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Similarity Not Favourability: The Role of Donor Prototypes in Predicting Willingness to Donate  
Organs while Living

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Abstract

Using an extended Prototype/Willingness Model, we examined the predictors of willingness to donate an organ to a partner/family member and a stranger while living. A questionnaire assessed university students' ( $N = 284$ ) attitudes, subjective norm, prototype favourability, prototype similarity, moral norm, and willingness to donate organs in each recipient scenario. All variables, except prototype favourability, predicted willingness to donate organs in both situations. Future strategies should emphasise perceived approval from important others for living donation, the consistency of living donation with one's own morals, and encourage perceptions of similarity between oneself and living donors to increase acceptance of living donation.

Keywords: organ donation, prototype/willingness model, donor prototypes, living organ donation, moral norm

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Organs while Living

Low deceased organ donation rates worldwide have resulted in an increasing reliance on the supply of organs from living donors who are either genetically or emotionally related (i.e., relative or spouse) or unknown (i.e., stranger) to the recipient (National Health and Medical Research Council [NHMRC] 2007; Spital, 2003; UK Transplant, 2007). The concept of living donation is widely supported by the general population (Boulware et al., 2005; Neuberger et al., 2003; Spital, 2003) and many individuals reporting an objection to deceased donation are willing to donate while living to a known recipient such as a spouse, child, or friend (e.g., Dahlke et al., 2005). Despite the advantages afforded by accepting organs donated from living sources, there are several factors related to living donation decision-making that require consideration including the donor's motivations and willingness to donate (Lennerling, Forsberg, & Nyber, 2003; Rodrigue & Guenther, 2006).

Previous research suggests that the living donation decision-making process is relatively easy and straightforward (Fehrman-Ekholm, Brink, Ericsson, Elinder, Duner, & Lundgren, 2000; Schweitzer, Seidel-Wiesel, Verres, & Wiesel, 2003) with most donors motivated by their desire to help save or improve the quality of their loved one's life (Jacobs, Johnson, Anderson, Gillingham, & Matas, 1998; Rodrigue & Guenther, 2006; Waterman, Stanley, Covelli, Hazel, Hong, & Brennan, 2006). The majority of donors report being satisfied with their decision to donate (Burroughs, Waterman, & Hong, 2003; Jowsey & Schneekloth, 2008) and experience an increased sense of self-worth or self-esteem (Jacobs et al., 1998; Johnson et al., 1999; Stothers, Gourlay, & Liu, 2005) and appreciation of or purpose in life (Jacobs et al., 1998; Waterman et al., 2006). Although most donors indicate it was their own decision to donate while living (Burroughs et al., 2003; Fehrman-Ekholm et al., 2000; Rodrigue & Guenther, 2006; Schweitzer

et al., 2003; Waterman et al., 2006), a small number of donors report feeling pressured to donate (Fehrman-Ekholm et al., 2000; Schweitzer et al., 2003; Simmons, Hickey, Kjellstrand, & Simmons, 1971).

For instance, Stothers et al. (2005) found that approximately 4% of living donors felt some family pressure to donate. Jacobs et al. (1998) have observed also that donors were more likely to feel pressured to donate if the recipient was a sibling or offspring and the initial approach for donation came from family members. This external pressure may be felt when family members or medical professionals make a direct request for living donation to the potential donor and there is a psychological cost to the potential donor if they refuse (e.g., Franklin & Crombie, 2003; Russell & Jacob, 1993; Schroder, McDonald, Etringer, & Snyders, 2008). Potential donors may be motivated also to donate while living to a relative or partner because of feelings of responsibility, duty, or internal pressure to do the morally correct thing for their family member (Hilhorst, Kranenburg, & Busschbach, 2007; Russell & Jacob, 1993). As some researchers note (e.g., Hyde & White, 2009a; Lennerling et al., 2003; Russell & Jacob, 1993; Schroder et al., 2008), even when family members do not directly express their desire for another family member to donate, there is a perceived expectation that if a family member is in need of an organ then another family member will volunteer to donate. This perceived expectation that donation is a family member's moral responsibility or duty may contribute to feelings of internal pressure or obligation to agree to living related donation for the sake of other family members (Hilhorst et al., 2007; Russell & Jacob, 1993; Schroder et al., 2008). Furthermore, given the emotional connection with the recipient, it is likely that decision making in the living-related context is automatic or instantaneous rather than a reasoned or rational process where all available information is considered prior to the decision being made (e.g.,

Burroughs et al., 2003; Jacobs et al., 1998; Landolt et al., 2001; Rodrigue, Bonk, & Jackson, 2001; Stothers et al., 2005).

