Some Personality Predictors of Tolerance to Human Diversity: The Roles of Openness, Agreeableness, and Empathy

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The aim of this study was to determine the most salient predictors of tolerance to human diversity. A total of 118 individuals (M = 32.93 years, standard deviation = 13.80) responded to dilemma-like stories involving holding prejudicial beliefs (beliefs), talking about them (speech) and acting on them (acts). Participants also completed the openness and agreeableness scales from the Big Five Inventory and the Interpersonal Reactivity Index. Differences in tolerance judgements were found to be related to differences in personality characteristics. Results showed that openness and agreeableness were predictors of tolerance in the belief dimension, whereas the most salient predictor of tolerance in the speech and act dimensions was empathic concern, which also mediated the relationships between agreeableness and tolerance for these dimensions. These findings are not unexpected because holding intolerant beliefs is inconsistent with having an open mind, and intolerant speech and actions are inconsistent with pro-social behaviour, of which tolerance is arguably one form.

Key words: empathy; personality; pro-social behaviour; tolerance.

While prejudice “reflects an unfavourable judgement towards a particular group” and discrimination “involves behaving differently, usually unfairly, toward the members of a group” (Robinson, Witenberg, & Sanson, 2001, p. 75), tolerance is more difficult to define. It has been characterised in many ways ranging from forbearance or bare toleration to the full or wholehearted acceptance of others who are different (Oberdiek, 2001; Robinson et al., 2001). In contrast to prejudice, tolerance can be grounded in theories of morality and pro-social behaviour in line with contemporary philosophical and psychological arguments (Hoffman, 2000; Walzer, 1997), which allows for a positive approach to examining intergroup relations (Bandura, 1986; Blum, 1999; Vogt, 1997; Witenberg, 2002, 2007). Linking tolerance with pro-social behaviour, equality, respect, and acceptance allows for the coexistence of conflicting claims of beliefs, values, and ideas as long as they fit within schemes of pro-social norms and moral values (Dusche, 2002). In placing tolerance within the moral and pro-social domains pertaining to empathy, caring, equality, justice, respect, and avoiding harm to others, it should be viewed as positive in nature. (For a more detailed account of definitional issues around tolerance, see Blum, 1999; Robinson et al., 2001; Vogt, 1997; Witenberg, 2007 and philosophical writings, including Oberdiek, 2001; Walzer, 1997.) For the purpose of this research, tolerance was defined as “the conscious affirmation of favourable judgments and belief-involving principles of justice, equality, care and consideration.
for the plight of others” (Witenberg, 2007, p. 435). It grounds tolerance within the moral and pro-social domains and involves an active and reflective agent.

Research with children, adolescents, and young adults has revealed that tolerance judgements are made following a reflective process and that tolerance is not a single global construct but rather is context-dependent and multidimensional (Waintryb, Shaw, & Maianu, 2001; Witenberg, 2002, 2007). That is, people are neither simply globally tolerant nor intolerant, rather they are selective about what they will and will not tolerate and about the circumstances in which they are prepared to be tolerant (Waintryb, Shaw, & Maianu, 1998). Tolerance is multifaceted in nature and comprises both tolerant attitudes/beliefs and behavioural practices/actions towards those who are perceived to be different (Oberdiek, 2001; Witenberg, 2004). Recent studies about tolerance to racial or ethnic characteristics found that children, adolescents, and young adults expressed a high level of tolerance overall; however, their tolerance judgements were dependent on the specific behavioural dimensions they were asked to consider (Thomas & Witenberg, 2004; Witenberg, 2002, 2007; Witenberg & Cinamon, 2006). These dimensions were holding intolerant beliefs (beliefs), speaking about them (speech), and acting on them (acts). The findings showed that respondents more often rejected engaging in discriminatory acts in contrast to holding prejudicial beliefs or speaking about them. Notwithstanding, Witenberg (2002) also found that some individuals were consistently tolerant irrespective of the circumstances in which they were asked to make judgements about tolerance. However, this did not necessarily indicate that they were globally tolerant in other areas where tolerance is required such as sexual orientation. Nevertheless, what differentiates such individuals from those who are less tolerant or intolerant is an important question for tolerance research.

In spite of the different psychological constructs, where pro-social development focuses on change and personality on stability, it would be surprising if the kind of beliefs people hold and how they behave and interact with others and society would not be related to personality traits. A plausible assumption is that individual difference characteristics, such as personality traits, may dispose individuals to be more or less tolerant towards others who are different. However, while positive emotions such as empathy have been linked with tolerance (Vogt, 1997; Witenberg, 2002, 2007), research about the effects of personality traits is generally lacking. Therefore, the main objective of this study was to examine the relationships among tolerance, personality traits, and dispositional empathy to better understand why some people are more tolerant to human diversity than others.

