



Society for Educational Studies

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Title: Taking 'Thanks' for Granted: Unravelling the Concept of Gratitude in a Developmental, Cross-Cultural Analysis.

Taking 'Thanks' for Granted: Unravelling the Concept of Gratitude in a Developmental, Cross-Cultural Analysis.

Final Report to the Society for Educational Studies, Dr Liz Gulliford & Dr Blaire Morgan

Executive Summary:

The findings reported here, made possible by a grant from the Society for Educational Studies, extend the work of the Jubilee Centre for Character and Virtues' *Attitude for Gratitude* research project (Arthur, Kristjánsson, Gulliford & Morgan, 2015). By replicating three of its key studies in Australia, the project has shed light on how Australians understand gratitude and the factors which influence the way in which gratitude is conceived and experienced in Australia. As a result of SES funding we have been able to compare gratitude in the UK and Australia, representing an important contribution to a growing field.

We used three methods previously developed for the *Attitude for Gratitude* project:

- A prototype analysis of gratitude (replicating Morgan, Gulliford & Kristjánsson, 2014)
- A vignette questionnaire to probe adults' and adolescents' understanding of factors which influence gratitude (see also Gulliford & Morgan, 2016)
- Gratitude story workbooks to illuminate children's understanding of gratitude

Key Findings:

- With regard to the prototype analysis, we found that Australians associated gratitude with *fewer* negative features than we found in our UK study (Morgan et al, 2014). Where we found that 'indebtedness/obligation' was named by 29% of UK participants, it was cited by just 6.5% of Australian respondents. Likewise 'guilt' was named by 17% of the UK participants but only by 2.6% of the Australian sample. Thus it seems that Australians are less likely to reference negative associations of gratitude than UK respondents.
- The vignette questionnaire also revealed cross-cultural differences. For instance Australian adults indicated that they would be significantly *more* grateful for a non-realised benefit (a failed rescue attempt) than UK adults. In contrast, Australian adolescents self-reported significantly less gratitude in response to a risky rescue than UK adolescents, a finding which almost reached significance in the adult sample.
- Interestingly, both the adolescent vignette questionnaire and gratitude stories demonstrated that young Australians' gratitude seemed to be less impacted by a benefactor's ulterior motives than it is in the UK.
- Relatedly, findings from this preliminary study suggest that negative aspects of gratitude (ulterior and malicious motives, mixed emotions and indebtedness) impacted less on reported gratitude for Australian children in comparison with UK children.

Recommendations:

- Further research is necessary to establish whether preliminary findings reported here represent stable and replicable cross-cultural differences
- Further work is needed to elucidate whether findings from the studies involving young people were based on a discerning understanding of gratitude (Morgan, Gulliford & Carr, 2015), particularly with regard to ulterior motives, where notable cross-cultural differences were found.

1. Background and scope of the project

This cross-cultural project, in collaboration with the University of Melbourne, had the ambitious aim of replicating three research methodologies designed to explore understandings and experiences of gratitude. These methodologies were created and tested by the 'Attitude for Gratitude' research team in the Jubilee Centre for Character and Virtues (University of Birmingham, UK) in the period of 2012-2015. This current research endeavour has seen us pilot these techniques in Australia. By comparing responses across the cultural samples we have been able to start examining cross-cultural differences and similarities in the conception of gratitude and in self-projected gratitude experience.

This avenue of research has important educational implications. 'Character Education' and 'Positive Education' are pedagogies that are gaining increasing traction across the globe. The aim of Character Education is centred on the whole person so that students are "prepared for the test of life, rather than a life of tests" (Elias, 2001). The goal here is to teach character traits and virtues such as empathy, honesty, courage and gratitude both explicitly (through taught programmes) and implicitly (through school ethos and modelling etc.) (see the Jubilee Centre for Character and Virtues' Character Education Framework, 2013). Similarly, Positive Education focuses on 'character strengths' and has been defined as "an approach to education that fosters traditional academic skills *and* skills for happiness and wellbeing" (Seligman, Ernst, Gillham, Reivich, & Linkins, 2009; Waters, 2011; 2014).

As is clear from the definition above, Positive Education tends to view wellbeing as a key goal of education. Research has suggested that cultivating character strengths in students can lead to increases in subjective wellbeing as well as positive educational outcomes such as a more positive school experience and even increased academic attainment. Gratitude is one of the character strengths that is often adopted within Positive Education programmes and a number of researchers have particularly emphasised the importance of cultivating gratitude in children (see, for example, Froh, Yurkewicz, & Kashdan, 2009). The focus on this particular character strength (or character trait or virtue) is largely due to it being related to a host of positive psychological, interpersonal and health benefits. Gratitude interventions have been found to increase students' levels of school satisfaction, helping behaviours and wellbeing (Froh, Sefick, & Emmons, 2008). Without wishing to undermine gratitude interventions in positive education, we question whether gratitude is as unambiguously positive as many have assumed (see Gulliford & Morgan, in press).

One of our major concerns with the current gratitude research in educational settings is its narrow aim of increasing gratitude experience without offering

sufficient opportunity for discussion of the concept itself. That is, programmes can fall short of teaching children to question the appropriateness of gratitude in given situations and merely encourage children to be more grateful by

recognising (a) the goodness of the giver, and (b) the goodness of the gift (see, Froh et al., 2008). We believe, however, that a more effective method of teaching moral values, such as gratitude, would be to encourage reflection on what gratitude is, and when and why it is experienced.

In line with the Jubilee Centre for Character and Virtues' conception of Character Education, which is based on Aristotelian Virtue Ethics, we understand virtue as being underpinned by practical wisdom. Knowing the right thing to do at the right time requires individuals to reason about moral issues and make good judgements about what a particular situation requires. Therefore it is our view that children should not be taught to be 'indiscriminately grateful', rather they should carefully consider when and why gratitude is due (see Morgan, Gulliford & Carr, 2015). That is, we want to encourage students to use their practical wisdom in gratitude experience. In our own methodologies, for example, we present situations where benefactors have ulterior motives; a situation that (unfortunately) is likely to be encountered in real life.

Our UK research has demonstrated diverse views and understandings of gratitude in the UK population, including developmental differences. For instance, children aged between 8-11 years did not always realise an ulterior motive was present. Our results suggested that understandings of gratitude could not be taken for granted and gratitude experience may relate to underlying conceptions of when gratitude is/is not appropriate (see Arthur, Kristjánsson, Gulliford & Morgan, 2015; Gulliford & Morgan, 2016; and Morgan, Gulliford & Kristjánsson, forthcoming).

The research documented here extends our scope to compare conceptions of gratitude across the lifespan in another Anglophone country, namely Australia. Whilst gratitude might be universally endorsed (Peterson, Park, & Seligman, 2006) there are likely to be socio-cultural differences in how gratitude is understood which must be brought to light before attempting to teach or foster the concept. Researchers can often fast-forward past these vital stages and begin at the educational intervention itself; it is our belief that more background knowledge about how the concept is understood is required before reaching this stage.

Interventions and curriculums pertaining to issues of morality must be appropriate to that particular culture to avoid restricting or biasing these educational programmes towards a predetermined outlook. Currently, educational interventions are adopted from different countries (primarily from the USA) without appropriate sensitivity to cultural differences. We believe these cross-cultural differences deserve further scrutiny. Our previous research comparing gratitude in the UK and US revealed noteworthy and unexpected cross-cultural differences worthy of further examination (Morgan, Gulliford & Kristjánsson, 2014); this project extends our research to compare conceptions of gratitude across the lifespan in another Anglophone country, namely Australia. This research provides important insights into the conception of gratitude, how this might change and develop across the life-span, and the degree to which it differs cross-culturally. The project has also begun to highlight how moral values

such as gratitude might be discussed in a classroom setting, with the hopes of informing future positive and character education programmes. Our fieldwork in Australia also provided the opportunity to explore the implementation of character/positive education in a different country as well as disseminating

knowledge and research techniques/tools developed in the UK (specifically at our home institution, University of Birmingham).

2. Research Design and Methodology

This project examined conceptions of gratitude in three different populations in Australia: adults; university students, and children (aged 8 – 17). Participants were recruited with the help of the University of Melbourne, and in particular Professor Lea Waters (Director of the Centre for Positive Psychology) and Research Associate Leonie Abbott.

In a replication of methods used in the 'Attitude for Gratitude' research project (2012-2015) in the UK, we tested three research tools in Australia:

2.1 Method 1: A prototype analysis of gratitude. This method identifies meanings and descriptions of concepts by asking people what features they associate with a given concept and which features they think are most important to that concept (Rosch, 1975). This allows a 'nucleus' of central concept features to be established, around which relatively peripheral features can be identified. This method is particularly useful for comparing cross-cultural similarities and differences and has enabled us to compare results from the Australian study with the findings of our recent UK study from the University of Birmingham (Morgan et al., 2014), and the earlier findings of Lambert, Graham and Fincham's (2009) US study in Florida, to see which features of gratitude are shared cross-culturally and which represent socially constructed elements (Section 3.1).

