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Helping and Happiness: A Review and Guide for Public Policy

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Abstract: Perhaps one of the most reaffirming findings to emerge over the past several decades is that humans not only engage in generous behavior, they also appear to experience pleasure from doing so. Yet not all acts of helping lead to greater happiness. Here, we review the growing body of evidence showing that people engage in a wide array of prosocial behaviors (e.g., charitable giving, volunteering, blood/organ donation, offering advice, food sharing) which can promote positive emotions. Then, using self-determination theory, a foundational theory of human motivation, we consider when and how generous actions are most likely to boost the helper's happiness—and when they are not. Finally, we leverage these insights to consider how public policy and organizations can apply this information to make prosocial action more emotionally rewarding for citizens and employees alike.

Introduction

In 2009, Jamaican runner Usain Bolt set the world record for the fastest 100-meter race with a time of 9.58 seconds. While impressive, this incredible feat lags well behind the speed of other animals, such as the cheetah who can typically cover 100-meters in less than six seconds. Jackrabbits, greyhounds, and even blue wildebeests can also run at speeds twice as fast as the average person. Simply put, humans are not the fastest or most physically capable species. Yet human beings dominate the planet (Harari, 2014). How can this be?

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One possibility is that humans have evolved a unique proclivity to care for and cooperate with one another (Henrich & Henrich, 2007), and that the immense strength of our social relationships is facilitated by prosocial actions (Feeney & Collins, 2003). Supporting this possibility, donation records indicate that humans are extraordinarily generous, giving a variety of costly resources including their time, money, expertise, and organs to other people even when they do not expect reciprocation (Brethel-Haurwitz & Marsh, 2014; Piliavin & Callero, 1991). These findings challenge the narrative that humans are driven by pure self-interest (Miller, 1999) and suggest instead that people are also deeply motivated to help others (e.g., Grant, 2013).

In fact, people not only routinely help others but a growing body of research indicates that they can derive pleasure from doing so (Aknin, Whillans, Norton, & Dunn, 2019; Crocker, Canevello & Brown, 2017; Curry et al., 2018; Dunn, Aknin, & Norton, 2014). In the present article, we seek to provide a balanced review of the evidence demonstrating that helping behavior can lead to positive emotions for the giver. We also shed light on when the emotional rewards of giving are most likely to materialize in hopes that policy makers are able to capitalize on these insights to promote greater happiness and in turn, bolster and sustain increased generosity.

Our focus on subjective well-being (what many refer to as "happiness") as a valuable outcome of interest reflects the large and accumulating body of evidence documenting the benefits of positive emotions for individuals and society. Consistent with the literature, we define subjective well-being as higher positive affect, lower negative affect, and higher life satisfaction (Diener, 1984), and we use several terms reflecting greater well-being interchangeably (e.g., enjoyment, happiness, positive emotions, and satisfaction). People around the world report that happiness is "extraordinarily important" (Diener & Oishi, 2000) and its pursuit motivates numerous consequential decisions—from whom to marry, to what career path to pursue, as well as how to spend one's leisure time and disposable income (Diener & Biswas-Diener, 2019). A widespread interest in promoting well-being seems justified when recognizing that people who frequently experience higher levels of positive affect also enjoy a host of beneficial outcomes, such as greater physical health, lower mortality risk, greater likeability, more positive social relationships, higher productivity, as well as greater work place and marital success (see Chida & Steptoe, 2008; Howell, Kern, & Lyubomirsky, 2007; Kushlev et al., 2020; Lyubomirsky, King & Diener, 2005a, for meta-analytic reviews). In fact, happiness is not just an outcome of success—but a key causal predictor of it (Lyubomirsky et al., 2005a; Walsh, Boehm & Lyubomirsky, 2018). Consistent with this idea, firms with happier employees experience greater productivity, customer satisfaction, and lower employee turnover (Krekel, Ward, & De Neve, 2019). Thus, while happiness and well-being indicators were initially overlooked by many governments and workplaces in favor of financial metrics like gross domestic product (the monetary value of the goods and services produced in a country), well-being has now become a policy focus for many as its value has become clearer in recent decades (Macchia & Whillans, 2019; Sachs, & Director, 2018; Stiglitz, Sen, & Fitoussi, 2009; Tay, Chan, & Diener, 2014).

In reviewing the evidence of when and how helping leads to happiness for the giver, we define helping as any voluntary action that assists another person. Consequently, we use the terms helping, prosocial behavior, kindness, and generosity interchangeably (Batson & Powell, 2003; Eisenberg & Spinrad, 2014; Hammond & Drummond, 2019; Penner, Dovidio, Piliavin, & Schroeder, 2005). This definition encapsulates the large body of work on charitable donations and volunteering, which includes both formal volunteering to nonprofit organizations as well as the provision of informal assistance between individuals. This definition also includes relatively understudied forms of generous actions, such as advice giving, food sharing, blood and organ donation. We include a wide array of diverse helping behaviors to reveal both the divergent ways in which people help one another and to underscore the underlying theoretical similarities in when and how giving leads to happiness. We discuss survey data as well as lab and field experiments, placing greater emphasis on large samples and preregistered designs when available.

Because most of us have had positive personal experiences with helping other people, and because there is a growing body of research linking helping to happiness, it is tempting to assume that any and all forms of helping improve emotional well-being for the benefactor. Yet, research indicates that this simple message is incomplete. There are critical factors that predict whether and when helping promotes happiness (Aknin et al., 2019; Crocker et al., 2017; Dunn et al., 2014; Dunn, Whillans, Norton, & Aknin, 2020). Therefore, our goal in this paper is to illustrate when helping increases happiness (and when it does not) so that policy makers may direct their finite resources toward facilitating helping opportunities that are most likely to create the largest emotional benefit. Then, we offer suggestions for how to do so.

This paper proceeds as follows. In the first section, we summarize the literature on helping and happiness. As noted above, this summary casts a wider net than many other review papers by including food sharing, advice giving, as well as blood and organ donation to demonstrate the consistent emotional outcomes across a variety of prosocial behaviors. Yet, as readers will soon see, while the relationship between helping and happiness is generally positive, it is far from perfect, indicating that details matter. Therefore, in the second section of the paper, we describe which details matter by introducing the self-determination theory (SDT; Ryan & Deci, 2000)—a widely used and fundamental theory of human motivation—as a conceptual framework with great explanatory power. This theory identifies three key factors: autonomy (feelings of personal choice), competence (feelings of efficacy and ability), and relatedness (feelings of connection

to others) to illuminate when helping leads to happiness for the actor and when it does not. Then, in the final section of the paper, we consider how the motives identified by SDT can be amplified and provide examples of how to do so in three familiar and societally relevant contexts—taxation, blood donation, and workplace helping—to assist governmental and organizational policy makers in optimizing the emotional rewards of prosocial action.

Helping and Happiness: An Overview

People help others in many ways. Most acts involve sharing a resource—one's money, time, insight, food, and blood or organs—with another person. While the specific commodity may vary, a general pattern emerges from the data: helping is typically associated with and can lead to higher levels of happiness for the helper (Curry et al., 2018 for a meta-analysis). Below we provide a summary of the correlational and experimental work demonstrating that engaging in a range of generous actions for the benefit of others leads to emotional rewards.

Giving Money

Many large national and international surveys ask respondents to report on their generous behavior, such as giving time and money to charity, which allows researchers to assess the relationship between helping and happiness in large, representative samples. With few exceptions, most surveys find that using one's financial resources to help others is associated with greater happiness. In one early study, a nationally representative sample of over 632 Americans was asked to report their general happiness and indicate approximately how much money they spend on themselves and other people (Dunn et al., 2008). Specifically, participants reported how much money they spent in a typical month on bills, expenses, and gifts for themselves, allowing researchers to calculate an index of personal spending. Similarly, participants reported how much money they spent in a typical month on gifts for other people and donations to charity, allowing researchers to calculate an index of prosocial spending. Then, the two spending indices were used to predict well-being. Analyses revealed that people who spent more on others via prosocial spending reported greater overall happiness. How much people spent on themselves was unrelated to their happiness reports (Dunn et al., 2008).

Similar findings have been observed using other research methods and in large international samples. Data from the Gallup World Poll (GWP)—the largest and most representative snapshot of humans around the globe—support the widespread association between generous spending and happiness. Responses from over one million respondents indicates that donating money to charity in the past month is associated with greater life satisfaction in most countries around the world (Aknin, Dunn, Norton, & Whillans, 2019; Helliwell, Huang, & Wang,

2017). In fact, financial generosity is one of the top six predictors of well-being worldwide (Helliwell et al., 2017; Helliwell, Huang, Wang, & Norton, 2020), and some analyses of the GWP data suggest that donating to charity in the past month has an equivalent impact on happiness as nearly doubling one's household income (Aknin et al., 2013).

Research has also gone beyond self-reported happiness to show that generous actions are linked to physiological changes associated with pleasure. For instance, neuroscientists scanned the brains of 19 female American students who were endowed with \$100 and asked to make financial decisions in an fMRI scanner. These students' brains displayed increased activation in areas typically associated with pleasure and reward (i.e., the ventral striatum and frontal cortex) when making decisions that directed money to a local charity (Harbaugh, Mayr, & Burghart, 2006). Brain activation in pleasure centers was especially pronounced when donations were voluntary (as opposed to mandatory in tax-like transfers)—a point to which we will return to later.

A number of experiments reveal that generous spending is not only *associated with* happiness—it *leads to* happiness. In one of the earliest studies to investigate this question, researchers recruited a small sample of 46 students on a Canadian university campus in the morning hours. Each student was randomly assigned to receive a monetary amount (either \$5 or \$20 Canadian dollars) and a spending direction (either to spend the money on themselves or someone else by 5 p.m. that day; Dunn et al., 2008). People were contacted by phone in the evening to report their happiness that day by a researcher unaware of their endowment and spending directions. Students assigned to spend money on others reported feeling significantly happier than those assigned to spend money on themselves, regardless of whether they spent \$5 or \$20.

New research makes use of experiments with much larger samples, which provide more reliable and precise information (Fraley & Vazire, 2014). A few experiments are "preregistered," meaning that researchers publicly document their predictions, study methods, and analyses before conducting the study; this procedure helps to minimize the risk that researchers are tempted to flexibly interpret their data to confirm their predictions (Nosek, Ebersole, DeHaven & Mellor, 2018; Nosek et al., 2019). Applying these current best practices and highest standards for evidentiary value, some of our own research demonstrates that spending money on others leads to greater happiness (Aknin, Dunn, Proulx, Lok, & Norton, 2020).

