Happy to help? A systematic review and meta-analysis of the effects of performing acts of kindness on the well-being of the actor[☆]

Oliver Scott Curry[a,*], Lee A. Rowland[b,e], Caspar J. Van Lissa[c,f], Sally Zlotowitz[d], John McAlaney[b], Harvey Whitehouse[a]

[a] Institute of Cognitive and Evolutionary Anthropology, University of Oxford, United Kingdom
[b] Department of Psychology, Bournemouth University, United Kingdom
[c] Methodology & Statistics, Social and Behavioural Sciences, Utrecht University, Netherlands
[d] Department of Clinical Educational and Health Psychology, University College London, United Kingdom
[e] School of Anthropology and Museum Ethnography, University of Oxford, United Kingdom
[f] Erasmus School of Social and Behavioural Sciences, Erasmus University Rotterdam, Netherlands

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ABSTRACT

Do acts of kindness improve the well-being of the actor? Recent advances in the behavioural sciences have provided a number of explanations of human social, cooperative and altruistic behaviour. These theories predict that people will be 'happy to help' family, friends, community members, spouses, and even strangers under some conditions. Here we conduct a systematic review and meta-analysis of the experimental evidence that kindness interventions (for example, performing 'random acts of kindness') boost subjective well-being. Our initial search of the literature identified 489 articles; of which 24 (27 studies) met the inclusion criteria (total $N = 4045$). These 27 studies, some of which included multiple control conditions and dependent measures, yielded 52 effect sizes. Multi-level modeling revealed that the overall effect of kindness on the well-being of the actor is small-to-medium ($\delta = 0.28$). The effect was not moderated by sex, age, type of participant, intervention, control condition or outcome measure. There was no indication of publication bias. We discuss the limitations of the current literature, and recommend that future research test more specific theories of kindness: taking kindness-specific individual differences into account; distinguishing between the effects of kindness to specific categories of people; and considering a wider range of proximal and distal outcomes. Such research will advance our understanding of the causes and consequences of kindness, and help practitioners to maximise the effectiveness of kindness interventions to improve well-being.

1. Introduction

Do acts of kindness improve the well-being of the actor? Over the past few decades, advances in the behavioural sciences have developed numerous theories of human social, cooperative and altruistic behaviour. These theories — kin altruism, mutualism, reciprocal altruism, and competitive altruism — make it possible to explain a variety of different types of kindness (for example, love, sympathy, gratitude and heroism). And they predict that people will be 'happy to help' family, friends, community members, spouses, and even strangers under some conditions.

More recently, there has been growing interest in using kindness as

an intervention to boost subjective well-being. The idea that, for example, 'random acts of kindness' can boost the well-being not only of the recipient, but also the actor, and could thereby provide a simple, effective, inexpensive and widely-available means of addressing social problems ranging from social isolation to more serious mental and physical health conditions, has been taken up and promoted by a large number of research groups, charities and government organisations (Aked, Marks, Cordon, & Thompson, 2008; Aked & Thompson, 2011; see S1; Huppert, 2009).

Here we outline existing theories of altruism and their relation to kindness, and consider the predictions these theories make about well-being. We then conduct a systematic review and meta-analysis of

previous experimental studies of the effects of kind acts on the well-being of the actor. And we end with a discussion of the limitations of the existing literature, and make recommendations for future research.

2. The causes of kindness

Kindness refers to actions intended to benefit others. Why and under what circumstances are people kind to others? Why do people behave in prosocial, cooperative and altruistic ways? Recent interdisciplinary research has provided a wealth of answers to these questions (Curry, 2016).

Humans evolved from a long line of social primates, who have been living in social groups for over 50 million years (Shultz, Opie, & Atkinson, 2011). Group living affords numerous opportunities for various different types of mutually beneficial cooperative interaction (Lehmann & Keller, 2006; Nunn & Lewis, 2001; Sachs, Mueller, Wilcox, & Bull, 2004). Natural selection has favoured a range of evolved psychological mechanisms for taking advantages of these opportunities, and realising the benefits of cooperation. These mechanisms – kin altruism, mutualism, reciprocal altruism, and competitive altruism – make it possible to identify and explain several different types of kindness.

2.1. Kin Altruism: people will be kind to their families

Natural selection favours kindness to genetic relatives, to family members (Hamilton, 1964). Examples of such 'kin altruism' are widespread in nature (Gardner & West, 2014), most obviously in cases of parental care (Royle, Smiseth, & Kölliker, 2012). Humans too possess adaptations for detecting and delivering benefits to kin (Lieberman, Tooby, & Cosmides, 2007; Mateo, 2015), especially to offspring (Geary & Flinn, 2001). Kin altruism can explain kindness in the form of love, care, sympathy and compassion. And the theory predicts that these tendencies will be elicited by others who exhibit cues of genetic relatedness, especially vulnerable children (Platek, Burch, Panyavin, Wasserman, & Gallup Jr, 2002).

