In-groups, out-groups, and their contrasting perceptions of values among generational cohorts of Australians

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Abstract

Personal values guide, and are used to justify, behaviours both within and beyond organisational contexts. Baby Boomers, Generation X, and Generation Y are purported to vary in the values they espouse, and hence their behaviours. The aim of this research was to examine and compare self-ratings and out-group perceptions of the importance of the four overarching clusters of values in Schwartz’s circumplex model by generation. A convenience sample of 157 participants (49 Baby Boomers, 47 Generation X and 61 Generation Y) completed an online survey of self-rated values and perceptions of another generation’s values. Multivariate analyses identified that self-ratings of Self-enhancement, Openness to change and Conservation value clusters varied between generations (medium effect size), but Self-transcendence did not. Out-group perceptions of generations varied across all four value clusters (very large effect size). We then compared each generation’s self-ratings of value importance with perceptions of value importance provided by other generations (in-group/out-group comparisons). There were significant variations between self-ratings and perceived importance ratings provided by other generations for all three generations (large effect). Larger differences in other-ascribed than self-ascribed value importance across generations highlights the need to avoid actions based on generation value stereotypes, both within and beyond the workplace. Further research on a representative sample of the Australian population using a mixed-methods approach is recommended.

Keywords: comparisons; generations; out-group; social identity; stereotype; values.
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The study of basic human values is commonly based on Rokeach’s (1973) conceptualisation of values. Rokeach described human values as comprising a small set of identifiable facets that are broadly universal in nature, stem from cultural and personality influences, and influence a multitude of outcomes worth examining in the social sciences. Rokeach’s conceptualisation of human values led to the development of theoretically congruent models and measures. Schwartz’s (1992) circumplex model proposes that 10 basic human values constructs can be arranged into four overarching values clusters. Self-transcendence is an overarching cluster representing the basic values of universalism and benevolence. The Conservation cluster envelopes the values of conformity, tradition, and security. The Self-enhancement cluster comprises the values power, achievement, and, to a degree, hedonism, which straddles the boundaries with the final cluster of Openness to Change, enveloping stimulation and self-direction values. The validity of Schwartz’s model of basic human values has received generally positive support in the literature (e.g., Schwartz, 1992; Steinmetz, Isidor, & Baeuerle, 2012), and has provided researchers with a valuable means of examining the relationships between values and outcomes relevant to social scientists, per Rokeach’s original supposition.

Personal values guide, and are used to justify, behaviours (Schwartz, 1992). Values have often been framed in terms of their importance to workplace outcomes or predictions of workplace behaviour such as excessive work engagement (Burke, 2001), and affective work perceptions, such as the level of organisational commitment (e.g., Abbott, White, & Charles, 2005). For example, Abbott et al. demonstrated employees had a greater level of commitment (as a sense of duty) to their employer if they had a greater personal preference for conservative values. Values congruence between employee and employer has been linked to
employees’ affective impressions of current positions (Kristof-Brown, Zimmerman, &
Johnson, 2005) and intentions to leave their employing organisation (e.g., De Cooman et al.,
2009). Beyond these organisational outcomes, the importance individuals attach to specific
values has been linked to their probability of accepting an orientation towards diversity
(Sawyerr, Strauss, & Yan, 2005), and their prospects of engaging in socialisation with an out-
group (Sagiv & Schwartz, 1995). In summary, previous research has established individual
values preferences have behavioural and cognitive implications in a range of domains,
including the workplace. Consideration of the role of generational cohort alongside individual
values preferences provides additional detail on the manner in which values are influential,
and this combination of constructs form the focus of the current study.

Recent research has examined the interplay between generational cohorts and basic
human values. While the nomenclature for the generations and the span of birth years each
represents vary in the literature (Parry & Urwin, 2011), research on (in ascending
chronological recency) Baby Boomers, Generation X, and Generation Y has demonstrated
variations in value importance between these groups. Similar to that of personality, values are
malleable across time based on the greater cultural context and social climate individuals are
immersed in as part of their development across the lifespan (Roberts, Walton, &
Viechtbauer, 2006). Consequently, differences in generational cohorts are in-part due to
variations in culture and climate experienced. Examining associations between generational
groups and workplace value preferences, one study noted that Baby Boomers reported that
status-related workplace values were less important to them than did generations Y and X
(Cennamo & Gardner, 2008). Generations X and Y tend to demonstrate a greater preference
to freedom-related workplace values than do Baby Boomers (Twenge, 2010; Twenge,
Campbell, Hoffman, & Lance, 2010), with Generation Y presenting the highest preference
for these types of values in comparison to Generation X (Cennamo & Gardner, 2008).
Collectivist values preferences, which encompass the importance of relationships with others, were higher in managers within the Baby Boomer generational cohort in comparison to business students under 25 years of age (Richards et al., 2012).