The prototype analysis is comprised of three distinct stages with each stage tested using a different sample of participants. Stage 1 involves asking participants to compile a list of features or characteristics that they believe are typical of instances of gratitude. Participants are also asked to rate the valence of these features using a scale that ranges from 1 = extremely negative to 5 = extremely positive. For example, 'happy' was the 5th most frequent feature named by the Australian sample and given an average (positive) valence rating of 4.81; 'indebtedness/obligation' on the other hand was named 36th most frequently and given an average (negative) valence of 2.18.

Stage 2 of the prototype analysis asks a second group of participants to rate how central the features obtained in Stage 1 are to the concept of gratitude. This could range from 1 = not at all central to 8 = extremely central.

Stage 3 (again with a new sample) examines how frequency and centrality ratings of gratitude features impact on cognitions about the construct.

Participants are presented with a series of character descriptions comprised of three gratitude features. These features could be central to the concept (based on frequency score from Stage 1 and centrality scores from Stage 2), peripheral to the concept, have marginal importance to the concept, or be remote features of gratitude that were mentioned by only one or two people in Stage 1. To show gratitude has a prototypical structure according the Australian sample (as it has been shown to in the UK and US samples), participants should rate the characters

that exhibit more central gratitude features as more grateful than those exhibiting peripheral, marginal or remote gratitude features. For a full description of these stages see Morgan et al., 2014.

Participants:

Stage 1: 116 undergraduate students from the University of Melbourne took part in Study 1. Of these, 88 were Australian citizens; only Australian citizens were

included in data analysis. 76% of the remaining sample was female. Ages ranged from 17 - 39 years (mean age = 20).

Stage 2 was comprised of 77 Australian citizens (an additional 60 participants took part but were not Australian and therefore removed from further analysis). Of the useable data, 67% were female; ages ranged from 17 to 25 years (mean age = 19).

Stage 3: 30 Australian citizens (and 20 non-Australian citizens) took part. Of the useable data, 77% were female, aged 18 - 25 years (mean age = 20).

In the UK's 'Attitude for Gratitude' project, 255 University of Birmingham Students participated altogether. 108 in Study 1 (98 female, with an age range of 18-40); 97 in Study 2 (84 female, with an age range of 18-36) and 50 in Study 3 (35 female, aged 18-24). Thus of the total sample, 87% were female with ages ranging from 18-40 years.

2.2 Method 2: A Vignette Questionnaire. This questionnaire probes intuitions about gratitude and was originally compiled following an extensive literature review on how gratitude is conceptualised (discussed in Gulliford, Morgan, & Kristjánsson, 2013). The questionnaire presents various scenarios to which respondents over the age of 11 must decide whether (and to what degree) gratitude is appropriate. For instance, if a benefactor has ulterior motives, should you be grateful for the benefit they bestow? Should you be grateful to someone who is simply doing their job? Mirroring data collection in the UK, this questionnaire was tested with an adolescent population of 11- 18 year olds and an adult population of 18 - 65 year olds. Testing this method has allowed us to compare UK responses to this questionnaire with those of an Australian sample (see Section 3.2).

In this project we tested a series of scenarios regarding (what should be) a very high gratitude experience: a rescue from a lake; and a series of scenarios regarding a more moderate level of gratitude: a nomination for an award. The 'lake scenarios' explored the five following conceptual issues that have been discussed in regard to gratitude:

Duty/Supererogation: Must gratitude involve someone going above and beyond the call of duty (or be more than should be expected by them fulfilling the requirements of their job)?

- And relatedly, whether individuals would feel more grateful to individual who helped when it was not their duty to help in comparison to those whose job it was to help ('No Duty')

Cost (or risk) to the benefactor: To experience gratitude must the benefaction be costly to the benefactor (i.e., take a lot of effort/risk to bestow)?

- And relatedly, whether individuals would feel more grateful to individuals who helped at bigger risk to themselves compared to those that experienced lesser risk ('Bigger Risk')

Non-realised benefit: Does the benefit have to materialise for gratitude to be experienced, or can you be grateful for the thought/intention?

The 'nomination scenarios' explored these six conceptual issues:

Cost (or risk) to the benefactor: (as described above).

Value of the benefit: Must the benefit always be of value to the recipient in order for them to be grateful?

Non-realised benefit: Does the benefit have to materialise for gratitude to be experienced, or can you be grateful for the thought/intention?

Ulterior motive: Must gratitude always involve benevolent intentions or can you feel grateful when there is an ulterior motive?

Malicious Intention: Similarly, can you feel grateful when there were malicious intentions?

Mixed emotions: Can you still feel gratitude when other (negative) feelings are involved such as guilt and indebtedness?

We tested one scenario per conceptual issue plus a 'baseline' scenario from which we could compare participant responses. This created six scenarios surrounding the lake and seven surrounding the nomination. Participants were asked to imagine that these scenarios had occurred. After each scenario participants were asked whether they *are* grateful; *how grateful* they are; and whether they *should* be grateful. See the examples below.

Lake, Baseline: 'You get into difficulties swimming in a lake. You cannot make it back to the shore and you are in real danger. A person on the shore sees you struggling and dives in and rescues you.'

Lake, Risk/Cost: 'You get into difficulties swimming in a lake. You cannot make it back to the shore and you are in real danger. A person on the shore sees you struggling and dives and rescues you. You know that she is risking her own life by doing so as she is not a very good swimmer.'

You are grateful to this person for their help.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Please indicate the degree of gratitude you feel on the scale below:

Not at all grateful Most grateful you could feel

You should be grateful to this person for their help.

Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree

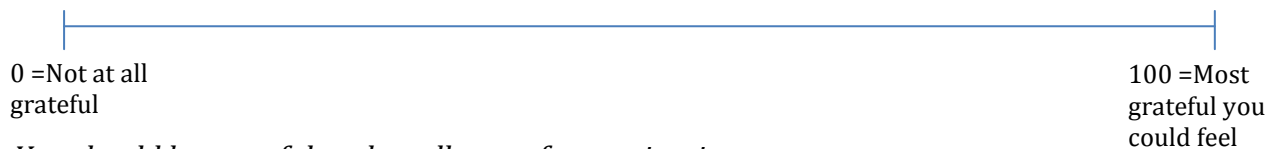
Nomination, Baseline: *'A colleague nominates you for an award at work. If you win, you will receive recognition of your hard work and a voucher.'*

Nomination, Ulterior Motive: *'A colleague nominates you for an award at work. If you win, you will receive recognition of your hard work and a voucher. The colleague has nominated you because she wants you to repay the favour by helping her with her own workload.'*

You are grateful to the colleague for nominating you.

Strongly agree Agree Neither agree nor disagree Disagree
Strongly disagree

Please indicate the degree of gratitude you feel on the scale below:



You should be grateful to the colleague for nominating you.

Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree

Participants:

Adult sample:

Australian adult sample comprised 234 participants who completed both the Lake and Nomination scenarios. Participants were aged 18 – 85 years (mean age = 46). Of these, 71% were female. 48% identified as Christian and 22% as atheist. Of those who had a religion, 43% practised that religion and 57% did not. Of the adults who accessed the vignette questionnaire in the UK as part of the 'Attitude for Gratitude' research project, 426 were included in the cross-cultural analysis (250 for the Lake scenarios and 248 for the Nomination scenarios). Of these, 76% were female, with ages ranging from 18-65 years (M= 28 years). 36% were Christian and 36% were atheist. Of those who identified with a religion, 40% practised their religion and 47% did not.

Adolescent sample:

Due to the large sample-size difference between Australian adolescents (N = 2364) and UK adolescents (N = 271), we matched the UK data with a selection of the Australian data based on demographic variables. That is, UK and Australian adolescent samples were matched on gender, ethnicity, age, and, where possible, practise religion (yes/no). This created a UK adolescent sample of 198 participants, ages 11 -18 years (mean age = 14). Of these, 56% were female, 8% practised their identified religion and 88 % did not. The matched Australian adolescent sample contained 126 participants, ages 11 – 17 years (mean age = 14). 61% were female, 21% practised their identified religion and 84 % did not or responded 'don't know'.

2.3 Method 3: Gratitude stories for children. Stories around gratitude were used to probe children's (aged 8 – 11 years¹) understanding of the concept of gratitude. The four stories incorporated the themes elaborated in the vignettes, enabling us to examine the way in which different factors that may impact on gratitude attributions may differ across the lifespan. Although we tried to replicate the conceptual controversies used the vignettes, it was not possible to cover all the manipulations exactly. However, the 'Blue Oasis' story which recounted events at a pool party, mapped onto the vignette lake rescue scenario well. Two stories, 'The St Oscar's Oscars' and 'The Class Captain',² both incorporated nominations and covered similar content to the nomination scenario. The final story, 'Shooting Hoops' specifically probed children's understanding of duty and supererogation, in addition to examining other possible amplifiers of gratitude.

