



Measuring and Understanding Gratitude: A Theoretical and Empirical Approach

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In this paper we address conceptual controversies surrounding gratitude which have implications for its measurement. We review these conceptual issues, the topic of our recent interdisciplinary theoretical paper (Gulliford, Morgan and Kristjánsson, 2013). We present results of studies that have used instruments we have devised at the Jubilee Centre for Character and Values in the first fifteen months of the “*Attitude for Gratitude*” project’s existence. Over a three-year period, we will seek to understand what kinds of situation lead to gratitude and what factors influence how grateful people feel. We are using a variety of interactive methods: questionnaires, thank you letters, short films and card sorting tasks to examine how people conceptualize gratitude, what people are grateful for and what value is placed on gratitude in our society.

We will examine whether gratitude is deemed an important character attribute and how it is perceived in relation to other values, such as honesty, justice, and compassion. We will address the question of whether some people are more grateful than others and why these individual differences might exist.

We are strongly committed to the view that the definition of gratitude should not be left to “experts” and that it is crucial to examine lay understandings of gratitude to avoid imposing “definitions from above” on experimental participants. Such definitions may not ultimately resonate well with ordinary usage. Since September 2012 we have been scouring the gratitude literature and have come to realise that understanding what gratitude is and what it involves is not as straightforward as we originally thought. Several conceptual controversies have come to light, which we will shortly discuss.

We have tried to bring together the relevant psychological and philosophical literature that examines what gratitude is, and when it is warranted or experienced. As a result of our examination, we have identified two major theoretical problems which we discuss at length in our co-authored paper (Gulliford, Morgan and Kristjánsson, 2013). One problem is that psychologists do not seem to pay too much attention to defining gratitude or understanding the concept. Their focus tends to be on outcomes; the vast majority of studies in this area aim to correlate gratitude with positive psychological benefits such as subjective well-being. The lack of attention towards understanding and defining gratitude is witnessed in the tendency to refer back to previous researchers who are

deemed to have done a good enough job. We find this inclination to quote back, rather than justify or make a case for using the selected definitions, worrisome – what happens if the theorist everyone refers back to has overlooked some important aspects of gratitude?

The second major problem comes from the domain of philosophy where some philosophers tend to superimpose their own assumptions of what gratitude *should* entail, without considering when gratitude is *actually* experienced. Robert C. Roberts suggests, for instance, that gratitude is only warranted when someone has gone above and beyond the call of duty, and that feeling gratitude towards those who are merely doing their job (for example a doctor, a lifeguard, a firefighter etc.) is misplaced (Roberts, 2007, p.24). However, the layperson *may well* feel gratitude towards a doctor or lifeguard. Whether people *are* grateful to others who are “just” doing their job is, in our estimation, an empirical question which we have elucidated with recourse to a vignette questionnaire, created to try to tease apart some of the conceptual controversies we have identified in the literature.

The Structure of Gratitude

The first conceptual controversy that we have identified concerns the structure of gratitude. By “structure” of gratitude we are referring to who and what is involved in experiences of gratitude. The two views that we contrast here are the view that gratitude has, by way of conceptual necessity, a triadic structure which involves a benefactor who bestows a benefit; a benefit (a gift, recognition, help, or a favour etc.); and a beneficiary. An example of this triadic, or BBB, structure could be a generous neighbour giving you help to defrost your car one morning. Robert C. Roberts, as we are sure his paper will show, is a strong supporter of the triadic view.

In the contrasting dyadic view of gratitude there is a benefit and a beneficiary, but no specific benefactor need be involved. An example here might be experiencing gratitude towards nature, or feeling grateful for one’s situation at a particular time. Some might suggest that in these situations the beneficiary is nonetheless experiencing gratitude in a triadic form and that the “implied” benefactor is God. However, philosophers Patrick Boleyn-Fitzgerald and Sean McAleer have both suggested that one can be grateful “full-stop” without attributing this to anybody in particular. Psychologists Mitchell Adler and Nancy Fagley, have referred to these dyadic situations as ‘appreciation’ rather than gratitude, and suggest that gratitude (involving *two* people and a benefit) is a subordinate facet of the superordinate category of appreciation.

In our vignettes, which we explain shortly, we have attempted to find a way of examining empirically the question of whether people experience dyadic gratitude, and whether they can be grateful towards a *benefit* rather than a benefactor.

Gratitude and Duty

The second conceptual controversy involves the relationship between gratitude and duty. It has been argued in the literature that gratitude must involve something that is not already due to you; it is subject to a condition of supererogation where gratitude is only warranted when someone goes above and beyond the call of duty. Robert C. Roberts talks of a time where he experienced gratitude towards a doctor who finally prescribed him the correct medication after a period of misdiagnoses. He later reflected on this experience and came to the conclusion that his gratitude had been misplaced; he should not have felt any gratitude towards this doctor as he was simply fulfilling the requirements of his job.

On the other hand, philosopher Terrance McConnell has argued that gratitude may be experienced even when other people are simply doing their duty. In our vignettes, we examine situations where the layperson believes gratitude is and should be experienced. Whilst Roberts argues that gratitude should only be experienced in response to a supererogatory act, the layperson may experience gratitude in response to someone simply fulfilling the requirements of their job.

