterations of the questionnaire.

Investigating potential violations of normality. Skewness values outside of the range of -2 to 2 are considered significant enough to violate assumptions of normality (Garson, 2012). Overall mean motivations for all individual targets were tested for skewness, and no targets violated the assumption of normality. Therefore, no targets were removed or transformed due to normality violations.

Confirming Target Type Categorizations using Closeness. In creating the list of targets for this measure, graduate and undergraduate students brainstormed a broad range of potential and hypothetical individuals, based on closeness, with whom participants might have an opportunity to empathize with. Within this list of targets, Target Types were established by

labelling targets as “ingroup, “neutral group,” and “outgroup.” Target type categorization was largely based on previous research regarding the characteristics of ingroup and outgroup, but participants’ own perceptions of affiliation with targets in these groups was obtained by measuring self-reported closeness to each target. A one-way repeated measures ANOVA determined that there was a significant difference in the closeness ratings between target types ($F = 1283.73$. $p < .001$, $\eta^2 = .954$),[1] and Bonferroni-corrected pairwaise comparison indicated that the ingroup closeness ratings ($m = 5.15$, $sd = .91$) were significantly higher than both the neutral ($m = 1.77$, $sd = .61$) and outgroup ($m = 1.68$, $sd = .79$) ratings (ps $< .001$), but that the neutral and outgroup ratings did not differ ($p = .37$). Participants self-reported being closer to ingroup targets, as expected, compared to neutral and outgroup targets, but did not report feeling significantly closer to neutral targets than outgroup targets.

Confirmatory Factor Analysis. A confirmatory factor analysis was conducted to confirm that targets categorized in a similar way statistically as they did theoretically. Given the large list of targets, and the modest sample size, I acknowledge that this factor analysis is somewhat underpowered. The results of this factor analysis should therefore be interpreted with caution, and are intended only as a post-hoc exploration of the validity of the a-priori target type categorizations.

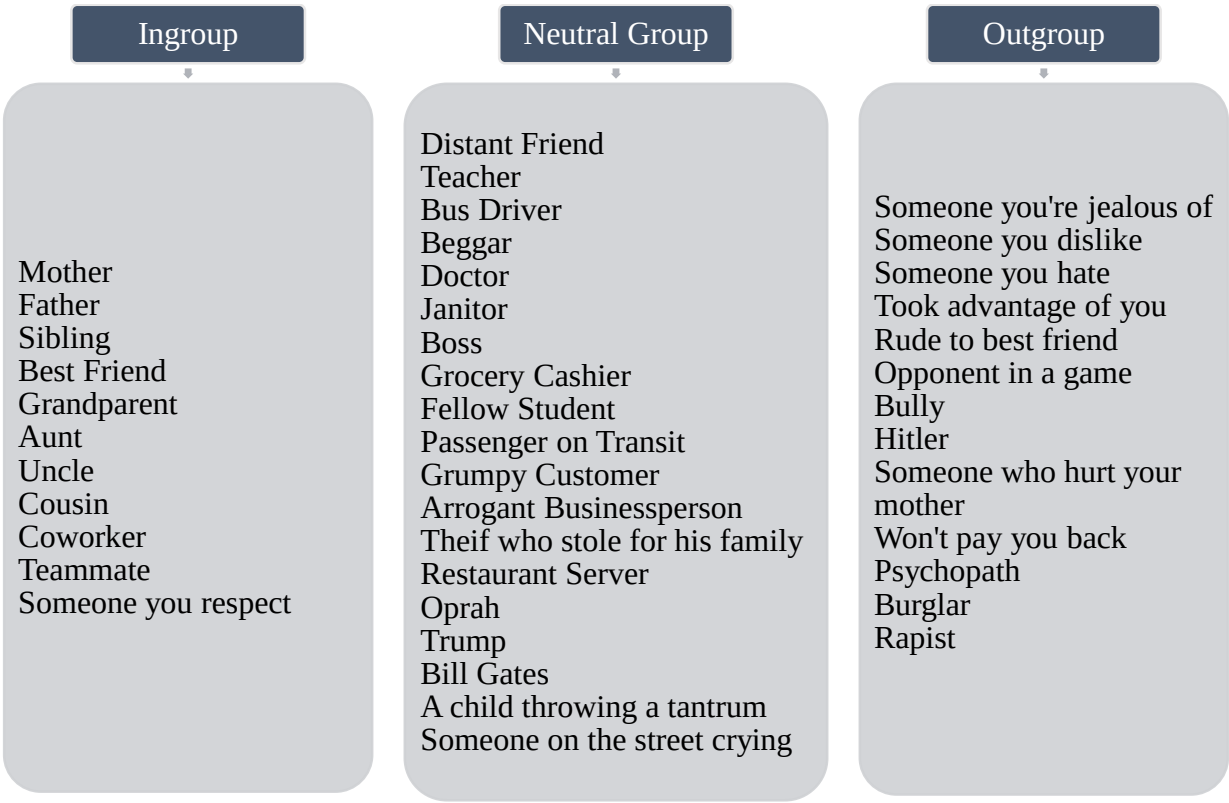
Initially, the factor analysis extracted 9 components based on an eigenvalue greater than one. Upon a visual inspection of the scree plot and the location of the elbow, it appeared that, beyond the first three components, the groups that were extracted barely qualified as their own factors. Beyond three factors, there was no clear visual distinction between components. As

[1] Mauchly’s test of sphericity was significant, $W = .71$, $p < .001$, meaning that the assumption of sphericity was violated. The results of the multivariate tests were therefore consulted.

such, the factor analysis was rerun and restricted to producing 3 factors. This made it more difficult for the similar components to be grouped separately, and is likely to better represent the data in this case. For individual factor loadings, see Appendix 2.