While donor motivations for living-related donation are self-evident, less is known about individuals who are willing to donate anonymously to a stranger (Rodrigue et al., 2001). It is often assumed that these potential donors must be psychologically unstable as they derive few benefits from donating while living to a stranger, have no emotional connection with the recipient, and receive no monetary compensation for their gift (e.g., Kranenburg, Zuidema, Erdman, Weimar, Passchier, & Busschbach, 2008; Landolt et al., 2001). Such assumptions have led to the requirement for rigorous psychological evaluation of these donors prior to acceptance as a donor (Boulware et al., 2005). These evaluations, however, have revealed that, despite existing reservations, many of these donors are psychologically stable and wish to donate for altruistic, religious, or moral reasons (e.g., Boulware et al., 2005; Henderson et al., 2003).

Considering the increasing use of both related and anonymous living donors to supplement the organ supply in Australia and internationally (NHMRC 2007; UK Transplant, 2007), an understanding of the motivational factors affecting willingness to donate organs while living to both known and unknown recipients is essential (Rodrigue et al., 2001; Rodrigue & Guenther, 2006). In accordance with this aim, we used an extended version of the Prototype/Willingness Model (PWM; Gibbons, Gerrard, Blanton, & Russell, 1998) to predict willingness to donate an organ while living to a known and unknown recipient.

#### *Prototype/Willingness Model (PWM)*

Similar to the theories of planned behaviour and reasoned action (Ajzen, 1991), the PWM is a social-cognitive model designed to explain the factors that impact on the decision to perform a given behaviour. The PWM incorporates two pathways to account for behavioural performance: a reasoned pathway and a social reaction pathway (see Gibbons et al., 1998). The reasoned

pathway promotes understanding of behaviours allowing for an individual to make decisions in a reasoned and rational manner based on information available to them. Given the behaviour under investigation in this study and the observation that decision making occurs instantaneously without lengthy deliberation and involves minimal consideration of the available medical information or risks related to donation (e.g., Burroughs et al., 2003; Stothers et al., 2005), we narrow our focus to the social reaction pathway. The social reaction pathway allows an examination of behaviours that involve an element of risk and spontaneous or reactive decision-making and are largely dependent on situational factors (Gibbons et al., 1998). This pathway suggests that willingness to perform a behaviour is the most proximal predictor of that behaviour. Willingness, in turn, is influenced by four elements: attitude (positive or negative evaluation of a behaviour), subjective norm (perceived expectations or pressure from important others and an evaluation of what important others do), past behaviour (not included in the current study) and the prototype associated with the behaviour (image of the typical person who performs the behaviour; e.g., a smoker). Prototypes are comprised of prototype favourability (favourable or unfavourable evaluation of the image) and prototype similarity (how similar the individual judges themselves to be to the image) which are proposed to interact (Gibbons et al., 1998).

The PWM and its components have been successfully applied to a variety of health-risk (Gerrard, Gibbons, Reis-Bergan, Trudeau, Vande Lune, & Buunk, 2002) and health-promoting (Blanton, van den Eijnden, Buunk, Gibbons, Gerrard, & Bakker, 2001) behaviours; however, to the authors' knowledge, the PWM has yet to be used in an altruistic context. Given that altruistic behaviours may involve an element of risk or danger to oneself (especially those involving medical procedures such as living donation) and that these behaviours are often dependent on situational factors and, therefore, involve a degree of spontaneity or automaticity in decision making, an application of the PWM using the social reaction pathway was considered

appropriate. In addition, since the decision to donate an organ while living is likely to involve a consideration of moral values and expectations or responsibility to family we extended the PWM by incorporating an assessment of moral norm (see also Mykelstad & Rise, 2007).