The Benefit As Intended

Philosophers and psychologists have deliberated what conditions surrounding the benefit must be present in order for gratitude to be warranted and/or experienced. Many definitions have incorporated the view that the benefit must be bestowed intentionally, and that the intention behind the benefit is benevolent; the benefactor wants you to benefit positively from your interaction. Wood, Maltby, Stewart, Linley & Joseph (2008) propose that gratitude must be “altruistically intended” (p281) and Heider (1958) identified intentionality as the most important determinant of gratitude. According to this line of thinking, a benefit cannot be incurred by accident, nor by a benefactor who was forced to help.

Intentionality, however, assumes the triadic structure of gratitude where an agent intentionally bestows a benefit. What about a situation of dyadic gratitude where there is no specific benefactor to thank? Does it have to be the case that no gratitude is felt for an accidental benefit if the benefit received is real and valuable to the beneficiary? You may in some instances be grateful to the “messenger” (e.g. being grateful to the delivery man who drops off a bouquet of flowers), and Simmel (1950) suggested that people can be grateful to others even when they have never met

them, such as historical figures, or painters; here it is hard to argue that these painters have specifically intended to benefit **you** in particular.

The Benefit as Costly and Valuable

Other conditions commonly invoked in the literature are that the benefit must *costly* to the benefactor and *valuable* to the beneficiary. Conditions of cost and value, alongside benefactor intention were assessed by Tesser and colleagues (1968) Results suggested that all three factors play a major role in determining whether gratitude ensues. Subsequent studies have often adopted these factors as *requirements* of gratitude, and some have incorporated them into their working definitions of gratitude.

It has been suggested that although the factors of cost, value and intention are important, they are not essential for gratitude to arise. For example, Wood and colleagues in 2008 demonstrated that over 80% of the variance in how much people thought they would experience gratitude could be explained by perceptions of cost, value and altruism. Adam Smith argued that gratitude is **most likely to occur** if the benefit is achieved, valuable and intended, however these features are not necessary or sufficient.

Without looking to the layperson, the importance of each of these conditions cannot be clearly established. One person may be grateful for gifts bestowed on them, regardless of how valuable they perceive them to be, whilst others may view an invaluable gift as undeserving of gratitude. It is unclear how these conditions interact; if the benefit is of value does it matter how much effort has gone into conferring it? Does this depend on the person? These questions are largely left unanswered in the current empirical literature.

A Real or Achieved Benefit

Many definitions and descriptions of gratitude take for granted an actual benefit changing hands; in the majority of cases gratitude is thought of as a response to receiving a gift, favour or help of some kind. However, the benefactor may intend to benefit someone and may even put a lot of effort into trying to make this benefit materialise, but could be frustrated in bringing this to fruition.

Terry McConnell (1994) argues that if someone *tries* to give another a significant benefit but fails, gratitude may still be owed. He offers this example of the non-achievement of a benefit; a work colleague nominates you for an award, you do not win this award and there is no tangible benefit from the nomination. McConnell suggests that gratitude may still be owed to the work colleague

regardless of whether the nomination led to an award. In light of this, his conceptualisation of gratitude encompasses the condition that “the person to whom gratitude is owed provided a benefit or through great effort or sacrifice tried to provide a significant benefit” (p. 44). You will see that we have utilised McConnell’s example in our vignette questionnaire.

The idea that you can be grateful for a gift that has not materialised is also present in psychology, with some authors incorporating a non-achieved benefit into their working definitions. For instance, gratitude has been defined as a “positive emotion one feels when another person has intentionally given, or attempted to give, one something of value” (Bartlett et al., 2006; McCullough et al., 2001; McCullough & Tsang, 2004). This calls to mind the old adage that it is “the thought that counts.”

Gratitude = Positive

The question arises as to whether gratitude is always morally and/or phenomenologically positive. A distinction must be drawn between “good” emotions and “positive” emotions. An emotion can be “good” (as in “virtuous”) and yet *feel* bad. Compassion is an emotion that requires one to empathise and dwell on negative events in another person’s life. Therefore whilst it is a good and virtuous emotion to experience, it does not feel pleasant. Similarly, it may be the case that gratitude is a good emotion that may be accompanied by negative feelings like indebtedness or guilt.

For the most part, in the literature gratitude is portrayed as inherently positive. In fact, it has been deemed the “quintessential positive psychology trait” (Wood et al., 2009). With a view, perhaps, to maintaining its positive “status”, researchers have tried to separate gratitude from negative emotions that might be associated with it, such as indebtedness. Gratitude normally involves receiving something of value and this can often lead to feelings of wanting to return the favour and in some cases feeling obliged to do so. There is therefore a significant overlap between gratitude and indebtedness. Some authors have tried to dissociate gratitude and indebtedness, saying that gratitude is an inherently positive emotion whilst indebtedness is fundamentally negative. Watkins et al. (2006) examined the two emotions empirically and proposed that they can be dissociated from one another, due to their different action tendencies. Nonetheless, they also found evidence that the two are highly correlated.

The question must be asked whether there is anything negative about gratitude. Aside from feelings of indebtedness, feeling gratitude may be associated with feelings of guilt. - If a colleague nominates you for an award, and you realise that actually your colleague deserves this award more than you do

(and that perhaps you should have nominated her instead) gratitude may be mixed with feelings of guilt. Another example might be feeling grateful towards someone you do not like; here one is caught between feeling grateful and not wanting to feel grateful to this person *in particular*. Whether gratitude is perceived as entirely positive is another question we target in our questionnaires and stories.