Personality traits are considered relatively stable internal dispositions commonly defined as enduring patterns of thoughts, feelings, and behaviours that characterise a person and distinguish him or her from others (McCrae & Costa, 1999). No study to date could be found that examined the relationship between personality traits and tolerance in its own right; however, a large volume of research has examined the relationship between personality variables and prejudice. Relevant to this research is contemporary prejudice research (e.g., Sibley & Duckitt, 2008), which has examined the relationship between prejudice and higher order personality trait dimensions, such as the widely accepted Five Factor Model (FFM) of personality. The FFM organises a myriad of specific traits in terms of five broad personality factors: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience (John & Srivastava, 1999). Openness to experience (openness) and agreeableness have been the focus of recent research about prejudice (Ekehammar & Akrami, 2003; Flynn, 2005), and both factors are relevant to the present study.

Openness is “a fundamental way of approaching the world that affects not only internal experience but also interpersonal interactions and social behaviour” (McCrae, 1996, p. 323). Openness represents the tendency to be intellectual, flexible, and broad-minded, and involves divergent thinking and unconventional attitudes. Furthermore, openness represents the need to examine different experiences and is distinguished from its polar opposite closedness to experience or closed mindedness (John & Srivastava, 1999; McCrae, 1996). Closed-minded individuals prefer the traditional and routine (John & Srivastava, 1999) and may tend to differentiate between in-groups and out-groups (McCrae & Costa, 1997). Vogt (1997) suggests that being open-minded to diverse experiences could be a close relative, “perhaps even a parent” of tolerance (p. 148). It is reasonable therefore to assume that openness will be related to tolerance but particularly to the belief dimension as holding beliefs is essentially a cognitive process (Vogt, 1997; Witenberg, 2007) whereas speaking about such beliefs and acting on them are more overt behaviours, which we argue will be more closely related to agreeableness.

Agreeableness is the personality trait responsible for communal and pro-social behaviour, or behaviour that benefits others. Agreeableness represents the tendency to be altruistic, tender-minded, cooperative, trusting, forgiving, warm, helpful, and sympathetic (Graziano & Eisenberg, 1997; John & Srivastava, 1999), reflecting some of the essential characteristics not only of a pro-social individual but also of a moral one (Hoffman, 2000). Witenberg (2002) argues that tolerance can be viewed as pro-social in nature, so it is highly likely that agreeableness plays a significant role when relating to individuals whose cultural background may differ from one’s own. Plausibly, a pro-social trait would be negatively related to racial intolerance.

Agreeableness has been found to correlate negatively with various forms of prejudice as has openness (Ekehammar & Akrami, 2003; Flynn, 2005). Yet little is known about what influence these personality traits could have on tolerance to human diversity. Clearly, both traits represent intrapsychic processes that act on both interpersonal as well as intergroup relationships and therefore cannot be ignored when examining factors influencing tolerance.

Dispositional empathy, broadly defined, “refers to the reactions of one individual to the observed experiences of another” (Davis, 1983b, p. 113). There is now widespread agreement among empathy researchers that empathy is not a single construct but rather a multidimensional construct consisting of both cognitive and affective components (Davis, 1983a, 1983b; Finlay & Stephan, 2000). Davis’ (1983b) Interpersonal Reactivity Index (IRI) consists of four discrete, yet interrelated, subscales that measure a specific facet of dispositional empathy. Specifically, the perspective-taking subscale measures an individual’s capacity to...
consider the point of view of others. Further, of the four subscales it is the one which is most related to cognitive empathy (Davis, 1983a). Conversely, the remaining three subscales are more related to affective empathy. Particularly, the empathic concern subscale assesses an individual’s capacity to emotionally feel warmth, sympathy, and concern for others, whereas the personal distress subscale measures self-oriented feelings of personal unease in reaction to the emotions of others (Davis, 1983a).

Arguably, perspective-taking, empathic concern, and personal distress could influence tolerance.

Although not part of the FFM, empathy is considered to be a relatively stable personality characteristic related to agreeableness (Graziano & Eisenberg, 1997). Indeed, a recent study found that agreeableness obtained a high positive correlation with empathic concern, a moderate one with perspective-taking and a modest one with personal distress (Moordadian, Davis, & Matzler, 2011). Empathy is also an important factor in pro-social behaviour (Eisenberg, Carlo, Murphy, & Van Court, 1995) and essential to moral engagement. Hoffman (2000) argues that empathy is the motivator for pro-social and altruistic behaviour, and both are implicated in moral development and behaviour. Thus, empathy could also have a significant influence on tolerance.