In one study, we recruited 712 students across two universities and, after completing a short questionnaire, told them that they had earned a small additional payment of \$2.50 Canadian dollars that they could use to buy a goody-bag filled with juice or treats valued at \$3. Critically, each participant was randomly assigned to a spending condition. Half of the participants were assigned to the *personal spending condition* where they were told that if they bought a goody-bag

it was for them, and it would be available for collection at the end of the experiment. The other half of the participants were assigned to the *prosocial spending condition* where they were told that if they bought a goody-bag it was for charity, and it would be donated to a sick child at a local children's hospital at the end of the experiment. All participants were given a choice of what to buy (two chocolate bars, two cans of juice, or one of each) and the possibility to "opt-out" of purchasing a goody-bag, which meant that participants could claim the cash for themselves a few months later. This final option provided participants with the chance to decline engaging in a generous action, which appears to be critical for experiencing joy from giving—an important detail that we unpack later. Despite providing participants with the choice to claim the cash, nearly all participants chose to buy a goody-bag.

When participants rated their current emotion right after their purchase, participants in the prosocial spending condition (those that spent money on others) reported feeling significantly happier than those who spent money on themselves (Aknin et al., 2020; see also Whillans et al., 2019). The happiness benefits observed in this study were roughly similar to other well-established predictors of happiness, such as marital status (Helliwell & Putnam, 2004) and income (Stevenson & Wolfers, 2013). Yet, the strength of this effect depends on the methods used (Aknin et al., 2020). People experienced greater emotional benefits from actually participating in an act of helping in the lab as opposed to simply thinking about doing so.

Giving Time

In addition to money, people are also generous with their time. Formally, Americans alone provided nearly 7 billion *hours* or 800,000 *years* to serve non-profit organizations in 2018 (National Service Research, 2018), and evidence suggests that volunteering is also associated with greater happiness. For instance, responses from approximately 29,000 Americans across 29 states revealed that people who volunteered more reported higher levels of happiness, even when controlling for a number of important other personal differences that could explain this relationship, such as demographic and socioeconomic factors (Borgonovi, 2008).

These well-being benefits do not appear to be confined to the United States. When Haski-Leventhal (2009) examined data from over 30,000 people across 12 countries in the 2007 Survey of Health, Ageing and Retirement in Europe, analyses demonstrated that volunteers reported significantly higher levels of life satisfaction than nonvolunteers (see also Musick & Wilson, 2003). More recently, responses from over one million people surveyed as part of the GWP between 2009 and 2017 showed that formal volunteering was associated with higher life satisfaction in most countries (Aknin et al., 2019).

Beyond volunteering one's time to support nonprofit organizations, people also can use their time to help other people by engaging in daily acts of kindness toward one another. In the academic literature, these spontaneous acts of generosity that occur between people are known as random acts of kindness (RAK). These behaviors can manifest in small commonplace actions, such as holding the door open for a stranger or calling a friend to say hello. Survey and experimental evidence suggest that small acts of kindness can have emotional rewards for the actor (e.g., Lyubomirsky, Sheldon & Schkade, 2005b). For example, one survey conducted with 175 Japanese college students found that engaging in a higher number of kind behaviors was associated with greater happiness (Otake, Shimai, Tanaka-Matsumi, Otsui, & Fredrickson, 2006). More recently, a large online experiment conducted over a 6-week period with a diverse sample of nearly 500 participants examined the consequences of doing kind acts for others, the world/humanity, and oneself compared to a control condition (Nelson, Layous, Cole, & Lyubormirsky, 2016). Participants assigned to engage in both forms of other-focused generosity—helping another person or humanity—reported greater positive emotions and, in turn, greater psychological flourishing over time. Meanwhile, participants assigned to complete kind acts directed toward themselves showed no improvements relative to the control group (Nelson et al., 2016).

Giving Blood, Organs, and Tissue

In addition to providing time and money, which are two of the most commonly shared resources, people sometimes help in other (and often, more challenging) ways. Thousands of people give "of themselves" by donating blood, organs, and bone marrow each year (Brethel-Haurwitz & Marsh 2014; Koo & Fishbach, 2016; Red Cross Blood Services, 2020). Such donations can be costly, painful, and risky. At best, donors sacrifice their time for testing and donation while facing mild discomfort from vein puncture, bruising, and generalized weakness (Piliavin, Callero, & Evans, 1982). At worst, donors experience moderate to high levels of pain, complications during recovery, and even the nontrivial risk of injury or death (Bortin & Buckner, 1983; Hirsch, 1982). Yet, people donate blood and tissue to help an "unnamed stranger" (Titmuss, 1971, p. 239) and seem to experience well-being from doing so.

For instance, Brethel-Haurwitz and Marsh (2014) found evidence that geographical differences in self-reported well-being were associated with altruistic kidney donation in the United States. Specifically, statewide well-being predicted the distribution of living organ donations among 955 donors identified by a government agency, even while controlling for alternative factors that could account for this relationship, such as wealth and religiosity. Further evidence comes from a sample of over 340 people identified from the National Marrow Donor Program. In this survey, individuals who donated bone marrow to strangers reported

that the donation was a positive experience and that they were happy they did it (Switzer, Simmons, & Dew, 1996; see Maple, Chilcot, Weinman, & Mamode, 2017 for evidence that donors report satisfaction with their living kidney donation but no measurable increase in life satisfaction at 3- and 12-months postoperation). Donors reported the most positive reaction (i.e., lower ambivalence about donating and fewer postdonation negative feelings) when they felt like their donation was impactful and likely to help the recipient's chances of survival (Switzer et al., 1996).

Research on blood donations displays a similar pattern. In several studies, including some studies examining upwards of 1,800 donation experiences, blood donors reported higher levels of well-being after donating (e.g., Piliavin et al., 1982; Zillmer, Glidden, Honaker, & Meyer, 1989) and at higher levels than a comparison group of demographically similar nondonors (Hinrichs et al., 2008; Sojka & Sojka, 2003). In fact, research suggests that the altruistic nature of these activities could minimize the experience of pain. In one recent study with 66 adults recruited at hospitals and blood donation stations in China, people reported less intense pain from vein puncture when blood was drawn for the purpose of postearthquake medical use than when blood was drawn for personal medical tests (Wang, Ge, Zhang, Wang, & Xie, 2020). Together these results provide evidence that even physically costly forms of helping behavior—giving of one's blood and organs—is linked to greater happiness.

Giving Advice

People also share information in the form of wisdom or advice. Although we are not aware of any research directly assessing the emotional consequences of giving advice, existing data are consistent with the notion that advice giving leads to greater well-being. Several experiments, including large, preregistered field studies with thousands of middle-school youths, demonstrate that giving advice has beneficial consequences. For instance, students in sixth to eighth grade randomly assigned to give studying tips to the fourth-grade students once a week for 3 weeks spent more time working toward their academic goals than students who received advice from their teacher once a week for 3 weeks (Eskreis-Winkler, Fishbach, & Duckworth, 2018). Another experiment found that students assigned to give advice outperformed their peers who did not give advice in math and another selected course (Eskreis-Winkler, Milkman, Gromet, & Duckworth, 2019). Thus, sharing one's skills also appears to benefit the helper and these benefits appear to emerge from subjective feelings of confidence and capability. When giving advice, people tend to feel a greater sense of competence which motivates them to achieve their goals (Eskreis-Winkler et al., 2018). Consistent with SDT, we suspect that this same sense of increased competence also boosts the helper's well-being too.

Giving Food

Food is another resource that people share with one another. Food may be a unique commodity in that it often requires social coordination to secure and distribute. Our human ancestors likely worked together to enhance their safety and skill when hunting and would later share their catch before the meat would spoil. As a result, food sharing may have helped socialize humans for greater cooperation because shared consumption habits require that people to attend to the needs of others (DeBacker, Fisher, Poels, & Ponnet, 2015). Consistent with this proposition, responses from nearly 500 students in Belgium link the frequency of food sharing such as eating shared, family style meals with self-reported altruistic behavior in adulthood (DeBacker et al., 2015). Parallel findings have been documented in relatively large, preregistered experiments. Strangers paired for a negotiation task were more cooperative and faster to agree upon a decision after sharing a communal plate of food than after eating identical food in individual portions (Woolley & Fishbach, 2019). In turn, sharing food leads to emotional rewards. In one small experiment, 20 toddlers around the age of 22-months were provided with eight edible treats and asked to share a few with a puppet in subsequent study phases. Video recordings of the toddlers' interactions were later coded for facial expressions of happiness. Analyses revealed that children smiled more when giving an edible treat to a puppet than when receiving edible treats themselves, suggesting that the emotional rewards of giving are detectable early in childhood (Aknin, Hamlin, & Dunn, 2012; see also Aknin, Broesch, Van de Vondervoort, & Hamlin, 2015; Song Broekhuizen, & Dubas, 2020).

Understanding Inconsistencies through SDT

The evidence reviewed above is often (inaccurately) used to suggest that helping others *always* leads to happiness—but, as we have alluded to above, the emotional rewards are not uniform or guaranteed. The data include some mixed and contrary findings, which suggest important caveats. Therefore, in this section of the paper, we further discuss the SDT (Ryan & Deci, 2000) and use it as a theoretical framework for understanding when kindness promotes well-being and, equally as important, when it does not or has less of an emotional benefit. This discussion has particular policy relevance. If decision makers incorrectly assume that equivalent happiness boosts are experienced after *all* forms of generous actions, this could result in a resource loss as people, organizations, and the government choose to invest in *any* form of prosocial behavior. Theoretical guidance can be used to assist in refining prosocial investments so that helpers experience greater emotional rewards and fewer costs. This section proceeds as follows. First, we provide a brief introduction to SDT (Ryan & Deci, 2000) and highlight its explanatory value. Then, we revisit the literature on helping and happiness through

this theoretical lens to reveal how prosocial acts that promote SDT's three key components are most likely to promote well-being.