We are currently working on a separate paper which highlights some interesting findings in relation to negative associations of gratitude (Morgan, Gulliford and Kristjánsson, under submission). We conducted a prototype analysis of gratitude in the UK which we have compared with Lambert, Graham and Fincham's (2009) prototype analysis of gratitude in the US. The first stage of prototype analysis process involves asking a group of participants to name all the features and characteristics they think are typical of instances of gratitude (actions, feelings, consequences, determinants etc.). When comparing the list of features in our UK sample with those from the US, we noticed that there was a much higher frequency of negative gratitude features in the UK sample with examples including guilt and embarrassment. This suggests that gratitude encompasses negative associations, and highlights possible cross-cultural differences in understanding gratitude.

The moral value of gratitude

The motivation for the vast majority of gratitude studies in psychology is to highlight the positive benefits of gratitude. Gratitude, it is claimed, has positive effects on subjective well-being (Emmons & McCullough, 2003), life satisfaction (Fagley, 2012), mental health (Froh, Emmons, Card, Bono, & Wilson, 2011) and interpersonal relationships (Algoe, Haidt & Gable, 2008). For instance, Froh, Bono, & Emmons (2010) studied gratitude in youths and demonstrated that gratitude, either directly or indirectly, leads to increased well-being, prosocial behaviour and social integration.

Much of the empirical work on gratitude has specifically focused on increasing life satisfaction or individual happiness rather than communal or moral gains. Take for example the craze of self-help books where the reader is persuaded that feeling grateful can make one feel happier with life, improve one's personal relationships, or become less stressed.

There are, however, arguments in the psychology literature that the benefits of gratitude extend outwards to include others, with one good act creating an upward spiral of gratitude. In what has become a classic paper, McCullough et al. (2001) suggested that gratitude has three moral elements that give rise to moral behaviours. The first element is the "moral barometer"; this involves a

transformation in affect due to receiving a benefit from another. This positive affective change may result in the beneficiary being motivated to help others themselves; in this way gratitude is a “moral motivator”. The final element of McCullough et al.’s analysis is gratitude as a “moral reinforcer”. This function describes how a benefactor can be reinforced for their prosocial behaviours by receiving words of thanks and expressions of gratefulness from those upon whom they have bestowed benefits. Receiving this symbol of appreciation makes benefactors more likely to engage in similar generous acts in the future. These moral functions suggest that gratitude can have widespread interpersonal effects.

Types of gratitude

Our review of the philosophical and psychological research on gratitude led us to propose that there are different gratitude concepts at work. It is possible either to hone in and examine one of these sub-concepts, or to examine what we have called the ‘umbrella concept’ which is made up of these sub-parts. It is important that gratitude researchers know and acknowledge whether they are examining one of the sub-concepts or the umbrella concept.

It is possible that laypeople’s views of gratitude might contradict current theories. For instance, do laypeople believe that gratitude is *only* experienced when someone is going above and beyond the call of duty? We believe that it is imperative to examine lay understanding of gratitude to explore how this maps onto current psychological and philosophical conceptions. It is essential that we know how gratitude is understood if we are to measure it accurately, teach it successfully, and foster it effectively.

Two methods for examining the layperson’s view

In the remainder of this paper we explain two new methods for examining the layperson’s view of gratitude that we have developed. These methods are based on our literature review and explore the conceptual issues that have arisen from our reading. What we have aimed to achieve is an empirical examination that is informed by current theory which we hope will elucidate how gratitude is understood by the public and what factors influence when, and to what degree, gratitude is experienced.

The first method involves utilising a ‘vignette questionnaire’ which examines the conceptual controversies reviewed here, such as triadic/dyadic interpretations of gratitude, the intention of the benefactor, and the value of the benefit. The questionnaire presents different scenarios (or vignettes) that are systematically manipulated to examine all of these conceptual controversies.

The second method has been designed for use with primary school children. In the place of a questionnaire, we study the conceptual controversies with recourse to stories which explore gratitude themes. The stories are interposed with questions at certain points to explore children's understanding of gratitude. Completed story workbooks constitute our research data.

Design of the vignette questionnaire

The vignette questionnaire has been designed for use with adults and children aged eleven and over. We created four different scenarios that explore gratitude. Two are 'high gratitude scenarios' that should involve high levels of gratitude – in this case being rescued from a dangerous situation - and two are 'low gratitude scenarios' where gratitude should still be present but at less intense levels (i.e., receiving a nomination for an award at work or being a beneficiary in a will).

When testing the questionnaire, only two scenarios were used at a time to ensure that the questionnaire was manageable and did not take too long to complete. To test all four scenarios and control for order effects, the type and order of the scenarios was counterbalanced across participants.

Each scenario in the questionnaire followed a similar format; we began with a baseline question before systematically manipulating the scenario to examine different conceptual controversies. For each conceptual controversy we examined we asked three types of question; whether the participant *would be* grateful if that scenario were to arise, *how* grateful they would be; and whether they *should be* grateful. Order of the 'should' and 'would' questions was also counterbalanced.

By way of an example, we reproduce here one of our baseline questions for a high gratitude scenario:

"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."

You *are* grateful to this person for their help.

1=Strongly agree 2=Agree 3=Neither agree nor disagree 4=Disagree 5=Strongly disagree

You *should* be grateful to this person for their help.

1=Strongly agree 2=Agree 3=Neither agree nor disagree 4=Disagree 5=Strongly disagree

Further to this, they are asked to “indicate the degree of gratitude you feel on the scale below by placing a vertical line on the scale that corresponds to the amount of gratitude you would feel”. On a hard copy of this test the participant draws a line on the scale between “Not at all grateful” and “Most grateful you could feel”. For the online version of this test, participants move a “slider” between these two extremes with their response being translated into a score between 0 (Not at grateful) and 100 (Most grateful you could feel).