Several studies of generational differences and values have drawn upon Schwartz’s (1992) values clusters. Examining the importance of Self-enhancement values between generations has been a common element in workplace research. For example, Generation X was noted to have a strong inclination towards Self-enhancement values (Gursoy, Chi, & Karadag, 2013; Lyons, Duxbury, & Higgins, 2005), especially when compared to Baby Boomers (Egri et al., 2012). There is mixed evidence with regards to Self-enhancement values for Generation Y; while Egri et al. noted Generation Y placed the highest importance attributed to this value, Twenge (2010; Twenge et al., 2010) reported that Generation Y placed significantly lower importance upon Achievement-related values related to the centrality of work compared to Baby Boomers. Cogin (2012) similarly found Generation Y participants placed less emphasis on Achievement values in terms of the importance of hard work. In combination, these results suggest that while there are mixed findings for the importance Generation Y places on Self-enhancement values, Generation X and Baby Boomers generally place higher importance on these values. Baby Boomers place notably higher importance on Conservation values in comparison to younger generational cohorts (Egri et al., 2012; Feather & McKee, 2008). Conversely, Generation Y and X place significantly higher importance on Openness to Change when compared to Baby Boomers (Cogin, 2012; Egri et al., 2012; Gursoy et al., 2013; Twenge, 2010). With regards to Self-transcendence values of universalism and benevolence, mixed findings have been presented in the literature. Baby Boomers place significantly higher importance on these values compared to younger generations (Egri et al., 2012; Lyons et al., 2005). Examining Universalism value preferences specifically, however, Richards et al. (2012) noted a
significantly greater importance placed on this value by Generation Y in comparison to other
generations, while Twenge et al. (2010) noted no significant differences between generations
on altruistic values, a core component of Universalism. Previous research has reported cross-
cultural differences in value priorities (Vauclair, Hanke, Fischer, & Fontaine, 2011), and the
limited research on generational differences in the values of Australians (i.e., Cogin, 2012;
Egri et al., 2012; Feather & McKee, 2008) prompts the need for further examination within
this context.

In summary, while individual preferences for values appear to vary between
generational cohorts, the consistency of these findings has notable variability. However,
generational differences research has been criticised for methodological inconsistencies and
poor methodological rigour (Lyons & Kuron, 2014), with recommendations that future
research include sufficient theoretical grounding and consideration of results in terms of the
context and practical significance (effect size) of the findings. We attempt to address these
areas in the forthcoming research. Furthermore, the analysis used in many of the
aforementioned studies are either univariate in nature (e.g., Gursoy et al., 2013), or follow
multivariate testing with univariate post-hoc analyses (e.g., Cogin, 2012), effectively
circumventing the purpose of a multivariate approach to examine differences in the
importance of specific values relative to the importance of other values held by the
individual. Simultaneous analysis of multiple values has greater validity. Further research
into values preferences and generational cohorts adopting true multivariate analysis
approaches is required.

Additionally, research thus far has focused on participants' perceptions of values of
importance to their own generational cohort. Examination of the perceptions of value
importance for generational cohorts beyond that of the individual's own cohort has had
marginal investigation (e.g., Chi, Maier, & Gursoy, 2013; Williams, Coupland, Folwell, &
Sparks, 1997). For example, Chi et al. found differences for managerial perceptions of younger and older managers’ values, although this pattern of managers’ values differences was not replicated with line-level employees. Williams et al. found via discourse analysis the importance of out-group media portrayals of Generation X in terms of how they perceived themselves. Neither examined Generations Y, X, and Baby Boomers in terms of self-reflections on values or consideration of each of the other cohorts’ values. The relevancy of inter-cohort perceptions of values between generations is underpinned by social identity theory (Tajfel, 1974), which purports that one’s self-concept is influenced by the identified categorisation across a variety of constructs (e.g., nationality, race, and occupational type) that define important aspects of the individual (Hogg, Terry, & White, 1995). Furthermore, the individual’s identification with specific social categories also implies a degree of evaluation regarding how one’s social categorisation, or in-group, fares or behaves in comparison to out-groups. Tajfel (1974) proposed that one’s in-group is perceived more favourably due to the types of stereotypes attached to the group’s normative behaviours and expectations (a process known as self-enhancement, although not to be confused with Schwartz’s [1992] values construct of the same name). This social categorisation aspect of social identity is important in emphasising the differences between the in-group and out-group, such that the differences can be exaggerated to promote the distinguishing aspects of the in-group and out-group (Hogg et al., 1995).