Participants:

Three schools in the Melbourne area (Carey Baptist, Ivanhoe and Kingswood) participated in the study. Altogether 531 children participated across the four schools, completing one of the four story workbooks each. The mean age of respondents was 10 years and 3 months. 49% of the sample were male and 41% female.³ The sample's cultural background was predominantly Australian (59%). In terms of religion, 42% were nominally Christian while almost a quarter (23%) said they did not profess any religion. Of those who did profess a religion, 22% indicated that they practised it.

In the UK, 270 primary school children (aged 8 – 11 years) completed one of the four story workbooks. Although we asked respondents what class they were in (and expected to be able to extrapolate age from this) some of the participating schools were in rural areas where class boundaries were not drawn so closely by age. Consequently, we are unable to give an indication of respondents' mean age. 80% of the total sample were White British and 51% were female. 44% described themselves as Christian and 21% as Atheist. Of those who identified with a religion, 39% practised their religion and 49% did not.

¹ 9- 12 years in Australia

² 'Class Councillor' in the UK

³ This data was missing for 10% of the sample.

3. Results and cross-cultural comparisons:

3.1 Prototype analysis

The gratitude features generated by our Australian sample can be seen in Table 2. In total, our sample of 89 participants generated (837) features of gratitude (an average of 7 features were generated per participant). These features were coded by two independent raters in terms of lexical and semantic similarity. Features that contained the same word roots were categorised into the same category (e.g., love and loving), as well as features that were close in semantic meaning (e.g., satisfied and content). This gave rise to 66 'key gratitude features' that were named by more than one or two participants. The degree of overlap between the two raters' categorisation procedures was checked using Cronbach's alpha. This demonstrated very high agreement between the two raters ($\alpha = .85$).

The majority of features generated in this study were positive in valence ($M = 4.29$, $SD = 0.68$). This is in keeping with the pattern documented in the equivalent UK and US prototype studies. The most commonly named feature in this Australian sample was 'appreciation' (named by 49% of participants with a very positive valence rating of 4.76). As can be seen in Table 1 below, the most frequently named features in this sample (and the UK and US samples also) were all rated very positively in terms of valence.

Australia: Top Five Features	%	Valence	UK: Top Five Features	%	Valence	US: Top Five Features	%	Valence*
Appreciation	49.4	4.76	Happy	65.3	4.79	Thankful	72.5	5.82
Thankful	40.3	4.68	Thankful	50	4.74	Appreciation	60.4	5.75
Expressing thanks	37.7	4.62	Appreciation	47.7	4.69	Happy feeling	40.9	5.94
Positive	37.7	4.81	Smile	43.5	4.76	Nice/kind	23.1	5.63
Happy	32.5	4.81	Grateful	36.6	4.63	Loving	19.8	5.77

*Table 1: Five most frequently named features across the Australian, UK and US samples. *The valence scale for the US study ranged from 1-6, and was adapted for the UK and Australian samples to contain a neutral mid-point.*

Interestingly there were only three negatively valenced features named in this study regardless of the instructions stating that we were interested in positive and negative features. The three negative features are 'indebtedness/obligation' (which was named by 6.5% of respondents with a valence rating of 2.18); 'guilt' (named by 2.6% of the sample and given a valence rating of 2); and 'vulnerable' (3.9%, with a valence of 2). Indebtedness/obligation was also named by participants in the UK and US samples, however, the frequency of mentions in the UK was considerably greater; 29% of this sample named indebtedness/obligation as a feature of gratitude. Guilt also appeared in the UK sample, again with much higher frequency than in the Australian sample; 17% in comparison to 2.6% in Australia. Guilt was not categorised as a key feature of gratitude in the US sample. 'Vulnerable' is a negatively valence feature unique to the Australian sample.

Overall, these results indicate that, in terms of the valence of gratitude, Australians (like Americans) are less likely to note the potential negative associations of the construct than Brits are. We return to this issue in the vignette questionnaire and children's stories.

When previously comparing features associated with gratitude across UK and US samples (see Morgan et al., 2014) we noted how there was a significant degree of

overlap in the features generated yet a number of features unique to each culture. We described this in terms of gratitude having “a common core with culturally ubiquitous features, but also socially constructed elements specific to individual cultures” (p. 281). This same pattern is seen again in our Australian sample: many features appear in all three prototype studies, as evident in Tables 1 and 2. Furthermore, correlations of frequency scores across the three samples also revealed a significant strong and positive relationship between features generated in the Australian study and features generated in the UK study ($r = .81$, $p < .001$), as well as a significant correlation between features in the Australian study and those in the US study ($r = .87$, $p < .001$).

There are, however, a number of features that have appeared in this Australian sample that were not previously mentioned in either the UK or US studies.

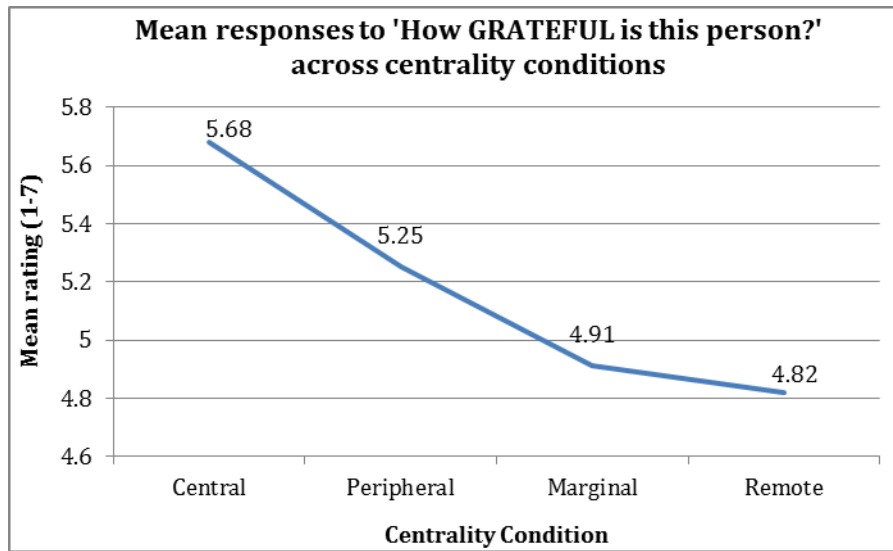
Examples of these unique features include a ‘gratitude ripple effect’ (named by 16% of the sample); ‘relaxed’ (8%); ‘open’ (or ‘openness’, 8%), ‘heart-warming’ (10%); ‘fulfilment’ (6%) and ‘reflection’ (5%).

In Study 3, we demonstrate how frequency and centrality affect cognitions about gratitude. Here participants were presented with four character descriptions containing central gratitude features (e.g., Person A ‘feels positive’, ‘experiences warm feelings’ and ‘feels appreciative’) four character descriptions containing peripheral gratitude features (e.g., Person E ‘is caring’, ‘feels acknowledged’ and ‘feels connected’); four containing marginal features (e.g., Person I ‘feels clarity’, ‘has perspective’ and ‘is helpful’) and four with remote features (e.g., Person M ‘appreciates nature’, ‘is sharing’, and ‘is productive’)⁴. In response to this question participants were asked six questions, the key question being ‘How GRATEFUL is this person?’. This was answered on a 7-point Likert scale ranging from 1 = not at all grateful to 7 = extremely grateful. We expected to see that fictional characters exhibiting central gratitude features (the ‘central condition’) would be rated as more grateful than those exhibiting peripheral, marginal or remote features.

The results of a within-subject’s ANOVA supported this hypothesis demonstrating a significant main effect of centrality on gratitude ratings ($F(3, 87) = 19.30$, $p < .001$). Those characters described in the central condition were rated as more grateful than those in the remaining three conditions (see means and Graph 1 below). The prototypical nature of gratitude that was illustrated in the UK and US samples (see Morgan et al., 2014 and Lambert et al., 2009 respectively) is, thereby, re-confirmed in this Australian sample.

⁴ Please note that the valence ratings associated with these gratitude features were matched across conditions and a ANOVA revealed that there was no significant differences across the four conditions ($F(3, 47) = .313$, $p = .82$).

Graph 1: Mean responses to 'How grateful is this person?' across centrality conditions.