The manipulations

Table 1 illustrates the types of manipulation that have been used with the high and low gratitude scenarios in order to examine the conceptual controversies we have identified. For example, to continue with the scenario of being rescued from a lake, the vignette is systematically altered to examine the triadic/dyadic structure of gratitude, duty and gratitude, the cost to the benefactor, and the effects of a non-realised benefit.

Table 1: List of manipulations across the high and low gratitude scenarios. Examples are shown for a rescue from a lake (high gratitude condition) and a nomination for an award (low gratitude scenario)

High gratitude scenarios (Rescue from lake/fire)	Low gratitude scenarios (Nomination for award/beneficiary of will)
<p>Baseline</p> <p><i>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.</i></p>	<p>Baseline</p> <p><i>A colleague nominates you for an award at work. If you win, you will receive recognition of your hard work and a voucher.</i></p>
<p>Triadic/Dyadic</p> <p><i>You get into difficulties swimming in a lake. You cannot make it back to the shore and you are in real danger. You get hold of a log in the water and manage to reach the shore, otherwise you would have drowned.</i></p> <ul style="list-style-type: none"> - <i>You are/should be grateful TO the log</i> - <i>You are/should be grateful FOR the log</i> - <i>Are you grateful to something else for saving your life?</i> 	<p>Ulterior Motive</p> <p><i>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.</i></p> <p>Cost to benefactor</p> <p><i>A colleague nominates you for an award... The colleague had to spend a long time filling in the nomination form outside of work.</i></p>
<p>Duty</p> <p><i>You get into difficulties swimming in a lake.... A lifeguard is on duty and jumps in and saves you.</i></p>	<p>Non-realised benefit</p> <p><i>A colleague nominates you for an award at work... In the end you do not win the award.</i></p>
<p>Cost to benefactor</p> <p><i>You get into difficulties swimming in a lake... 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.</i></p> <ul style="list-style-type: none"> - <i>You are/should be more grateful to this person than the lifeguard as there is a bigger risk involved.</i> - <i>You are/should be more grateful to this person than the lifeguard as it was not her job to help you.</i> 	<p>Malicious intent</p> <p><i>A colleague nominates you for an award at work.... You do not get on with this colleague and you know that she only nominated you because she knew it would embarrass you.</i></p> <p>Value of benefit</p> <p><i>A colleague nominates you for an award...You do not want to win this award and would rather that you had not been nominated.</i></p>
<p>Non-realised benefit</p> <p><i>You get into difficulties swimming in a lake. A person on the shore sees you struggling and dives in to rescue you. However, she struggles herself and has to give up. In the end a lifeguard rescues both of you.</i></p>	<p>Mixed emotions</p> <p><i>A colleague nominates you for an award at work... You feel thankful that your colleague nominated you but you also feel uncomfortable now that you are indebted to her.</i></p>

To examine the relationship between gratitude and duty, the baseline vignette is adapted as follows: “You get into difficulties swimming in a lake. You cannot make it back to shore and you are in real danger. A lifeguard is on duty and jumps in and saves you”. Participants respond to the same three questions as they did at baseline; that they are grateful (answered by a Likert response); how grateful they are (on a scale from not at all to most grateful they could feel) and whether they should be grateful (answered by a Likert response).

We were able to compare responses to these questions with responses to the subsequent manipulation, where a passer-by performs the rescue rather than a lifeguard. “You get into difficulties swimming in a lake... 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”. In addition to the three “standard questions”, participants are also asked whether they are/should be *more* grateful to this person (i.e. the passer-by) than the lifeguard “as there is a bigger risk involved” and whether they are/should be more grateful to this person “as it was not her job to help you.”

Manipulations tested in the low gratitude scenarios included the presence of an ulterior motive, for example, “*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*”.

Or malicious intent, “*A colleague nominates you for an award at work.... You do not get on with this colleague and you know that she only nominated you because she knew it would embarrass you*”.

Other manipulations include a non-realised benefit, “In the end you do not win the award”, and the value of the benefit, “*A colleague nominates you for an award...You do not want to win this award and would rather that you had not been nominated*”.

Different types of manipulations are covered in the high and low gratitude scenarios, with the exception of the non-realised benefit and the cost to benefactor manipulations (which are common to both high and low gratitude scenarios). Each type of scenario/vignette only makes sense with certain variations; for example, having someone rescue you from a lake due to malicious intent is not very realistic, nor could you pretend that the benefit of having your life saved is an invaluable benefit.

Having said this, however, the same manipulations are repeated across the two high gratitude scenarios and the two low gratitude scenarios, which we hoped would allow for some assessment of

internal consistency. The two manipulations that are repeated across all four scenarios will allow for an interesting comparison of responses in high versus low gratitude situations.

Vignette Questionnaire: Preliminary results

Whilst we have collected data from 600 respondents, we are only just beginning to analyse their responses. The 600 respondents we have tested are mostly students and staff at the University of Birmingham. There is an age range of 16 – 65 years and the mean age of respondents is 27 years. The data set includes a range of ethnicities, religions, occupations, and levels of qualification.

With reference to the conceptual controversies we have identified, what have we seen in regards to the question of duty? Recall that we are seeking to examine whether laypeople see gratitude as involving a condition of supererogation where benefactors must go above and beyond the call of duty.