In order to apply social identity theory to research on values and generational cohorts, it appears valuable to understand the manner in which generational cohorts perceive the values preferences of generational cohorts beyond themselves. Gardner and Macky (2012) have previously noted the importance of stereotypical perceptions in inter-generational group comparisons (e.g., perceiving younger generations as being lazier than older generations) as opening the prospect of creating self-fulfilling prophecies. Thus, the manner in which older
generations may behave towards younger generations as a consequence of this stereotyped perception of their values may inadvertently encourage behaviours in younger generations complicit with these perceptions. A hypothetical example provided by Gardner and Macky (2012) relevant to this notion was a hesitation in hiring younger employees due to perceived laziness, contributing to a lower rate of youth employment. Therefore it is likely that intra-generational comparisons of values would share similar patterns were research in this area to be conducted; the perceptions of out-group generations may indeed exaggerate these distinguishing facets of value importance based on stereotypes held by an in-group.

Consequently, the examination not only of the perceptions of value importance attributed to out-groups is of merit, but the comparison between the in-group and out-group’s perceptions of their value importance preferences is a novel area of inquiry. Taking into account the previously noted differences between self-perceptions of value importance between generational groups, and the influence of values on societal and workplace outcomes, the manner in which out-groups are possibly stereotyped into prioritising certain values has potential impacts on workplace productivity, hiring, and government policy decisions (see Gardner & Macky [2012] for further discussion on the ethical dilemmas associated with generational stereotyping).

The aims of this study are therefore twofold. Examination of the self-perceptions of value importance, based on Schwartz’s (1992) values model and measurement, using multivariate analyses will assist in clarifying conflicting findings in this area. Additionally, examination of the out-group perceptions and comparisons between in-group and out-group perceptions of value importance using multivariate analyses will provide novel information regarding the potential disparities that exist between in-group and out-group perceptions of value importance. The hypotheses tested as part of this study are as follows:
H1. There will be a statistically significant difference between generations’ (Baby Boomers, Generation X, and Generation Y) self-perceptions of value importance.

H2. There will be a statistically significant difference between generations’ (Baby Boomers, Generation X, and Generation Y) out-group perceptions of value importance.

H3. There will be a statistically significant difference between generations’ (Baby Boomers, Generation X, and Generation Y) in-group perceptions and out-group perceptions of value importance.

Method

Participants
During July and August 2011, adults aged 18 to 65 years living in Australia were recruited using convenience and snowball sampling through social networking sites, research websites, personal networks, and advertising in community newspapers. An a priori power analysis using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) determined that 72 participants (24 per generation) would be required for adequate power (.80) in detecting a medium effect ($f = .374$) reported by Lyons et al. (2005) at an alpha level of .05. The sample comprised 157 participants (92 women, 51 men, 14 missing) with ages ranging from 18 to 65 years ($M = 37.27, SD = 13.72$). There were 61 participants from Generation Y, 47 from Generation X, and 49 Baby Boomers. A chi-square for contingencies analysis revealed no significant difference in gender representation for each generational cohort, $\chi^2 (2) = 1.54, p = .462$.

Measures
A survey was created and hosted on Qualtrics.com. The first question asked participants to select the year grouping within which they were born – 1946-1964 (Baby Boomers), 1965-1981 (Generation X), or 1982-1993 (Generation Y). Next, participants
completed two versions of the Schwartz Value Survey (Schwartz & Sagiv, 1995), each with 44 items. The first measured the participants’ self-rated values and the second measured the participants’ perceptions of one randomly-selected out-group generation’s values. For example, a Generation X participant would be required to rate his/her own values and then his/her perceptions of the values held by either Baby Boomers or Generation Y. Participants rated each value, for example, “CLEAN (clean, tidy)” on the extent to which it is “a guiding principle in my life” on a nine-point Likert-type scale ranging from -1 (opposed to my values) to 7 (of extreme importance). Participants were instructed to read all 44 items and rate their most important and least important values in order to anchor the response scale for the remaining values (Schwartz, 1992). Participants were then instructed to rate the values of one out-group generation. The four overarching cluster scores were calculated by averaging across the individual value ratings items within cluster type. Value data held adequate internal consistency for each overarching cluster: Self-enhancement ($\alpha = .75$), Openness to Change ($\alpha = .82$), Self-transcendence ($\alpha = .78$), and Conservation ($\alpha = .76$). Finally, demographic information was collected for gender, age and country of birth.

**Procedure**

Ethics clearance was granted by the Curtin University Human Research Ethics Committee. Potential participants were directed to the online information sheet and, if they consented to participate, they were directed to the survey. Upon completion of the survey, participants were directed to provide an email address should they wish to participate in a prize draw to win one of three $50 Amazon.com vouchers.

Questionnaire data was downloaded from Qualtrics and imported into SPSS v.22 for analysis. The procedures outlined by Schwartz (1992) were followed to remove cases with high rates of missing data and undifferentiated responding. The remaining 157 cases were retained for analysis.
Results

Descriptive statistics and correlations between value rating clusters for the three generations combined are presented in Table 1. Mean scores (with standard deviations) for self-ratings and perceived ratings of value importance for each generation are summarised in Table 2.

