**Happiness on a Healthier Planet**

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**Introduction**

Is planetary health linked to a good life—to a satisfying life characterized by happiness and well-being? This would be a very good thing, as it would represent a double victory—both people and the planet better off. And the positive narrative of a better, happier future might help propel the transition to a sustainable planet: people are drawn far more to the promise of fulfilling lives than to the grim prospect of deprivation and sacrifice.

In this chapter we sketch a number of links between happiness and planetary health, some direct and others indirect. First, a society focused on increasing its happiness will have a smaller environmental footprint than one focused on increasing its economic output, because some of the key determinants of happiness draw little if at all on the planet’s carrying capacity.

Second, happier people are healthier, both mentally and physically—and healthier people are happier. Many causal pathways contribute to this virtuous cycle.

Third, when societies are happier they are, we argue, better able to cooperate to tackle pressing environmental problems.

Humanity has been thinking about wellbeing and happiness for a long time, and in different ways. The Buddha and Aristotle were among the early happiness philosophers. The Buddha’s thinking on achieving happiness (which he framed in terms of escaping suffering) is summarized in the Four Noble Truths and the Noble Eightfold Path. He believed that people look for sensual pleasures, possessions, and attachments. The impermanency of such goals, he argued, inevitably led to unhappiness, from the disappointment of loss and envy of others (Sachs, 2013). Aristotle had a different viewpoint, and argued that humans are social animals, with individual happiness secured only within a political community, or *polis*. The polis should organize itself to promote virtuous behavior. As in Buddhist teaching, virtue is conducive not only to individual well-being but also to social harmony (Sachs, 2013). Both these strands of early teaching resonate in current well-being research, and underlie the compatibility between happiness and planetary health. But before considering these links, we need to define some terms and clarify how happiness is measured in modern research.

**Defining and Measuring Happiness**

**Defining terms: Wellbeing, subjective wellbeing, and happiness**: The concepts of happiness and wellbeing are closely related. Wellbeing is often taken to refer to all aspects of human existence (economic, social, emotional and physical). Happiness, in contrast, focuses on how people feel, which is why it is often more formally described as “subjective wellbeing.”

There are three main types of happiness measures: measures of positive emotions (positive affect), measures of negative emotions (negative affect) and evaluations of life as a whole. Together, these three types of report are considered the primary measures of subjective well-being (Diener et al., 2010). “Happiness” is often used to describe both measures of positive affect and life evaluation. The same word is therefore used to describe two different things: happiness as an emotion (“Are you happy now?”) reflecting a person’s mood, and happiness as a life assessment (“Are you happy with your life as a whole these days?”) reflecting a cognitive judgment. This distinction is variously described as hedonic vs. eudaimonic (Ryan and Deci, 2001), or as the accumulation of net momentary pleasures vs. a life full of meaning and good purpose (Hall and Helliwell, 2014). The two meanings bring a risk of confusion, since people might assume that all happiness measures are equivalent, while the evidence is increasingly clear that these two different ways of measuring happiness are distinct in ways that support the credibility of both. We argue below that life evaluations provide an umbrella measure of subjective well-being, broad enough to encompass the effects of positive emotions, good health, income, friendship, and virtue in the Aristotelian and Buddhist senses.

**Beyond the Gross Domestic Product**:

“What we measure affects what we do. If we have the wrong metrics, we will strive for the wrong things. In the quest to increase GDP, we may end up with a society in which most citizens have become worse off.”

Joseph Stiglitz, Amartya Sen & Jean-Paul Fitoussi.  *Mis-Measuring Our Lives: Why GDP Doesn’t Add Up.* 2010.

In pursuing societal goals such as happiness, health, or environmental sustainability, it is critical to put in place the right performance metrics because, as suggested in the quote above, the way we measure success shapes our actions.