Inspection of the factor loadings resulted in a factor structure highly similar to what we had in mind during the target list creation phase of the study. There were 7 targets (Grumpy Customer, Teacher, Bus Driver, Coworker that you get along with, Teammate, Someone you are jealous of, and someone you dislike) that did not load clearly onto just one factor. However, when a target loaded onto two factors, there was always one component that made the most theoretical sense for that target. Overall, the factor structure did confirm that participants were perceiving the targets as intended (i.e. as a range of ingroup, neutral group, and outgroup members). A list of targets and their assigned Target Type (as either ingroup, neutral group, or outgroup) is presented in Figure 1.

Figure 1. *Target Type Assignments*



Reliability Analyses. Reliability analyses indicated that the targets in each Target Type were a good fit in that category. The ingroup targets produced a Cronbach's α of .889 for prosocial motivations and a Cronbach's α of .957 for antisocial motivations. The neutral group targets produced a Cronbach's α of .893 for prosocial motivations and a Cronbach's α of .913 for antisocial motivations. Finally, the outgroup targets produced a Cronbach's α of .730 for prosocial motivations, while the antisocial motivations revealed a Cronbach's α of .901.

Scale Validation: Verifying Motivation Types

Factor Analysis. To establish independence of the two a priori motivation types, a factor analysis was conducted that entered the means for each of the 6 motivations: 'manipulate,' 'information,' 'gain,' 'concern,' 'protect,' and 'affects me' (see Table 3 for Descriptive Statistics). The factor analysis applied a varimax rotation with Kaiser normalization. The factored items mapped onto the theorized prosocial and antisocial constructs. Specifically, 'manipulate,' 'information,' and 'gain' all loaded onto the same latent structure, which we labelled 'antisocial motivations.' The items 'concern,' 'protect,' and 'affects me' all loaded onto the same latent structure, which we labelled 'prosocial motivations.' Factor loadings are presented in Table 1.

Table 1.

Motivation Items: Factor Analysis

	Components	
Motivations	1	2
Concern	**.963**	.097
Protect	**.970**	.092
Affects Me	**.965**	.001

Manipulate	.079	**.970**
Information	-.023	**.968**
Gain	.133	**.935**

Reliability Analysis. The items in each of the resulting components were scaled into mean motivation scores for each Motivation Type using the means of each individual motivation. Internal consistency was subsequently tested through reliability analysis, which indicated high internal consistency for both Motivation Types. Specifically, the Cronbach's alpha was .951 for antisocial motivations and .955 for prosocial motivations. There were no significant improvements to Cronbach's alpha when any item was removed from the scale, so all items remained in the scale. The items within the two underlying components showed high intra-component correlations (rs > .833, *p*s < .001), and low inter-component correlations (rs < .128). Descriptive statistics for motivation items and scaled Motivation Types are presented in Table 2.

Comparing Factors. The correlation between the Motivation Types as scaled variables indicated no significant relationship (r = .130, p = .148). While a large positive correlation would have indicated collinearity and a large negative correlation would have indicated reciprocity between these two constructs, the low correlation indicated, rather, that the two constructs are functionally distinct. High prosocial motivations did not indicate lower or higher antisocial motivations.

The mean prosocial motivation score (m = 3.13, SD = .090) was higher than the mean antisocial motivation score (m = 2.51, SD = 1.20), but the larger standard deviation for antisocial motivations is indicative of greater variation in scores for this Motivation Type. This suggests that people are generally more prosocially motivated than antisocially motivated to concern

themselves with others' thoughts and feelings, but that there are greater individual differences between participants with regards to antisocial motivations.

Table 2.

Motivation Items: Descriptive Statistics

	Mean	SD
Prosocial Motivations	3.13	0.90
Concern	3.08	0.84
Protect	3.04	0.94
Affects me	3.28	1.00
Antisocial Motivations	2.51	1.20
Manipulate	2.56	1.28
Information	2.44	1.20
Gain	2.55	1.26

Measuring Motivation

The main method of measuring the two types of motivation individually was through calculating a mean score for prosocial and antisocial motivations for each participant, as presented above. However, a Total Motivation Score and Motivation Ratio Score were also calculated to obtain quantification of one's overall motivation to empathize (both prosocial and antisocial motivations) and one's prosocial motivations *in relation to* his or her antisocial motivations, respectively. Means and standard deviations for each measurement method are presented in table 3. ANOVAs were thus conducted for each of the measurement types, to

specifically identify whether differences seen between Target Types are significant and, if so, the strength of that difference.