### *Moral Norm*

The concept of moral norm refers to an individual's perception of a particular behaviour as morally correct or incorrect and their personal feelings of responsibility to perform the behaviour (Ajzen, 1991). Moral norms suggest that there are implied expectations specifying how an individual should act in a given situation (Manstead, 2000). Moral norm has been found to be an important determinant of both intentions and willingness to perform a behaviour (Mykelstad & Rise, 2007; Norman & Conner, 2005) including in the living (e.g., Schwartz & Tessler, 1972) and deceased donation (Hyde & White, 2009b) contexts. Few studies, however, have assessed moral norm in a predictive model of living donation (with the exception of Schwartz & Tessler, 1972). Although the majority of people donate because they want to help their loved one and few people report feeling pressured or obliged to donate, some individuals cite a moral obligation or expectation that they should donate to family members as a factor influencing their donation decision (e.g., Lennerling et al., 2003). The role of moral values in decision making is particularly important in the living anonymous donation context with several individuals signifying moral or altruistic values to help others as their primary reason for donation (e.g., Henderson, et al., 2003; Jacobs et al., 1998; Jowsey & Schneekloth, 2008; Landolt et al., 2001).

### *The Present Study*

In conducting this study we aimed to increase understanding of the psychological aspects of living donation decisions in an Australian context where there is a paucity of research. Second, we aimed to contribute to the body of literature investigating potential donor motivations by using the PWM to facilitate an understanding of the psychological factors that influence people's



willingness to donate an organ while living to a family member or partner and to a stranger.

Third, we aimed to extend the PWM by incorporating an assessment of the impact of perceived moral responsibility or expectations to donate on donation willingness, a factor that has been previously identified as important in the decision to donate while living. Based on the extended PWM, it was expected that participants who held more positive attitudes, perceived approval for or pressure to donate, perceived other living donors as favourable and also similar to themselves, and held a stronger perception of being morally responsible or obligated to donate would express a higher willingness to donate while living to a relative or a stranger.

## Method

### *Participants and Procedure*

University students ( $N = 284$ ; 210 female, 74 male) ranging in age from 17 to 65 years ( $M = 23.0$  years;  $SD = 9.4$  years) served as participants. Most students self-identified as Caucasian (84%), were not married (76%), and wanted to be an organ donor upon their death (67%). These undergraduate students were recruited from a range of academic programs including psychology (32%), nursing (19%), other health related disciplines (e.g., human movement studies, podiatry, nutrition; 16%), business (6%), law (4%), arts (8%), and science (e.g., biomedical sciences, pharmacy; 15%). We focussed solely on students based on the reasoning that younger people will be the most likely to donate their organs while living in the future but are less likely to have personal experience with or knowledge about living donation, thus limiting the number of respondents who may need to be excluded from the sample. We also considered the potential for unfamiliarity with living donation (particularly living anonymous donation) in Australia and the need for a controlled data collection environment in which accurate information about both living donation procedures could be provided to participants who may have had questions about living donation. Prior approval to conduct the study was granted by the University's Human Research

Ethics Committee. Students were recruited across 3 campuses of a large metropolitan university in South East Queensland, Australia via in-class announcements and received course credit and entry into a prize draw to win one of four AUD\$30 music vouchers. Students volunteered to complete a questionnaire containing items assessing the PWM measures, their perceived moral responsibility to donate while living, and their willingness to donate their organs while living in two situations: (1) to a partner or family member (*living related donation*) and (2) to a stranger (*living anonymous donation*).

### *Measures*

The target behaviour of living related donation was defined as “organ donation while living to a partner or family member (i.e., donating a kidney, liver lobe, or lung lobe for transplantation while living)”. Living anonymous donation was defined as “organ donation while living to a stranger (i.e., donating a kidney, liver lobe, or lung lobe for transplantation while living)” (Boulware et al., 2005; NHMRC, 2007). All items were measured on 7-point Likert scales unless otherwise specified.

*Willingness.* One item for each behaviour assessed participants’ willingness to donate their organs while living to a related and anonymous recipient (Blanton et al., 2001). Participants were initially asked to consider the situation of donating an organ or part of an organ while living to a partner or family member and to a stranger in the respective sections of the questionnaire. Participants then rated their willingness to donate in each situation (e.g., “I am willing to donate an organ/part of an organ while living to a partner or family member”, scored 1 *strongly disagree* to 7 *strongly agree*).