Self-Determination Theory

SDT is a meta-theory on human motivation, which explains that humans have three core psychological needs central to their physical and psychological well-being (Howell, Chenot, Hill, & Howell, 2011; Reis, Sheldon, Gable, Roscoe, & Ryan, 2000; Ryan & Deci, 2000; Sheldon, Ryan, & Reis, 1996). These core needs are (1) *autonomy* defined as the need to see one's actions as volitional or self-determined, (2) *competence* defined as the need to see oneself as capable and effective actor, and (3) *relatedness* defined as the need to feel close or connected to other human beings (see Bandura, 1977; Baumeister & Leary, 1995; DeCharms, 1968; Patrick, Knee, Canevello, & Lonsbary, 2007; White, 1963).

Satisfying these psychological needs leads to positive outcomes across domains ranging from treatment adherence to education (e.g., Baard, Deci, & Ryan, 2004; Chen et al., 2015; Vansteenkiste et al., 2007). For instance, research conducted with over 200 HIV+ patients showed that individuals who experience greater feelings of autonomy over their treatment report higher perceptions of competence and, in turn, are more likely to adhere to essential antiviral therapy medication (Kennedy, Goggin, & Nollin, 2004). Another survey with 728 Canadian high school students found that students reported feeling greater competence and were more interested in pursuing science and related careers when they felt that their teachers provided them with autonomy over their learning (Lavigne, Vallerand, & Miquelon, 2007). Thus, prosocial acts that allow givers to fulfill one or more of these core needs—and contribute to personal growth—are more likely to lead to happiness than prosocial acts that fail to provide these same opportunities.

Explanatory value. Revisiting the literature on helping and happiness through the lens of SDT (Ryan & Deci, 2000) offers several benefits. First, it synthesizes anomalous findings. Without a theoretical framework, studies that fail to detect the emotional rewards of giving may appear flawed or confusing. However, as a number of similar results align with one another and with SDT's theoretical predictions, these findings form meaningful and coherent observations that deepen our understanding of the relationship between prosocial behavior and happiness. Second, the use of SDT as a theoretical framework situates research on prosocial behavior within the literature on when and how people experience well-being. Finally, the insights generated from applying SDT can guide future experiments and policies to increase the likelihood that helping does in fact lead to greater happiness. More broadly, by learning why and when helping leads to

happiness, policy makers and organizational leaders can design programs that are more likely to boost well-being.

Autonomy. Sometimes people engage in generous behavior because of external pressures. For instance, schools may require students to participate in community service as a graduation requirement, offices may mandate pro-bono work, and some people may provide help because they fear disapproval or rejection (Cain, Dana & Newman, 2014). Consistent with SDT's proposition that people need to exert autonomy over their decisions, prosocial behavior is most likely to lead to happiness when actors have chosen to provide help.

A handful of studies support the importance of choice and volition for reaping pleasure from helping. In one small lab experiment, 80 students were given money to distribute between themselves and another participant before reporting their well-being. Half of these students were randomly assigned to a high-autonomy condition in which they had a choice about how much money, if any, they wanted to provide another participant. Meanwhile, the other half of the students were randomly assigned to a low-autonomy condition in which they had no choice about how much money was provided to another participant. Results revealed that giving more money to another person led to higher levels of happiness, but only in the high-autonomy condition where people had the freedom to choose their gift amount (Weinstein & Ryan, 2010; see also Wu, Zhang, Guo, & Gros-Luis, 2017). In fact, higher levels of generosity predicted *lower* levels of well-being when people were forced to give a predetermined amount. Thus, providing people with a choice over their generous action was critical for experiencing the happiness benefits of giving. As mentioned earlier, researchers observed a similar pattern when students were given money that could be taxed or donated to a local food bank. In this study, researchers detected an overall boost when giving to charity as observed by activation in pleasure centers of the brain. These benefits were larger when participants chose to give, as opposed to having their money rerouted to charity via a mandatory tax (Harbaugh et al., 2006).

Additional evidence from the realm of volunteering underscores the importance of autonomy for reaping emotional benefits from helping. Despite the robust association between formal volunteer work and well-being in large cross-sectional and longitudinal data sets, very few experiments have examined whether volunteering leads to greater happiness, and those that have provide little evidence for a robust causal relationship. For instance, in a systematic review of the nine studies exploring this question at the time, Jenkinson and colleagues (2013) found no support for the hypothesis that volunteering improves well-being. While this null result may have been due to the small number of participants included in each study (715 participants across 9 studies; median number per study = 54), subsequent studies using larger samples reveal similar conclusions. Indeed, in one preregistered experiment and the largest study conducted on the topic to date,

nearly 300 college students in Massachusetts were randomly assigned to engage in formal volunteer work for 10–12 hours weekly or to a wait-list control group (Whillans et al., 2016). To assess the impact of volunteering, students reported their well-being over a 6-month period. Students who volunteered were no happier than those assigned to the waitlist, suggesting that formal volunteering had no measurable benefits (Whillans et al., 2016; see also Schreier, Schonert-Reichl, & Chen, 2013). While this finding appears to conflict with the generalized notion that helping leads to happiness, these results likely stem from the mandatory nature of many volunteering opportunities. Specifically, volunteering as part of educational programs may not feel volitional because many students are required to complete a certain number of service hours for graduation. Moreover, school-based volunteering may provide little chance for personalization, direct contact with the recipient, or clear evidence of impact—all critical details that align with SDT's key motives.

More recently, Lok and Dunn (2020) conducted a well-powered, preregistered experiment demonstrating the value of personal choice for experiencing the emotional benefits of generosity. One hundred participants were recruited online and asked to describe two recent experiences in which they spent money on another person or cause. In random order, participants were asked to describe a time that they had decided to help (high autonomy) and a time that they had little choice to help (low autonomy). Participants reported their positive emotions at the time of spending after each writing exercise. Consistent with predictions, participants reported greater positive feelings after describing a time they chose to spend money in a way that helped others than after describing a time they spent money to help others but had little choice over whether to do so. Taken together, these findings offer important implications for policy makers: Provide people with the opportunity to choose how they assist others whenever possible.

Of course, not all contexts are able to permit total freedom when selecting helping behavior. When real-world constraints apply, two framing strategies may prove useful. First, offer people a choice of *how* to help, as opposed to *whether* to help. For instance, students required to complete community service hours could decide how they would like to spend their allotted time. By providing a range of activities—from cooking with seniors to cleaning up local parks to caring for sheltered animals—students have a means for exercising their need for autonomy, as well helping in a way that enacts their preferences and identity (Aaker & Akutsu, 2009; Kessler & Milkman, 2018). Second, if injecting an opportunity for choice is not available, simply reminding people that they have the freedom to help or not can preserve the emotional rewards of giving. In one study, 104 students were given the chance to help with a task—some were told that it was "entirely their choice whether to help or not" and others were told that they "should help out." After, students reported their well-being. Analyses revealed that students felt

happier after helping when their freedom to choose was prompted (Weinstein & Ryan, 2010).

Competence. Some giving opportunities provide prosocial actors with clear evidence of how their actions have positively influenced others. When delivering groceries to homebound senior citizens or distributing clothes directly to a homeless shelter, people are able to directly see how their efforts make recipients' lives better. Yet, seeing the benefit of one's actions is not always possible, such as in the case of online donations and payroll deductions. Consistent with SDT's (Ryan & Deci, 2000) need for competence, prosocial behavior is most likely to lead to happiness when the helper is aware that their actions have made a difference for others.

Allowing helpers to see how their actions help others motivates prosocial behavior. A large body of research on "the identifiable victim effect" demonstrates that people are willing to direct greater assistance to one, recognizable target in need than a larger, unrecognizable group in the same dire situation (Jenni & Loewenstein, 1997; Kogut & Ritov, 2011; Small, Loewenstein, & Slovic, 2007). This finding may stem from the human desire to demonstrate competence by having a clear positive impact on others (Cryder, Loewenstein, & Scheines, 2013a). People are more likely to help others when they are provided with tangible details about how their efforts improve others' welfare. In one small study, after meeting with a past recipient and witnessing the positive impact that their efforts could make, 39 workers at a university call center who aimed to collect donations for student scholarships raised 171% more money and spent 142% more time on the phone than callers assigned to various control groups (Grant et al., 2007). This theory may also explain why people appear to be more willing to donate near the end of charitable campaigns when the target is within sight; late stage donations provide a greater sense of impact (Cryder, Loewenstein & Seltman et al., 2013b).

Providing donors with efficacy information not only increases donations, but can also make giving more emotionally rewarding. In one study, 120 students received \$10 CAD and were asked if they would like to donate to a charity to help those in need before reporting their happiness (Aknin, Dunn, Whillans, Grant, & Norton, 2013). Importantly, half of the students were randomly assigned to a *low-impact* information condition in which they were told that their donation would go to UNICEF, which helps children around the globe in various ways. Meanwhile, the other half of students were randomly assigned to a *high-impact* information condition in which they were told that their donation would go to Spread the Net, an organization that buys a bed net to stop the spread of malaria through Africa with every 10 dollars collected. Larger donations predicted higher levels of post-donation happiness, but only when donations went to Spread the Net, suggesting that clear information about how one's contributions benefit others is important for experiencing the emotional benefits of giving. These findings align with those

of bone marrow donors who report more positive postdonation experiences when they believe that their sacrifice helped the recipient's chances of survival (Switzer et al., 1996) and the benefits of providing advice, which stem from increased competence and capability (Eskreis-Winkler et al., 2018). The extent to which various forms of interpersonal helping provide competence information may also help explain why RAKs lead to greater well-being while volunteering does not; the direct and immediate nature of RAKs provides clear, direct evidence of help, while the often-distant nature of volunteer work might seem incremental or obscure.

The importance of appreciating one's positive impact was observed in a recent well-powered, preregistered experiment with 100 participants recruited online (Lok & Dunn, 2020). Participants were asked to describe two recent experiences in which they spent money on another person or cause. Importantly, participants were asked to describe one experience in which they were able to clearly see the difference their actions made (high impact) and describe one experience in which they were unaware of the difference that their actions made (low impact) in random order. When participants reported their positive emotions at the time of spending after each writing exercise, participants reported greater positive feelings after recalling the high-impact (vs. low-impact) occasion. These findings aligned with predictions and underscore the value of recognizing one's positive impact for reaping pleasure from generous behavior.

Relatedness. Humans have a fundamental need to belong and feel connected to others (Baumeister & Leary, 1995). This reality shapes many decisions, such as how people spend their time as well as how they use and donate their money. A sense of personal connection to a victim motivates numerous charitable donors (e.g., Small & Simonsohn, 2008). This may come as no surprise given that social relationships have been identified as one of the best predictors of happiness (Diener & Seligman, 2002; Lyubomirsky et al., 2005a). For example, many people make significant donations to medical research as a result of a personal connection to a victim. Similarly, the majority of organ and tissue donations occur between close friends and family members each year.