Table 3

Motivation Descriptive Statistics

Measurement Method	All Targets		Ingroup		Neutral		Outgroup	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Mean Motivation	2.82	0.79	3.89	0.78	2.47	0.88	2.42	0.95
Prosocial	3.13	0.90	5.56	0.91	2.66	1.05	1.64	0.83
Antisocial	2.51	1.20	2.17	1.12	2.19	1.09	3.15	1.63
Total Motivation	5.65	1.59	7.79	1.57	4.92	1.75	4.78	1.74
Motivation Ratio	1.54	0.85	3.24	1.66	1.48	0.87	0.73	0.64

Mean Scores. Both prosocial and antisocial motivations to empathize were reported. As predicted, participants reported more prosocial motivations than antisocial motivations on average. I hypothesized a significant interaction between Target Type and Motivation Type, such that participants were more prosocially motivated towards ingroup targets, but more antisocially motivated towards outgroup targets. A 2 x 3 repeated measures ANOVA was conducted to determine if there were significant mean differences in prosocial and antisocial motivations for the different Target Types (see table 4 for descriptive statistics)[2]. There was a significant main effect for both Target Type (Wilks' Lambda = .117, F = 463.62, multivariate partial η^2 = .883, p < .001) and Motivation Type (Wilks' Lambda = .754, F = 40.50, multivariate partial η^2 = .246, p

[2] Mauchly's test of sphericity was significant, W = .68, p < .001, meaning that the assumption of sphericity was violated. The results of the multivariate tests were therefore consulted.

< .001). The mean difference of .783 between prosocial motivations and antisocial motivations was statistically significant ($p < .001$). The relationship between target type and motivation type was best explained, however, by the significant interaction between these variables (Wilks' Lambda = .113, F = 484.709, multivariate partial $\eta^2 = .887$, $p < .001$). The significant differences between Target Types is dependent on motivation type such that prosocial motivations are significantly higher than antisocial motivations for ingroup targets ($t = 26.31$, $p < .001$) and neutral targets ($t = 3.63$, $p < .001$), but that prosocial motivations are significantly lower than antisocial motivations for outgroup targets ($t = -8.83$, $p <.001$).

Total Scores. I predicted that Total Motivation would be highest for ingroup targets, as the targets within this group are ones with which participants will likely have more future interactions. Therefore, regardless of Motivation Type, participants might be more concerned overall with the thoughts and feelings of this group. Descriptive statistics indicate that the highest total motivation score was for ingroup targets (M = 7.79, SD = 1.57), followed by neutral group targets (M = 4.92, SD = 1.75), and outgroup targets (M = 4.78, SD = 1.74). A 1 by 3 repeated measures ANOVA was conducted to determine if there these mean differences were significant. The results indicated that the differences in total motivations between ingroup and neutral group, and ingroup and outgroup were significant (ps < .001), but that the difference between total motivations for neutral group and outgroup was not significant ($p = 1.00$). Total motivation is much higher for ingroup targets compared to neutral group or outgroup targets, but there is no distinction between neutral group total motivation and outgroup total motivation.

Ratio Scores. The ratio score was the most descriptive measure of participants' motivations because it took into account the nature of participants' motivations (i.e the prosociality or antiscoaility of the motivations). The additive value of this measure was that it

allowed for determination of if prosocial motivations *in relation* to antisocial motivations. With a mean ratio score of 1.54, participants tended to be more prosocially motivated than antisocially motivated. I hypothesized that the greatest difference between prosocial and antisocial motivations would be for ingroup targets because prosocial motivations were expected to be particularly high for this group. Descriptive statistics (see Table 4) suggested that the preference for prosocial motivations over antisocial motivations was strongest for ingroup targets. The mean ratio score for neutral targets indicated a prosocial preference for this group as well, but not for outgroup targets. The mean ratio score below 1 for outgroup targets indicated a preference for antisocial motivations over prosocial motivations for this group. A 1 by 3 repeated measures ANOVA was conducted to determine if the differences in ratio scores for the different Target Types were significant. Results showed that there was a significant main effect of target type (Wilks' Lambda = .252, F = 182.68, multivariate partial $\eta^2 = .748$, $p < .001$)[3]. Following up on the target type variable with a Bonferroni correction indicated that all pairwise comparisons were significant. This means that while there was an overall significant difference in motivation between each pair of Target Types, ingroup and neutral group (Mean difference = 1.768, $p < .001$), ingroup and outgroup (Mean difference = 2.528, $p < .001$), and neutral group and outgroup (Mean difference = .760, $p < .001$). The preference for prosocial motivations compared to antisocial motivations was significantly greater for ingroup targets than neutral group targets, and significantly greater for neutral group targets than outgroup targets.

[3] Mauchly's test of sphericity was significant, $W = .287$, $p < .001$, meaning that the assumption of sphericity was violated. The results of the multivariate tests were therefore consulted.

Results: Phase 2

The purpose of phase 2 was to investigate the relationship between the ECMS and theoretically related existing Measures. The IRI and PPI-R were thus assessed to determine their relationship with motivations for empathic concern. Descriptive statistics for these measures and their subscales / factors are presented in table 4.