*Attitude.* Four items for each behaviour (Gibbons et al., 1998), including two reversed items, scaled in a 7-point semantic-differential format served as a measure of attitude toward living related and anonymous donation (e.g., “For me to donate an organ/part of an organ while

living to a stranger would be: *good-bad, worthless-valuable*"). The four items for each behaviour were summed to create attitude scales which were reliable (living related donation:  $\alpha = .89$ ; living anonymous donation:  $\alpha = .90$ ).

*Subjective norm.* Two items (Gibbons et al., 1998) comprised the measure of subjective norm for each behaviour (e.g., "Most people who are important to me would approve of me donating an organ/part of an organ while living to a partner or family member", scored 1 *strongly disagree* to 7 *strongly agree*). The two items were summed to create subjective norm scales for each behaviour. The items were correlated at  $r(280) = .70, p < .001$  for living related donation and  $r(283) = .85, p < .001$  for living anonymous donation. Please note that the subjective norm items used in the present study reflected injunctive norms only (similar to measures used in the Theory of Planned Behaviour; Ajzen, 1991) and did not incorporate an assessment of descriptive norms (i.e., what others actually do; see Gibbons et al., 1998). Living donation is a relatively uncommon occurrence and the behaviour of important others is likely to be unknown and, therefore, may comprise an unreliable assessment of social influence in this context.

*Prototype favourability.* Participants were first instructed to think about the type of person who donates an organ/part of an organ while living to a partner or family member (or stranger). One item for each behaviour assessed the extent to which participants perceived the type of person who donates their organs while living to a relative or stranger as favourable. A semantic-differential format, ranging from 1 *unfavourable* to 7 *favourable* was used to enable an assessment of the overall favourability of living donors in each scenario and to determine if participants held positive, negative, or neutral perceptions of living donors (Blanton et al., 2001, Study 2).

*Prototype similarity.* The extent to which participants perceived themselves as similar to the typical living donor was assessed using one item for each behaviour (Gibbons & Eggleston,

1996). Participants indicated their similarity to the living related and living anonymous donor on scales ranging from 1 *similar to me* to 7 *not at all similar to me*.

*Moral norm.* Two items (Sparks & Shepherd, 2002) comprised the measure of moral norm for each behaviour (e.g., “I feel I ought to donate an organ/part of an organ while living to a stranger”, scored from 1 *strongly disagree* to 7 *strongly agree*). The two items were summed to create moral norm scales for each behaviour. The items were correlated at  $r(281) = .82, p < .001$  for living related donation and  $r(280) = .86, p < .001$  for living anonymous donation.

#### *Data Analysis Strategy*

Correlational analyses were conducted initially to establish the degree to which willingness to donate organs while living to a partner or family member and a stranger were the same. Analyses revealed that participants’ willingness to donate an organ while living to a related and anonymous recipient were correlated at  $r(284) = .38, p < .001$ , suggesting that, while willingness to perform each behaviour was somewhat related, the two behaviours were distinct. As such, hierarchical regression analyses testing the predictive ability of the extended PWM incorporating moral norm were conducted separately for willingness to donate organs while living in each situation. For each analysis, the measures of attitude, subjective norm, prototype favourability and prototype similarity were entered in the first step of the regression equation. To examine the contribution of the additional construct of moral norm, this variable was entered into the second step after controlling for the PWM variables.<sup>1</sup> In accordance with the PWM, regression analyses were conducted also incorporating the interaction between prototype favourability and similarity for each behaviour. These interactions were not significant and produced the same pattern of results for the extended PWM constructs as those reported below. Therefore, only the regressions without the interaction terms are reported.

## Results

*Descriptive Analyses*

Descriptive statistics including item means, standard deviations and the bivariate correlations between the PWM variables, moral norm, and willingness to donate organs while living in each situation are presented in Table 1. The PWM predictors were significantly and moderately correlated with willingness to donate while living in each scenario, with subjective norm emerging as the strongest correlate of willingness for both behaviours. Inspection of the correlation matrix revealed low to moderate correlations between moral norm and the PWM variables of attitudes, subjective norms, prototype favourability and prototype similarity, for each behaviour.