The most widely used measure of societal performance is the Gross Domestic Product (GDP). But this measure has numerous shortcomings, which have long been recognized. Simon Kuznets, one of the fathers of the system of national accounts, showed remarkable prescience, writing nearly a century ago that “the welfare of a nation can scarcely be inferred from a measurement of national income” (Kuznets, 1934). More recently, then French President Sarkozy’s Commission on the Measurement of Economic Performance and Societal Progress (Stiglitz et al., 2009) pointed to both the limitations of GDP as a metric of wellbeing, and the dangers of using it in that way. The limits of the GDP are explored in detail in Chapter 13.

Could social metrics be more people-centered, shifting the focus from economic activity toward human well-being? One step in this direction came in 1972, when King Jigme Wanchuk of Bhutan said that “Gross National Happiness is more important than Gross National Product.” In the intervening years, Bhutan has continued to make Gross National Happiness the focus of its internal policy-making, as well as inspiring global efforts through a series of Gross National Happiness conferences. In June 2011, the United Nations General Assembly passed a resolution, introduced by Bhutan, inviting member countries to measure the happiness of their people and to use these measures to help guide their public policies. This was followed, in April 2012, by a UN high-level meeting on happiness and well-being, chaired by the Prime Minister of Bhutan. The first *World Happiness Report* was prepared for and released at that conference. Its purpose was to review available data and scientific research, to support national efforts to understand and use happiness as a policy tool.

Interest generated by the UN meeting was sufficient to lead to subsequent *World Happiness Reports*, now released annually on March 20th, World Happiness Day, by the UN Sustainable Development Solutions Network. Drawing heavily on data from the Gallup World Poll, each report ranks national happiness based on the three most recent years of answers to a life evaluation question posed to roughly 1,000 people per year in each of more than 150 countries. The annual data are now used each year to update efforts to explain differences in happiness, both across countries and over time, in term of six key variables: healthy life expectancy, GDP per capita, having someone to count on in times of need, generosity, trust (as measured by the absence of corruption), and a sense of freedom to make key life decisions. Since the latter four variables contribute so importantly to happiness, and since they can be built with much less use of material resources than required by a typical increase of GDP, a shift from income to happiness as the measure of progress would immediately lessen the link between human progress and material consumption. This would obviously be beneficial for planetary health.

**A multi-dimensional index or a single measure?**  While most people would agree that well-being is multidimensional, in the sense of depending on many different things, there are many views on what those dimensions are and how they should be labeled.

Even if consensus can be reached on what the contributors to wellbeing are, and how each should be measured, the resulting dashboard of indicators, which might include such measures as health, education, income, crime and air quality, does not lend itself readily to political decision making, nor to public debate. One reason for the continued use of GDP as a progress indicator is that it is just one number. It is much easier to interpret changes in GDP (with an increase seen as good and a decrease as bad), or to rank countries according to their per capita incomes or total output, than to summarize changes in a multitude of separate indicators that might be moving in different directions.

This suggests that any competing candidate for policy attention should also share GDP’s features of being a single indicator, thereby providing a more compelling focus for public attention. What number might serve that purpose? The most widely known alternative to the set of indicators approach is the composite indicator, which aggregates the various dimensions of well-being into a single number. The UNDP’s Human Development Index, for example, combines life expectancy, education, and per capita income. But composite indicators remain open to criticism because they must use arbitrary weighting to combine the component indicators which are usually measured in different units: life expectancy (in years), income (in purchasing power), air pollution (in particles per volume of air), etc. Combining these units poses a fundamental methodological (and ethical) problem—namely, that any composite indicator is based on some judgment regarding the relative weights to be applied to the components. And there is a danger that political discussion will focus more on the choice of weights than on the overall indicator, thereby generating more heat than light in the attempt to quantify wellbeing (Hall et al., 2010).

A solution to this dilemma is to use a single measure: subjective life evaluations. Due to their primary nature, people’s ratings of their own well-being are unvarnished measures of what people actually think about the quality of their lives. **Text Box 8.1** presents some reasons why self-assessments might be better than an index as an overall measure of wellbeing.