Table 4

Descriptive Statistics

Measure / Subscale	Mean	SD
IRI		
Empathic Concern	20.52	4.48
Perspective Taking	18.47	5.02
PPI-R		
Total Score	2.15	0.29
Self-Centered/ Impulsivity	2.14	0.36
Fearlessness/ Dominance	2.43	0.43
Coldheartedness	1.85	0.43

Interpersonal Reactivity Index (IRI)

I predicted that the empathic concern subscale of the IRI would relate only to the prosocial motivations to empathize, because of the prosocial conceptual foundation from which this scale was created. While the perspective taking subscale may also relate to the motivations

to empathize, I did not predict it to relate specifically to one Motivation Type over the other. The correlation between these two IRI subscales of interest was moderate and positive (r = .370, p < .001). Both empathic concern and perspective taking did, however, correlate similarly to the different motivation types, such that there was a significant positive correlation with only the prosocial motivations for both subscales (see table 5). A multiple hierarchical regression was conducted where empathic concern and perspective taking were entered into the model together at block 1, and their interaction at block 2, to predict prosocial motivations, to identify the contribution of the subscales individually versus their interaction. The adjusted R^2 of the model summary indicated that 12.6% of the variation in prosocial motivations was explained by empathic concern and perspective taking (F = 9.78, $p < .001$). Prosocial motivations increased significantly as empathic concern increased (β = .056, $t = 3.01$, $p = .003$), and increased marginally significantly as perspective taking increased (β = .032, $t = 1.96$, $p = .053$). Adding the interaction between empathic concern and perspective taking did not make a significant contribution to the model ($t = -1.224$, $p = .223$), which indicated that the subscales uniquely contribute to prosocial motivations.

With the subscales significantly correlated with only one motivation type, the correlations found between the IRI subscales and the motivation ratio score were expected. Empathic concern (r = .269, $p < .003$) and perspective taking ($r = .239$, $p = .008$) were both significantly correlated with the ratio of prosocial to antisocial motivations, such that higher scores were associated with greater prosociality versus antisociality. A multiple hierarchical regression was conducted where empathic concern and perspective taking were entered into the model at block 1, and their interaction at block 2, to predict the ratio of prosocial to antisocial motivations. This elucidated the unique contribution of each of these variables to the prediction of Prosocial to Antisocial

Motivation Ratio. The adjusted R^2 of the model summary indicated that 8.1% of the variation in prosocial to antisocial motivation ratio was being explained by empathic concern and perspective taking (F = 6.376, p = .002). The ratio of prosocial to antisocial motivations increased significantly as empathic concern increased (β = .041, t = 2.275, p = .025), and increased marginally significantly as perspective taking increased (β = .028, t = 1.765, p = .080). The part correlations of Empathic Concern (.197) and Perspective Taking (.153) were similar, but it appeared that Empathic Concern had a slightly higher unique contribution to the model. Adding the interaction between empathic concern and perspective taking did not make a significant contribution to the model (t = .016 p = .987). That said, this result must be interpreted with caution, as the IRI subscales did not correlate with antisocial motivations to empathize, and antisocial motivations to empathize were included in the calculation of motivation ratio.

A generalized mixed effects regression was conducted to determine whether empathic concern and perspective taking predicted the prosocial to antisocial ratio differently for the different Target Types. Results indicated that with all three variables in the model, target type (F = 151.470, p < .001) was a significant predictor of motivation ratio, but empathic concern (F = 1.379, p = .241) and perspective taking (F = .143, p = .705) were not. Empathic concern and perspective taking did not predict the motivation ratio differently for the different target types. Again, this result must be interpreted with caution, as the IRI subscales did not correlate with antisocial motivations to empathize, and antisocial motivations to empathize were included in the calculation of motivation ratio.

Psychopathic Personality Inventory – Revised (PPI-R).

A central research question for this phase of the thesis asks whether or not those with heightened psychopathic traits might be equally or more concerned with the thoughts and

feelings of others. It was hypothesized that equal or greater total motivation scores would be the result of heightened antisocial motivations but reduced prosocial motivations. Results showed that psychopathic traits indeed correlated positively with total motivation to empathize ($r = .263$, $p < .005$). While it seems contrary to the literature (i.e. that higher psychopathic traits would be associated with an increased motivation to empathize), a consideration of the motivation types individually elucidated the nature of this relationship. As hypothesized, psychopathic traits correlated positively with antisocial motivations to empathize ($r = .428$, $p < .001$). Alternatively, psychopathic traits were not significantly correlated with prosocial motivations to empathize ($r = -.103$, $p = .257$). The finding that psychopathic traits are uncorrelated with prosocial motivations suggests that it is perhaps the heightened antisocial motivations – and not a lack of prosocial motivations – that leads to the overall antisocial characterization of those with psychopathic traits.

Table 5

Pearson Correlations Among IRI Subscales, PPI-R Subscales, and Mean Motivations

Measure	1	2	3	4	5
1. Prosocial Motivation	---				
2. Antisocial Motivation	.130	---			
3. Empathic Concern	.336**	-.106	---		
4. Perspective Taking	.274**	-.068	.355**	---	
5. PPI-R Total Score	-.103	.428**	-.412**	-.152	---

Note. * indicates significance at the .05 level; ** indicates significance at the .005 level