Generosity	6.49	5	6.06	Generous	3.70	4.25	5.71	Generous	3.3	5.33	6.7
Relief	6.49	4.11	4.76	Relief	14.81	4.44	3.82				
Calm/Peaceful	6.49	4.67	4.60	Calm	8.33	4.49	3.5	Peaceful/ calm	4.4	6	6.19
Fortunate	6.49	5	5.94								
Indebtedness/ obligation	6.49	2.18	4.40	Indebtedness/ obligation	29.17	2.26	4.07	Indebtedness/ obligation	8.8	2	3.89
Selfless	6.49	4.5	5.61					Selflessness	9.89	5.27	6.13
Open body language	5.19	4.33	4.66	Open body language	3.70	4	4.83				
Reflection	5.19	3.8	5.60								
Hug/Hugging	5.19	4.86	4.60	Hug	18.06	4.64	4.69	Hugging	3.3	6	6.56
Pleased	5.19	4.67	5.74								
Optimism	5.19	4.67	5.72	Optimistic	2.78	4.67	4.53				
Heart rate changes	5.19	3.75	3.97	Heart rate changes	5.56	3.59	3.42				
Lucky	5.19	4.75	5.29	Lucky	2.78	5	3.7	Feeling luck	4.4	5	4.92
Affection	5.19	4.4	5.29								
Excited	5.19	4.5	4.68	Excited	12.96	4.37	4.19				
Favour	5.19	3.5	4.60	Favour	2.31	4	4.92	Deeds	3.3	5	5.65
Understanding	3.90	4	5.66								
Perspective	3.90	4	5.18								
Helpful	3.90	4.67	5.57	Helping	15.28	4.3	5.72	Helping	15.39	5.71	7.1
Hope	3.90	5	5.35								
Less stressed	3.90	4.75	4.68								
Surprise/shock	3.90	3	3.75	Surprise	16.67	3.76	6.38				
Blessed	3.90	5	5.10	Blessing	5.56	4.33	4.45				
Open minded	3.90	3.67	5.05								
Light (feeling)	3.90	4.5	4.53								
Crying	3.90	3.6	2.96	Crying	12.50	3.64	2.74	Crying	3.3	3.67	3.71
Awe	3.90	3.75	4.27								
Manners	3.90	4.67	4.64	Politeness	9.72	4.53	5.91				
Clarity	3.90	4	4.47								
Friendship	3.90	4	5.31	Friendship	13.43	4.55	5.4	Friends	9.89	5.56	6.55
Eyes widen	3.90	3.33	3.34								
Vulnerable	3.90	2	3.30								
Clasping hands	3.90	4	3.14	Handshake	9.26	4	3.84				
Guilt	2.60	2	2.83	Guilt	16.67	1.71	3.62				

Table 2: Gratitude features named in the Australian Sample with associated frequency and valence and centrality scores. The equivalent features are shown for the UK and US study. Rows highlighted in blue indicate features that are unique to the Australian sample. (Features unique to the UK and US have not been entered due to issues of brevity).

3.2 Vignette Questionnaire

Adult Sample:

As described in the 'Research Design and Methodology' section, two series of scenarios were tested with Australian adults; one about a lake rescue and one about a nomination for an award. These scenarios had previously been tested with a UK sample (see Section 2.2).

In each series of scenarios we were interested in differential responding to the three key questions: whether respondents are grateful ('Are scores'), how grateful they are ('Degree scores') and whether they should be grateful ('Should scores'). That is, in comparison to the baseline, would scores increase or decrease depending on the type of scenario presented. For example, would the presence of an ulterior motive lead to decreased Are, Degree and Should scores (relative to baseline)?

We were also interested as to whether the pattern of results (or 'gratitude profile') would be different across the two samples (UK and Australia).

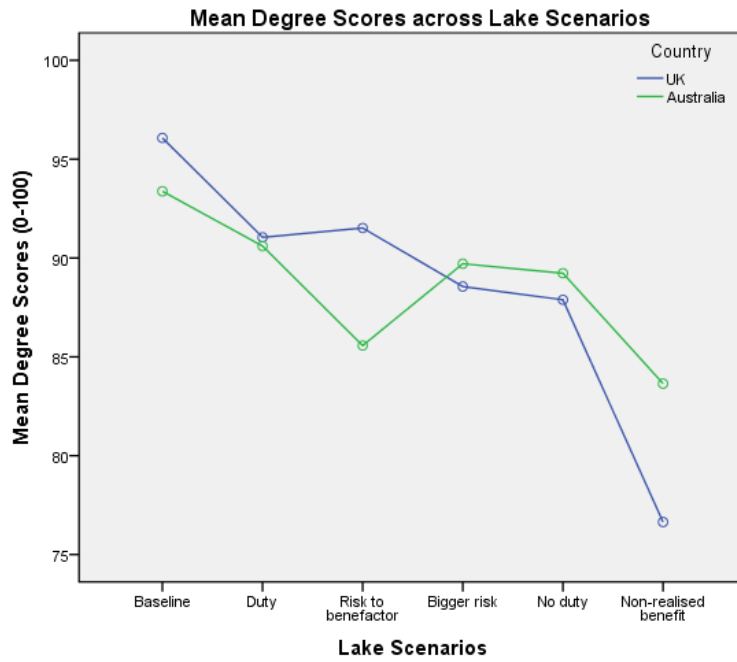
To examine this we conducted a mixed analysis of variance (ANOVA) with scenario type (baseline, cost, ulterior motive etc.) as the within-subjects variable and country as the between-subjects variable. We also included two additional between-subjects variables which have been shown in previous research to impact on gratitude experience, these were gender and practise of religion. We looked the lake scenarios and nomination scenarios separately and present results from each analysis below.

Lake Scenarios (baseline, duty, cost/risk to benefactor, bigger risk, no duty, and non-realised benefit):

The overall profile of Degree scores (ranging from 0 -100) for this set of scenarios can be seen in Graph 2 below. The profile demonstrates how degree scores (unsurprisingly) start near ceiling for both countries; a rescue from a lake is indeed deemed to be a very high gratitude experience (UK M = 96.1, SE = 1.05); Australian M = 93.4, SE = 1.19). Gratitude experience decreases slightly when carried out in the name of duty (UK M = 91.0, SE = 1.54; Australian M = 90.6, SE = 1.75). The scores then diverge across samples when it comes to risk. Indeed, this effect is approaching statistical significance ($p < .06$); in comparison to baseline both sets of participants seem to reduce in self-reported gratitude when the situation involves risk to the benefactor. However, this reduction in reported gratitude is more marked for the Australian citizens. Previously we have suggested that risk-taking behaviour when it comes to a life threatening situation may be deemed foolhardy rather than desirable (see Arthur et al., 2015; Gulliford & Morgan, 2016).

One point where responses across the UK and Australian samples do differ is in terms of a non-realised benefit. Here it seems that the Australian sample is much more generous and report significantly higher levels of gratitude, relative to baseline, than the UK sample (UK M = 76.6, SE = 2.81; Australian M = 83.6, SE = 3.21). Relative to the baseline, UK degree scores decrease considerably further than Australian degree scores ($F(1, 461) = 5.234, p < .05$).

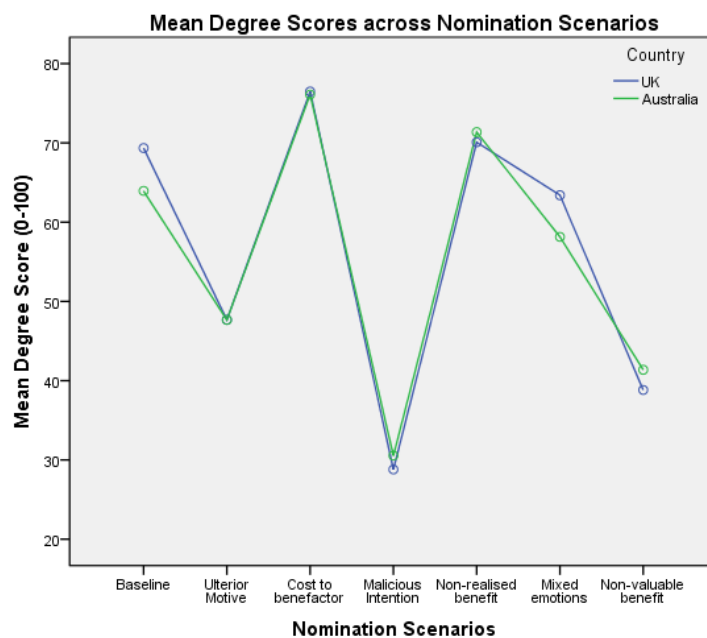
There were no other interactions between scenario type and country and no interactions between these variables, gender and/or practise religion.



Graph 2: 'Gratitude Profile' showing the mean degree scores across Lake scenarios as shown for both UK and Australian adult samples.