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| **Text Box 8.1. Six conceptual advantages of subjective self-assessment over composite measures of well-being** |
| 1. One can attach fundamental importance to the evaluations that people make of their own lives. This gives them a reality and power that no expert-constructed index could ever have. For any measure that strives for objectivity, it is very important that the rankings depend entirely on the basic data collected from population-based samples of individuals, and not on what experts think might or should influence the quality of their lives. 2. Life evaluations represent primary facts about the value people attach to their lives. This means one can use the data as a basis for research designed to show what helps to support better lives. 3. The fact that the data come from population-based samples allows one to calculate and present confidence regions about the estimates. 4. Any index depends importantly, but to an unknown extent, on the index-makers’ opinions about what is important. This uncertainty makes it hard to treat an index as an overall measure of well-being or even to work out the extent to which variations in individual components affect overall scores. Even where this decomposition is done, there is no way of establishing its validity, since the index itself is just the sum of its parts, and not an independent measure of well-being. 5. Measures of subjective well-being, and especially life evaluations, or judgments by individuals about how happy they are with their lives as a whole, can be treated as encompassing social indicators. Only life evaluations, among all the variety of social indicators, meet the two primary tests for an encompassing measure. First, they have good claims to be themselves global assessments of the quality of life, without any further construction or manipulation. Second, since they are primary measures and also encompassing in their scope, they provide the research base for answering the fundamental quality of life question: what tends to lead to a better life, as seen by those doing the living? 6. Subjective well-being is measured at the individual level, and hence can be averaged over any selected area or segment of the population, something not possible with aggregate measures. |

**Subjective well-being: A valid measure.** So subjective assessments of well-being have conceptual strength. But can happiness be meaningfully quantified? Does the ambiguity of the word “happiness,” discussed above, impede valid measurement?

Fortunately, respondents to surveys know the difference between being asked about their happiness right now (their emotions) and being asked about their happiness with the overall course of their lives. Survey answers show that people recognize the context in which the question is being asked, and answer appropriately. When asked about their happiness yesterday, people in the Gallup U.S. Poll report having been happier on weekend days (McCarthy, 2015). Furthermore, research on large samples of these answers show that these weekend boosts in happiness depend on the quality of people’s social lives both on and off the job. Those who think of their immediate superior at work as a partner, rather than a boss, have weekdays just as happy as their weekends. Their emotional responses thus vary from day to day depending on the quality of their lives that day (Helliwell and Wang, 2015). Questions asking people how satisfied they are, or how happy they are, with their lives as a whole, elicit the same answers whether they are asked on weekdays or weekends. This is just what philosophers would argue should be the case. People recognize that the meaning of the word happiness depends on the conversational context, giving an emotional answer when that is asked for, and an evaluative one when that is appropriate.

As the *World Happiness Reports* have shown, national average answers to questions about emotions are determined by different factors than answers about life evaluation. There is a hierarchy of a sort predicted by Aristotle; positive emotions are just one predictor of a higher life evaluation, alongside other factors such as good health and sufficiency of material supports. While short-term positive emotions are certainly a part of a good life, the hierarchical relation between emotions and life evaluations makes the latter more suitable as an encompassing measure of well-being.

**Happiness and Planetary Health**

How might shifting policy attention from specific material goals to wellbeing more generally, and especially to happiness, help to improve planetary health? There are at least three direct and two indirect pathways.

First, the main supports for happiness require fewer scarce planetary resources than do many types of economic growth—promoting the *planetary* side of planetary health. Second, happiness is a source of good physical and mental health, and vice versa—promoting the *human health* side of planetary health. Moreover, these positive linkages are not good only for human health, but good for the health of ecosystems: promoting happiness is a less resource-intensive way to promote health than treating an illness once it occurs. Third, because healthy ecosystems are important to human happiness, societies that pay more attention to happiness as a goal will want to pay greater attention to environmental protection—promoting both the human and the planetary sides of planetary health.

Indirect pathways from happiness to planetary health are also important. There are at least two. First, happiness is both a cause and a consequence of pro-social norms and behaviors, which can in turn support social identities that extend caring across countries, other species, and other generations, all important ingredients for planetary health. Moreover, trust provides a social glue that keeps people working together for a bigger cause such as planetary health, and which itself is an important source of happiness beyond its role in fueling social progress. A second indirect benefit is that happiness research is unlocking better policies in specific areas relating to planetary health, such as in how social services are delivered.