With psychopathic traits as a whole only significantly correlated with the antisocial motivation type, the correlation between psychopathic traits and the motivation ratio score was expected (r = -.424, $p < .001$). Higher scores for psychopathic traits predicted less prosociality of participants' motivations. A linear mixed effects model was conducted to determine whether psychopathic traits predicted the prosocial to antisocial ratio differently for the different Target Types. Ratio score was significantly predicted by target type (F = 26.745, $p < .001$), PPI scores (F = 73.739, $p < .001$), and an interaction between target type and PPI scores (12.144, $p < .001$). Higher PPI scores predicted lower ratio scores ($t = -2.452$, $p = .016$), indicating that those with more psychopathic traits tended to report less prosocial motivations compared to antisocial motivations overall. Importantly, though, this effect significantly differed by target type. Higher PPI scores predicted lower ratio scores for ingroup targets than for outgroup targets ($t = -4.747$, $p < .001$), and lower ratio scores for neutral targets than for outgroup targets ($t = -2.595$, $p < .010$). This means that individuals higher in psychopathic traits reported a lower proportion of prosocial motivations (i.e. less of a prosocial bias) as Target Type moved from outgroup targets to neutral group targets to ingroup targets. Those with higher psychopathic traits do not appear to demonstrate the prosociality preference for ingroup targets that was generally seen across the sample.

Discussion

Considering that researchers are in constant flux regarding the establishment of a precise definition of empathy (Songhorian, 2015; Coplan, 2011; Kunyk & Olsen, 2001) and have excluded the possibility that empathic concern might be antisocially motivated in some circumstances, the exploration of empathic concern and antisociality has been limited. The present thesis ventured to revisit the field's more original interpretations of the construct,

whereby “one need not truly care about another person in order to empathize” (Chismar, 1988). This approach holds the potential to clarify why some of these inconsistencies are presented in the literature simply by recognizing that motivations for empathic concern beyond just prosociality may be present.

Phase 1

Two important confirmations were demonstrated in Phase 1 to indicate that the Empathic Concern Motivation Scale was measuring motivations in the way it was intended. First, I verified via confirmatory factor analysis that the target list could be sectioned into ingroup, neutral group, and outgroup targets. Second, I confirmed that there were two latent structures among the motivations to empathize: prosocial motivations and antisocial motivations. Altogether, this scale validly measured participants’ motivations across two valences (prosocial and antisocial) across three target types (ingroup, neutral group, and outgroup).

The findings from Phase 1 lend support for the theory that empathic concern may be prosocially *or* antisocially motivated. Participants reported a concern for the thoughts and feelings of others because of a concern for the well-being of the target, because of a want to protect the target, and because it affects the participant to see the target in pain. Such motivations are in line with the notion that empathic concern is prosocially motivated. What this newly developed scale quantified for the first time, was that participants can often be antisocially motivated as well. They reported a concern for the thoughts and emotions of others because they could use that knowledge to manipulate the target and to gather information that could be used against the target in the future, and because that knowledge could be used for personal gain. People tended to be more prosocially concerned with the thoughts and feelings of others compared to antisocially motivated, but the finding that empathic concern is frequently

antisocially motivated supports that assumption that empathy is solely prosocial may be unfounded.

It should be noted, however, that the wording of the prosocial and antisocial motivations did differ somewhat. For instance, one might argue that the wording of the prosocial motivations were more affective in nature, pertaining to warm/caring *feelings*, while the antisocial motivations were more cognitive in nature, pertaining to manipulative/self-serving *intentions*. If true, one could argue that the two motivation types were actually more of a measurement of the affective and cognitive components of empathy, respectively, rather than of prosocial/antisocial motivations for empathic concern. While further testing may be required to evaluate this hypothesis, there are at least two ways that the data in the current study suggest that this is not the case. First, there was no correlation between the prosocial and antisocial motivation types, despite a strong correlation between empathic concern and perspective taking measures of the IRI ($r = .355$, $p < .001$). Thus the prosocial and antisocial motivations do not appear related to each other in the same way that empathic concern and perspective taking are. Second, including perspective taking in the model where antisocial motivations were entered as predictors of psychopathic traits did not influence the significance of antisocial motivations as a predictor. Thus, again, it does not appear that the antisocial motivation scores were synonymous with measures of perspective taking.

The next step in the investigation of this measure's validation was to explore what might explain when (or, more specifically, for whom) people are prosocially motivated or antisocially motivated. The results indicated that the target of one's empathic concern was important to describing the nature of the motivation for that concern. People did report prosocial and antisocial motivations, but this frequently depended who the target was (either ingroup, neutral

group, or outgroup). The significant interaction between Target Type and Motivation Type showed that significantly higher prosocial motivations were reported for ingroup and netural group targets, compared to antisocial motivations. For outgroup targets, this pattern was reversed. Participants reported significantly more antisocial motivations for this group. It thus appears that as affiliation with targets becomes less, the chance that antisocial motivations will exceed prosocial motivations increases. The Target Types additionally elicited significant differences in ratio scores, further describing the interaction between Target Type and Motivation Type. The magnitude of the difference between prosocial motivations and antisocial motivations diminished from ingroup to neutral group to outgroup. This indicates a particular preference or bias for prosocial motivations towards the ingroup. In sum, the results point to the importance of asking who the target of one's empathic concern is when determining the prosociality/antisociality of motivations, and when determining the relationship between these motivation types.