Prior to inferential analysis, missing values analysis and screening for assumptions was conducted. Non-significant Little’s Missing Completely At Random test results ($p = .527$) justified the use of expectation maximisation as the method of correcting for missing data. Twelve univariate outliers, as indicated by box-plots, were removed. All other assumptions were met unless stated otherwise.

Self-Ratings of Value Importance. To address the first hypothesis, a MANOVA was conducted to examine multivariate differences in SVS values for each generation’s self-perception of their importance as guiding principles in their life. Box’s $M$ indicated a potential issue with homogeneity of the covariance matrices ($p = .042$), therefore Pillai’s criterion was interpreted for the multivariate solution (Tabachnick & Fidell, 2013). There was a significant effect of the self-perception of value importance and the generation of the respondent, $V = .20$, $F (8, 304) = 4.13$, $p < .001$, $pr^2 = .10$. Discriminant function analysis was used to investigate the significant multivariate result. Two discriminant functions were presented in the results of the analysis; the first explained 72.3% of the variance, with a canonical $R^2 = .14$ ($f^2 = 0.16$, medium effect size; Cohen, 1992), while the second function explained 27.7% of the variance, canonical $R^2 = .06$ ($f^2 = 0.06$, small effect size; Cohen, 1992). Both functions significantly discriminated between the generations, $\lambda = .81$, $\chi^2 (df = 8)$
= 31.79, \( p < .001 \), and the second function in isolation from the first significantly discriminated between the generations, \( \hat{\lambda} = .94, \chi^2 (df = 3) = 9.09, p = .028 \). Conservation (\( r_1 = -.57, r_2 = .26 \)) and Self-enhancement (\( r_1 = .44, r_2 = .29 \)) loaded more strongly on function 1, while Openness to Change (\( r_1 = .17, r_2 = .96 \)) loaded more strongly on function 2. Self-transcendence did not load strongly on either function (\( r_1 = -.12, r_2 = .11 \)). Examination of the combined-groups centroid plot (Figure 1) suggested that function 1 discriminated strongly between the Baby Boomers and Generation Y self-perceptions, with elevated importance placed on Self-enhancement for Generation Ys compared to Baby Boomers, and elevated importance placed on Conservation for Baby Boomers compared to Generation Ys. Function 2 appeared to discriminate strongly between Baby Boomers / Generation Y and Generation X ratings of value importance, with Baby Boomers and Generation Y’s having elevated importance placed on Openness to Change compared to Generation Xs. In summary, significant differences between the generations’ self-ratings of the importance of the SVS value factors was evident in our data.

\(<Figure 1 about here>\)

**Perceived Value Importance.** To address the second hypothesis, a MANOVA was used to examine the multivariate differences in the perceived importance of SVS values for a generation other than the participants’ own, or an out-group (e.g., a Baby Boomer’s perceptions on Generation Y). There was a significant difference in the perceived importance of the SVS values for the out-group generations, \( V = .61, F (8, 304) = 16.62, p < .001, pr^2 = .30 \). Discriminant function analysis was also used to investigate the significant multivariate result. Two significant discriminant functions were presented in the solution; function 1 explained 93.2% of the variance (canonical \( R^2 = .53, f^2 = 1.13 \), very large effect size; Cohen, 1992), and function 2 explained 6.8% of the variance (canonical \( R^2 = .08, f^2 = 0.09 \), small effect size; Cohen, 1992). Both functions significantly discriminated between the perceptions
of generations other than the participants’ own, $\lambda = .43$, $\chi^2 (df = 8) = 127.88$, $p < .001$, and function 2 in isolation from function 1 significantly discriminated as well, $\lambda = .92$, $\chi^2 (df = 8) = 12.17$, $p = .007$. Conservation ($r_1 = .80, r_2 = .56$) and Openness to Change ($r_1 = -.75, r_2 = .55$) loaded more strongly on function 1, while Self-enhancement ($r_1 = .08, r_2 = .71$) and Self-transcendence ($r_1 = .27, r_2 = .53$) loaded more strongly on function 2. Examination of the combined-groups centroid plot (Figure 2) indicated that function 1 discriminated strongly between Generation Ys and Baby Boomers, with Baby Boomers being perceived as placing considerable importance on Conservation values compared to Generation Ys, and inversely Generation Ys were perceived as placing considerable importance on Openness to Change values compared to Baby Boomers. Function 2 appeared to discriminate between Baby Boomers / Generation Ys and Generation Xs.

The positive indices for all four value factors of at least moderate strength on this function suggested that it differentiated Generation X from Generation Y and the Baby Boomers in a similar manner. Looking at the out-group value means for Generation X compared to the overall means for each of the out-group values, Generation X has elevated scores on all four values. Consequently, the second discriminant function suggests that Generation X was differentiated from Generation Y and the Baby Boomers due to this pattern of generally elevated means across the set of values, although this effect size was small compared to the first discriminant function ($f^2_1 = 1.13$ versus $f^2_2 = 0.09$). In summary, significant differences between the perceptions of other generations by the participants were noted for each of the SVS values factors.