Studies have demonstrated that empathy, either dispositional or situationally induced, positively affects attitudes and behaviour towards others (Batson, Chang, Orr, & Rowland, 2002; Cowan & Khatchadourian, 2003; Finlay & Stephan, 2000). In work on social dominance orientation (SDO), Pratto, Sidanius, Stallworth, and Malle (1994) found that all IRI subscales correlated negatively with SDO, with empathic concern having the strongest negative correlations with SDO. Pratto et al. concluded that empathic concern “is the form of empathy that precludes the desire to dominate other groups” (p. 752). An Australian study found that lower levels of empathy and education as well as older age were associated with prejudice towards Indigenous Australians (Pedersen, Beven, Walker, & Griffiths, 2004). To date, no study could be located that examined the relationship between empathy and tolerance in its own right. However, Witenberg’s (2007) study on the conceptualisation of tolerance examining beliefs and justifications for tolerance judgements found that participants appealed to empathy as frequently as fairness. The implication is that participants considered how it would feel to be treated badly by others. This finding does point to a possible relationship between tolerance and empathy and particularly the speech and act dimensions.

Using similar methodology to Witenberg (2002, 2004, 2007), the major aim of the present study was to examine whether the personality traits of openness and agreeableness as well as dispositional empathy characteristics were related to tolerance judgements and to identify the most salient predictors of tolerance. In addition, this study also assessed the influence of age and gender on tolerance in an adult population.

Method
Participants

The sample comprised 118 participants, with 46 men (M = 36.06 years, standard deviation (SD) = 14.32) and 72 women (M = 30.92 years, SD = 13.16) aged between 19 and 50 (M = 32.93 years, SD = 13.80) recruited in Melbourne, Victoria both from an urban university (n = 58) and from the wider community (n = 60). Of the total sample, 65% of participants had not completed a university diploma or degree, whereas 35% of participants were university educated. The sample represented a cross-section of the cultural diversity present in Australian society as approximately 52% of participants had parents born in Australia or New Zealand, 22% in Europe, 13% in the Middle East, 7% in Asia, 2% in Africa, and 2% in the Americas.

Measures

Tolerance to human diversity

The stimuli to assess tolerance consisted of three short dilemma-like stories depicting a form of tolerance and intolerance to human diversity relevant to the Australian setting. The stories were based on recent media reports, current debate, and content from real-life cases reported to the Human Rights and Equal Opportunity Commission (2006) and were similar to previous stories used by Witenberg (2002, 2007) and Witenberg and Cinnamon (2006). Each story or situational context described the behaviours of two protagonists, one who displayed intolerant behaviours and one who did not display intolerant behaviours. The two protagonists with opposing viewpoints were used to minimise social desirability bias, and each story could be resolved using either tolerant or intolerant views. The gender of the protagonists was deliberately unspecified so as to prevent any confounding effects. One story focused on a person willing to deny young people from Asian backgrounds entry into a club because they sell drugs and do not belong in Australia. The second story focused on a person wanting to prevent people from Middle Eastern backgrounds from entering Australia because such people are dangerous and should not be allowed into Australia. The final story concerned an employer who would not hire young people from Aboriginal backgrounds because such people are lazy and prefer to take government handouts.

To explore the behavioural dimensions of tolerance, each story was presented three times: holding prejudicial beliefs (beliefs), voicing these beliefs to others (speech), and acting on these beliefs (acts). To illustrate, the following example is from the Asian context story:

Belief: I know a person who believes that you shouldn’t allow young people from an Asian background into clubs because young people from Asian backgrounds sell drugs and don’t belong in Australia. I know another person who does not believe that young people from Asian backgrounds sell drugs and don’t belong in Australia.

Speech: This person I was telling you about tells all the other people in the club not to let young people from Asian backgrounds into the club, because young people from Asian backgrounds sell drugs and don’t belong in Australia.

Act: Whenever this person has a chance, this person does everything they can to ensure that young people from Asian backgrounds are not
let into the club because young people from Asian backgrounds sell drugs and don’t belong in Australia.

Succeeding each presentation, the following four questions were asked to measure participants’ tolerant or intolerant judgements:

• Do you think it is all right or not all right for this person to believe in/tell others/act on disallowing young people from Asian backgrounds into the club because they sell drugs and do not belong in Australia; disallowing people from Middle Eastern backgrounds into Australia because such people are dangerous and should not be let into Australia; not employing young people from Aboriginal backgrounds because such people are lazy and prefer to take government handouts?

• Can you explain why?

• What do you actually think about such beliefs/saying such things/such acts?

• If I told you that I thought the exact opposite to you, how would you explain to me that my choice is wrong?

Data coding and reliability

Responses for each story or situational context as well as for each behaviour across the three stories (e.g., the speech dimension across all three stories) were assessed using a 4-point rating scale, which was developed over a series of pilot studies and used in previous research (Witenberg, 2002, 2004, 2007; Witenberg & Cinamon, 2006). The 4-point rating scale was developed to capture levels of tolerance within stories and across behaviours rather than score responses as simply tolerant/intolerant as in some survey research. In the first instance, a response was categorised dichotomously as either tolerant or intolerant on the basis of each participant’s affirmation or disaffirmation of tolerance when responding to question 1 for each story covering the three behaviours of beliefs, speech, and acts within the story. For example, affirmation of tolerance included responses such as “It’s not OK to believe such a thing,” “It’s wrong to stop them,” or “It’s not all right at all,” whereas disaffirmation included such comments as “It’s OK, I have no problem with it” or “It’s fine with me. He can say what he wants.”