When presented with the duty scenario (*You get into difficulties swimming in a lake. You cannot make it back to shore and you are in real danger. A lifeguard is on duty and jumps in and saves you*), 98% of respondents either agreed or strongly agreed with the statement that they are grateful to the lifeguard for her help even though it is her job to do so. Interestingly, however, when asked whether they are more grateful to the passer-by for helping than the lifeguard because it was *not* their job to help, nearly half of the participants agreed/strongly agreed with this statement.

Therefore, it appears as though (at least in this sample) people are grateful to those who are simply fulfilling the requirements of their job but they are *more* grateful to those who go above and beyond the call of duty. It is perhaps more a question of the *degree* of gratitude experienced than a necessary conceptual condition.

An interesting question to examine here, however, is whether the outcome would be the same for different occupations? For example, are you as grateful to the sales assistant or bus driver for their actions while on duty as you are to a lifeguard? Or is this argument conflated by the life-saving role?

The next conceptual controversy discussed here is the intention to benefit. We have looked at this in two different manipulations; one manipulation of an ulterior motive and one of malicious intent. In the ulterior motive scenario, a benefactor nominates a colleague for an award at work only because she wants the recipient to return the favour by helping her with her workload. When presented with the statement “you are grateful” 39% of participants disagreed/strongly disagreed with the

statement. Interestingly however, 40% of participants agreed/strongly agreed. It appears as though a large proportion of people would still be grateful to a benefactor even if there is an ulterior motive to their giving (and this proportion of people is in fact larger than the proportion believing that they would not be grateful).

What we do notice, however, is that the *amount* of gratitude that participants report they would feel drops significantly from the baseline question, with an average gratitude rating of 44/100 on the ulterior motive question compared to 71/100 for the baseline. Therefore, it does appear that although participants may state on the Likert scale that they are grateful, the *degree* of gratitude they experience decreases.

In the malicious intent question, the number of participants disagreeing or strongly disagreeing with the statement “you are grateful” is significantly higher. In this scenario, the colleague who nominates you does so because s/he wants to embarrass you. In response to the statement “you are grateful”, 64% of participants disagree/strongly disagree. These Likert responses correlate well with the “how grateful are you” question, with the average degree of gratitude experienced coming out at 26/100 (in comparison to the 71/100 for the baseline). Therefore, it seems as though malicious intent strongly reduces participants’ experience of gratitude, and much more so than the ulterior motive.

The final two manipulations considered here are the value of the benefit, and the effect of having mixed emotions. It will be recalled that the value of benefit scenario examines the question of whether we are only grateful for benefits that are of real value to us or whether it is more the thought that counts. In this scenario it is stated that you do not want to win the award and would rather you had not been nominated. Here, when presented with the statement ‘you are grateful to the colleague’ 40% do disagree and the average rating on the slider scale of how grateful you are is down to 41/100 (less than when there is an ulterior motive). Interestingly, therefore, people do report much less gratitude when the benefit is of little/no value to them – perhaps it isn’t just the thought that counts.

Turning to the mixed emotions scenario, the participant is told that they feel uncomfortable and indebted. This time in answer to the statement “you are grateful to the colleague”, 81% of respondents agreed/strongly agreed on the Likert scale. Therefore, even though there are positive and negative emotions at play, the majority of participants believe that they would be grateful in this sort of situation. Interestingly, the amount of gratitude experienced (as calibrated by the slider scale) decreases somewhat from 71/100 to 65/100.

To examine the data set in more detail, we conducted an exploratory factor analysis (using principal components analysis, PCA). A separate PCA was performed on the high and low gratitude responses as they were created to measure different aspects of gratitude. The high gratitude analysis contained 16 items and the low gratitude analysis contained 14, both analyses were treated using orthogonal rotation (varimax). The Kaiser-Meyer-Olkin (KMO) measure (a measure of sampling adequacy) was identified as acceptable in both the high and low gratitude data sets (KMO = .634 for high; KMO = .647 for low). Bartlett's test of sphericity was significant for both data sets which suggests that the variables are sufficiently correlated in order to perform a PCA (High gratitude: $\chi^2(120) = 3658.361$, $p < .001$; Low gratitude: $\chi^2(91) = 2864.543$, $p < .001$). Analyses were run to obtain eigenvalues for each component in the data set.

In the high gratitude condition had six eigenvalues over 1 (Kaiser (1960) has famously suggested retaining all factors that have an eigenvalue over 1; the Kaiser criterion). However, the scree plot also showed inflections that would justify retaining four, five or six factors. We performed orthogonal rotation on all of these different options. When retaining six factors in the analysis and performing orthogonal rotation the clustering of items suggest that Cost and Duty represents one component; Dyadic gratitude represents a second component; Non-realisation as a third component; Baseline gratitude as a fourth component; Duty as the fifth; and Cost as the sixth. The results of this PCA suggest that each different scenario has tapped into a different conception of gratitude with responses to "are" and "should" clustering around the same component, yet responses to each different scenario tending to be distinct from one another.

In the low gratitude condition there were six eigenvalues over 1. The scree plot suggested including either three, four, five or six values in the PCA. We performed orthogonal rotation on all of these different options. When examining the outputs, however, and to strike a balance between nuance and parsimony of the model, a 5-factor model was preferred. The clustering of items suggest that component 1 is made up of Cost, Baseline, and Mixed Emotions; component 2 is made up of Invaluable benefit and Mixed Emotions; Malicious intent and Ulterior motive make up component 4; and Baseline and Non-realised benefit make up component 5. Interestingly in this data set, the variable "mixed emotions" appears to cluster with several other variables, for example, unwanted benefit and cost to the benefactor. This might suggest that there are indeed mixed emotions surrounding gratitude and that these play out in several different instances where gratitude is invoked.