Phase 2

Relationship with the Interpersonal Reactivity Index (IRI). Empathic concern and perspective taking contribute uniquely to the prediction of prosocial motivations, with no significant interaction. The regression predicting prosocial to antisocial motivation ratios presented a similar story, where variance in the magnitude of difference between prosocial and antisocial motivations was being predicted by these subscales. Here, though, only empathic concern reached threshold for statistical significance, and perspective taking was only marginally significant. These results make it apparent that these subscales of the IRI – one of the most commonly used empathy measures – is not capturing the same elements of empathic concern as is captured by the ECMS. While empathic concern partially predicts prosocial motivations, and

the magnitude of difference between prosocial and antisocial motivations, it is likely in large part due to the prosocial conceptual framework within which the empathic concern subscale was created.

Relationship with Psychopathy. This study has demonstrated a motivation for empathic concern among those with psychopathic traits. Exploring the relationship between empathic motivations and psychopathy can serve as an example for how considering the valence of people's motivations more thoroughly explains their concern for the thoughts and feelings of others. In contrast to the extant literature, but in line with the hypotheses of the current studies, those with psychopathic traits actually exhibited *higher* motivation for empathic concern. This anomaly makes more theoretical sense when the prosociality and antisociality of motivations is considered, because they only scored significantly higher than the other participants on antisocial motivations. This result would have been perplexing and seemingly contradictory to the general understanding of psychopathy – how could psychopathic people not differ in their motivations for empathic concern? – had we not had a measure that considered *antisocial* motivations for concern.

Interestingly, there was not a significant zero-order correlation between psychopathic traits and prosocial motivations to empathize. I had expected a negative correlation between these two variables because of the inherent antisociality of psychopathic populations. The lack of correlation between psychopathic traits and prosocial motivations to empathize is, however, in line with the finding that antisocial and prosocial motivations themselves were not correlated. This result indicates that the increased antisociality of those with psychopathic traits does not necessitate reduced prosociality – at least insofar as the motivations measured in the ECMS. Overall, the relationships between prosocial motivations, antisocial motivations, and

psychopathic traits could support a different approach to investigating empathic concern and psychopathy. Rather than focusing on characterizing their empathic concern deficiency, perhaps it would be most informative to characterize the antisociality versus prosociality of their motivations for empathic concern.

General Discussion

This study directly measured what people report as motivations for empathic concern. Preliminary evidence for the presence of prosocial *and* antisocial motivations for empathic concern, and evidence to support the importance of considering the target of one's concern, were presented. Before now, research had not viewed empathic concern from the perspective of potential antisociality, though some research had begun to quantify similar constructs from this same lens. For example, Salovey and Mayer (1990) proposed that emotional skills could be used antisocially, such as for manipulation or to sociopathically lead others to unfortunate ends. More specifically, De Raad (2005) lamented that emotional intelligence (of which empathy is a central component) as manipulative or antisocial is a highly neglected area of study. Limited work in the field of emotional intelligence has made similar propositions. Austin and colleagues (2006), for instance, suggested that emotional intelligence is placed under the umbrella of positive psychology because of the bountiful evidence to support its role in increased happiness, life satisfaction, psychological health, and social network size and quality, as well as reduced stress, depression, and loneliness. However, it has also been suggested that the value or outcome of emotional intelligence greatly depends on the prosocial or antisocial moral end which it serves (Carr, 2000). It is hard to distinguish emotional intelligence from emotional cleverness or cunning (Carr, 2000), particularly when there are instances when one may be antisocially motivated to concern himself with the thoughts or feelings of another person. The findings from

the Phase 1 contributed to this growing body of work that has stated to analyze the antisocial side of the social skills coin.

Removing ourselves from the unfounded assumption that empathy is prosocial is arguably the step back that the field has been calling for with the conceptualization of empathy. For example, Vachon and Lynam (2016) suggested that the reason why empathy and aggression are "virtually unrelated" is because "current conceptualizations of empathy are too narrow and fail to capture the full range of the construct." This is addressed by the current line of work through simply asking people what motivates them to be concerned with the thoughts and feelings of others. If results had suggested that individuals were only, as some might have predicted, prosocially motivated to empathize, then a consideration of antisocial motivations would not have improved our ability to capture the full range of the empathy construct. Importantly, though, people report a combination of both types of motivation. This reconsideration of the construct might help to explain some inconsistencies in the field, and it begins to address the long lamented confusion regarding the conceptualization of empathy.

It is of note that the current work should differentially influence the constructs of empathic concern specifically, and empathy as a whole. The influence of the current work speaks most directly to the construct of empathic concern. This component of empathy has nearly always been presented through a positive, prosocial frame of view, but the current findings suggest that the construct may require reconsideration. While still largely so, the broader concept of empathy has not been *as* constrained to a prosocial light as the empathic concern component, perhaps due in part to the perspective taking component that has not been limited to a prosocial or antisocial lens. Nonetheless, the construct as a whole retains its prosocial lilt because of the restricted view of the empathic concern component. Widening the breadth of the empathic

concern component should therefore have a similar effect on the empathy construct as a whole as it does on the empathic concern component specifically, which is to allow for the consideration of more than just prosocial motivations. The current work therefore has specific implications to modify the field's current approach to empathic concern, and consequently may broaden the way we view the empathy construct as a whole.