Nomination Scenarios (baseline, ulterior motive, cost to benefactor, malicious intention, non-realised benefit, mixed emotions, and non-valuable benefit): The nomination scenarios demonstrate a very consistent pattern of degree scores across the UK and Australian samples, as can be seen in Graph 3. The gratitude profile for the two samples is almost identical. A mixed ANOVA (with scenario type as the within subjects variable and country, gender and practise of religion as between subjects variables) revealed that there was only one difference in how the scenarios were responded to (relative to baseline) across the two samples, this was for a non-realised benefit where the nomination did not lead to an

award being given ($F(1, 459) = 5.601, p < .05$). Relative to baseline degree scores (UK $M = 69.4, SE = 2.08$; Aus $M = 63.9, SE = 2.98$), Australian degree scores for non-realised benefits actually increased ($M = 71.4, SE = 3.04$). UK non-realised degree scores, on the other hand, were almost comparable to baseline scores ($M = 70.1, SE = 2.11$). Interestingly in this scenario, a nomination that didn't lead to an award led to equivalent or even increased levels of self-reported gratitude in comparison to where no outcome (win/lose) was specified. Once again, the Australian sample (self-) reported greater levels of gratitude in response to a non-realised benefit in comparison to the UK sample. This effect is consistent across high gratitude experiences (the lake rescue) and more moderate gratitude experiences (the nomination).

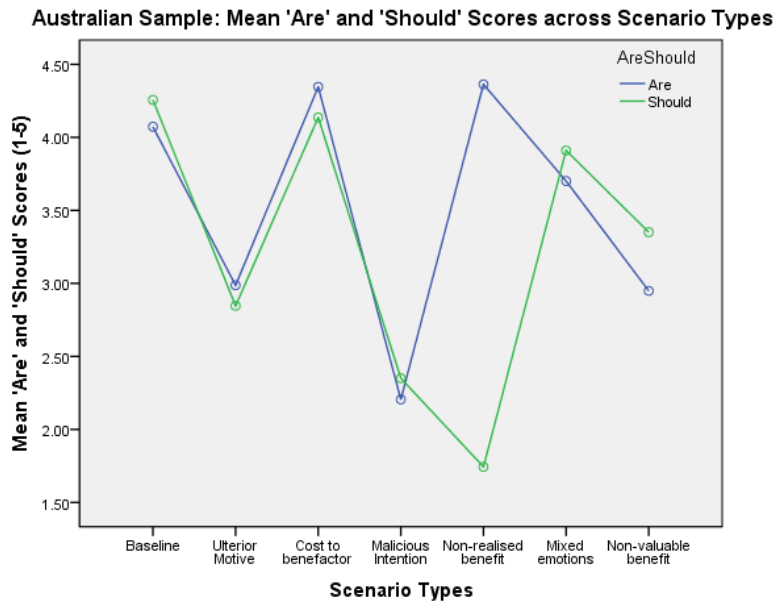


Graph 3: 'Gratitude Profile' showing the mean degree scores across Nomination scenarios as shown for both UK and Australian adult samples.

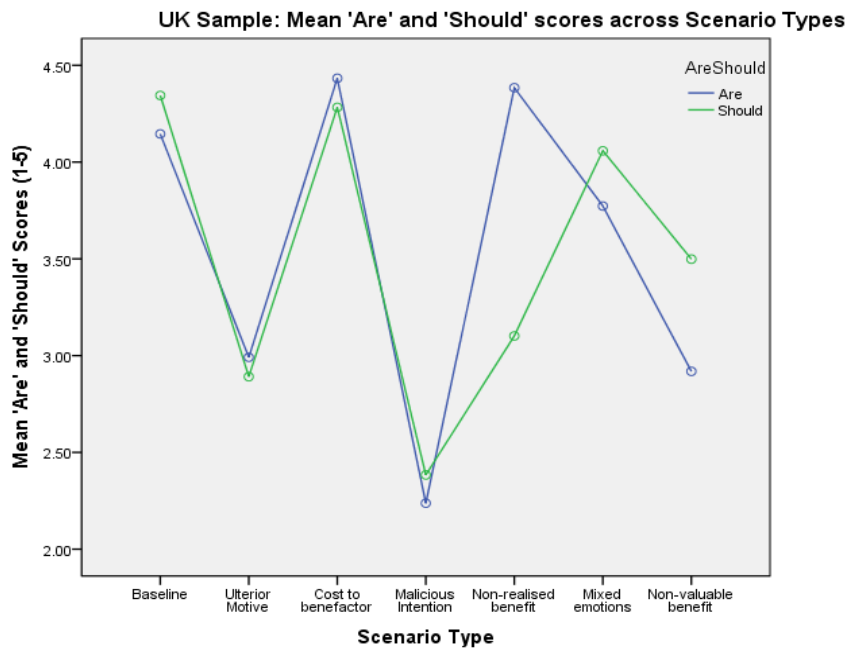
An interesting comparison within the nomination scenarios is between response to 'you *are* grateful' (Are scores) and responses to 'you *should* be grateful' (Should scores). Both of these questions are answered on the same 5-point likert scale ranging from 1 = *Strongly disagree* to 5 = *Strongly Agree*.

To explore how whether the pattern of these 'Are' and 'Should' scores differed across scenario types or across samples we conducted another mixed ANOVA with 'Are' and 'Should' scores across the seven scenario types as within-subjects variables (scenario type, 7 levels; are/should scores, 2 levels) and country as the between-subjects variable. The results demonstrated in Graphs 4 and 5 demonstrate that for the majority of cases 'Are' and 'Should' scores are very similar. However, there are points where 'Are' and 'Should' scores appear to diverge from one another, both within the same samples and also across the two samples. That is, there is a significant two-way interaction between the variables 'Are/Should' and 'Scenario Type' ($F(6, 2904) = 211.78, p < .001$) and a significant three-way interaction between 'Are/Should', 'Scenario Type' and 'Country' ($F(6, 2904) = 140.09, p < .001$). When exploring the scenario types further using post-hoc analyses, we see that these interactions are a result of a larger difference between 'Are' and 'Should' scores (relative to the Are/Should difference at baseline) for the non-realised benefit and non-valuable benefit scenarios (Non-realised: $F(1, 484) = 400.1, p < .001$; Non-valuable: $F(1, 484) = 6.42, 0 < .05$). For the non-realised benefit, the UK 'Should' score increases relative to the baseline (Non-realised UK $M = 4.60$, Baseline $M = 4.43$). However, in the Australian sample the same 'Should' score drastically decreases relative to the baseline (Non-realised Aus $M = 1.74$, Baseline $M = 4.26$).

In terms of the non-valuable benefit, the UK 'Are' scores decrease further from baseline than the Australian 'Are' scores (UK: Non-valuable $M = 2.89$, Baseline $M = 4.22$; Australia: Non-valuable $M = 2.95$, Baseline $M = 4.08$). This thereby creates a larger difference in 'Are/Should' UK scores for the Non-valuable benefit scenario (relative to the gap at baseline) compared to the same difference documented in the Australian sample.



Graph 4: Mean 'Are' and 'Should' scores across (nomination) scenarios types in the Australian Adult Sample.



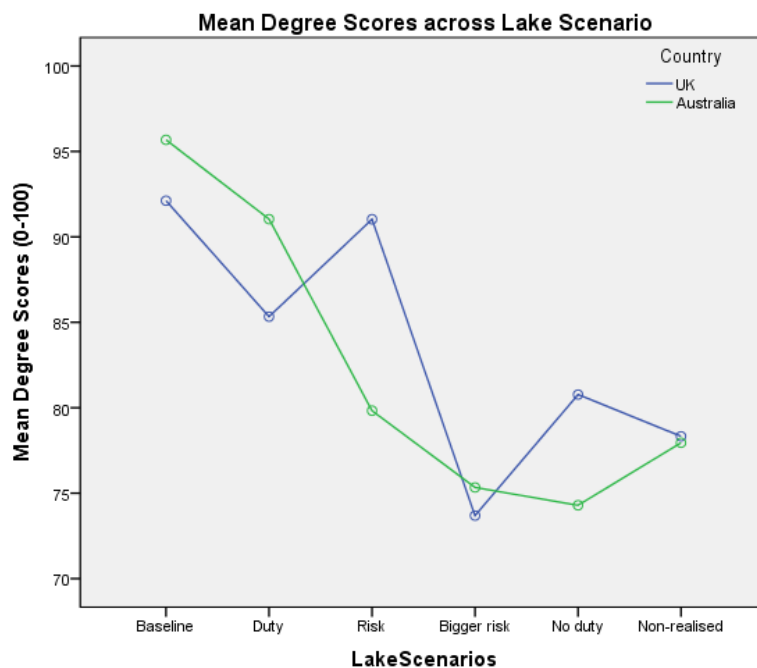
Graph 5: Mean 'Are' and 'Should' scores across (nomination) scenarios types in the UK Adult Sample.