Another noteworthy finding comes from the ulterior motive and malicious intent scenarios. These two variables (four if you include the “are” and “should” questions separately) cluster on one factor; what you might call “the non-benevolent intention” component. That is, when considering all participants’ responses across these scenarios, the responses to ulterior motives and malicious intent are highly correlated and appear to have a similar effect on the degree of gratitude experienced. From referring to the descriptive statistics it becomes clear that non-benevolent intentions greatly reduce the amount of gratitude that people experience. Therefore supporting the notion that instances of gratitude are bolstered by benevolent intention; benefactors should intend to benefit you in their actions and the intention behind this act should be a positive one.

With respect to dyadic or “generalised” gratitude we have found evidence that people do appear to be grateful “to” or “for” things that do not involve benefactors (say, a log in a lake or an open window that enables them to escape a burning building). While some individuals appear to distinguish between being ‘grateful *to* a log’ and being ‘grateful *for* a log’, responses to both items indicated participants did not object to logic of the questions. Though we have further work to do to analyse this data (which was subject to wide standard deviations) we have preliminary evidence that supports a dyadic understanding of gratitude in a lay population. However, we note that further work may be necessary to create vignettes that tap dyadic gratitude more precisely.

It is important to note the potential limitations of this research, which lie with the fact that it utilises a self-report measure and, as such, may be subject to the influences of social desirability, self-deceptions and self-presentation effects. It is of course entirely possible, therefore, that these responses do not mirror completely what participants would actually feel.

Similarly, another potential problem arises when asking respondents to imaginatively put themselves in the scenarios described. Participants may disagree with the scenarios or may not be able to imagine themselves feeling this way (for instance, they might not be able to imagine *not* wanting to be nominated for an award at work, or they might not see why they would feel uncomfortable or indebted to the colleague who nominates them). This would also have an effect on their responses.

Having acknowledged these potential limitations, we do, however, see consistency in participants’ responses to the self-report questions, for example, there is a high correlation between the “are grateful” and “should be grateful” Likert responses and a reasonable correlation between “are grateful” Likert responses and “how grateful you are” slider responses.

Gratitude Stories to Tap Children's Understanding of Gratitude

As far as possible, we have tried to replicate the conceptual controversies we have discussed here in the children's stories. In some cases, the overlap is very clear. For instance, the lake rescue scenario in the vignette questionnaire maps very closely onto "The Blue Oasis", a story about an eventful but ultimately happy birthday party held at a leisure pool. "The Class Councillor" and "The St Oscar's Oscars" follow similar themes to the two scenarios in the questionnaire that involve being a beneficiary in a will and being nominated for an award at work. Both the story and the scenarios incorporate themes of ulterior motives and malicious intent on the part of the benefactor, in addition to manipulating the degree of effort expended by benefactors. It has not been possible to reproduce all the controversies of the vignette questionnaire in the four children's stories we have written: "Shooting Hoops", "The Class Councillor", "The St Oscar's Oscars" and "The Blue Oasis", though we will be able to make informed comparisons about the factors which influence gratitude across the lifespan.

Two stories have been piloted with a total of 90 children from Years 5 and 6 (ages 9-11), in two primary schools in the West Midlands, offering preliminary data for analysis. The extract below is from "The Blue Oasis" story workbook:

The jump itself had been thrilling but now Laura was in trouble; she just couldn't get her breath and the waves kept coming. No one seemed to notice her struggling.

'Help!' she cried before the next wave rolled in.

Just at that moment a young man on the poolside caught sight of Laura's flailing arm. He wasted no time in jumping in to rescue her. Mrs Enright saw him going after Laura and noticed that he wasn't a particularly strong swimmer. Just as she alerted the lifeguard to what had happened she saw Laura frantically grabbing the would-be rescuer and pulling him down into the water. He was in trouble now too.

The lifeguard dived in and swam towards the pair. She separated the man from Laura's desperate clasp and towed Laura towards the edge of the pool. The young man, probably just a teenager, retrieved a float that had been tossed to him from the poolside and began to kick towards the poolside. Just as they all reached the rail, the wave machine stopped. Someone had thrown the switch. It had all happened so quickly!

The story echoes the lake vignette insofar as the eventual rescue is effected by a lifeguard after a failed attempt by a member of the public. This storyline enables us to compare the degree of gratitude empathically experienced towards someone who is fulfilling the requirements of their job, as opposed to someone who takes a risk to attempt to save them. It will be recalled that in the questionnaire participants are asked to indicate whether they *would be* grateful if that scenario were to arise (on a Likert scale) *how* grateful they would be (on a slider); and whether they *should be* grateful (also on a Likert scale). It was decided that to reproduce this exactly would be too complex

for children aged 8-11. Instead, young people answer questions in the story workbooks about how they think the characters in the story would feel. Completed workbooks constitute data for our analysis. It will be observed from the extract below that the questions took closed and open-ended forms. Some questions necessitated a Yes/No response and others followed a five-point Likert scale where children placed a sticker over the textbox that they thought was the right response from “The most grateful he/she could feel” to “Not grateful at all.”

Let’s pause for some more questions...

Do you think Laura should be grateful to the lifeguard for getting her out of difficulties even though it is her job to do that?

 YES NO

Why do you say that?

Why do you think the lifeguard said she was ‘just doing her job?’

Do you think you would be more grateful to the man who tried to save you or to the lifeguard who saved you? Why?