Second, responses to questions 2 and 3 enabled assessment of confirming the tolerant stand in line with the definition proposed for the research. Tolerant responses were coded as representing “considered tolerance” when participants who had affirmed tolerance in question 1 as described earlier supported their tolerant judgements by appealing to one or more of the following categories established in previous research: fairness/equality, empathy, and reasonableness (Witenberg, 2002, 2007). Fundamental beliefs about equality and fairness were reflected in such responses as “It is wrong,” “It’s not fair,” “We are all equal, and “We are all alike.” Essentially, “We should all be treated fairly and equally” represented this category. Beliefs about empathy were reflected in responses such as “I would ask you, how you would feel if you were an Asian person and not allowed to go to a club?” Reasoned thinking was reflected in such responses as “Stopping Aboriginal from living in your street is stupid. How could you possibly think that way?” Inter-rater reliability for the classification of these beliefs was established through agreement with a second rater who coded 25% of the responses from the total set. Inter-rater agreement was found to be 0.80.

Next, the dichotomous responses of tolerance or intolerance were entered into a scoring matrix. An example of such a matrix is presented in Figure 1.

The level of tolerance for both stories and behaviours thus depended on the number of responses that were coded as tolerant or intolerant, as shown in Figure 1. This involved the assignment of a tolerance or intolerance code for each individual story/context (see column score in Figure 1) and for each of the three specific behaviours (e.g., beliefs, speech, and acts) across the three story contexts (see row score in Figure 1).

The assignment of tolerance scores was achieved through the application of the 4-point rating scale. Each participant received a score ranging from one to four for each story/context (column score) and also for each behavioural dimension (row score); thus, participants received six scores overall. A score of “1” represented all intolerant responses; “2” represented one tolerant and two intolerant responses; “3” represented two tolerant and one intolerant response; and “4” represented all tolerant responses. Hence, higher scores indicated higher levels of tolerance. These scores were used for all subsequent analyses. Approximately, 10% of the participant responses were re-coded by a second rater, and inter-rater reliability was found to be 0.96. In past research using this 4-point rating scale, inter-rater reliability was also found to be substantial, ranging between 0.79 and 0.88. In this article, only the results for the behavioural dimensions of beliefs, speech, and acts are reported.

The Big Five Inventory (BFI)

Personality was measured by the BFI, which is a brief 44-item self-report inventory containing trait adjectives that are representative of the FFM (John & Srivastava, 1999). Of interest to the study were the 10-item scale of openness and the 9-item scale of
agreableness. However, to prevent demand characteristics, participants were required to complete the BFI in its entirety. All items are rated on a 5-point Likert-type scale, where 1 = disagree strongly and 5 = agree strongly, and 16 items are reverse-scored. Higher scores indicate higher levels of self-reported agreement for a personality trait. In the current study, the alpha reliabilities of the openness to experience and agreeableness scales were 0.80 and 0.79, respectively, indicating good reliability.

### The Interpersonal Reactivity Index

Dispositional empathy was measured by the IRI (Davis, 1983b). The IRI is a 28-item self-report inventory consisting of four 7-item subscales that assess the cognitive and affective components of dispositional empathy. The IRI subscales are perspective-taking, empathic concern, personal distress, and fantasy. All items are rated on a 5-point Likert-type scale, where 1 = strongly disagree and 5 = strongly agree, and nine items are reverse-scored. For each subscale, the scores can range between 7 and 35, with higher scores indicating higher levels of self-reported empathy. In the current study, the alpha reliabilities for the IRI subscales ranged between 0.76 and 0.81, indicating good reliability. The fantasy scale was not relevant for the purposes of this research.

### Procedure

This study is part of an ongoing project which started in 2007. To avoid cueing the participants, the study was described as a study of the “acceptance of others” rather than as a study of tolerance to those who may be different in terms of cultural, ethnic, or racial characteristics. University students were invited to participate in the study in exchange for some minor course credit. Consenting participants were provided with the study materials and completed their questionnaire booklets in small groups. At the end of the testing, each student was provided with a debriefing letter. The remaining participants were recruited from the general population using a snowball technique. These participants were provided with the study materials to complete usually on their own in the same manner described earlier.

The debriefing letter explained the nature and aims of the study and informed participants that the researchers did not hold nor endorse the negative views contained in the stories.

### Results

The means and standard deviations for age, tolerance dimensions (beliefs, speech, and acts), personality traits, and dispositional empathy subscales are presented in Table 1.