2.2. Mutualism: people will be kind to members of their communities

Natural selection favours the tendency to coordinate, collaborate and be kind to others with whom the actor shares a common interest – team mates, group members, coalition partners. Such 'mutualisms' – for the purpose of collective defence, or collaborative hunting – are widespread in nature (Bissonnette et al., 2015; Boinski & Garber, 2000; Boos, Kolbe, Kappeler, & Ellwart, 2011; Harcourt & Waal, 1992), and are an ancient and recurrent feature of human social life (Alvard, 2001; Wrangham, 1999). This process has led, in humans, to a psychology that forms and maintains groups (clubs, gangs, clans, sects, nations, and so on), and acts to promote their interests (sometimes at the expense of rival groups) (Balliet, Wu, & De Dreu, 2014). Mutualism can explain kindness in the form of loyalty, solidarity, camaraderie, civic-mindedness, community spirit, and commitment to a cause 'greater than oneself'. The theory predicts that these tendencies will be elicited by other members of the groups with which one identifies (including strangers) (Whitehouse & Lanman, 2014).

2.3. Reciprocal Altruism: people will be kind to those they might meet again

Natural selection favours kindness to those who might return the favour at a later date (Axelrod, 1984; Trivers, 1971).[1] Surprisingly, few if any examples of such 'reciprocal altruism' have been found in non-human species (Amici et al., 2014; Clutton-Brock, 2009). But in

humans, reciprocal altruism is implemented by psychological mechanisms that: detect those in need of help, initiate cooperation, signal recognition of favours received, keep track of who has returned the favour and who has not, make amends for favours not returned, and accept repentant cheats back into the fold (Cosmides & Tooby, 2005; McCullough, Kurzban, & Tabak, 2013; Trivers, 1971). Thus, reciprocal altruism can explain kindness in the form of sympathy (for those in need), trust (initiating cooperation), returning favours, gratitude (for favours yet to be returned), forgiveness and friendship. Reciprocal altruism predicts that these tendencies will most likely be elicited in repeated interactions where individuals expect to meet again, where one's cooperative (or uncooperative) behaviour can be observed by others, and towards others who have helped them in the past, or will be able to help them in the future (Kraft-Todd, Yoeli, Bhanot, & Rand, 2015). This can includes kindness to strangers: a kind act may be a way of making a new friend; after all, 'a stranger is just a friend you haven't met yet' (Delton, Krasnow, Cosmides, & Tooby, 2011; Krasnow, Delton, Tooby, & Cosmides, 2013).

2.4. Competitive Altruism: people will be kind to others when it enhances their status

Natural selection also favours kindness that impresses peers and attracts mates (Gintis, Smith, & Bowles, 2001; Maynard Smith & Price, 1973). Many animals resolve status competition by engaging in costly displays of prowess (Hardy & Briffa, 2013; Riechert, 1998). In humans, and perhaps some other species (Zahavi & Zahavi, 1997), these displays includes altruistic acts that benefit the audience (Hardy & Van Vugt, 2006; Hawkes, 1991; Hawkes, O'Connell, & Blurton Jones, 2001; Mazur, 2005; Miller, 2000; Smith & Bleige Bird, 2000). This 'competitive altruism' can explain kindness in the form of generosity, bravery, heroism, chivalry, magnanimity and public service. The theory predicts that these tendencies will be elicited in the presence of rivals, or potential mates, where acting altruistically may enhance one's status (Raihani & Smith, 2015). This includes acts of kindness to strangers: helping a stranger may improve your status whether the recipient is in a position to return the favour or not (Barclay, 2011; Raihani & Bshary, 2015).

Thus, multiple theories – kin altruism, mutualism, reciprocal altruism, competitive altruism – explain multiple types of kindness. And the human capacity for culture—the ability to invent and share new ways of living (Boyd, Richerson, & Henrich, 2011; Pinker, 2010)—has allowed us to build and elaborate upon this benevolent biological foundation, with rules, norms and other social institutions that further inculcate and amplify cooperation and altruism (Hammerstein, 2003). These theories predict that people will be motivated to be kind to family, friends, colleagues, spouses, and even strangers under some conditions.[2] And the possession of such motivational systems leads us to expect that helping others might make people happy.

3. The consequences of kindness

Subjective well-being – including happiness, life-satisfaction and positive affect – refers to a range positively valenced psychological states (Dolan & Metcalfe, 2012; OECD, 2013). Why would performing kind acts improve well-being? Why would helping make you happy? Broadly speaking, happiness can be seen as an internal reward system for acting in ways that promote survival and reproduction (Buss, 2000). Happiness is: "a psychological reward, an internal signaling device that tells us that an adaptive problem has been, or is in the process of being,

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[1] For further discussion of various subtypes of reciprocity, such as indirect and network reciprocity, see (Roberts, 2008; Tanimoto, 2015)

[2] Note that the argument here is that biology and culture have equipped us to help automatically, intuitively, innocently – there is no suggestion that people are necessarily aware of the causes of their benevolent behaviour, or are acting from any ulterior motive. "The heart has its reasons of which reason knows nothing" (Pascal, 1669).