The Stories: Preliminary Results

By way of children’s responses to the questions in the “The Blue Oasis” story workbooks we are able to shed light on the question of whether children believe gratitude involves a condition of supererogation. In a pilot analysis of 44 workbooks, 98% children answered YES to the question “Do you think Laura should be grateful to the lifeguard for getting her out of difficulties even though it is her job to do that?” Thus it would seem that only one child seemed to think there was no need to be grateful to a lifeguard who was simply doing their job. In response to the question, “Do you think

you would be more grateful to the man who tried to save you or the lifeguard who did save you”, 80% children indicated in their free response answer, that they would be more grateful to the member of the public, giving reasons that revolved around the high degree of risk to an untrained person as opposed to the lifeguard.

The ending of “The Blue Oasis” gave us an opportunity to elucidate the question of whether children are only grateful for benefits that are of real value to them, or whether it is the thought that counts. In the story, birthday boy Ben has been promised a home-made rocket birthday cake. However, when the lights go down and the cake is brought in, Ben discovers his parents have got him a plain, round “Donald Duck” cake, bought from a shop. The children were asked to answer the Yes/NO question, “Do you think Ben is still grateful for the cake, even though it wasn’t what he was expecting?” 18% of children opted for “No” whilst the vast majority (82%) chose “Yes”. Thus it would seem that young people readily acknowledge the sentiment that it is “the thought that counts”.

In “The Class Councillor” a shy boy called Jason is nominated to lead his class at the school council meetings. However, his name was put forward by a classmate whose motive is *malicious*; he wants to embarrass Jason and see him make a fool of himself. Ultimately, Jason rises to the challenge and is elected class councillor overcoming his shyness in the process. Furthermore, there is redemption for the classmate bent on humiliation who, persuaded by Jason’s eloquent speech, gives Jason his vote. However, it is clear that young people believe malicious intent disqualifies gratitude. Whilst a nomination is generally considered an honour, 80% of the 46 children who participated in the pilot of this story indicated that they *did not* think Jason would be grateful to receive the nomination because he knew it had been calculated to embarrass him.

Preliminary Comparisons across the Lifespan

The results of our vignette questionnaire can be compared with preliminary findings from the gratitude stories. Interestingly, 98% of the children in the pilot study said that they thought that Laura should be grateful to the lifeguard for helping her out of difficulties. This is exactly the same percentage of adults who agreed with the statement “You are grateful to the lifeguard for her help even though it is her job to do so.” Thus it would that adults and children do acknowledge gratitude for people who are simply fulfilling the requirements of their job.

Intriguingly, our results yield preliminary evidence of developmental differences in the way in which factors influencing gratitude may be appraised. 80% of the children think they would be *more* grateful to the man who tried to save them than the lifeguard who did save them. In comparison,

49% adults agreed with the statement “You are more grateful to the passer-by than the lifeguard as it was not her job to help you” Whilst it must be acknowledged that the statistics for children represent only a small data-set at present, there may be a difference between adults and children in terms of their assessment of whether the element of risk is deemed virtuous or construed as foolhardy.

As previously noted, children’s explanations for *why* they would be more grateful to the passer-by tended to invoke the greater risk to an untrained person. In trialling the vignette questionnaire, however, a number of adult participants pointed out that such actions might be seen as impulsive and may detract from the success of a rescue. These considerations may have led to the lower percentage of adults endorsing the statement “You are more grateful to the passer-by than the lifeguard as it was not her job to help you” and adults may take a less positive view of untrained heroes than children. Results from the adults’ open response questions might elucidate this distinction further.

Are children perhaps more idealistic about gratitude than adults? We were able to examine the impact the *value of the benefit to the beneficiary* had on how grateful people said they (or the characters in the story) would be. While 40% adults disagreed with the statement “You are grateful to the colleague who nominated you” (for an award they did not want), 82% children (N=44) indicated that they thought Ben *would* be grateful for a cake, even though it was not what he was expecting.

It must be acknowledged here that there is a potential problem with the parity of the scenarios described; the lame Donald Duck cake still has *some* value as a birthday cake (as opposed to an unwanted nomination for an award). Nonetheless, this is rather an interesting preliminary finding; perhaps adults are less inclined to value lesser or non-valuable benefits than children? Could adults learn a gratitude lesson from children here? Another possible explanation, of course, is that the adults were responding in a more truthful (less socially-desirable) fashion than the children were.

It is very clear, however, that for both adults and children, malicious intent disqualified gratitude. Almost two-thirds of adults disagreed with the statement “You are grateful to the colleague who nominated you” and 80% children (N=46) did not think Jason would have been grateful to receive a nomination for being class councillor that was calculated to embarrass him.

Thus our empirical work with adults and children has so far found little support for the view that gratitude *must* involve supererogation. People seem to be grateful even when benefactors are “simply” fulfilling the requirements of duty. We have found some evidence that people may be *more* grateful for benefactors going the extra mile, but there is no evidence to support the view that this is a necessary condition of gratitude.

As we expected, ulterior motives and malicious intentions undermine gratitude, making adults feel considerably less grateful. Malicious intentions for apparently “good” things (such as a status-enhancing nomination) also appear to undermine children’s gratitude. We will shortly examine data from the “The St Oscar’s Oscars” which incorporates an ulterior motive theme for comparison with adult responses.

We have found preliminary evidence to suggest that adults might be *less* grateful for what they perceive to be non-valuable benefits than children, though it would be premature to assert that with confidence at this stage.