Prior to the correlational analyses, three independent-samples t-tests were performed to assess whether there were any differences on tolerance scores between the university and the community samples. No significant differences emerged on the belief (t(116) = –0.76, p = .446) and speech dimensions (t(116) = 0.68, p = .501). A significant difference was found on the act dimension (t(116) = –2.13, p = .038), indicating that university students (M = 4.00, SD = 0.60) were less accepting of intolerant acts than those in the community sample (M = 3.84, SD = 0.56). Split group analysis showed that the average age of the university students was 22.14 years, whereas the community sample was 44.10 years. Thus, age may explain this finding.

Table 2 presents the intercorrelations among sample characteristics, personality traits, dispositional empathy subscales, and tolerance dimensions.

As shown in Table 2, agreeableness and empathic concern were significant positive correlates of all tolerance dimensions. Perspective-taking did not correlate with tolerance, yet was positively correlated with agreeableness, openness, and empathic concern. Openness was positively correlated with tolerance

### Table 1  Means and Standard Deviations for Age, Tolerance Dimensions, Personality Traits, and Dispositional Empathy Subscales

<table>
<thead>
<tr>
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<th>Total sample (n = 118)</th>
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<tbody>
<tr>
<td></td>
<td>M</td>
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<tr>
<td>Age</td>
<td>32.93</td>
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<tr>
<td>Tolerance: beliefs</td>
<td>3.40</td>
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<td>Tolerance: speech</td>
<td>3.64</td>
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<tr>
<td>Tolerance: acts</td>
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<tr>
<td>Openness</td>
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<tr>
<td>Agreeableness</td>
<td>3.95</td>
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<tr>
<td>Perspective-taking</td>
<td>25.85</td>
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<tr>
<td>Empathic concern</td>
<td>28.13</td>
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<tr>
<td>Personal distress</td>
<td>19.43</td>
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### Table 2  Intercorrelations Between Sample Characteristics, Personality Traits, Dispositional Empathy Subscales, and Tolerance Dimensions

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<td>2. Gender</td>
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<td>3. Openness</td>
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<tr>
<td>4. Agreeableness</td>
<td>0.21*</td>
<td>0.09</td>
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<tr>
<td>5. Perspective-taking</td>
<td>0.03</td>
<td>–0.04</td>
<td>0.23**</td>
<td>0.54***</td>
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<tr>
<td>6. Empathic concern</td>
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<td>0.25**</td>
<td>0.24**</td>
<td>0.48***</td>
<td>0.40***</td>
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<td>7. Personal distress</td>
<td>–0.16</td>
<td>0.27***</td>
<td>–0.20*</td>
<td>–1.4</td>
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<td>–0.04</td>
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<td>8. Tolerance: beliefs</td>
<td>–0.08</td>
<td>0.10</td>
<td>0.18*</td>
<td>0.16</td>
<td>–0.05</td>
<td>0.16*</td>
<td>–0.02</td>
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<tr>
<td>9. Tolerance: speech</td>
<td>0.20</td>
<td>0.25**</td>
<td>0.10</td>
<td>0.28***</td>
<td>0.09</td>
<td>0.38***</td>
<td>–0.02</td>
<td>0.40***</td>
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<td>10. Tolerance: acts</td>
<td>–0.23*</td>
<td>0.24**</td>
<td>0.05</td>
<td>0.20*</td>
<td>0.06</td>
<td>0.31***</td>
<td>–0.03</td>
<td>0.23**</td>
<td>0.45***</td>
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Note: *p < .05, **p < .01, ***p < .001.
Table 3  Hierarchical Regression Results Predicting Tolerance for the Three Dimensions

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<td>$\Delta R^2$</td>
<td>$R^2$</td>
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<tr>
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<td>0.02</td>
<td>0.26**</td>
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<td>Step 2</td>
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<tr>
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<tr>
<td>Gender</td>
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<tr>
<td>Openness</td>
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<tr>
<td>Agreeableness</td>
<td>0.16</td>
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<td>Step 3</td>
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<tr>
<td>Openness</td>
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<td>Agreeableness</td>
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<td>Perspective-taking</td>
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<td>Empathic concern</td>
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<tr>
<td>Personal distress</td>
<td>-0.01</td>
<td>0.05</td>
<td>0.13*</td>
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Note: *p < .05, **p < .01, ***p < .001.

but only in the belief dimension. Personal distress had no correlation with tolerance or with agreeableness, but it was negatively correlated with openness.

To assess the best predictors of the tolerance dimensions, hierarchical regression analyses were conducted. In each analysis, the sample characteristics of age and gender were entered as covariates. In the second step, the personality traits of openness and agreeableness were entered as predictors. In the final step, the dispositional empathy scales were entered as predictors. Table 3 displays the hierarchical regression results for the three tolerance dimensions of beliefs, speech, and acts.