Importantly, existing evidence aligns with the predictions raised by SDT: acts of generosity which allow people to create and strengthen social bonds are more likely to boost the actor's happiness than those that do not. Several initial studies support the notion that socially connected giving leads to greater happiness. For instance, in one small experiment, 80 students were asked to recall a time they spent approximately 20 dollars on someone else who was either a strong social tie (e.g., a close family member or friend) or weak social tie (e.g., acquaintance) before reporting their happiness. Consistent with the idea that generosity is most rewarding when it facilitates meaningful social ties, people who recalled a time they spent on close others reported greater happiness (Aknin, Sandstrom, Dunn, & Norton, 2011).

Other evidence suggests that even small chances to build social connection matter too. In another experiment, 24 students were endowed with \$10 CAD and the chance to give as much or as little of this amount away to another student in the classroom. Importantly, for half of the students, the donation was transferred to the recipient by a researcher assistant, which precluded social contact. Meanwhile, the other half of students delivered the donation to the recipient directly, facilitating a brief social exchange. When the funds were provided in a face-to-face exchange, larger donations led to higher levels of happiness. When transferred by an intermediary, larger donations predicted slightly *lower* levels of happiness (Aknin, Dunn, Sandstrom & Norton, 2013).

Not all forms of prosocial behavior can accommodate personal interaction. People sometimes give to causes or recipients on the other side of the globe where direct contact is unlikely. In these cases, meaningful social connection with an agent or representative of the cause may unlock the emotional benefits of giving. For instance, in one study, 68 participants were invited to donate to a charity that brings fresh water to the people of Africa (Aknin et al., 2013). Half the participants were randomly assigned to the high social connection condition in which they were asked for a donation by a research assistant who mentioned a personal connection to the cause, explaining that a friend had just returned from a trip to the region supporting this charity. The other half of participants were randomly assigned to the low social connection condition and were not told of this personal connection when solicited. Consistent with the findings reported above, participants reported greater happiness after donating more money to charity, but only when giving to a personal representative of the organization, highlighting how even minimal social interactions may be critical for experiencing pleasure from giving (Aknin et al., 2013).

Once again, the importance of social connection for reaping the enjoyment of generosity has been observed in a recent well-powered, preregistered experiment (Lok & Dunn, 2020). One hundred participants were recruited online and asked to recall a time they spent money on someone else or a cause. Specifically, in random order, participants were asked to describe a time that they felt connected to the person or causes they assisted (high connection) and a time they did not feel connected to the person or the cause that they assisted (low connection). Participants reported their positive emotions at the time of spending after each writing exercise. Consistent with the researchers' predictions and the notion that social connection unlocks the emotional rewards of giving, participants reported greater positive feelings after describing a time they spent money in a way that made them feel connected to others or a meaningful cause than a time they spent money that lacked those connections. Taken together, these results suggest that prosocial behavior is most likely to be rewarding when it allows helpers to connect with other people. As such, policy makers should consider constructing helping

opportunities that allow givers to connect with others—whether this be the recipient, an agent for the cause, or other donors.

Applying New Lessons to Familiar Contexts

Thus far we have described how helping is most likely to increase happiness when prosocial activities satisfy the fundamental motivations identified by SDT (i.e., autonomy, competence, and relatedness). While this observation seems relatively straightforward, what does it look like in practice?

When thinking about how to translate these research findings into action, practitioners must consider structuring opportunities to help in a way that provides individuals with choice, allows individuals to see the impact of their actions, and provides helpers with the chance to build and foster social relationships. In the next section, we provide illustrative examples of how leaders, organizations, and governments can put these ideas into practice across three diverse contexts—taxation, blood donations, and workplace initiatives—and in turn, potentially help the people they serve derive more satisfaction from their helping decisions (see Table 1 for overview).

We discuss examples from taxation, blood donation, and workplace prosociality because these domains are familiar, ubiquitous, and consequential. Many societies depend on the revenue collected from taxes to support essential public goods like health-care, education, and antipoverty programs. Despite the benefits that taxes provide for the taxpayer and their neighbors, many citizens—especially the wealthy in the top income brackets—feel dissatisfied with paying their taxes and choose to underreport, leading to large-scale societal costs (Gangl & Torgler, 2020; IRS, 2019; Rasmusseun, 2010, Olivola & Sussman, 2015 for a comprehensive review). Similarly, societies depend on citizens to donate blood, tissue, and organs to help individuals in need, yet this need often goes unmet (Riley, Schwei, & McCullough, 2007). Finally, most people spend a great deal of their lives at work (Schor, 2008), and so the quality of the workplace environment, which often is associated with workplace prosociality, has a meaningful impact on well-being (see Krekel et al., 2019, for a comprehensive review). Given their consequence, these contexts offer examples of how practitioners can concretely introduce strategies to maximize autonomy, competence, and relatedness to help people derive more happiness from everyday helping.

It is worth noting that bolstering happiness is not only desirable for the helper, but it could also encourage future acts of generosity, thereby providing benefit to others as well. As noted above, there is a robust link between giving and happiness, and several studies, including one with over 200 participants, report that individuals who experience greater happiness from giving are more inclined to give again in the future (Aknin, Dunn & Norton, 2012; Layous, Nelson, Kurtz, &

Table 1. Sample strategies to increase SDT motivations of autonomy, competence and relatedness in three familiar, real-world giving contexts

	Taxation	Blood donation	Workplace Prosociality
Autonomy	Allow voters to express preference by voting on priorities	Give donors the choice of which arm to use for needle puncture When possible, allow donors to select when and how they would like to donate blood	Allow employees to select where company donations are sent. Allow employees to determine how they help (i.e., provide expertise, time, mentoring, etc.)
Competence	Show evidence of previous effective tax-funded projects (e.g., road repairs, meal programs)	Provide donors with evidence of their positive impact through letters of appreciation from the donors or a representative (e.g., family member) Recognize repeat donors with plaque,	Give employees a chance to provide costly or challenging assistance like running a race (vs. writing a check) for a cause they care about Minimize use of autoenrollment and default
Relatedness	Emphasize tax as a civic duty shared by all citizens, including neighbors and friends	Create a donor network or community for repeat givers to connect and share their experiences When appropriate, allow donors and recipients to interact or meet each other	Provide employees an opportunity to give aic in teams, rather than alone Allow employees to visit recipient(s) to see impact of aid

Lyubomirsky, 2017). Thus, to the extent that leaders make helping more emotionally rewarding, they might also inspire future generosity.

Autonomy

People have a fundamental desire to see their actions as self-determined and experience greater well-being when engaging in actions that meet this desire. Policy makers and leaders can harness this information by providing opportunities for volition across a variety of helping contexts.

Taxation. SDT provides a framework to understand how policy makers might reduce the pervasive dissatisfaction created by paying taxes. Similar to the results observed within the domain of charitable giving, providing citizens with choice over where their tax dollars go can increase satisfaction. In one experiment conducted with 151 college students, researchers asked students to work on a difficult task for pay. Before starting the task, researchers told students that they would be required to pay tax on the money they made. Giving students the opportunity to allocate 20% of this tax to a university initiative that they felt was personally important, such as the campus library (vs. not providing this opportunity), helped students feel significantly more satisfied with paying the tax (Lamberton, 2013). These students also persisted longer on the paid tasks.

Practically speaking, it is improbable that governments can actually allow citizens to choose where their tax dollars go. However, simply allowing people to express their personal preferences can be enough to boost satisfaction. Specifically, governments can inject the feeling of choice into the act of paying taxes by allowing citizens to vote on the services that they feel are critical for the functioning of society prior to paying their taxes, therefore allowing citizens to express their personal preferences and identity. In one demonstration of this effect, researchers recruited 267 American citizens to complete an online study. Participants who were given the chance to express (nonbinding) preferences about where their tax dollars should go were 15% more compliant with paying their taxes as compared to citizens who were not given the opportunity to express their personal preference (Lamberton, DeNeve, & Norton, 2018). These results suggest that even providing citizen with the *perception* of choice can help people feel less dissatisfied with paying taxes, which may in turn, make paying taxes more enjoyable.

Blood donations. Policy makers can use SDT to increase the emotional satisfaction of blood donations by providing people with a sense of control over the donation experience. A study of 40 blood donors ranging in age from 15 to 70 found that providing blood donors with information about how their blood would be drawn alongside providing choice over which arm to have the blood drawn from significantly reduced self-reported stress and discomfort (Mills & Krantz,

1979). Clinics could therefore build more choice into the blood donation process by providing donors with choice over when and where they can donate. In providing donors with choice over small aspects of the decision—such as when, where, and even how (i.e., what arm) to have the blood drawn—clinics are likely to reduce the stress of the procedure and therefore improve the mood and satisfaction of their donors.

Workplace prosocial initiatives. Many workplaces provide employees with the opportunity to donate to corporate causes as part of organizations corporate social responsibility programs (see Bhattacharya, Sen, & Korschun, 2008 for an overview of research examining corporate social responsibility initiatives and employee engagement). A growing number of organizations have annual fundraising campaigns or provide employees with the opportunity to help their local community by partnering with local nonprofits. In the context of these campaigns, workplaces should consider allowing employees to exert personal choice over these activities. Instead of choosing the fundraising target for employees, companies could allow employees to vote on where they would like their donations to go.

The value of providing choice is evident in recent study on fundraising campaigns at an Ivy League university where more than 32,000 alumni were presented with one of two communications prompting them to donate. In one communication, alumni were given the chance to indicate which of four possible fundraising areas was most important to them. In the other communication, alumni simply viewed these fundraising areas that the university was considering. The first communication that allowed alumni donors to exert autonomy and control over their contribution resulted in donations that were 100-300% larger than the standard, no-choice appeal (Kessler, Milkman, & Zhang, 2019). Providing choice was especially effective at increasing donations for the wealthiest alumni who constituted the top 1% and 5% earners in the sample. These findings are consistent with research showing that wealthier people care more about exerting choice and having control over daily actions (Whillans, Caruso, & Dunn, 2017; Whillans & Dunn, 2018). Thus, workplaces should consider allowing employees to choose where they would like their donations of time and money to go. This strategy might be especially effective at increasing engagement and emotional benefits for leadership and higher salaried employees.