General Conclusions

Our research has shown support for the view that laypeople appraise cost to the benefactor and whether the benefactor acted beyond duty in seeking to benefit the beneficiary, though it should be noted that this serves as an *amplifier* of gratitude rather than a necessary condition of gratitude. We also have evidence that people do, in fact, appear to be grateful ‘to’ or ‘for’ things (say, a log in a lake or an open window that enables them to escape a burning building). In other words, we have found evidence to support a dyadic view of gratitude among a lay population.

We also found evidence that gratitude is not entirely positive and that mixed emotions may enter the picture where invaluable benefits are concerned, or depending on the level of cost to the benefactor. This is perhaps unsurprising as a very costly benefit may give rise to feelings of embarrassment. Furthermore, we may feel conflicted in receiving gifts that are of no real benefit to us. As noted, there may be individual (or even lifespan) differences in this regard. Our research has shown clearly that malicious intentions and ulterior motives together reduce gratitude experience, constituting a single factor in the principal component analysis.

It might be suggested that our research “merely” corroborates the common sense thinking of philosophers in demonstrating that these factors play a part in gratitude. However, it must be emphasised that philosophical theorising is not *always* backed up by empirical studies. For instance,

the view that gratitude, as its Latin root perhaps suggests, must involve going *graciously* above and beyond duty has been shown to be an amplifier rather than a necessary condition of gratitude.

Furthermore, we believe that the normative study of gratitude carried out by a few must be complemented by empirical research that involves the many. We are mindful of the fact that this position may not be shared by other researchers in this field, However, we have been concerned to represent the views of laypeople in our research and we express reservations about leaving conceptual analysis solely to an elite of “experts”- be they psychologists or philosophers- because this has major implications for the validity of gratitude measures and scales based on this theorising. We affirm the importance of both theoretical and empirical work, aiming in true Aristotelian fashion, to marry the views of ‘the wise’ with those of ‘the many’.

References

- Adler, M. G., & Fagley, N. S. (2005). Appreciation: Individual differences in finding value and meaning as a unique predictor of subjective well-being. *Journal of Personality, 73*(1), 79–114.
- Algoe, S. B., Haidt, J., & Gable, S. L. (2008). Beyond reciprocity: Gratitude and relationships in everyday life. *Emotion, 8*(3), 425–429.
- Bartlett, M. Y., & DeSteno, D. (2006). Gratitude and prosocial behavior. *Psychological Science, 17*(4), 319–325.
- Boleyn-Fitzgerald, P. (1998). Gratitude and justice. *Ethics, 109*(1), 119–153.
- Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology, 84*(2), 377–389.
- Fagley, N. S. (2012). Appreciation uniquely predicts life satisfaction above demographics, the Big 5 personality factors, and gratitude. *Personality and Individual Differences, 53*(1), 59–63
- Froh, J. J., Bono, G., & Emmons, R. (2010). Being grateful is beyond good manners: Gratitude and motivation to contribute to society among early adolescents. *Motivation and Emotion, 34*(2), 144–157.
- Froh, J. J., Emmons, R. A., Card, N. A., Bono, G., & Wilson, J. A. (2011). Gratitude and the reduced costs of materialism in adolescents. *Journal of Happiness Studies, 12*(2), 289–302.
- Gulliford, L., Morgan, B., & Kristjánsson, K. (2013). Recent Work on the Concept of Gratitude in Philosophy and Psychology. *The Journal of Value Inquiry, 47*(3), 283–317
- Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.
- Lambert, N. M., Graham, S. M., & Fincham, F. D. (2009). A prototype analysis of gratitude: Varieties of gratitude experiences. *Personality and Social Psychology Bulletin, 35*(9), 1193–1207.
- McAleer, S. (2012). Propositional gratitude. *American Philosophical Quarterly, 49*(1), 55–66.
- McConnell, T. (1993) *Gratitude*. Philadelphia: Temple University Press.
- McCullough, M. E., Kilpatrick, S. D., Emmons, R. A., & Larson, D. B. (2001). Is gratitude a moral affect? *Psychological Bulletin, 127*(2) 249–266.
- McCullough, M. E., & Tsang, J. (2004). Parent of the virtues? The prosocial contours of gratitude. In R. A. Emmons & M. E. McCullough (Eds.), *The psychology of gratitude* (pp. 123–141). Oxford: Oxford University Press.
- Morgan, B., Gulliford, L., & Kristjánsson, K. (under submission). Gratitude in the UK: A new prototype analysis and cross-cultural comparison
- Roberts, R.C. (2007). Gratitude and Generosity, Unpublished paper, delivered at a conference on Emotion, Self and Identity, Aarhus University, Denmark

- Simmel, G. (1950). *The Sociology of Georg Simmel* [K.H. Wolff, Ed. And Trans.]. Glencoe, IL: Free Press.
- Tesser, A., Gatewood, R., & Driver, M. (1968). Some determinants of gratitude. *Journal of Personality and Social Psychology*, 9(3), 233–236.
- Watkins, P. C., Scheer, J., Ovnicek, M., & Kolts, R. (2006). The debt of gratitude: Dissociating gratitude and indebtedness. *Cognition & Emotion*, 20(2), 217–241.
- Wood, A.M., Maltby, J., Stewart, N., Linley, P.A. & Joseph (2008) A Social-cognitive model of trait and state levels of gratitude, *Emotion*, 9, 281-290
- Wood, A. M, Joseph, S., & Maltby, J. (2009). Gratitude predicts psychological well-being above the Big Five facets. *Personality and Individual Differences*, 46, 443-447