**Happiness production is not resource-intensive.** It is widely recognized that social relations are the cornerstone of happy lives. But it is less often appreciated that social relations—and several other vital supports for happiness—typically require little or nothing by way of material and energy resources whose increasing use is depleting the planet’s sustainability.

The Gallup World Poll data, reported in successive *World Happiness Reports,* show that emotions, whether positive or negative, depend little on the material aspects of life; social factors are far more important.[[1]](#footnote-1) The same is true of life evaluations, which vary among individuals and across nations based on six factors. Four factors account for more than half of the explained differences: having someone to count on; generosity; freedom to make life choices; and absence of corruption. These draw little if anything on the planet’s carrying capacity. Two other factors, income and health, account for the balance of explained differences; while these both draw on material inputs, they also depend importantly on social context.

Predictors of happiness vary between the individual and aggregate levels. The main difference is that at the national level, the effect of social factors rises relative to the effect of income. The reason for this is that an important part of the psychological gains from income are derived from relative income effects (“keeping up with the Joneses”), and these gains disappear when all incomes rise together. By contrast, people are happy if they themselves are more trusting and have a strong sense of belonging, and are even happier when others feel the same way. Put simply, there is a negative happiness effect from other peoples’ material consumption, but not from their trust, good health, or most other non-material supports for well-being.

Shifting emphasis to the importance of the social context of life—how people support and value each other, whether within or across communities, countries and generations—thus lowers the energy and material footprint of national progress.

**Happiness and human health are intertwined:** Human health is central to planetary health. In this context, it is important to understand the strong links between happiness and human health.

Both mental and physical health are key determinants of people’s happiness (Clark et al., 2017). This association operates in both directions; studies have also shown that happiness contributes to good health (Chida and Steptoe, 2008; Veenhoven, 2008; Siahpush et al., 2008; Diener and Chan, 2011). Some of this benefit is mediated by behavioral choices; happy people tend to eat healthier diets and exercise more frequently than do people in misery (Dubois et al., 2015; Kubzhansky et al., 2018). But there are fascinating direct biological pathways as well. Levels of happiness influence the body’s ability to avoid, or recover from, many conditions from the common cold to more serious ailments. For example, positive emotions are associated with enhanced immune responses to infection (Cohen et al., 2003, 2006), while adversity and stress in childhood predict elevated markers of inflammation a few years later which in turn can signal cardiovascular risk (Slopen et al., 2012, 2013). And so, other things equal, happier people also enjoy healthier, longer lives.

**Natural environments make people happy.** Let us imagine you are a politician—perhaps a city mayor—convinced of the need for policies that increase citizens’ happiness. There are at least six policy spaces within which you can work to achieve that: the economy; education; health; society and culture; government services and governance; and environment and infrastructure. We focus here on the latter.

Both the built and natural environment can contribute substantially to happiness. Access to green space within urban environments, for example, can directly boost people’s happiness (a topic explored further in Chapter 7 and 11). In one study, people assigned to walk along a tree-lined riverside path in Ottawa were happier than those who walked the same trip via an underground tunnel system, and the gains in happiness were much higher than participants expected (Nisbet & Zelenski, 2011). In another study, over 20,000 participants were prompted at random moments during the day by a smartphone app, and asked to rate their level of happiness. Their responses were correlated with the land cover type (woodland, grassland, urban, etc.) of their location at the time they responded. People were substantially happier when outdoors in green or natural habitat types than when in urban settings (MacKerron and Mourato, 2013). Similar findings have been reported in many other studies (McMahan and Estes, 2015).

Perhaps more importantly, long-term nature contact is associated with increased life satisfaction (corresponding to the idea of subjective well-being discussed above). A survey of 18,441 people in 281 cities across China revealed an association between life satisfaction and the extent of the city’s vegetative cover (and a negative association with levels of air pollution) (Yuan et al., 2018)—results that replicated earlier findings in Australia (Ambrey 2013, 2016), Japan (Tsurumi et al, 2018), and the U.K. (Houlden et al., 2017)). People who report feeling more connected with nature also report being happier (Cervinka et al., 2012).