Competence

People also have a need to see themselves as competent and effective agents. When people recognize that their actions have made an impact they are more likely to experience well-being. Policy makers can use this information to encourage generous behavior and make these actions more emotionally rewarding.

Taxation. Making it easier for citizens to see how their tax dollars will be used to help society can improve satisfaction by increasing feelings of competence. In a series of studies, including a nationally representative sample of Americans, Canadian college students, and data from over 474,00 adults in 107 countries, people who were more confident that their taxes would have a positive impact on other people felt significantly more positive about paying their taxes, expressed a greater willingness to continue paying taxes, and offered larger financial contributions in a lab-based tax-like transfer (Thornton, Aknin, Branscombe, & Helliwell, 2019). Importantly, these associations held while controlling for demographic information, respondents' general willingness to help others, and the perception that tax dollars were generally being put to good use. These findings suggest that policy makers should try to make the societal benefit of taxation more apparent. Governments could make it easier for citizens to see the direct benefits that their tax dollars have on other citizens by providing images or reminders on tax forms to convey how their payments are used to help other people. Governments already employ this strategy when placing signs on highway roads that highlight "your tax dollars at work" to show how taxpayer money is being used to make capital improvements. By reminding citizens that their taxes contribute to roads, schools, hospitals and other essential services, citizens are likely to feel more satisfied with paying their taxes.

Blood donations. Professionals could also consider increasing the emotional satisfaction of blood donations by harnessing donor motivations to feel competent by showing donors the specific impact of their blood donations. In one ongoing campaign in the UK, after donating once, donors received letters of appreciation from recipients, thereby helping them to see the successful outcome of their costly action. After donating numerous years in a row, donors are invited to a blood donation ceremony where they receive a commemorative medal, badge, and certificate and hear from recipients themselves about how blood transfusions have had a profound impact on their lives (Recognizing Donors, 2020). In addition, because giving as part of a group allows people to see a larger response to the problem at hand, donors may also derive a meaningful sense of joy and efficacy from seeing how their blood helps to fulfill the needs of their community alongside the contribution of many others.

Workplace prosocial initiatives. Employers may feel tempted to make donation opportunities as easy as possible for employees to engage in, such as by encouraging employees to make automatic deductions from their paychecks. While tempting, people actually prefer to engage in effortful acts of prosocial behavior—because it helps people fulfill their desire to feel competent. In one illustrative set of studies, people gained more satisfaction from exerting effort for causes they cared about. In one hypothetical choice study, 136 undergraduate students at an

American university said that they would feel more satisfied and would donate more money to charity if they were given the opportunity to run a race for a cause that they cared about as opposed to write a check (Olivola & Shafir, 2013). In another study of 33 students, college students in one group were asked to submerge their hands in a bucket of ice-cold water for 60 seconds (known as the "cold presser" task) if they wanted to donate. This group of students gave more money than students who were not told that they would have to put themselves through pain to donate (Olivola & Shafir, 2013). Thus, allowing employees to engage in effortful helping—like volunteering in person for a cause they care about—could encourage greater satisfaction by leveraging people's goals of demonstrating competence.

Similarly, autoenrollments that "default" employees into donating could undermine happiness by preventing people from feeling as if they have choice or that they are exerting effort over the donation opportunity. Autoenrollment could also prevent people from actively reflecting on the donation opportunity, undermining the opportunity to experience emotional well-being. Because people who experience the greatest happiness from helping are more likely to give again in future (Aknin et al., 2012), autoenrollment could undermine long-term giving—although more research is needed to test these predictions in real-world contexts.

Relatedness

Finally, humans want to feel close and connected to other people. Actions that facilitate social connection lead to greater well-being. Consequently, policy makers can harness this information to promote generous behavior and make generous actions more rewarding.

Taxation. Practitioners can leverage people's desire for social connection to boost the emotional rewards of paying taxes. One reason people feel so dissatisfied with paying taxes is that the activity is devoid of positive feedback from people they care about. Citizens pay taxes through an official and sterile form, without any reminder of the people and initiatives that the tax dollars support, like schools (their children), roads (their neighbors), or local homeless shelters (their community). People who are aware of the impact that their actions have for others feel a greater sense of responsibility to help others, are more civically engaged, and experience greater satisfaction with paying taxes (Baumeister & Brewer, 2012; Whillans, Wispinski, & Dunn, 2016).

In one online experiment of 223 Americans, participants were randomly assigned to reflect on the fact that their financial resources incurred a responsibility to give back to society or to reflect on daily experiences. After reflecting on their responsibility to help others, respondents were more likely to agree with statements such as "My taxes will improve the country" because they were better able

to see the link between taxation and helping (Whillans et al., 2016); see also Gangl and Torgler (2020) for a lengthy discussion about how to increase tax compliance among the wealthy. These results provide suggestive evidence that reminding citizens that (1) their tax dollars can benefit other people, such as other tax payers who are less fortunate, and (2) paying their taxes is a civic obligation to help society can reduce dissatisfaction and increase the emotional rewards of paying one's taxes. It is worth noting, of course, that it may be harder for the public to see the value of some specific taxes. For instance, sales taxes, inheritance taxes, and taxes meant to disincentivize certain behaviors, such as the use of tobacco, sugar, alcohol, and petrol, may seem punitive unless governments take particular care to explain how the revenue will be used to benefit the public. Thus, when applying SDT, it is important to recognize that these suggestions will not be uniformly applicable across contexts.

Blood donations. Blood donations—unlike charitable donations and volunteering—do not easily allow for personal connection between donors or recipients. Fostering social connection could be especially important for increasing the emotional rewards of blood donations. To put this principle into practice, organizations could help donors connect directly with one another. In one recent campaign, a national organization allowed donors to build community with each other by allowing them to share their motivations for giving through a monthly newsletter entitled "Humans of Blood Donations." The opportunity to connect with other donors and to feel recognized for a costly form of prosocial behavior that is often invisible, could be an especially important tool for increasing the emotional benefits of blood donation, and to encourage sustained engagement in the behavior. Organizations could also help donors feel more connected to each other through public recognition. Many donation opportunities—including blood drives—ask recent donors to fill out a certificate of completion after giving blood and to place it in a hospital lobby or drugstore. While this action can fulfill other motivations, including public recognition (Kraus & Callaghan, 2016), displaying donations in public could increase recent donors' feelings of connectedness to a broader community.

Blood donation organizations can also take steps to create minimal social connections between donors and recipients. As noted above, one ongoing blood collection campaign in the UK provides letters from recipients to donors, and honors long-time donors at a ceremony. Letters allow people to feel directly connected to the recipient and the ceremony invitation provides another venue for people to feel connected to a broader community of donors, thus potentially increasing the long-term emotional benefit of donating blood.

Workplace prosocial initiatives. Organizations should also provide employees with the opportunity to build social connections while working together to help the causes they care about. Specifically, workplace prosocial opportunities should encourage employees to work with colleagues, rather than to work alone. Working together is not only likely to build stronger connections, it is also likely to increase the emotional benefits of giving. Employees feel a greater sense of connection and are less likely to quit when their workplaces offer them the opportunity to engage in immersive workplace initiatives with one another—like volunteering in different countries (e.g., Burbano 2016). While allowing employees to volunteer for local causes is a powerful way to improve mood and promote retention (Bode, Singh, & Rogan, 2015; Flammer & Luo, 2017), helping employees see how their work helps the people they serve or is connected to others' work might also powerfully promote employees' productivity and their emotional wellbeing (see also Buell & Norton, 2011; Yoon, Whillans & O'Brien, 2019). As we described above, employees at a university call center who were given the opportunity meet a student who benefited from their work experienced greater in-themoment mood and felt more emotionally committed to their organizations (Grant et al., 2007). Thus, fostering connections between donors and/or beneficiaries is likely to increase giving and its emotional rewards.

Summary

This section has outlined a few examples of how the principles of SDT can be applied across diverse, real-world, helping contexts—from revising tax forms to creating a community of blood donors and recipients. By harnessing insights from social psychology, helping opportunities can be improved by understanding that people want to express personal choice, know the direct positive impact of their help, and connect meaningfully with other people.

While our discussion delineated ways that policy makers can improve feelings of autonomy, competence, *or* relatedness, the three SDT motives are often synergistic in nature. Interventions that heighten one motive will likely have a positive spillover on others. Consider blood and tissue donation campaigns that provide donors with a personal note from a recipient citing their new lease on life. A message like this not only provides donors with clear evidence of their positive impact (competence) but could also increase feelings of social connection (relatedness). As a result, policy makers do not need to focus on increasing one motive at the expense of others. Rather, an effort to increase one motive may increase other motives too.

While data-informed decisions are better than relying on intuition, it is important to be cautious when trying to make program or policy changes based on the results of small lab-based experiments. We highlighted studies that used large, preregistered, and/or field-based methods whenever possible to provide the most relevant and replicable evidence; however, we encourage researchers and practitioners to be mindful of the disconnect between theory and practice. It is

challenging to predict how the results of a single study will translate in diverse and complicated real-world settings where people are faced with multiple competing demands on their time and attention. It is also difficult to interpret studies conducted in idiosyncratic field contexts (i.e., with employees at one organization or donors in university settings) given that numerous external factors can contribute to the results—such as the time of year that people are asked to contribute or other opportunities to help that people are simultaneously presented with.

The organizational and societal context also plays a critical role in predicting the effect of an intervention (see Kristal & Whillans, 2020, for a recent discussion). If employees work in a highly dysfunctional organization, it is unlikely that providing people with a donation opportunity will reduce negative affect enough to prevent quitting. It is also possible that employees could infer negative intent from a dysfunctional organization who is offering the opportunity to help, negating any possible effects of helping on happiness. For these reasons, we encourage policy makers to consider conducting experimental tests of our suggestions in their own contexts (Whillans & Devine, 2018). In particular, organizations and policy makers should work together with researchers to ensure that the insights discussed here replicate in other organizational and social and cultural settings (see Whillans, 2016, for a similar argument).

Conclusion

Many problems in society can be improved by helping one another—either in small one-on-one exchanges, at work, or through policy improvements. We have reviewed research suggesting that providing people with the opportunity to help one another can boost happiness—if the conditions are right. This review highlights the fact that certain conditions make the emotional rewards of helping others more likely. When the opportunity to help fulfils the basic tenants of SDT (Ryan & Deci, 2000) by providing people with the chance to exercise autonomy over decisions, see how their efforts made a positive impact, and connect with other people, giving opportunities are most likely to translate into positive emotion.