For the belief dimension, the model explained 12.7% (7.1% adjusted) of the variance in tolerance and was found to significantly predict tolerance ($R^2 = 0.13$, $F(7, 110) = 2.29$, $p = .033$). There were no significant predictors of tolerance at either step one or two ($p > .05$). However, at step three, openness ($t(110) = 2.12$, $p = .036$) and agreeableness ($t(110) = 2.34$, $p = .021$) were significant predictors of tolerance. Perspective-taking was also found to be a significant predictor of tolerance but negative in nature ($t(110) = -2.56$, $p = .012$). Inspection of the difference between the zero-order correlation and the beta weight in addition to follow-up analyses lead to identifying perspective-taking as a suppressor variable rather than as a predictor variable (Tabachnick & Fidell, 2001). According to Krus and Wilkinson (1986, p. 21), a “suppressor variable has a zero correlation with the criterion, but nevertheless contributes to the predictive validity of a test battery” through its relationship with other independent variables. Personal distress was not a significant predictor of tolerance ($t(110) = -0.14$, $p = .889$).

For the speech dimension, the model explained 19.3% (14.1% adjusted) of the variance in tolerance and was found to significantly predict tolerance ($R^2 = 0.19$, $F(7, 110) = 3.76$, $p = .001$). While gender was a significant predictor of tolerance at step one ($t(115) = 2.87$, $p = .005$) and at step two ($t(113) = 2.61$, $p = .010$), it was no longer significant at step three when the empathy subscales were entered into the analysis ($t(110) = 1.74$, $p = .085$). Moreover, while agreeableness was a significant predictor of tolerance at step two ($t(113) = 2.67$, $p = .009$), it also was no longer significant at step three ($t(110) = 1.60$, $p = .112$). This was most likely due to the variance accounted for by empathic concern that was found to be the only significant predictor of tolerance in the final model ($t(110) = 2.71$, $p = .008$). Personal distress was not a significant predictor of tolerance ($t(110) = -0.04$, $p = .689$).

To test whether empathic concern mediated the relationship between agreeableness and tolerance in the speech dimension, several linear regression analyses were conducted in line with Baron and Kenny’s (1986) mediation analysis. First, the relationship between agreeableness (predictor variable) and tolerance in the speech dimension (criterion variable) was assessed. The regression was significant ($R^2 = 0.08$, $F(1, 116) = 9.56$, $p = .002$), indicating that agreeableness ($\beta = 0.28$, $t(116) = 3.09$, $p = .002$) was a significant predictor of tolerance in the speech dimension. The second regression analysis examined the relationship between empathic concern (predictor variable) and agreeableness (criterion variable). This regression was also found to be significant ($R^2 = 0.23$, $F(1, 116) = 35.46$, $p < .001$), indicating that empathic concern ($\beta = 0.48$, $t(116) = 5.96$, $p < .001$) was a significant predictor of agreeableness. The third regression assessed the relationship between empathic concern (predictor variable) and tolerance in the speech dimension (criterion variable). The regression was significant ($R^2 = 0.14$, $F(1, 116) = 19.33$, $p < .001$), showing that empathic concern ($\beta = 0.38$, $t(116) = 4.40$, $p < .001$) was a significant predictor of tolerance in the speech dimension. The final test of the mediation model in accordance with Baron and Kenny (1986) was to examine the relationship between the predictor variable (agreeableness) and the criterion variable (tolerance in the speech dimension) when the mediator variable (empathic concern) was included in the model.
concern) was included in the model. Thus, agreeableness and empathic concern were entered as predictors into a forced-entry multiple regression analysis, with tolerance for the speech dimension as the criterion variable. The result was statistically significant ($R^2 = 0.15$, $F(2, 115) = 10.48$, $p < .001$). As expected, empathic concern remained a significant predictor of tolerance in the speech dimension ($\beta = 0.32$, $t(115) = 3.26$, $p = .001$) over and above the influence of agreeableness, which was no longer a significant predictor of tolerance ($\beta = 0.12$, $t(115) = 1.24$, $p = .218$). Additionally, the zero-order correlation between agreeableness and tolerance in the speech dimension of $r = 0.28$ was reduced to a semi-partial correlation of $sr = 0.11$ when the effects of empathic concern were partialled out.

For the act dimension, the model explained 20.8% (15.7% adjusted) of the variance in tolerance and was found to significantly predict tolerance ($R^2 = 0.21$, $F(7, 110) = 4.12$, $p < .001$). Age ($t(110) = -3.13$, $p = .002$) and empathic concern ($t(110) = 2.39$, $p = .019$) were significant predictors of tolerance. However, while empathic concern was a positive predictor of tolerance, age was a negative predictor indicating that younger participants were less likely to accept intolerant acts. Personal distress was not a significant predictor of tolerance ($t(110) = -1.06$, $p = .290$). Again, analogous to the speech dimension, while gender was a significant predictor of tolerance at step one ($t(115) = 2.29$, $p = .024$) and at step two ($t(113) = 2.00$, $p = .048$), it was no longer significant at step three when the empathy subscales were entered into the analysis ($t(110) = 1.36$, $p = .178$). Similarly, while agreeableness was a significant predictor at step two ($t(113) = 2.53$, $p = .013$), it too was no longer a significant predictor at step three ($t(110) = 1.78$, $p = .078$). Again, the possibility is that empathic concern mediated the relationships between tolerance for the act dimension and both gender and agreeableness. However, for the purpose of the current investigation, only the possible mediating effect of empathic concern on agreeableness was tested.