<Figure 2 about here>

Self and Other Ratings of Value Importance. To address the third hypothesis, MANOVAs were used to contrast differences in the perceived importance of the SVS values by participants within each generation, and the perceived importance of the SVS values for
the same generation as inferred by those outside of the generation. For example, differences 
in each SVS value between Baby Boomers, and non-Baby Boomer participants asked to infer 
the importance of each SVS value for individuals from the Baby Boomer generation, were 
contrasted. These differences were examined for each set of Baby Boomer / non-Baby 
Boomer, Generation X / non-Generation X, and lastly Generation Y / non-Generation Y. 
Box’s $M$ test results were disregarded in the forthcoming results due to equality of sample 
sizes for each level of the independent variables, rendering homogeneity of the covariances 
robust (Tabachnick & Fidell, 2013). The comparison between Baby Boomer and non-Baby 
Boomer perceptions of the latter’s value importance was significant, $V = .60$, $F (4, 93) =$ 
35.49, $p < .001$, $pr^2 = .60$. Similarly, the Generation X and non-Generation X perceptions of 
the latter’s values was significant, $V = .60$, $F (4, 101) = 38.49$, $p < .001$, $pr^2 = .60$. The 
Generation Y and non-Generation Y perceptions of the latter’s values was also significant, $V$
= .57, $F (4, 105) = 34.21$, $p < .001$, $pr^2 = .57$. Further examination of the significant 
multivariate results for each generation/non-generation perception comparison via 
discriminant function analysis was warranted.

Looking at the Baby Boomers self and other ratings discriminant function analysis, 
the single extracted function was significant (canonical $R^2 = .60$, $f^2 = 1.50$, very large effect 
size; Cohen, 1992), $\lambda = .40$, $\chi^2 (df = 4) = 87.12$, $p < .001$. Self-enhancement ($r_1 = -.55$), Self-
transcendence ($r_1 = .53$), and Openness to Change ($r_1 = .54$) appeared to be most 
differentiated by the function, however Conservation was weakly represented ($r_1 = -.18$).

Non-Baby Boomers perceived Baby Boomers as placing higher importance on Self-
enhancement values compared to their own ratings. Baby Boomers ascribed higher 
importance to Self-transcendence and Openness to Change values in comparison to the 
ratings provided by Non-Baby Boomers.
The discriminant function analysis for Generation X self and other ratings of value importance was significant (canonical $R^2 = .60$, $f^2 = 1.50$, very large effect size; Cohen, 1992), $\lambda = .40$, $\chi^2 (df = 4) = 94.45$, $p < .001$. The canonical function differentiated strongly between Self Enhancement ($r_1 = .86$) and Self Transcendence ($r_1 = -.76$) importance ratings between levels, although Openness to Change ($r_1 = .20$) and Conservation ($r_1 = .06$) ratings were less represented by this function. Generation Xs placed higher importance ratings to Self-transcendence compared to perceived importance ratings made by other generations, and ascribed lower importance to Self Enhancement compared to the perceived importance ratings of other generations.

Generation Y self and other ratings of value importance extracted a significant single function (canonical $R^2 = .57$, $f^2 = 1.33$, very large effect size; Cohen, 1992), $\lambda = .40$, $\chi^2 (df = 4) = 94.45$, $p < .001$. The structure matrix for the significant function differentiated between levels notably on the Self Transcendence ($r_1 = .81$) and Conservation ($r_1 = .62$) values, and to a lesser extent the Self Enhancement ($r_1 = -.39$) and Openness to Change ($r_1 = -.31$) values. Generation Y participants placed greater importance in Conservation and Self Transcendence values, compared to perceived importance ratings from other generations. Conversely, Generation Y participants placed less importance on Openness to Change and Self Enhancement values compared to their perceived importance ratings provided by other generations. In summary, all three generations demonstrated significant variation in their self-ratings of importance for varying values factors in comparison to the perceived importance ratings provided by other generations.

**Discussion**

The aim of this research was to examine and compare self-ratings and out-group perceptions of the importance of Schwartz’s four clusters of values by generation. As predicted, there were significant differences between generations on value importance self-
ratings, and on out-group ratings. Further, comparative in-group/out-group ratings also
significantly differed.