In hopes of helping policy makers translate these insights in their own contexts, we have focused on several real-world examples—taxation, blood donations, and corporate social responsibility initiatives. Another promising, yet less well understood, area of future inquiry is to consider how other familiar giving contexts can be made more effective at promoting emotional well-being and sustaining habits of charitable giving. Other real-world contexts—such as sports fundraisers, classroom-helping opportunities, and nonsecular volunteering and religious organizations could harness SDT (Ryan & Deci, 2000) to strengthen the well-documented link between giving and happiness. In our ongoing research, we are exploring whether charitable giving programs implemented as part of

organized youth sports teams and elementary school curriculums might be most likely to improve the well-being of youth when they provide the chance for deep reflection and conversation (Proulx, Macchia, Aknin & Whillans, 2020). Reflection and conversation are likely critical elements, in part because active discussions help students connect with one another around a shared goal and to consider how their collective generosity as teams or classrooms can have specific impacts in the community. By conducting research that seeks to understand the exact mechanisms by which these programs improve emotional well-being and subsequent giving, we hope that this ongoing work will bolster the success of helping-oriented activities like church and after-school programs.

Designing real-world contexts in a way that bolsters the happiness benefits of helping is not an easy pursuit. Governments and organizations have multiple demands in terms of where they can direct their time, money, energy, and attention. Moreover, not all individuals are motivated by the same framings and design. For example, men and women often respond differently to appeals for help (e.g., Eagly, 2009; Eagly & Crowley, 1986). Some research suggests that men, as compared to women, are less motivated to donate and experience less satisfaction from donation experiences when donation appeals rely on eliciting empathy and personal connection between donors and recipients (Willer, Wimer, & Owens, 2015). Instead, they are more motivated by appeals to competence (Willer et al., 2015). Other research demonstrates that wealthier people are also more persuaded by appeals to personal competence as opposed to relatedness (Whillans et al., 2017). Collectively, these results suggest that it is necessary to know your audience so that you can tailor messages to what your specific target group cares about most. As a result, it could be difficult to design opportunities to donate that will appeal to a broad set of citizens. Yet, research suggests that appealing to an underlying set of motivations related to SDT is a safer strategy for boosting the emotional benefits than not relying on a framework.

Despite the fact that trying to boost the emotional satisfaction of helping opportunities will involve critical thinking and experimentation within one's own context, we believe that it is a worthwhile pursuit. As described above, research suggests that the more people find the act of helping rewarding, the more likely they are to engage in the behavior again in the future (e.g., Aknin et al., 2011; Layous et al., 2017). If policy makers are able to leverage the insights from SDT to increase the mood benefits of giving and encourage more citizens to engage in prosociality, this could create a positive shift in norms, whereby more people start to engage in helping behaviors because they see others doing so (Frank, 2020). These benefits could then possibly ripple outwards to promote other forms of socially desirable behaviors, including voting and pro-environmental behavior.

Encouraging people to engage in additional acts of helping may also address other social challenges, such as rising rates of loneliness and obesity. Research suggests that the well-being benefits of formal volunteering that are observed in

large-scale correlational data sets are driven almost completely by the fact that people who volunteer also report greater satisfaction with their social interactions and feel more socially connected (Creaven, Healy, & Howard, 2018). Similarly, research suggests that engagement in volunteering for older adults is not only linked to greater happiness, but that it also promotes positive physical health outcomes such as higher physical activity and reduced mortality risk (Kim et al., 2020). These results suggest that understanding how to make people feel better about helping others is likely not only to benefit the individual themselves but to promote positive social change as well.

Human beings are exceptionally prosocial. Not only do we go out of our way to help other people, but we often feel good when we do. By leveraging insights from SDT (Ryan & Deci, 2000), practitioners and academics can work together to further strengthen the link between helping and happiness. To date, a lot is known about how the motivational building blocks of autonomy, competence, and relatedness can be harnessed to make the act of helping feel good *in the moment*. Going forward, practitioners and academics will need to continue to work together to examine how helping can feel good *over time* to unlock the sustained emotional benefits of altruism. To accomplish this ambitious aim, practitioners and academics can explore how contextual factors impact the emotional rewards of helping within particular contexts and across them, to build a robust understanding of the most powerful levers we can use to increase the immediate and long-term mood benefits of helping.

References

- Aaker, J. L., & Akutsu, S. (2009). Why do people give? The role of identity in giving. *Journal of Consumer Psychology*, 19(3), 267–270.
- Aknin, L. B., Barrington-Leigh, C. P., Dunn, E. W., Helliwell, J. F., Burns, J., Biswas-Diener, R., ... Norton, M. I. (2013). Prosocial spending and well-being: Cross-cultural evidence for a psychological universal. *Journal of Personality and Social Psychology*, 104(4), 635–652.
- Aknin, L. B., Broesch, T., Hamlin, J. K., & Van de Vondervoort, J. W. (2015). Prosocial behavior leads to happiness in a small-scale rural society. *Journal of Experimental Psychology: General*, 144(4), 788–795.
- Aknin, L. B., Dunn, E. W., & Norton, M. I. (2012). Happiness runs in a circular motion: Evidence for a positive feedback loop between prosocial spending and happiness. *Journal of Happiness Studies*, *13*(2), 347–355.
- Aknin, L. B., Dunn, E. W., Proulx, J., Lok, I., & Norton, M. I. (2020). Does spending money on others promote happiness?: A registered replication report. *Journal of Personality and Social Psychology*, 119(2), e15–e26. https://doi.org/10.1037/pspa0000191
- Aknin, L. B., Dunn, E., Sandstrom, G., & Norton, M. I. (2013). Does social connection turn good deeds into good feelings? On the value of putting the 'social' in prosocial spending. *International Journal of Happiness and Development*, 1, 155–171. https://doi.org/10.1504/IJHD. 2013.055643
- Aknin, L. B., Dunn, E. W., Whillans, A. V., Grant, A. M., & Norton, M. I. (2013). Making a difference matters: Impact unlocks the emotional benefits of prosocial spending. *Journal of Economic Behavior & Organization*, 88, 90–95.

- Aknin, L. B., Hamlin, J. K., & Dunn, E. W. (2012). Giving leads to happiness in young children. PLoS One, 7(6), e39211.
- Aknin, L. B., Sandstrom, G. M., Dunn, E. W., & Norton, M. I. (2011). It's the recipient that counts: Spending money on strong social ties leads to greater happiness than spending on weak social ties. PLoS One, 6(2), e17018.
- Aknin, L. B., Whillans, A. V., Norton, M. I., & Dunn, E. W. (2019). Happiness and prosocial behavior: An evaluation of the evidence. *World Happiness Report 2019*. New York, NY: Sustainable Development Solutions Network.
- Baard, P. P., Deci, E. L., & Ryan, R. M. (2004). Intrinsic need satisfaction: A motivational basis of performance and well-being in two work settings. *Journal of Applied Social Psychology*, 34(10), 2045–2068.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84(2), 191–215.
- Baumeister, R. F., & Brewer, L. E. (2012). Believing versus disbelieving in free will: Correlates and consequences. *Social and Personality Psychology Compass*, 6(10), 736–745.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497–529.
- Batson, C. D., & Powell, A. A. (2003). Altruism and prosocial behavior. Handbook of Psychology, 463–484.
- Bhattacharya, C. B., Sen, S., & Korschun, D. (2008). Using corporate social responsibility to win the war for talent. *MIT Sloan Management Review*, 49(2) 37–44.
- Bode, C., Singh, J., & Rogan, M. (2015). Corporate social initiatives and employee retention. Organization Science, 26(6), 1702–1720.
- Borgonovi, F. (2008). Doing well by doing good. The relationship between formal volunteering and self-reported health and happiness. *Social Science & Medicine*, 66(11), 2321–2334.
- Bortin, M. M., & Buckner, C. D. (1983). Major complications of marrow harvesting for transplantation. Experimental Hematology, 11(10), 916–921.
- Brethel-Haurwitz, K. M., & Marsh, A. A. (2014). Geographical differences in subjective well-being predict extraordinary altruism. *Psychological Science*, 25(3), 762–771.
- Burbano, V. C. (2016). Social responsibility messages and worker wage requirements: Field experimental evidence from online labor marketplaces. Organization Science, 27(4), 1010–1028.
- Buell, R. W., & Norton, M. I. (2011). The labor illusion: How operational transparency increases perceived value. *Management Science*, 57(9), 1564–1579.
- Cain, D. M., Dana, J., Newman, G. E. (2014). Giving versus giving in. *The Academy of Management Annals*, 8(1), 505–533.
- Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. L., Van der Kaap-Deeder, J., ... Ryan, R. M. (2015). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motivation and Emotion*, 39(2), 216–236.
- Chida, Y., & Steptoe, A. (2008). Positive psychological well-being and mortality: A quantitative review of prospective observational studies. *Psychosomatic Medicine*, 70(7), 741–756.
- Creaven, A. M., Healy, A., & Howard, S. (2018). Social connectedness and depression: Is there added value in volunteering? *Journal of Social and Personal Relationships*, 35(10), 1400–1417.
- Crocker, J., Canevello, A., & Brown, A. A. (2017). Social motivation: Costs and benefits of selfishness and otherishness. *Annual Review of Psychology*, 68, 299–325.
- Cryder, C. E., Loewenstein, G., & Seltman, H. (2013a). Goal gradient in helping behavior. *Journal of Experimental Social Psychology*, 49(6), 1078–1083.
- Cryder, C. E., Loewenstein, G., & Scheines, R. (2013b). The donor is in the details. *Organizational Behavior and Human Decision Processes*, 120(1), 15–23.
- Curry, O. S., Rowland, L. A., Van Lissa, C. J., Zlotowitz, S., McAlaney, J., & Whitehouse, H. (2018). Happy to help? A systematic review and meta-analysis of the effects of performing acts of kindness on the well-being of the actor. *Journal of Experimental Social Psychology*, 76, 320–329.
- De Backer, C. J., Fisher, M. L., Poels, K., & Ponnet, K. (2015). "Our" food versus "my" food. Investigating the relation between childhood shared food practices and adult prosocial behavior in Belgium. *Appetite*, 84, 54–60.

DeCharms, R. (1968). Personal causation: The international affective determinations of behavior. New York, NY: Academic Press.