In the first test of the mediation model, the relationship between agreeableness (predictor variable) and tolerance in the act dimension (criterion variable) was assessed by regression analysis. The regression was significant ($R^2 = 0.04$, $F(1, 116) = 4.72$, $p = .032$), showing that agreeableness ($\beta = 0.20$, $t(116) = 2.17$, $p = .032$) was a significant predictor of tolerance in the act dimension. As described in the speech dimension, a regression analysis already revealed that empathic concern was a significant predictor of agreeableness. The next regression assessed the relationship between empathic concern (predictor variable) and tolerance in the act dimension (criterion variable). The regression was significant ($R^2 = 0.09$, $F(1, 116) = 11.89$, $p = .001$), indicating that empathic concern ($\beta = 0.31$, $t(116) = 3.447$, $p = .001$) was a significant predictor of tolerance in the act dimension. The final test of the mediation model was to examine the relationship between the predictor variable (agreeableness) and the criterion variable (tolerance in the act dimension) when the mediator variable (empathic concern) was included in the model (Baron & Kenny, 1986). Thus, agreeableness and empathic concern were entered as predictors into a forced-entry multiple regression analysis, with tolerance in the act dimension as the criterion variable. The result was significant ($R^2 = 0.10$, $F(2, 115) = 6.12$, $p = .003$). As expected, empathic concern remained a significant predictor of tolerance in the act dimension ($\beta = 0.27$, $t(115) = 2.70$, $p = .008$) beyond the influence of agreeableness, which was no longer a significant predictor ($\beta = 0.07$, $t(115) = 0.65$, $p = .518$). Additionally, the zero-order correlation between agreeableness and tolerance in the act dimension of $r = 0.20$ was reduced to a semi-partial correlation of $sr = 0.06$ when the influence of empathic concern was partialled out.

**Discussion**

This research examined the most salient predictors of tolerance to human diversity. Overall, participants expressed a high level of tolerance to others in terms of racial and ethnic characteristics. As the findings showed, openness was a significant positive correlate and predictor of tolerance in the belief dimension. By their very nature, open-minded people are divergent thinkers who possess unconventional attitudes, taking pride in being independent thinkers and seeking out new experiences (McCrae, 1996). Being open to new experiences, such as relating to individuals from different racial, ethnic, and cultural backgrounds, is incongruent with closed mindedness and holding intolerant beliefs or even endorsing them. Holding prejudicial beliefs is in stark contradiction to having an open-minded approach to others who may be different from us, in contrast to closed mindedness where people have a tendency to be more conforming in their reasoning and thinking. Of the three tolerance dimensions of beliefs, speech, and acts, holding specific beliefs about tolerance is perhaps the most closely related to the processes of thinking and reasoning (Witenberg, 2007).

Openness did not have a relationship with either the speech or the act dimensions, which are more overt behaviours. It is plausible that open-minded people are more inclined to endorse freedom of speech and the expression of personal views (John & Srivastava, 1999). Indeed, McCrae (1996) asserts that “Open individuals . . . prefer more open-ended discussions [and] more diversity of opinion. What they find intolerable is not dissent but the attempt to stifle dissent by appeal to authority or dogma” (p. 328). Thus, while open-minded individuals reject the holding of intolerant beliefs, the same individuals may nevertheless accept the public expression of such beliefs but never acting on them. Witenberg (2004) pointed to a conflict in values between tolerance and other human rights, arguing that the major constraint to positive tolerance was not prejudice towards others different from us but beliefs in freedom of speech as a democratic right.

In contrast, agreeableness was significantly and positively correlated with tolerance for all three tolerance dimensions of beliefs, speech, and acts. The overall implication from the findings is that the more agreeable individuals are, the more likely they are to be tolerant towards others who may be different from them. According to personality researchers, agreeable people are pro-social in nature rather than antagonistic (Graziano & Eisenberg, 1997). An individual with a pro-social disposition who is more inclined to promote social harmony would not endorse engaging in harmful and discriminatory speech or acts that violate the rights of others. Characteristics such as being altruistic, compassionate, cooperative, forgiving, helpful, and sympathetic (John & Srivastava, 1999), attributes...
closely related to a pro-social moral person, are incongruent with discrimination and intolerant acts.

Agreeableness was also a predictor of tolerance in the belief dimension indicating that the tendency to be pro-social, compassionate, and cooperative is also inconsistent with holding prejudicial beliefs. Further, agreeableness was a significant predictor of both the speech and the acts dimensions until the empathy subscales were entered into the analysis, suggesting that specifically feeling concern for others may be more important for rejecting intolerant speech and acts than the broader personality dimension of agreeableness. Empathy appears to have a more proximal effect on tolerance, while agreeableness appears to have a distal effect that is mediated by empathic concern. Further research is required to better understand the relationship between agreeableness and empathy on tolerance to human diversity.