Our results indicated significant patterned differences between generations on self-
ratings of value importance. As noted by Roberts et al. (2006), generational differences in
values were likely due to the different social climates and cultural contexts participants from
different generational cohorts were likely to have experienced. Examination of the first
discriminant function for the significant multivariate solution suggested that Generation Y
participants had higher self-ratings on Self-enhancement compared to Baby Boomers, while
the inverse applied for Conservation value preferences. These findings are generally
consistent with previous findings that Generation Y places higher importance than Baby
Boomers on Self-enhancement (Ergi et al., 2012) and freedom-related workplace values
(Cennamo & Gardner, 2008; Twenge, 2010; Twenge et al., 2010), which may be concordant
with the hedonism aspect of Self-enhancement as a construct. However Twenge’s (2010;
Twenge et al., 2010) work has alternatively noted that Generation Y rated achievement-
related values (a facet of Self-enhancement) as less important than did Baby Boomers. Based
on the discriminant function differentiating Baby Boomers and Generation Y on the Self-
enhancement construct as a whole, however, it is plausible to suggest that the other facets of
the construct (hedonism and power values) were important in differentiating the generations
along this overarching value. The differentiation between Generation Y and Baby Boomers
on the Conservation self-ratings of importance was consistent with the direction reported in
previous literature (Egri et al., 2012; Feather & McKee, 2008).

The second discriminant function differentiated Baby Boomers and Generation Y
participants from Generation X participants on the Openness to Change values construct,
with the former generations placing joint greater importance compared to Generation X
participants. This was an unusual finding contradicting past research findings that younger
generations (inclusive of Generation X) typically report higher importance of Openness to
Change than their older counterparts (Cogin, 2012; Egri et al., 2012; Gursoy et al., 2013;
Twenge, 2010). While this anomalous finding might support previous reports that
Generation X is more conservative than previous generations (Lawrence, 1997 cited in Sirias,
Karp & Brotherton, 2007), replication is required.

Our finding of no noteworthy differences between generations on self-ratings results
of Self-transcendence is consistent with Twenge et al. (2010). However, the findings
contradict those of Lyons et al. (2005) and Richards et al. (2012) with regards to generational
differences on benevolence and universalism values (the two facets of Self-transcendence). It
is worth noting that our study sampled broader generational cohorts than did Lyons et al.
(2005), and had Self-transcendence competing for explanatory relevance with different
predictors (Schwartz’s overarching values constructs) in comparison to Richards et al.[2012]
(collectivism / individualism). Both Lyons et al. [2005] (N = 979) and Richards et al. [2012]
(N = 1518) had notably larger sample sizes than our study, which may suggest that our non-
significant findings for Self-transcendence were due to an underpowered analysis. However,
our observed power (.99, a = .05) suggests that an underpowered analysis prompting type II
error is less likely. Taking into consideration the results of Schwartz and Bardi (2001), who
demonstrated that universalism and benevolence were consistently in the top three most
important values based on self-ratings regardless of national culture, it is perhaps unlikely
that generational differences would exist given the universal importance placed on these
types of values.

**Out-group Value Importance**

Generation Y was perceived to place a greater importance on Openness to Change
compared to Baby Boomers, with the inverse relationship occurring for Conservation. These
findings are supportive of the importance of stereotypes in potentially exaggerating out-group
generational differences. For example, Generation Y’s exposure to computers and other
information technologies during their schooling has engendered a stereotype of seeking
innovative, stimulating, and fluidly changing situations (Gardner & Macky, 2012), consistent
with Openness to Change when interpreted within Schwartz’s (1992) framework. Conversely,
when examining the Australian Broadcasting Corporation’s (2013) Vote Compass results
from the 2013 federal election, Baby Boomer-aged respondents provided responses
consistent with a stereotype of conservative behaviour, for example, generally answering
more negatively to questions about immigration compared to younger generations. Gardner
and Macky (2012) similarly noted that Baby Boomers can be perceived stereotypically as
“traditional, conservative, and arrogant” (p. 419), which appears to be consistent with the out-
group perception results of the current analysis. As such, the first discriminant function
appeared to mirror current Australian societal stereotypes regarding the generations
differentiated on the values of Openness to Change and Conservation.

The second discriminant function for out-group perceptions did not discriminate
strongly between the value factors, but did suggest that Generation X differed from
Generation Y and the Baby Boomers in terms of being perceived as having elevated
importance across all four of Schwartz’s (1992) overarching value factors (most evidently
with Self-enhancement). While perceiving a difference is fitting with social identity theory in
terms of social categorisation emphasising boundaries between in-group and out-group (Hogg
et al., 1995), it is unexpected that the boundaries depicted by function two are of such a non-
distinct nature. Further, it is contrary to Schwartz’s (1992) circumplex model for values
preferences to be perceived as greater in all overarching constructs at once; values hierarchies
imply some values constructs are of lesser importance than others (Schwartz and Bardi,
2001). These unexpected results need to be considered alongside the smaller effect size of
function two compared to the first function. Function two is representative of a
comparatively minor influence on the processes associated with out-group perceptions of Generation X.