(Insert Table 1 about here)

*Prediction of Willingness to Donate an Organ while Living to a Partner/Family Member*

As shown in Table 2, the linear combination of attitude, subjective norm, prototype favourability and prototype similarity accounted for 45% (44.3% adjusted) of the variance in willingness to donate an organ/part of an organ while living to a partner or family member,  $F(4, 275) = 56.44, p < .001$ . Entry of moral norm in the second step significantly improved prediction of willingness accounting for an additional 3% of the variance,  $F(5, 274) = 49.91, p < .001$ . Once all of the variables were entered into the equation, the significant predictors of living related donation willingness, in order of magnitude, were subjective norm, moral norm, attitude, and prototype similarity. Prototype favourability did not emerge as a significant predictor of willingness at the final step. Overall, the predictors accounted for 48% of the variance in willingness to donate an organ/part of an organ while living to a partner or family member.

*Prediction of Willingness to Donate an Organ while Living to a Stranger*

For willingness to donate an organ/part of an organ while living to a stranger, entry of the PWM predictors in the first step accounted for 61.5% (61.0% adjusted) of the variance in willingness to donate while living to a stranger,  $F(4, 276) = 110.37, p < .001$  (Table 2). Inclusion of moral norm in the second step significantly accounted for an additional 3.5% of the variance,  $F(5, 275) = 102.36, p < .001$ . In the final step of the analysis, in order of magnitude, subjective norm, prototype similarity, moral norm and attitude (but not prototype favourability) contributed significantly to the prediction of willingness. Overall, the predictors accounted for 65% of the variance in willingness to donate an organ/part of an organ while living to a stranger.

(Insert Table 2 about here)

## Discussion

In conducting this study, we aimed to determine the factors that impact on willingness to donate an organ/part of an organ while living to a partner or family member and to a stranger in an Australian context where there is a paucity of research about the psychological factors influencing decisions about living donation. Using an extended version of the PWM, we examined the contribution of attitude, subjective norm, prototype similarity, and prototype favourability, as well as moral norm, to the prediction of willingness to donate an organ/part of an organ while living to a related and anonymous recipient. For living related and living anonymous donation, the extended PWM was able to explain 48% and 65% of the variance in willingness to perform each behaviour, respectively, with attitude, subjective norm, prototype similarity (but not prototype favourability) and moral norm emerging as significant predictors. Together, these results support the utility of an extended PWM and suggest the validity of future applications of the PWM in an altruistic context, particularly those involving risks, such as organ

donation, bone marrow donation, or blood donation, as well as for broader helping behaviours (e.g., charitable giving, volunteering).

The emergence of attitude as a significant predictor of willingness to donate organs while living in both situations is consistent with previous research highlighting the acceptability and favourability of donating an organ to a loved one or to a stranger (e.g., Landolt et al., 2003). In line with this research, participants in the current study viewed both related and anonymous living donation positively, but held more favourable views (upon inspection of the means) towards donation to a partner or family member than to a stranger. Such differences in the positive perceptions of living related and anonymous donation are to be expected given the emotional connection to the recipient and the possibility of witnessing first hand the outcomes and benefits of the altruistic act present in living related donation. Nevertheless, encouraging a consideration of the benefits of living donation amongst those unwilling to donate may prove to be a useful strategy to increase willingness to donate to a known or unknown recipient.

The importance of approval from significant others in living donation decisions is evident given that subjective norm was the predictor with the largest beta weight for each living donation behaviour. Similar to previous research highlighting the implicit pressure from family members to donate to another family member (e.g., Simmons et al., 1971), participants in the current study perceived that important others would want them to donate an organ/part of an organ while living to a partner or family member. Normative pressure from important others, however, also had a role in the decision to donate while living to a stranger with participants, on average, disagreeing that important others would want them to donate in this situation. This finding may be due to the sample consisting entirely of university students who may still be expected to be strongly influenced by family members or it may reflect a consideration of the impact that the decision to donate an organ while living to a stranger would have on important others.

Increasing perceptions of normative approval from important others then, may be an effective approach to increase willingness to donate an organ while living. This focus on normative approval, however, may be a double-edged sword. On the one hand, fostering perceptions of approval from important others for donation while living to a stranger may be an effective strategy since the decision to donate while living to an anonymous recipient is likely to be made in circumstances where there is no emotional connection and no pressure to donate to a particular person in a specific time frame (Landolt et al., 2001). On the other hand, using normative approval to encourage donation while living to a related recipient may contribute to an increased sense of pressure to donate and take away the capacity of the potential donor to give free and informed consent. Such a concern is particularly pertinent considering the automatic and emotional decision-making donors employ when the recipient of their organ is a family member (e.g., Burroughs et al., 2003; Simmons et al., 1971) although much research suggests that potential living related donors offer to donate because they want to help a family member (e.g., Rodrigue & Guenther, 2006; Waterman et al., 2006), experience psychological benefits from donation (e.g., increased self-worth or self-esteem; Jacobs et al., 1998; Stothers et al., 2005), and do not generally report feeling pressured to donate (e.g., Fehrman-Ekholm et al., 2000; Schweitzer et al., 2003).