Limitations & Future Directions

A limitation of both Phase 1 and Phase 2 is with regards to generalizability. The sample was collected from university students who were enrolled in a psychology class, which limits our ability to make claims about the general population. The results would benefit from a larger clinical sample, or at least a more diverse community sample. Another limitation of the study was sample size. While large enough to have the power for many statistical tests, the sample size was inadequate for Phase 1's factor analyses due to the high number of items entered (40 items). Following the general rule of 10 participants per item, we should have had a minimum of 400 participants to reliably conduct this test. The results of the current study should therefore be interpreted as preliminary evidence, to be followed up by replication with a larger and more generalizable sample. Replications could also consider a broader sample pool, to include a more general sample than only university students.

This study was only preliminary with regards to other factors as well. Phase 2 aimed to situate the Empathic Concern Motivations Scale among other relevant measures of empathy and personality, but only two measures were collected for this purpose. Considering at least the multitude of available empathic concern measures, conclusions should be drawn cautiously until further investigation explores the relationship of the scale with other established measures. Furthermore, Phase 2 concluded that the IRI was not adept at capturing the motivations of

empathic concern, but it may be the case that other, less commonly used measures of empathy and empathic concern are able to capture this motivation. Future work and replications of the study may wish to include a wider range of empathy and personality measures to most fully describe this new scale.

Next, Target Type was one way that this study considered external factors that contribute to empathic concern. Criticism of the current work's ingroup, neutral group, and outgroup labels may arise as a result of the loose use of this social psychological terminology. There was not a specific classification system used to categorize targets into each of these groups, such as race (Greenwald & Pettigrew, 2014), gender (Halim et al., 2017), or random ingroup assignment (Otten, 2016), as there often is in intergroup research. Rather, targets were placed under each label according to the extent to which they would have features typical to that group. There are various features that could result in a target being classified as ingroup targets, rather than just one. For example, "ingroup-like" features might include greater similarity (Batson, Lishner, Cook, & Sawyer, 2005), closeness (Dorrough et al., 2015), familiarity (Zebrowitz et al., 2008), likability, or a sense of "we-ness" (Dovidio, 2000). The ingroup targets were also assigned to that label if they possessed particular favourable qualities, while the outgroup targets frequently possessed unfavourable qualities. Neutral targets could possess both or neither favourable or unfavourable qualities. Future iterations of the scale may consider different labels for the Target Types, perhaps "liked" versus "disliked" targets. The present study, however, did not measure likeability specifically, and closeness was not the entire basis upon which the intergroup differences were based. Therefore, this study should not seek to label the Target Types by closeness or likeability, and retains a more general interpretation of social psychological ingroup and outgroup labels.

The ECMS's measure of closeness was notably vague, as participants were simply asked how close they were to each target. This measure should be explored more precisely in next iterations of the scale. While it was an important factor in the study's current results, its precise meaning and interpretation may have been left too much in the hands of participants. The literature does identify different types of closeness – based on features such as similarity, biological relatedness, or emotions – that indicate differences even between different types of ingroups (i.e. family versus relatives versus friends; Uleman et al., 2000). Use of a general, undefined closeness measure, such as the one used in the current study, has been associated most strongly with the emotional closeness type (Uleman et al., 2000), and so it is most likely that participants interpreted the general closeness question in that manner. Nonetheless, this hypothesis should be tested using more specific and direct closeness questions as the ECMS continues to develop. This will allow for a more precise interpretation of participants' responses regarding closeness.

Beyond Target type and Closeness, further research should explore other factors that are known associates of empathic concern to determine how they might contribute to the nature of people's motivations to empathize. For example, Batson and colleagues (2007) investigated how valuing the welfare of someone in need played a significant antecedent role in empathic concern. It is possible that this, and other situational attributions, impact motivations for empathic concern beyond the consideration of the target's ingroup or outgroup classification.

It is also interesting to consider the results of the current research within the context of other motivation classification schemes (i.e. other than prosocial versus antisocial). For instance, motivations can be classified as approach motives or avoidance motives, driving people to engage in more or less of a behaviour. Weisz & Zaki (2018) define empathic motives as goal-

directed, internal forces that drive people toward or away from empathy. Avoidance motives occur if the engagement in empathy will lead to costly helping, if it will be exhausting, or if it interferes with a personal (Weisz & Zaki, 2018). With a specific focus on approach motivations, the present line of research proposes a broader consideration of what might constitute an approach motivation for empathy. Future research may wish to investigate prosocial versus antisocial avoidance motivations as an extension of the current work. Additionally, it may be a worthy venture to explore motivations for empathic concern beyond just prosocial and antisocial. There are conceivably instances where people are not *antisocially* motivated, per se, but are motivated by a particular selfish interest to concern themselves with another person's thoughts or feelings. In a game of Poker, for example, it is in one's own best interest - and not the best interest of the target – to concern oneself with the thoughts and feelings of an opponent. This is arguably a self-interested motivation, rather than necessarily an antisocial one.

Finally, how motivations to empathize translate to behaviour may be the most important directions for further research of this area. Since motivations or intentions are not always indicative or predictive of future behaviour (Bagozzi, 1992), we should look into how well motivations for empathic concern actually lead to different behaviours.

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APPENDIX 1 – Empathic Concern Motivation Scale

ID #

Below you are going to see a list of titles for people you know. For each title, think of one person. We will ask you to indicate how well you know that person, and how you would care to know about what that person is thinking or feeling at any given moment. If an option does not apply to you (for example, you do not have a brother), then please leave that section blank. If an option applies to you more than once (for example, you have more than one brother), you will have to choose just one person to complete the section about.