Adolescent Sample:

Lake Scenarios (baseline, duty, cost/risk to benefactor, bigger risk, no duty, and non-realised benefit):

Again, the overall profile of Degree scores (ranging from 0 -100) for this set of scenarios can be seen in Graph 6 below. Interestingly, the adolescent UK and Australian samples show differing profile patterns than the UK and Australian adults (compare Graphs 2 and 6). There are also differences across the two countries when examining the adolescent samples. Using a mixed ANOVA (with lake scenarios as the within-subjects variable and country, gender and practise religion as the between variables) we see that, relative to baseline, self-reported degree of gratitude in response to the risk scenario decreases much further in the Australian adolescent sample than it does in the UK sample (Mean difference Aus: -1.09; Mean difference UK: -15.85; $F(1, 156) = 5.205, p < .05$). Indeed, the degree of gratitude reported in this instance is lower than the degree reported towards a lifeguard who is just doing their job (see Graph 5). Perhaps this could be reflective of perceiving the rescuer (who is not a strong swimmer) as more fool-hardy and therefore less deserving of gratitude.

Relatedly, the Australian sample reported less gratitude in the 'no duty' scenario. This scenario asks whether you would be more grateful to the person who helps at a bigger risk to themselves (as they are not a strong swimmer) than to the lifeguard whose job it is to save you. Australian adolescents appear to deem this situation as less deserving of gratitude than the UK adolescents (Aus $M = 74.3, SE = 4.68$; UK $M = 80.8, SE = 4.63$), an effect that is approaching statistical significance ($F(1, 156) = 3.398, p = .067$).



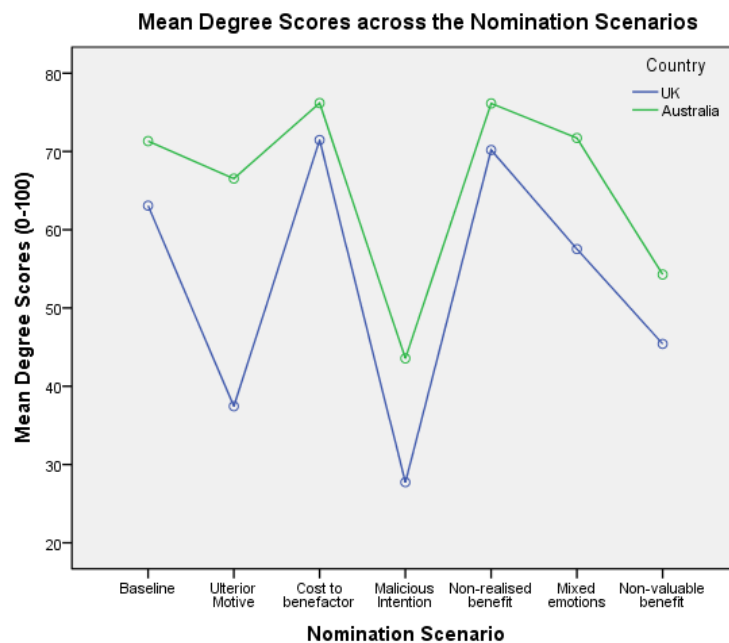
Graph 6: Mean degree scores across the six lake scenarios, as shown for the UK and Australian adolescent samples.

There were no other interactions between scenario type and country and no interactions between these variables, gender and/or practise religion.

Nomination Scenarios (baseline, ulterior motive, cost to benefactor, malicious intention, non-realised benefit, mixed emotions, and non-valuable benefit):

Previously, in the adult data, we saw a very similar profile of gratitude degree scores across the UK and Australian samples. For the adolescent data we see more discrepancies across the two cultures. As is clearly evident in Graph 7, the Australian sample reports a greater degree of gratitude across all 7 nomination scenarios. A mixed ANOVA (with nomination scenarios as the within-subjects variable and country, gender and practise religion as the between variables also demonstrates a significant interaction between nomination scenarios and country ($F(6, 1020) = 2.59, p < .05$). When exploring where, within the 7 scenarios, this significant difference lies, we see that it is due to different degrees of gratitude being reported in response to the ulterior motive scenario (see Section 2.2). Relative to the baseline degree, Australian adolescents report less gratitude in response to the ulterior motive scenario (Mean difference = -4.79), however, this decrease in reported gratitude is not as large as we would have expected. Indeed, this decrease is much more pronounced for the UK adolescent sample (Mean difference = -25.63; $F(1, 170) = 5.382, p < .05$). Not only that, the decrease is also more pronounced in the Australian (and UK) adult data (see Graph 3). It appears as though Australian adolescents deem ulterior motives to be more worthy of gratitude than UK adolescents and Australian (and UK) adult counterparts.

Graph 7: Mean degree scores across the seven nomination scenarios, as shown for the UK and Australian adolescent samples.



3.3 Gratitude Stories

Ulterior motives

In the UK, 29% of the sample indicated that they thought a character who had been nominated for an award with an ulterior motive would be grateful for it. The case in question involved a boy called Robbie, who was told he was being nominated for his football skill, but immediately after he had been 'sweetened' was asked by his nominator if she could copy his answers in a test. Thus less than a third of the UK participants thought Robbie would be grateful for the nomination. In contrast, over half the Australian respondents thought Robbie would be grateful (52%).

To probe whether children *understood* that an ulterior motive was at play, they were asked to provide a reason for their answer. In the UK, 70% respondents gave answers which showed they understood the nomination was motivated by an ulterior motive. However, in Australia the modal response given was that Robbie was nominated because he scored a deciding goal in a game of football with a rival school (50%). Only four of the 67 children who picked this option also realised that Robbie had been nominated for the ulterior motive. While 46% of the Australian sample did recognise the ulterior motive, the qualitative data strongly suggest that the reason why so many more Australian children thought that Robbie would be grateful for the nomination was that they did not recognise that Robbie's nominator had ulterior motives for her nomination.

Mixed Emotions

Mixed emotions and the sense of obligation/indebtedness were explored in 'The St Oscar's Oscars'. In the story, we are told that a boy named Ethan was planning on nominating Dominic Pearson for an award until his classmate (Jordan) tells him, against the teacher's advice, that Ethan has his vote. In the UK 60% of respondents said they thought that Ethan would be grateful to Jordan for the nomination, while 37% ticked 'no' (they did not think Ethan would be grateful). Quantitative responses suggest that the Australian children were less influenced by mixed emotions than the UK respondents. In the Australian sample, 73% said they thought Ethan would be grateful for the nomination, while 27% thought he would not be. To probe this matter further and to explore whether children thought that Ethan would be grateful *despite* feeling mixed emotions, or whether they thought mixed emotions *attenuated* gratitude, children were asked to support their answer with a reason for their choice and were asked to describe how they thought Ethan was feeling, and whose name Ethan should finally put down: Jordan (who had nominated him) or Dominic (whom he originally had in mind to nominate).

Qualitative data showed that 40% of the UK sample (and 32% of the Australian sample) thought that Ethan would be feeling confused and 13% of the UK sample (and 30% of the Australian children) said he would be feeling awkward. 6% of the UK sample and 23% of the Australian sample said he would feel worried, flustered or nervous, while 3% of the UK sample and 6% of the Australian children specifically invoked 'mixed emotions' in their response. Thus it is clear that both groups recognised that Ethan was experiencing mixed emotions as a result of Jordan's actions.

In the UK 63% of the children thought Ethan should stick with nominating Dominic (his original choice) while 21% suggested he switch allegiance in the light of having been nominated, and opt for Jordan instead. A slightly higher proportion of Australian children (69%) believed Dominic should still get Ethan's vote, and slightly fewer (17%) thought he should plump for his nominator, Jordan.

These data, taken alongside the quantitative data, add further support to the position that the Australian children seemed to be less negatively impacted by mixed emotions than the UK children. More Australian children thought that Ethan would be grateful for the nomination (73% as opposed to 60%) despite recognising that mixed emotions were at play and proportionately more of them thought Ethan should stick by his original choice. While the Australian children clearly recognised that Ethan was feeling conflicted and experiencing mixed emotions, they did not seem to feel that this negatively impacted on Ethan's gratitude as much as in the UK, where more than a third thought that Ethan would *not* be grateful for the nomination.

Malicious Motives

Malicious intentions were probed by means of a story in which a shy boy named Jason is nominated to be class councillor/captain purely as a joke by two bullying nominators. Although in the end Jason actually rises to the occasion, the story recounts that the nomination was motivated by non-benevolent reasons. In the UK, 86% of respondents thought that Jason would *not* have been grateful to have received the nomination, while 8% said that he was either 'really grateful' (5/5 on Likert scale) or 'quite grateful' (4/5) to have been nominated. In Australia, 82% thought Jason would *not* have been grateful for the nomination, and 13% indicated that he would have been either 'really/quite grateful'. Thus slightly more children in the Australian sample seemed to think that Jason would be grateful for the nomination than in the UK.