- Diener, E. (1984). Subjective well-being. In *The Science of Well-Being* (pp. 11–58). Dordrecht: Springer.
- Diener, É., & Biswas-Diener, R. (2019). Well-being interventions to improve societies. *Global Happiness Council, Global Happiness and Well-being Policy Report* (pp. 95–110). New York, NY: Global Happiness Council.
- Diener, E., & Oishi, S. (2000). Money and happiness: Income and subjective well-being across nations. In E. Diener & E. M. Suh (Eds.), *Culture and subjective well-being* (185–218). Cambridge, MA: MIT Press.
- Diener, E., & Seligman, M. E. (2002). Very happy people. Psychological Science, 13(1), 81-84.
- Dunn, E. W., Aknin, L. B., & Norton, M. I. (2008). Spending money on others promotes happiness. Science, 319(5870), 1687–1688.
- Dunn, E. W., Aknin, L. B., & Norton, M. I. (2014). Prosocial spending and happiness: Using money to benefit others pays off. Current Directions in Psychological Science, 23(1), 41–47.
- Dunn, E. W., Whillans, A. V., Norton, M. I., & Aknin, L. B. (2020). Prosocial spending and buying time: Money as a tool for increasing subjective well-being. In *Advances in experimental social* psychology (Vol. 61, pp. 67–126). New York, NY: Academic Press.
- Eagly, A. H. (2009). The his and hers of prosocial behavior: An examination of the social psychology of gender. American Psychologist, 64(8), 644–658. https://doi.org/10.1037/0003-066X.64.8. 644
- Eagly, A. H., & Crowley, M. (1986). Gender and helping behavior: A meta-analytic review of the social psychological literature. *Psychological Bulletin*, 100(3), 283–308.
- Eisenberg, N., & Spinrad, T. L. (2014). Multidimensionality of prosocial behavior: Rethinking the conceptualization and development of prosocial behavior. In L. M. Padilla-Walker & G. Carlo (Eds.), *Prosocial development: A multidimensional approach* (p. 17–39). Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199964772.003.0002
- Eskreis-Winkler, L., Fishbach, A., & Duckworth, A. L. (2018). Dear Abby: Should I give advice or receive it?. *Psychological Science*, 29(11), 1797–1806.
- Eskreis-Winkler, L., Milkman, K. L., Gromet, D. M., & Duckworth, A. L. (2019). A large-scale field experiment shows giving advice improves academic outcomes for the advisor. *Proceedings of the National Academy of Sciences*, 116(30), 14808–14810.
- Feeney, B. C., & Collins, N. L. (2003). Motivations for caregiving in adult intimate relationships: Influences on caregiving behavior and relationship functioning. *Personality and Social Psychology Bulletin*, 29(8), 950–968.
- Flammer, C., & Luo, J. (2017). Corporate social responsibility as an employee governance tool: Evidence from a quasi-experiment. *Strategic Management Journal*, 38(2), 163–183.
- Fraley, R. C., & Vazire, S. (2014). The N-pact factor: Evaluating the quality of empirical journals with respect to sample size and statistical power. *PloS One*, 9(10): e109019.
- Frank, R. H. (2020). Under the Influence: Putting Peer Pressure to Work. Princeton, NJ: Princeton University Press.
- Gangl, K., & Torgler, B. (2020). How to achieve tax compliance by the wealthy: A review of the literature and agenda for policy. Social Issues and Policy Review, 14(1), 108–151.
- Grant, A. (2013). In the company of givers and takers. Harvard Business Review, 91(4), 90-97.
- Grant, A. M., Campbell, E. M., Chen, G., Cottone, K., Lapedis, D., & Lee, K. (2007). Impact and the art of motivation maintenance: The effects of contact with beneficiaries on persistence behavior. *Organizational Behavior and Human Decision Processes*, 103(1), 53–67.
- Howell, R. T., Chenot, D., Hill, G., & Howell, C. J. (2011). Momentary happiness: The role of psychological need satisfaction. *Journal of Happiness Studies*, 12(1), 1–15.
- Haski-Leventhal, D. (2009). Altruism and volunteerism: The perceptions of altruism in four disciplines and their impact on the study of volunteerism. *Journal for the Theory of Social Behaviour*, 39(3), 271–299.
- Hammond, S. I., & Drummond, J. K. (2019). Rethinking emotions in the context of infants' prosocial behavior: The role of interest and positive emotions. *Developmental Psychology*, 55(9), 1882.

- Harbaugh, W. T., Mayr, U., & Burghart, D. R. (2006). Neural responses to taxation and voluntary giving reveal motives for charitable donations. *Science*, 316(5831), 1622–1625.
- Harari, Y. N. (2014). Sapiens: A brief history of humankind. New York, NY: Random House.
- Henrich, N., & Henrich, J. P. (2007). Why humans cooperate: A cultural and evolutionary explanation. Oxford, UK: Oxford University Press.
- Helliwell, J. F., Aknin, L. B., Shiplett, H., Huang, H., & Wang, S. (2017). Social capital and prosocial behaviour as sources of well-being (no. w23761). National Bureau of Economic Research.
- Helliwell, J. F., Huang, H., & Wang, S. (2017). The social foundations of world happiness. *World Happiness Report*, 2017. New York, NY: Sustainable Development Solutions Network.
- Helliwell, J. F., Huang, H., Wang, S., & Norton, M. (2020). Social environments for world happiness. World Happiness Report 2020. New York, NY: Sustainable Development Solutions Network.
- Helliwell, J. F., & Putnam, R. D. (2004). The social context of well-being. *Philosophical Transactions of the Royal Society of London: Series B: Biological Sciences*, 359(1449), 1435–1446.
- Hinrichs, A., Picker, S. M., Schneider, A., Lefering, R., Neugebauer, E. A. M., & Gathof, B. S. (2008). Effect of blood donation on well-being of blood donors. *Transfusion Medicine*, 18(1), 40–48.
- Hirsch, R.A. (1982) An approach to assessing perioperative risk. In D.R. Goldmann, F.H. Brown, W.K. Levy, G.B. Slap, & E.J. Sussman (Eds.), *Medical care of the surgical patient: A problem-oriented approach to management* (pp. 31–39). Philadelphia, PA: Lippincott.
- Howell, R. T., Kern, M. L., & Lyubomirsky, S. (2007). Health benefits: Meta-analytically determining the impact of well-being on objective health outcomes. *Health Psychology Review*, 1(1), 83– 136.
- IRS. (2019). Tax gap estimates for tax years 2010–2019. Internal Revenue Services, 2019. Retrieved from https://www.irs.gov/statistics/irs-the-tax-gap
- Jenkinson, C. E., Dickens, A. P., Jones, K., Thompson-Coon, J., Taylor, R. S., Rogers, M., ... Richards, S. H. (2013). Is volunteering a public health intervention? A systematic review and metaanalysis of the health and survival of volunteers. *BMC Public Health*, 13(1), 773–783.
- Jenni, K., & Loewenstein, G. (1997). Explaining the identifiable victim effect. *Journal of Risk and Uncertainty*, 14(3), 235–257.
- Kennedy, S., Goggin, K., & Nollen, N. (2004). Adherence to HIV medications: Utility of the theory of self-determination. Cognitive Therapy and Research, 28(5), 611–628.
- Kessler, J. B., & Milkman, K. L. (2018). Identity in charitable giving. Management Science, 64(2), 845–859.
- Kessler, J. B., Milkman, K. L., & Zhang, C. Y. (2019). Getting the rich and powerful to give. Management Science, 65(9), 4049–4062.
- Kim, E. S., Whillans, A. V., Lee, M. T., Chen Y. & VanderWeele, T. J. (2020). Volunteering and subsequent health and well-being in older adults: An outcome-wide longitudinal approach. *American Journal of Preventative Medicine*. 52(1, Supplement 1), S63-S76.
- Kogut, T., & Ritov, I. (2011). The identifiable victim effect: Causes and boundary conditions. *The Science of Giving: Experimental Approaches to the Study of Charity*, 133–148.
- Koo, M., & Fishbach, A. (2016). Giving the self: Increasing commitment and generosity through giving something that represents one's essence. Social Psychological and Personality Science, 7(4), 339–348.
- Kraus, M. W., & Callaghan, B. (2016). Social class and prosocial behavior: The moderating role of public versus private contexts. Social Psychological and Personality Science, 7(8), 769–777.
- Krekel, C., Ward, G., & De Neve, J. E. (2019). Employee wellbeing, productivity, and firm performance. Saïd Business School WP, 4–48.
- Kristal, A. S., & Whillans, A. V. (2020). What we can learn from five naturalistic field experiments that failed to shift commuter behaviour. *Nature Human Behaviour*, 4(2), 169–176.
- Kushlev, K., Heintzelman, S. J., Lutes, L. D., Wirtz, D., Kanippayoor, J. M., Leitner, D., & Diener, E. (2020). Does happiness improve health? Evidence from a randomized controlled trial. *Psychological Science*, 0956797620919673.
- Lamberton, C. (2013). A spoonful of choice: How allocation increases satisfaction with tax payments. *Journal of Public Policy & Marketing*, 32(2), 223–238.

Lamberton, C., De Neve, J. E., & Norton, M. I. (2018). The power of voice in stimulating morality: Eliciting taxpayer preferences increases tax compliance. *Journal of Consumer Psychology*, 28(2), 310–328.