**In-Group / Out-Group Comparisons**

The comparisons between in-group and out-group ratings of value importance produced interesting results for each generational cohort when considered in relation to Australia’s current cultural climate. Out-groups perceived greater importance of Self-enhancement values for baby Boomers, compared to that held by the Baby Boomers themselves, and this may be reflective of the perceived prominent cultural influence of Baby Boomers within Australia. For example, Davis (2007) described the marginalisation of youth figures in Australian media and culture, with key roles held instead by members of the Baby Boomer generation for several decades without strong transition. This may speak to a sense of ‘status-quo’ regarding power and achievement within Australian society held by Baby Boomers, without necessarily being apparent to those in power. Likewise, the dimmed perception of Baby Boomer’s Self-transcendence and Openness to Change values by the out-group compared to Baby Boomers themselves may be reflective of similar societal impressions.

Generation X participants provided lower self-ratings of the importance of Self-enhancement ratings, while providing greater importance on Self-transcendence in comparison to their out-groups. This is a congruent pairing of values directions consistent with Schwartz’s (1992) circumplex model. Comparatively higher self-rating of Self-transcendence value importance for each generation compared to out-group perceptions may be reflective of a form of a socially desirable response bias, given the positive and universally valued nature of values such as benevolence and universalism that form the crux of this overarching construct. Consequently controls for self-serving response biases would be a valuable addition to future research on in-group / out-group comparisons in values research.
among generations. The variation between out-group and Generation X perceived importance
ratings for Self-enhancement may be reflective of societal milestones or psychosocial
development experienced by the now-middle-aged members of the Generation X cohort. For
example, taking the classic perspective of Erikson’s (1950) middle-age psychosocial
development milestone of generativity versus stagnation, Generation X members are likely
perceived to be achievement focused while in the process of making their lives have a lasting
impact on society (e.g., via raising children, workplace successes, etc.), speaking to the
elevated perception of Self-enhancement value importance by out-groups. For Generation X
participants, these aspects of value importance may seem reflective of the ‘status quo’ at this
stage of adult development, reducing the overtness of these values’ importance in guiding
behaviour as perceived by out-groups.

The in-group / out-group comparisons for the Generation Y perceptions were of
interest due to all four of Schwartz’s (1992) overarching values constructs presenting
distinctions between in-group and out-group. Generation Y participants perceived themselves
as placing more importance on Conservation and Self-transcendence values compared to out-
group perceptions, while conversely placed lower importance on Openness to Change and
Self-enhancement values compared to out-group perceptions. These results may be reflective
of the degree of stereotyping obfuscation in the media regarding Generation Y, who as
commented on in an editorial by Davis (2007) are presented in a series of discordant
extremes within Australian culture. For example, media depictions of Generation Y paint the
cohort as being dependent in some instances, and strongly independent in others; as being
self-centred in some examples, and highly socially-conscious in others (Davis, 2007). The
exaggerated differences between in-group and out-group suggested as part of social identity
theory (Tajfel, 1974), with social categorization amplifying these defining boundaries (Hogg
et al., 1995), appears to be arguably influential in the case of Generation Y.
Implications

A key element to consider both in workplaces and broader societal applications is the possible influence of generation value stereotypes, particularly with regards to perceptions by an out-group. Previous studies have noted stereotyping behaviour based on employee generation contributes to employment and task-setting biases (e.g., Gardner & Macky, 2012). Our study supports a misalignment between self- and stereotyped-preferences for values through an in-group, out-group comparative lens (Tajfel, 1974), demonstrating the importance of considering out-group’s perceptions of generations.

Weston (2001) provided managerial insights into engaging different generational groups within the workplace, detailing the variations in communication and work-style employees would prefer based on the values their generation is assumed to hold. Our results support the notion of out-groups perceiving generational groups in a stereotyped manner, which when applied to the workplace has implications in terms of how managerial staff may perceive employees from out-group generational cohorts. It is questionable whether managers in the workplace should assume that employees are notably different from each other on the basis of their generational cohort membership however; these arguably stereotypical assumptions of generational groups do not necessarily apply to individuals (Gardner & Macky, 2012). This is not to ignore the statistically significant self-ratings of value importance that we noted in the current study; Generation Y was distinguished from the Baby Boomers on the Self-Enhancement and Conservation factors. However, comparisons of effect sizes indicate that out-group perceptions were a source of greater importance in discriminating between generational groups than self-perceptions. The concern in an applied context is if managerial staff address members of generational groups with an expectation that they will be different, or will require special means of engagement to enhance productivity. Unintentionally, managerial staff assuming and addressing implied differences
based on employee generation may make more salient the generational groups that exist within a working team. This may in turn amplify stereotypes and social comparisons of generational out-groups, consistent with Tajfel’s (1974) social identity theory. Employee perceptions of fit influence an array of organisationally-beneficial outcomes (Kristof-Brown, Zimmerman, & Johnson, 2005), and making salient a means of non-fit between employees is arguably not in the best interest of managerial staff or organisational wellbeing. While Weston (2001) describes differences in engaging employees based on generation, they aptly note that “the challenge as a manager is to acknowledge the inherent differences in generations without approaching individuals with preconceived biases” (p. 20), and it is this consideration of employees as individuals that we echo as being of great importance.