The modal response given for why Jason would not want the nomination was because he was shy (69% UK, 71% of the Australian sample). Although Jason does not know (at this point) that he *is* going to be nominated, 28% of the Australian sample and 15% of the UK sample cite the fact that malicious reasons were implicated in the nomination as the reason why Jason would not be grateful. Some children in both groups thought Jason would be grateful anyway (11% of Australian children and 6% of UK children), while 4 Australian children (3%) and no British children thought that it might actually benefit Jason in the long-run.

The fact that almost double the Australian children thought that Jason would be grateful for the nomination, and that some Australian children actually thought the nomination might ultimately benefit Jason, perhaps suggests that the Australian children's gratitude is less impacted by malicious motives in addition to being less affected by mixed emotions, as the previous analysis showed. However, further replication of the study would be necessary to corroborate whether this is a consistent finding.

Duty and Supererogation

'The Blue Oasis' story describes an eventful pool party where some of the characters get into difficulties in the pool and are eventually saved. This enabled similar themes to the lake rescue vignette scenario to be examined. In terms of duty, 99% of UK respondents thought a character in the story would be grateful to a lifeguard for rescuing her, even though it is her job. In other words, just one child indicated that gratitude was *not* warranted because the lifeguard was only doing her duty. Similarly, in the Australian sample, there was also just one child who thought gratitude was not warranted when someone was simply doing their job (again 99% of the valid responses).

To examine issues revolving around duty and supererogation in a less 'dramatic' situation, a story called 'Shooting Hoops' tapped into children's views about whether people are more grateful when someone goes the extra mile in retrieving a wayward ball when they *didn't* send it over the fence themselves than they are when someone collects a basketball they sent into a neighbour's garden themselves. 93% of the Australian sample and 100% of the UK sample reported that they would still be grateful to the person whose 'duty' it is to fetch a ball they sent over. Qualitative responses showed that 55% of the Australian sample acknowledged that in retrieving the ball, the child was doing the right thing/his duty, a response that was cited by 10% fewer UK respondents (45%). In the case of a child collecting a ball from a reputedly grumpy neighbour's garden when she had *not* sent it over (and she was going above and beyond duty in retrieving it), 68% (the modal response) of the valid Australian sample indicated that they would be 'really grateful' (5/5 on Likert scale), whereas the modal response in the case of someone doing their duty was 'quite grateful' (4/5 on Likert scale) and only 29% picked 'really grateful'. In the UK, 58% selected 'really grateful' in the case of duty, while 70% (roughly the same percentage as in the Australian sample) picked 'really grateful' in the case of a child going above and beyond duty to retrieve a ball she was not responsible for sending over the wall.

Qualitative responses support the view that there were increments in gratitude in the latter case *partly* because of a perception this child had gone above and beyond duty in fetching the ball (51% of the Australian sample and 50% of the UK sample). Other reasons included the fact that the child was being brave (26% of the Australian sample and 5% of the UK sample) and that the child was giving the friend who sent it over time to cool down on a hot day (26% of the Australian sample and 10% of the UK sample).⁵ On reflection, this question might

⁵ It would seldom be hot enough in the UK for this reason to have quite as much traction as in a South Australian or Victorian summer!

have been better controlled had the story not referenced the weather or the neighbour's alleged grumpiness (though the latter was an important element of the storyline).

Risk/Cost

With regard to risk/cost, in the *Blue Oasis* children read how a man attempted (but failed) in a rescue that was finally successfully achieved by a lifeguard. When asked to whom they would be most grateful (the lifeguard or the man), 65% of the UK respondents thought they would be more grateful to the man who tried to save them than the lifeguard who actually did save them (22%). 14% said both. In the Australian sample, of the valid responses we found that 44% were most grateful to the man, 33% were most grateful to the lifeguard, 14% said both and 9% said they didn't know.

Though the percentages differed, we found the same pattern across both groups. Namely, children seemed to think that more gratitude was due to someone who appeared to take a bigger risk in trying to bring about a rescue, though note that twenty percent less Australian children picked the man over the lifeguard. Analysis of qualitative responses to explain respondents' choice seemed to back up the role danger played in their decision; 25% of Australian children and 28% percent of the UK children mentioned risk, while 14% of Australians and 23% UK sample referenced the supererogation condition (that it wasn't the man's job to help).

Risk also played a part in 'Shooting Hoops' where all respondents agreed that they would be grateful to a child taking the risk of getting stung by nettles in retrieving a basketball that had landed in an awkward spot in the garden. A greater percentage of UK respondents indicated that a character would be 'really grateful' (5/5 Likert scale) in comparison to when the ball was retrieved from a sense of duty (80% as opposed to 58%). In the Australian sample there was a similar pattern, though lower levels of gratitude were reported in both cases (51% picked 'really grateful' in the risky situation while 29% picked 'really grateful' in the condition where the child retrieving the ball was only doing his duty).

These findings show that children take account of perceived risk/cost as amplifiers of gratitude. This was true in the more dramatic rescue example of 'The Blue Oasis' and in the lesser risk described in 'Shooting Hoops'. Qualitative data from both these stories underscored that risk was a named factor in both circumstances. Are children grateful for intended benefits that fail to materialise, or benefits which are not perceived to be valuable? Do children heed the adage, 'it's the thought which counts?' Data from the stories shed some light on the question of non-realised benefits.

Non-realised Benefits

In *Shooting Hoops* the friends search to no avail for a wayward ball. When asked whether they thought the ball's owner would be grateful to his friends despite their lack of success, 84% of the UK sample and 85% of the Australian sample said that they thought the boy would be either 'really grateful' or 'quite grateful'. Similarly, in the *St Oscar's Oscars* respondents were asked whether they thought a boy would have been more grateful for a nomination for an award had he actually won the award (an 'Oscar'). 49% UK participants and 57% of Australian respondents said yes, he would have been *more grateful* had he won. 51% of UK participants and 43% of the Australian sample thought he would not have been any more grateful.

When asked for their reasons, the following justifications emerged; 'Because I think Phong would just be happy that someone recognises him as someone worthy of the St. Oscar's Oscar' (Australian respondent); 'Because it doesn't matter if you win or lose. It's all about taking part' (UK respondent); 'Because if you got nominated you get an amazing feeling, when you win you glow' (Australian respondent); 'Because it's always better to win!' (UK respondent). Clearly, both quantitative and qualitative data support the view that children recognise that the thoughts counts a great deal, though at the same time children (like adults) would like a benefit to materialise!

4. Discussion

The findings from the prototype analysis suggest that gratitude does have a common core and many features of gratitude are ubiquitous across different cultures (at least Westernised countries that is). Examples of these features include appreciation, thankfulness, happy, satisfaction and warm feeling. One negatively valenced feature that occurs across all features is indebtedness/obligation. In terms of negatively valenced features, however, there does seem to be cross-cultural differences in the associations attached to gratitude; in the UK we observe more negatively valenced features being named in association with gratitude, and those that are mentioned across cultures (such as indebtedness/obligation and also guilt) are mentioned with more frequency in the UK sample.

The Australian sample offer a number of gratitude features that are unique to that culture. These include, a 'gratitude ripple effect'; 'relaxed'; 'open' (or 'openness'), 'heart-warming'; 'fulfilment'; and 'reflection', amongst others. This supports our previous hypothesis (see Morgan et al., 2014) that whilst gratitude has a common core, it also has socially constructed elements that are specific to individual cultures. This would be even more revealing if carried out in more dissimilar cultures (however, this becomes more difficult when we move away from Anglophone countries as the results are conflated with differences in language).

The second methodology noted here, the vignette questionnaire, enabled us to explore the conceptualisation of gratitude (in adults and adolescents) in more depth. The lake scenarios explored notions of duty, cost/risk to the benefactor and non-realised benefits. This series of six scenarios (including a baseline scenario for comparison) revealed how, for the adult sample, the Australian sample deem a non-realised benefit worthy of more gratitude than the UK sample. In the Australian adolescent sample, we note how self-reported gratitude in response

to the risk scenario decreases further from baseline than it does in the UK sample. This cross-cultural difference is also approaching statistical significance in the adult data; overall, it appears that Australian citizens view risk-taking behaviour as less worthy of gratitude than the UK citizens. Perhaps the safety of the benefactor, the seriousness of the situation and the potential fool-hardiness involved encourages Australian citizens to reassess whether gratitude is due in these circumstances.

The series of nomination scenarios explore seven situations to do with a nomination for an award (including a baseline scenario for comparison purposes). Whilst the 'gratitude profile' is very similar across Australian and UK adults, the adolescents' responses appear to differ across the two cultures studied here. When exploring the issue of an ulterior motive (i.e., a where there is a non-benevolent intention behind the benefaction), we observe a marked decrease in reported gratitude in the UK adolescent sample (as well as in the UK and Australian adult samples). Although there is a decrease in reported gratitude in the Australian adolescent sample, this decrease is much smaller; on a scale of 0-100 the decrease for this sample is only -4.79. In the comparable UK adolescent sample the decrease was -25.63. It therefore appears as though the Australian adolescent sample view ulterior motives as less impactful on gratitude experience.