This study also examined the role of prototypes in the prediction of willingness to donate an organ while living to a related and anonymous recipient. While, intuitively, perceived donor favourability would be expected to be important given the positive perceptions of donors reported in previous research (e.g., Landolt et al., 2001), the results of this study revealed that it was the perceived similarity to living donors that predicted willingness to donate an organ while living to a relative and a stranger. For living related donation specifically, participants viewed the type of person who donates their organs while living to a partner or family member as very similar to



themselves. This perception of similarity may stem from the expectation that as a member of a family, donating to a relative is an act that you automatically consent to because it is the right thing to do. Potential donors who are unwilling to donate to a related recipient may be encouraged to consider their similarity to other donors by asking them to think about the characteristics that represent the typical living-related donor and to consider if these are characteristics they would also use to describe themselves.

In direct contrast to donation while living to a related recipient, participants viewed the type of person who donates their organs while living to a stranger as someone who is not similar to themselves. This perception of dissimilarity may be indicative of the suspicion about the true motives of such individuals and the general perception of living anonymous donors as unusual and strange. Consequently, those individuals who perceive anonymous living donors as very different to themselves may be less willing to be living anonymous donors (Hyde & White, 2009a; Landolt et al., 2001). A future focus on changing the perceptions about living anonymous donors and encouraging perceptions of similarity to these donors by emphasizing similar values and motives may help to increase willingness to donate an organ while living to a stranger.

Consistent with previous research highlighting the perceived moral expectations or values inherent in some people's living donation decisions (Lennerling et al., 2003), the additional construct of moral norm was important in both living donation situations. A difference in perceptions of moral responsibility or expectations emerged between the two situations of donation while living to a related and anonymous transplant recipient with participants, on average, agreeing that donating while living to a relative was something they should do whereas donating to a stranger while living was not an act they were obligated to perform (see also Boulware et al., 2005). Thus, to facilitate increased living donation, it may be useful to encourage potential donors to perform acts consistent with their moral values; an encouragement that should

be balanced with a caution to avoid placing pressure on potential donors to perform their ‘moral duty’, particularly in situations where there are family dynamics, stresses, and expectations to consider (Simmons et al., 1971). A strategic focus on people’s perceived moral responsibility to donate may be more appropriate for behaviours such as living anonymous donation where the decision to donate is more personal and likely to be based on core moral or ethical values and beliefs rather than be confounded by the challenges faced when there is an existing relationship with the recipient.

Overall, the use of an extended PWM in this study suggests that, similar to other social cognitive models (e.g., the theories of reasoned action or planned behaviour) which are, in principle, open to the inclusion of additional predictors as long as they capture a significant portion of unique variance in intentions or behaviour (Ajzen, 1991; Norman & Conner, 2005), it may be useful to incorporate other influences on willingness or behaviour in the PWM dependent on the context under examination. In the current study, moral norm accounted for a significant proportion of 3% and 3.5% of variance in willingness to donate an organ while living to a related and anonymous recipient, respectively. The significant findings for moral norm suggest that it is a worthwhile addition to the PWM (as has been found in the case of the theory of planned behaviour also, see e.g., Manstead, 2000; Norman & Conner, 2005), especially for behaviours involving a consideration of moral values (e.g., blood donation, organ donation, volunteering) or an ethical component requiring individuals to take responsibility for their actions (e.g., recycling, driving at the speed limit, safer sex behaviour; see also Mykelstad & Rise, 2007).