1 = Not at all
7 = Very much so

	I would care to know about what the following people are thinking or feeling…						
	…because I may be able to manipulate them to get my way	…because it's wise to get information that you can use against people later on	…because of what I can get from them	…because I have tender concerned feelings for them	…because I want to protect them	…because it affects me greatly to see them in pain	How close are you to this person?
Mother	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Father	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Sibling	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Best Friend	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Distant Friend	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Grand-parent	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Aunt	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Uncle	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Cousin	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Niece	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Nephew	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Teacher	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Bus driver	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7

	I would care to know about what the following people are thinking or feeling…						
	…because I may be able to manipulate them to get my way	…because it's wise to get information that you can use against people later on	…because of what I can get from them	…because I have tender concerned feelings for them	…because I want to protect them	…because it affects me greatly to see them in pain	How close are you to this person?
Co-Worker that you do get along with	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Beggar you see on the street	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Doctor	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Janitor at your school	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Boss	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Favourite Grocery Cashier	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Fellow Student	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Teammate	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Passenger on public transit that you just met	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Someone you are jealous of	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Someone you dislike	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Someone you respect	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7

	I would care to know about what the following people are thinking or feeling…						
	…because I may be able to manipulate them to get my way	…because it's wise to get information that you can use against people later on	…because of what I can get from them	…because I have tender concerned feelings for them	…because I want to protect them	…because it affects me greatly to see them in pain	How close are you to this person?
Someone you hate	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Someone who took advantage of you	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Someone who was rude to your best friend	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Your opponent in a strategy board game	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
A bully in the school yard	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Hitler	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Someone who hurt your mother	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
A grumpy customer	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Someone who won't pay you back	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
An arrogant business person	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7

	I would care to know about what the following people are thinking or feeling…						
	…because I may be able to manipulate them to get my way	…because it's wise to get information that you can use against people later on	…because of what I can get from them	…because I have tender concerned feelings for them	…because I want to protect them	…because it affects me greatly to see them in pain	How close are you to this person?
A psychopath	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
A thief who stole to feed his family	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
A burglar	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Rapist	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Restaurant server	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Oprah	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Donald Trump	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Bill Gates	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
A child you don't know throwing a temper tantrum	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Someone crying on the street	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7

APPENDIX 2: Target Factor Analysis – Factor Loadings

Title.						
	Prosocial Motivations			Antisocial Motivations		
Target	Factor 1	Factor 2	Factor 3	Factor 1	Factor 2	Factor 3
Mother	.065	.082	.701	.844	.093	.118
Father	.188	.071	.595	.840	.161	.041
Sibling	.200	-.040	.604	.807	.281	-.021
Best Friend	.211	.071	.700	.829	.240	-.006
Distant Friend	.175	.002	.665	.743	.364	.001
Grandparent	.050	.099	.766	.692	-.003	.169
Aunt	.187	.046	.840	.782	.166	.250
Uncle	.188	.053	.856	.794	.246	.188
Cousin	.213	.083	.802	.812	.249	.187
Teacher	.596	.021	.497	.656	.477	.130
Bus Driver	.470	.113	.421	.515	.460	.321
Coworker you get along with	.591	.017	.500	.735	.499	.001
Beggar on the street	.650	.032	.235	.547	-.049	.451
Doctor	.787	.204	.268	.749	.211	.324

Janitor at school	.805	.295	.155	.635	.211	.428
Boss	.611	.150	.408	.705	.583	-.044
Favourite Grocery Cashier	.776	.209	.213	.710	.276	.274
Fellow Student	.711	.184	.284	.724	.507	-.038
Teammate	.614	.124	.462	.798	.299	.089
Passenger on Public Transit	.760	.319	.106	.574	.028	.450
Someone you are jealous of	.604	.508	.043	.470	.687	-.037
Someone you dislike	.611	.498	.124	.365	.702	-.035
Someone you respect	.528	.003	.165	.813	.004	.102
Someone you hate	.243	.828	.068	.210	.858	.050
Someone who took	.123	.735	.033	.120	.809	.052

advantage of you						
Someone rude to your best friend	.210	.881	.009	.191	.778	.191
Your opponent in a strategy game	.607	.307	.104	.372	.721	-.047
Bully	.332	.737	-.011	.161	.829	.257
Hitler	-.009	.881	.069	-.086	.623	.395
Someone who hurt your mother	.077	.597	-.094	-.008	.662	.290
Grumpy Customer	.523	.572	-.038	.273	.781	.236
Someone who won’t pay you back	.110	.735	.097	.291	.812	.211
Arrogant business person	.227	.737	.122	.274	.820	.142

Psychopath	.387	.347	.141	.104	.637	.540
A thief who stole to feed his family	.469	.084	.189	.268	.295	.687
Burglar	.087	.731	.121	.099	.620	.661
Rapist	-.102	.695	.162	-.023	.605	.583
Restaurant Server	.889	.072	-.016	.637	.441	.315
Oprah	.704	-.104	.077	.412	.617	.051
Donald Trump	.613	.009	.072	.135	.794	.167
Bill Gates	.649	.285	.015	.438	.658	.141
Child you don’t know throwing a tantrum	.574	.190	.259	.255	.393	.487
Someone crying on the street	.639	.124	.282	.460	.029	.539