Further explorations of this finding would be beneficial; has this finding occurred because the Australian adolescents are putting greater focus on the benefit received rather than the intention behind that benefaction? Is the presence (and implications) of the ulterior motive properly considered by this cohort? Could this finding be a result of contextual factors such as the influence of the teachers or the overall school ethos; many of these Australian adolescent responses come from schools that are involved in positive education programs which could have impacted their responses. If this were the case, then we may want to examine the processes by which character and virtues are being fostered in schools. As we have argued elsewhere (see Morgan et al., 2015), teaching gratitude with the sole aim of increasing its expression and frequency of experience is at odds with the cultivation of *virtue*. To foster the virtue of gratitude it should be experienced at the right times, in response to the right situations, and to the right degree (see also Morgan & Gulliford, 2015). Students should be encouraged to consider when gratitude is due and, importantly, when it might not be. Discussing situations such as the presence of ulterior motives could be an important and effective technique for encouraging practical wisdom and the understanding of what warrants gratitude.

One of the most interesting findings to emerge from the gratitude stories is that while potential positive amplifiers of gratitude, such as increased risk/cost and supererogation, evinced similar patterns of responding in the Australian and UK samples, there were differences in how much negative elements of gratitude such as ulterior motives, mixed emotions involving indebtedness and malicious motives impacted on gratitude. Australian children were generally more grateful, even when they experienced mixed emotions that pulled them in different directions. They were more likely to endorse the view that a child should stick with the person he wanted to nominate, and not be swayed by the fact he had been nominated by someone else. The Australian respondents also tended to look on the brighter side in the case of a malicious motive; four respondents saw that there could ultimately be some benefit in it for the boy concerned while

twice as many Australian children compared with British children seemed to think that the boy would have been grateful for the nomination in this situation. This observation warrants further scrutiny. Do Australian children exhibit more of a positive bias than the UK children when it comes to factors which might *negatively* impact on reported gratitude? Might they place fewer constraints on when and why gratitude might be experienced than children in the UK did? In the case of the ulterior motive, it seemed the Australian children did not recognise that an ulterior motive was at play, though it is also possible that they construed it as a *quid pro quo*. However, viewing the situation in terms of *reciprocity* is arguably not the same as experiencing gratitude (see Gulliford et al., 2013; McConnell, 1993). For UK children an ulterior motive *attenuated* gratitude, though it didn't have this effect on the Australian children. This effect was mirrored in the Australian adolescent sample as demonstrated by the vignette questionnaire.

All of these studies would obviously benefit from replication. It would be interesting to explore whether similar findings are seen within schools that do not explicitly aim to foster character strengths or follow positive education programs.

Limitations

Whilst considering the findings presented here, various methodological limitations should be taken into account. The main limitation surrounds the samples used. As these Australian samples were based on opportunity sampling we note how the majority of schools involved in the vignette questionnaire and gratitude stories were already 'on board' with positive/character education. A proportion of the participants from the prototype analysis had also enrolled in a positive psychology course at the University of Melbourne which may coloured their view of gratitude, particularly as positive in nature.

Therefore, the higher endorsements of gratitude in the children, adolescent samples may have been influenced by these contextual factors. We do, however, note similarly high endorsements of gratitude in the Australian adult sample which was much more wide spread (however, a proportion were recruited through the Centre for Positive Psychology's network). Further replication with more varied populations in the UK and Australia would be needed to demonstrate, with confidence, that Australian citizens report greater levels of gratitude across the various situations explored in this research project. At present, we have generated indicative evidence that Australian citizens place fewer conditions on gratitude experience. Our own work in the UK has shown that placing fewer constraints on gratitude (in a conceptual sense) leads to greater levels of (self-reported) grateful emotions, attitudes towards gratitude and grateful behaviours (see Morgan, Gulliford & Kristjánsson, forthcoming).

5. Overview of key findings and implications

Key findings:

Overall, our findings indicate *greater endorsements of gratitude experience in the Australian samples* (as seen in the children, adolescent and adult samples) as well as *more positive associations with the construct itself* (as evident in the number of positively valenced items in the prototype analysis and fewer mentions of negatively valenced items in comparison to the UK sample).

We demonstrate, through a variety of methods, how the Australian citizens appear to place fewer constraints on gratitude. Australian children and adolescents, in particular, demonstrated differences in how much negative elements of gratitude such as ulterior motives, mixed emotions involving indebtedness, and malicious motives impacted on gratitude. Australian children were generally more grateful, even when they recognised that other (mixed) emotions were pulling them in different directions.

For adults, the exception to this rule appears to be risk-taking behaviour; Australian adults appear to view risk-taking behaviour (in a serious rescue situation) as less worthy of gratitude than their UK counterparts.

Implications:

We believe that these results demonstrate the value of exploring these contours and introducing educational tools, such as the gratitude stories and vignette questionnaire, into classrooms. Our findings suggest that the understanding of gratitude and gratitude experience across cultures may not always be the same. This is particularly striking when it comes to the potential negative sides of gratitude. In the Australian children and adolescent samples we observe smaller decreases in self-reported gratitude relative to Australian adults and comparable UK samples. Might this suggest that the intention behind the benefaction is not being carefully considered? In the cohort of children, at least, our qualitative data suggests that these students do not realise that an ulterior motive is at play. Given that this scenario, unfortunately, is not that uncommon, perhaps more attention should be given to examining the contexts in which benefaction might occur so that students are properly equipped to understand what is happening and use their practical wisdom to decide whether gratitude is an appropriate response.

Whilst we agree that the cultivation of gratitude is a positive and worthwhile endeavour, teaching gratitude should not be done without careful consideration and a nuanced approach to when gratitude is due. Without exploring the contours of gratitude it could just as easily be replaced with any other positive emotion.

Similarly, fostering gratitude should not be encouraged without proper attention to potential cross-cultural differences. Often educational resources are adopted from different cultures without adaptation or much consideration of cultural sensitivity. We encourage educators, practitioners and researchers alike to reflect on these matters and ensure that curriculums pertaining to issues of morality are appropriate to that particular culture to avoid restricting or biasing these educational programmes towards a predetermined outlook.

6. Network Building:

Funding from the Society for Educational Studies made it possible for the University of Birmingham to continue to strengthen the links with Melbourne Graduate School of Education, which we had begun to forge in February 2014. Our links with St Peter's College were cemented by our becoming 'Lipman Fellows' at a public lecture on the evening of March 31st 2015. This opportunity allowed us to get to know Dr Mathew White better and resulted in our having both since contributed towards an edited volume '*Fifty Essays on Wellbeing*' which is being edited by Dr White, Mr Simon Murray (Head of School) and Dr Gavin Slempe, a lecturer at the Centre for Positive Education at Melbourne GSE. Furthermore, a teacher we met at St Peter's (Mr Sean Inman) will be joining the JCCV in Summer 2016 allowing us to further develop links between the institutions.

7. Impact:

In terms of impact, our resources were used by a number of schools in South Australia and Victoria, including Seymour College (a girls' day and boarding school in Adelaide); St Peter's College (a boys' day and boarding school also in Adelaide); Ivanhoe Grammar school (Melbourne), Carey Baptist School (Melbourne) and Kingswood School (Melbourne). We were also privileged to visit all but the latter during our fortnight in SA and VA.

We were also able to publicise the work of the Jubilee Centre for Character and Virtues in the University of Melbourne, where we were invited to address students taking the positive psychology course.

The findings from this study, made possible by the SES, have informed an abstract that has been submitted for consideration at the Eighth European Positive Psychology Conference (ECP) in Angers, France (June 28th – July 1st, 2016). We are optimistic that the submission stands a good chance of success given that one of the main conference themes is cross-cultural research. The ECP attracts researchers from all over the globe which ensures that papers presented at the conference attract the widest possible audience.

We hope that the findings from this study will, akin to our findings from the *Attitude for Gratitude* project eventually be published as journal articles and book chapters. To date, our research for the *Attitude for Gratitude* project has informed four published journal articles: Gulliford et al. (2013); Morgan et al. (2014,); Morgan et al. (2015) Carr, Morgan & Gulliford (2015) with one on the way (Morgan, Gulliford & Kristjánsson, under submission), and two book chapters (Gulliford & Morgan, 2016; Gulliford & Morgan, in press), with another chapter pledged this Summer (Morgan & Gulliford, in preparation). We aim to deliver as many publishable articles as possible from this ambitious replication of three of our *Attitude for Gratitude* suite of studies in Australia.

The Jubilee Centre for Character and Virtues has recently established a blog which may also prove a means of disseminating findings from this SES-funded initiative to ensure maximum enduring impact.

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