Significantly, this study found a positive relationship between dispositional empathy and tolerance. The findings indicated that empathic concern was a more powerful predictor of tolerance than agreeableness in the speech and act dimensions, hence overall the best predictor. Specifically, the results showed that empathic concern, the affective component of dispositional empathy, is a significant factor for tolerance to human diversity. Empathic concern significantly and positively correlated with tolerance in all three dimensions, indicating that the higher the level of dispositional empathic concern, the more likely an individual is to be tolerant to those who may be different.

According to Davis (1983a), dispositionally empathic individuals are sensitive to the thoughts, feelings, and experiences of others. Thus, feeling concern for the welfare of others and identifying with their plight would preclude the desire to voice prejudicial opinions or engage in acts of discrimination towards them. Hoffman (2000) argues that empathy is a motivator of pro-social and altruistic behaviour and is implicated in moral development. The finding that empathic concern predicted tolerance for the speech dimension is consistent with research by Cowan and Khatchadourian (2003), who found that participants with higher levels of empathic concern were more likely to perceive hate speech as harmful. Batson et al. (2002) suggested that empathy is a basis by which prejudice can be reduced. It can also be argued that highly empathic individuals may be predisposed to be tolerant.

However, empathic concern was not a significant predictor of tolerance for the belief dimension. Possibly, some empathic individuals had mixed responses to the holding of intolerant beliefs due to the perception that beliefs are not as harmful as the other overt forms of intolerance. Even pro-social people can feel that others have the right to think what they want (Witenberg, 2007). Indeed, the correlation between empathic concern and tolerance for the belief dimension was lower than the correlations between empathic concern and tolerance for the other two dimensions, indicating a weaker association between empathic concern and the rejection of intolerant beliefs. These results suggest that empathic concern is associated with the rejection of the more overt forms of intolerance, that is, speech and discriminatory acts, which are clearly incongruent with feeling for others’ plight.

Paradoxically, perspective-taking at first appeared to be a negative predictor of tolerance for the belief dimension but was identified as a suppressor variable. The ability to take the perspective of another person is necessary for successful interpersonal relations (Davis, 1983a), and as such, the finding was puzzling. Logically, cognitive empathy, or taking the perspective of another, would result in a decrease rather than an increase in intolerance, and this has been reported in studies where empathy or perspective-taking is situationally induced (e.g., Batson et al., 2002). One explanation for this counter-intuitive finding is that some participants took the perspective of the protagonist displaying the intolerant behaviour due to the way the dilemmas were framed, thereby reducing the correlation between perspective-taking and tolerance. A follow-up study utilising a measure of situational perspective-taking as well as Davis’ (1983b) dispositional measure of perspective-taking could help to clarify this relationship with tolerance. Personal distress was not found to be a correlate or predictor of tolerance. It is possible that self-oriented emotions could prevent a person from identifying with the plight of others.

Overall, the sample characteristics were less salient predictors of tolerance than the individual characteristics. Gender was a significant correlate and predictor of tolerance in particular dimensions, indicating that women held more tolerant views than men. However, gender was no longer a significant predictor of tolerance in any of the dimensions once the empathy subscales were entered into the analyses. This finding is consistent with that of Cowan and Khatchadourian (2003), who found that empathy fully mediated gender differences in the perceived harm of hate speech. It is likely that empathy, rather than gender per se, correlates with tolerance. Further, age was a significant negative correlate and predictor of tolerance in the act dimension, indicating that older adults are more accepting of intolerant practices than younger adults. It is likely that a cohort rather than a maturation effect influenced this finding, consistent with previous research into prejudice (Pedersen et al., 2004).

Clear limitations of this study were both the modest variance that was explained by personality traits and empathy, as well as not measuring education level more in depth to examine its role on tolerance. Future research should consider what other factors could explain the variance in tolerance.

In spite of the limitations, this exploration provides some evidence that broad-based personality dimensions, such as openness and agreeableness, and the more specific dimension of empathic concern may dispose individuals to be tolerant towards others in terms of racial or ethnic characteristics. Tentatively, our findings suggest that openness, agreeableness, and empathic concern are likely to play an important role in the understanding of tolerance to human diversity and will form the basis for explaining the multifaceted nature of tolerance and its relationship to pro-social thinking and behaviour. This in turn will have implications for the development of educational programs and social policy. There is a consensus that pro-social attitudes and behaviours of empathy, sympathy compassion, and caring, which form the basis of tolerance, can be taught and learned (Eisenberg et al., 1995; Graziano & Eisenberg, 1997). Importantly, grounding tolerance in theories of moral values allows for an alternative education and policy approach to promote harmonious intergroup relationships.
References