- Lavigne, G. L., Vallerand, R. J., & Miquelon, P. (2007). A motivational model of persistence in science education: A self-determination theory approach. European Journal of Psychology of Education, 22(3), 351–369.
- Layous, K., Nelson, S. K., Kurtz, J. L., & Lyubomirsky, S. (2017). What triggers prosocial effort? A positive feedback loop between positive activities, kindness, and well-being. *The Journal of Positive Psychology*, 12(4), 385–398.
- Lok, I., & Dunn, E. W. (2020). Under what conditions does prosocial spending promote happiness?. Collabra: Psychology, 6(1), 5. http://doi.org/10.1525/collabra.254
- Lyubomirsky, S., King, L., & Diener, E. (2005a). The benefits of frequent positive affect: Does happiness lead to success?. *Psychological Bulletin*, 131(6), 803–855.
- Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005b). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology*, 9(2), 111–131.
- Macchia, L., & Whillans, A. V. (2019). Leisure beliefs and the subjective well-being of nations. *The Journal of Positive Psychology*, 1–9.
- Maple, H., Chilcot, J., Weinman, J., & Mamode, N. (2017). Psychosocial wellbeing after living kidney donation—a longitudinal, prospective study. *Transplant International*, 30(10), 987–1001.
- Miller, D. T. (1999). The norm of self-interest. American Psychologist, 54(12), 1053.
- Mills, R. T., & Krantz, D. S. (1979). Information, choice, and reactions to stress: A field experiment in a blood bank with laboratory analogue. *Journal of Personality and Social Psychology*, *37*(4), 608–620. https://doi.org/10.1037/0022-3514.37.4.608
- Musick, M. A., & Wilson, J. (2003). Volunteering and depression: The role of psychological and social resources in different age groups. *Social Science & Medicine*, 56(2), 259–269.
- National Service Research. (2018). Corporation for National and Community Service. Retrieved from: https://www.nationalservice.gov/serve/via/research
- Nelson, S. K., Layous, K., Cole, S. W., & Lyubomirsky, S. (2016). Do unto others or treat yourself? The effects of prosocial and self-focused behavior on psychological flourishing. *Emotion*, 16(6), 850–861.
- Nosek, B. A., Beck, E. D., Campbell, L., Flake, J. K., Hardwicke, T. E., Mellor, D. T., ... Vazire, S. (2019). Preregistration is hard, and worthwhile. *Trends in Cognitive Sciences*, 23(10), 815–818.
- Nosek, B. A., Ebersole, C. R., DeHaven, A. C., & Mellor, D. T. (2018). The preregistration revolution. *Proceedings of the National Academy of Sciences*, 115(11), 2600–2606.
- Olivola, C. Y., & Shafir, E. (2013). The martyrdom effect: When pain and effort increase prosocial contributions. *Journal of Behavioral Decision Making*, 26(1), 91–105.
- Olivola, C. Y., & Sussman, A. B. (2015). Taxes and consumer behavior. In M. I. Norton, D. D. Rucker, & C. Lamberton (Eds.), Cambridge handbooks in psychology. The Cambridge handbook of consumer psychology (pp. 564–588). New York, NY: Cambridge University Press. https://doi. org/10.1017/CBO9781107706552.021
- Otake, K., Shimai, S., Tanaka-Matsumi, J., Otsui, K., & Fredrickson, B. L. (2006). Happy people become happier through kindness: A counting kindnesses intervention. *Journal of Happiness Studies*, 7(3), 361–375.
- Patrick, H., Knee, C. R., Canevello, A., & Lonsbary, C. (2007). The role of need fulfillment in relationship functioning and well-being: A self-determination theory perspective. *Journal of Personality and Social Psychology*, 92(3), 434–457.
- Penner, L. A., Dovidio, J. F., Piliavin, J. A., & Schroeder, D. A. (2005). Prosocial behavior: Multilevel perspectives. *Annual Review in Psychology*, *56*, 365–392.
- Piliavin, J. A., & Callero, P. L. (1991). Giving blood: the development of an altruistic identity. Baltimore, MD: Johns Hopkins University Press.
- Piliavin, J. A., Callero, P. L., & Evans, D. E. (1982). Addiction to altruism? Opponent-process theory and habitual blood donation. *Journal of Personality and Social Psychology*, 43(6), 1200–1213.

- Proulx, J., Macchia, L, Whillans, A. V., & Aknin, L. B. (2020). Do philanthropy education programs cause increases in youths' objective prosocial behaviors over time? A Registered Report. Manuscript submitted for publication.
- Rasmussen, S. (2010). Healthcare. Rasmussen Reports.
- Recognizing Donors. (2020). Blood. Retrieved from https://www.blood.co.uk/the-donation-process/recognising-donors/
- Red Cross Blood Services. (2020). Facts about blood supply in the U.S. Retrieved from https://www.redcrossblood.org/donate-blood/how-to-donate/how-blood-donations-help/blood-needs-blood-supply.html
- Reis, H. T., Sheldon, K. M., Gable, S. L., Roscoe, J., & Ryan, R. M. (2000). Daily well-being: The role of autonomy, competence, and relatedness. *Personality and Social Psychology Bulletin*, 26(4), 419–435.
- Riley, W., Schwei, M., & McCullough, J. (2007). The United States' potential blood donor pool: Estimating the prevalence of donor-exclusion factors on the pool of potential donors. *Transfusion*, 47(7), 1180–1188.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78.
- Sachs, J. D., & Director, S. D. S. N. (2018). Happiness and migration: An overview. World Happiness Report 2018. New York, NY: Sustainable Development Solutions Network.
- Schreier, H. M., Schonert-Reichl, K. A., & Chen, E. (2013). Effect of volunteering on risk factors for cardiovascular disease in adolescents: A randomized controlled trial. *JAMA Pediatrics*, 167(4), 377–332
- Schor, J. (2008). The overworked American: The unexpected decline of leisure. New York, NY: Basic books.
- Sheldon, K. M., Ryan, R., & Reis, H. T. (1996). What makes for a good day? Competence and autonomy in the day and in the person. *Personality and Social Psychology Bulletin*, 22(12), 1270–1279
- Small, D. A., Loewenstein, G., & Slovic, P. (2007). Sympathy and callousness: The impact of deliberative thought on donations to identifiable and statistical victims. *Organizational Behavior and Human Decision Processes*, 102(2), 143–153.
- Small, D. A., & Simonsohn, U. (2008). Friends of victims: Personal experience and prosocial behavior. *Journal of Consumer Research*, 35(3), 532–542.
- Sojka, B. N, & Sojka, P. (2003). The blood-donation experience: perceived physical, psychological and social impact of blood donation on the donor. Vox Sanguinis, 84(2), 120–128.
- Song, Y., Broekhuizen, M. L., & Dubas, J. S. (2020). Happy little benefactor: Prosocial behaviors promote happiness in young children from two cultures. Frontiers in Psychology, 11, 1398– 1402
- Stevenson, B., & Wolfers, J. (2013). Subjective well-being and income: Is there any evidence of satiation?. American Economic Review, 103(3), 598–604.
- Stiglitz, J. E., Sen, A., & Fitoussi, J.-P. (2009). Mismeasuring our lives: Why GDP Doesn't add up. New York, NY: The New Press.
- Switzer, G. E., Simmons, R. G., & Dew, M. A. (1996). Helping unrelated strangers: Physical and psychological reactions to the bone marrow donation process among anonymous donors. *Journal of Applied Social Psychology*, 26(6), 469–490.
- Tay, L., Chan, D., & Diener, E. (2014). The metrics of societal happiness. *Social Indicators Research*, 117(2), 577–600.
- Thornton, E. M., Aknin, L. B., Branscombe, N. R., & Helliwell, J. F. (2019). Prosocial perceptions of taxation predict support for taxes. *PloS One*, *14*(11): e0225730.
- Titmuss, R. M. (1971). The gift relationship: From human blood to social policy. New York, NY: Pantheon
- Vansteenkiste, M., Neyrinck, B., Niemiec, C. P., Soenens, B., De Witte, H., & Van den Broeck, A. (2007). On the relations among work value orientations, psychological need satisfaction and job outcomes: A self-determination theory approach. *Journal of Occupational and Organizational Psychology*, 80(2), 251–277.

Walsh, L. C., Boehm, J. K., & Lyubomirsky, S. (2018). Does happiness promote career success? Revisiting the evidence. *Journal of Career Assessment*, 26(2), 199–219.

- Wang, Y., Ge, J., Zhang, H., Wang, H., & Xie, X. (2020). Altruistic behaviors relieve physical pain. Proceedings of the National Academy of Sciences, 117(2), 950-958.
- Weinstein, N., & Ryan, R. M. (2010). When helping helps: Autonomous motivation for prosocial behavior and its influence on well-being for the helper and recipient. *Journal of Personality and Social Psychology*, 98(2), 222–244.
- Whillans, A. V. (2016). A brief introduction to the science of fundraising. New York, NY: Council for Advancement and Support of Education.
- Whillans, A. V., Aknin, L. B., Ross, C. J., Chen, L., & Chen, F. S. (2019). Common variants of the oxytocin receptor gene do not predict the positive mood benefits of prosocial spending. *Emotion*, 20(5), 734–749, https://doi.org/10.1037/emo0000589
- Whillans, A. V., Caruso, E. M., & Dunn, E. W. (2017). Both selfishness and selflessness start with the self: How wealth shapes responses to charitable appeals. *Journal of Experimental Social Psychology*, 70, 242–250.
- Whillans, A. V., & Devine, H. (2018). From Ph. D. to Policy: Facilitating Connections Between Junior Scholars and Policymakers. Behavioural Scientist. Retrieved from: https://behavioralscientist.org/from-ph-d-to-policy-facilitating-connections-between-junior-scholars-and-policymakers/
- Whillans, A. V., & Dunn, E. W. (2018). Valuing time over money is associated with greater social connection. *Journal of Social and Personal Relationships*, 36(8), 2549–2565.
- Whillans, A. V., Seider, S. C., Chen, L., Dwyer, R. J., Novick, S., Gramigna, K. J., ... Dunn, E. W. (2016). Does volunteering improve well-being?. Comprehensive Results in Social Psychology, 1(1–3), 35–50.
- Whillans, A. V., Wispinski, N. J., & Dunn, E. W. (2016). Seeing wealth as a responsibility improves attitudes towards taxation. *Journal of Economic Behavior & Organization*, 127, 146–154.
- White, R. W. (1963). Ego and reality in psychoanalytic theory. *Psychological Issues*, 3(3), 1–210.
- Willer, R., Wimer, C., & Owens, L. A. (2015). What drives the gender gap in charitable giving? Lower empathy leads men to give less to poverty relief. *Social Science Research*, 52, 83–98.
- Woolley, K., & Fishbach, A. (2019). Shared plates, shared minds: Consuming from a shared plate promotes cooperation. *Psychological Science*, 30(4), 541–552.
- Wu, Z., Zhang, Z., Guo, R., & Gros-Louis, J. (2017). Motivation counts: Autonomous but not obligated sharing promotes happiness in preschoolers. Frontiers in Psychology, 8, 867–875.
- Yoon, J, Whillans, A. V., & O'Brien, E. (2019, July 24). How to make even the most mundane tasks more motivating. Harvard Business Review. Retrieved from https://hbr.org/2019/07/how-to-make-even-the-most-mundane-tasks-more-motivating
- Zillmer, E. A., Glidden, R. A., Honaker, L. M., & Meyer, J. D. (1989). Mood states in the volunteer blood donor. *Transfusion*, 29(1), 27–30.