Lyons and Kuron (2014) have recently stated the importance of considering effect sizes in investigations of this domain. Based on the effect sizes observed, the saliency of out-group perceptions and stereotyping is arguably a legitimate concern that requires caution in applied contexts; the practical differences between the generations’ self-perceptions is notably less than that of which stereotyping perceptions would suggest. Furthermore, previous research has demonstrated a greater degree of similarity rather than differences across generations (e.g., Mencl & Lester, 2014). Generational differences in work values and job entitlement beliefs (Krah & Galambos, 2014) are weaker than would be predicted by stereotypes. Schneider’s (1987) attraction-selection-attrition model describes the process in which employees within a workplace tend towards homogeneity in shared personality traits, climate, and values preferences (e.g., Boone, Olffen, & Roijakkers, 2004). Consequently, markedly different and poor-fitting employees are less likely to be employed and retained at an organisation, an incompatible notion with assertions of values-heterogeneity among a generationally-diverse workplace.

Limitations and Future Directions
A noted limitation was that the sample was limited in age range. Participants were all 18 years of age or older; thus, Generation Y members born between 1994 and 1999 were not represented in this research. Similarly, participants older than Baby Boomers (e.g., Traditionalists) were not included. Ethnicity data was not collected, prohibiting examination of possible differences across ethnic groups. No measure of socially desirable responding was included. The need for this was indicated by the high importance each generation placed on Self-transcendence. It is unknown whether the web-based data gathering for the study may have influenced the representativeness of the sample, however previous studies using this procedure of data gathering (e.g., Lyons et al., 2010) have not noted associated sample bias. Future research would benefit from representative sampling of Australians across all generations and ethnicities, and the inclusion of a social desirability measure.

A valuable future direction in the area of generational comparisons of values perceptions would involve the integration of qualitative data to supplement quantitative findings in this area. Lyons and Kuron (2014) have recently called for qualitative investigation in the area of generational influences on outcomes such as work values and attitudes, and this may assist in clarifying the influence of contextual elements. We would therefore encourage future research using mixed-methods approaches to investigate generational influences on values perceptions.
Key Points

What is already known about this topic

- Schwartz’s circumplex model identifies four overarching value clusters: Self-transcendence, Conservation, Self-enhancement and Openness to Change
- Generations vary in the self-ascribed (in-group) importance of each value cluster
- Personal values guide, and are used to justify, behaviours

What this topic adds

- We found differences in perceived (out-group) value importance of clusters for each generation
- We also found differences between in-group and out-group perceptions of value importance for each generation
- There were larger differences in other-ascribed than self-ascribed value importance across generations, highlighting the need to address actions based on generation value stereotypes in the workplace

Acknowledgements

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Figure Captions

*Figure 1.* Centroid plot of discriminant functions for self-ratings of values factor importance.

*Figure 2.* Centroid plot of discriminant functions for out-group perceptions of values factor importance
Table 1.


<table>
<thead>
<tr>
<th></th>
<th>SE-S</th>
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<th>OC-S</th>
<th>C-S</th>
<th>SE-O</th>
<th>ST-O</th>
<th>OC-O</th>
<th>C-O</th>
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<td>.29**</td>
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<tr>
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<td>.56***</td>
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<tr>
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<td>1.02</td>
<td>1.36</td>
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Note. SE-S = Self-enhancement self-rating; ST-S = Self-transcendence self-rating; OC-S = Openness to change self-rating; C-S = Conservation self-rating; SE-O = Self-enhancement out-group rating; ST-O = Self-transcendence out-group rating; OC-O = Openness to change out-group rating; C-O = Conservation out-group rating.

* $p < .05$.

** $p < .01$.

*** $p < .001$. 
Table 2.

Means (Standard Deviation) Scores for Self-Ratings and Perceived Importance of Values by Generation \((N = 157)\).

<table>
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<th>Value</th>
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<th>Perceived Importance</th>
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<tr>
<td></td>
<td>BB</td>
<td>BB</td>
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<tr>
<td>SE</td>
<td>3.09 (1.01)</td>
<td>3.08 (0.98)</td>
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<tr>
<td>ST</td>
<td>5.19 (0.68)</td>
<td>5.11 (0.77)</td>
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<tr>
<td>OC</td>
<td>4.69 (1.02)</td>
<td>4.19 (1.07)</td>
</tr>
<tr>
<td>C</td>
<td>4.27 (0.95)</td>
<td>3.92 (0.94)</td>
</tr>
</tbody>
</table>

*Note.* SE = Self-enhancement; ST = Self-transcendence; OC = Openness to change; C = Conservation; BB = Baby Boomers; Y = Generation Y; X = Generation X.