#### *Limitations and Conclusion*

The findings of the present study should be interpreted in light of study limitations, including the higher proportion of Caucasian and female participants and the use of a student sample. Future research should aim to assess the predictors of living related and anonymous

donation with a more representative sample of the general population, including samples that comprise a greater variability in relationship status and number of dependents as a person's marital status and parental responsibilities may affect their living donation decisions (e.g., Jacobs et al., 1998; Schroder et al., 2008). In addition, given the nature of the behaviour under investigation, the current study did not include a measure of descriptive norms (i.e., what important others actually do) in the subjective norm component. Future research may wish to incorporate an assessment of the descriptive norm component by measuring people's perceptions about what important others *would* do if they were placed in a living related or anonymous donation situation. Furthermore, we employed an overall evaluation of favourability of living donors rather than assessing specific prototype adjectives (e.g., Gerrard et al., 2002) related to living donors which may account for the non-significance of favourability in this study (although the means for prototype favourability suggest that living donors were already perceived very favourably leaving little room for variability in the measure). Given the variation in the measurement of PWM constructs and a lack of standardized measures for these constructs (Walsh & White, 2007), future research should seek to clarify these measurement issues and investigate other common methods of assessing favourability including an assessment of specific prototype adjectives related to living donors.

Finally, given the nature of the target behaviours, there was an absence of direct measures for behaviour in the current study; willingness however, has been demonstrated as a strong predictor of behaviour in other PWM studies (Gerrard et al., 2002). It should be acknowledged also that, due to the lack of a behaviour measure, students' responses about living donation are hypothetical in nature. We, therefore, cannot assume that students' responses to these hypothetical living scenarios reflect their actual decision making when faced with a living donation decision in real life as there may be a discrepancy between how students think they will

behave and how they actually do behave in reality. Overall, key findings from the present study suggest that strategies to increase people's willingness to donate their organs while living may benefit from a focus on the perceived approval of important others to encourage living donation and highlighting the similarities between living anonymous donors and other types of accepted anonymous donors in society (e.g., blood or bone marrow donors) as people who act on their altruistic values to help save or improve the quality of another person's life.

Footnote

1. Given the potential for a person's relationship status (i.e., married or not married) to affect their decisions about organ donation while living, we also controlled for marital status in analyses. The findings revealed that marital status was not a significant predictor of students' living related or anonymous donation willingness and the pattern of results remained the same. Therefore, only those results without marital status as a predictor are presented.

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Table 1

*Mean, Standard Deviation and Bivariate Correlations among Predictor and Dependent Variables for Living Related Donation and Living Anonymous Donation*

Variable	1	2	3	4	5	6	<i>M</i>	<i>SD</i>
1. Willingness	-	.38***	.70***	.22***	.67***	.67***	3.94	1.67
2. Attitude	.46***	-	.34***	.46***	.33***	.38***	5.63	1.27
3. Subjective norm	.59***	.38***	-	.18**	.63***	.63***	3.58	1.57
4. Prototype favourability	.41***	.53***	.32***	-	.22***	.20**	6.16	1.24
5. Prototype similarity	.37***	.28***	.32***	.38***	-	.60***	3.73	1.56
6. Moral norm	.52***	.35***	.57***	.36***	.33***	-	3.41	1.68
<i>M</i>	5.92	6.47	5.42	6.41	5.10	5.30	-	
<i>SD</i>	1.31	.94	1.36	.92	1.38	1.53		-

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

*Note.* Correlations above the diagonal are for living anonymous donation; correlations below the diagonal are for living related donation.

Table 2

*Hierarchical Regression Analyses Predicting Willingness to Donate Organs While Living to a Partner/Family Member and to a Stranger*

		<i>Living Related Donation</i>				<i>Living Anonymous Donation</i>			
		<i>R<sup>2</sup>Δ</i>	<i>β</i>	<i>B</i>	<i>SE</i>	<i>R<sup>2</sup>Δ</i>	<i>β</i>	<i>B</i>	<i>SE</i>
Step 1	Attitude	.45***	.19***	.27	.08	.62***	.14**	.18	.06
	Subjective norm		.45***	.43	.05		.45***	.48	.05
	Prototype favourability		.11*	.16	.08		.00	.00	.06
	Prototype similarity		.14**	.13	.05		.36***	.38	.05
Step 2	Attitude	.03***	.18**	.25	.08	.04***	.10*	.13	.06
	Subjective norm		.35***	.34	.05		.35***	.37	.05
	Prototype favourability		.08	.12	.08		.01	.01	.05
	Prototype similarity		.11*	.11	.05		.27***	.29	.05
	Moral norm		.20***	.17	.05		.26***	.26	.05

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