The links between nature contact and happiness may operate not only directly, but also indirectly, by boosting social connectedness—a benefit observed in neighborhoods and in parks (Peters et al., 2010; Orban et al., 2017; Jennings and Bamkole, 2019). Social connectedness, in turn, promotes both happiness and health.

Much of the available data linking nature contact and health comes from urban settings—where over half the world’s population lives. But the largest expanses of nature are outside cities and towns. Could the conservation of these ecosystems contribute to human happiness, and could a greater emphasis on happiness contribute to saving such places? Two lines of thinking suggest that the answer is yes.

First, rural areas are home to many people, especially indigenous communities, around the world. The impact of protecting these environments—both for happiness and many aspects of planetary health—would be significant. For instance, indigenous peoples own or inhabit massive ecosystems in several countries. Indigenous land holdings in Australia cover one fifth of the country, while in Canada 29 comprehensive land claim and/or self-government agreements, in almost all cases including extensive resource management provisions, and covering over 40 percent of Canada's land mass, have been ratified and brought into effect over the past 40 years (Aboriginal Affairs and Northern Development Canada, 2015). Although studies are few, it seems reasonable to believe that conservation of natural places would yield particularly profound benefits for the happiness of indigenous peoples, given the close bonds—economical, spiritual and cultural—many have with the land and sea. For example, researchers at Australian National University found that “living on one’s homelands or traditional country and undertaking harvesting activities was found to be associated with a higher level of self-reported happiness for Indigenous Australians” (Biddle & Swee, 2012).

Second, beyond these direct links, biodiversity and ecosystems have, for at least some people, an existence value—the benefit people receive from knowing that something exists (Krutilla, 1967). The value stems from the pleasure you or I may get from knowing that African Elephants still roam the Serengeti, or that the Amazon rain forest survives, even if we will never see them for ourselves. The strength of this value doubtless varies significantly but it is well established (and was used in the legal assessment of damages following the Exxon Valdez oil spill in 1989 for example; Carson et al. 2003).

These direct and indirect pathways from natural environments to human happiness are sometimes referred to as cultural ecosystem services (Daniel et al., 2012; Dickinson and Hobbs, 2017). It seems reasonable to speculate that if nations get serious about improving life evaluations among their citizens, they will soon after pay greater attention to such services—to the more-than-economic benefits provided by natural environment. Moreover they will consider a wider set of benefits than those that normally feature in the policy maker’s calculus. And this would be good for planetary health. If you care about happiness you should care about the environment.

**Prosocial behavior, happiness, and trust:** Prosocial behaviour is kind or generous behaviour intended to help others. In this section we first explore evidence of the links between prosocial behaviour and happiness. Next we show how these two attributes, together with a third, trust, are linked in the creation of broader social identities—identities that promote pro-environmental policies and behavior while simultaneously increasing happiness.

A starting point is the fact that humans are prosocial beings. This may not be self-evident; a dominant and pervasive narrative, grounded in classic philosophical theories and economic models, suggests that humans are cold, calculating and selfish. But a large and growing body of research challenges this assumption and argues that we are naturally a prosocial species (Silk and House, 2011; Schroeder and Graziano, 2018). Young children provide help to others, even strangers, and are willing to do so both spontaneously and anonymously. Indeed, young children show signs of physiological arousal when seeing others in need, and this state is calmed when the child or a third party is able to provide assistance.

Importantly, prosocial tendencies appear before several signs of high-level executive control, suggesting that prosocial acts are not premeditated to facilitate future gains, but instead reflect a genuine interest in the well-being of others.

Well beyond childhood, adults routinely engage in prosocial behavior. Each year, people donate billions of dollars to charitable organizations and volunteer countless hours to helping others in need. In addition, people give of themselves physically by donating blood and organs. Such generosity is not limited to high-income countries, and can be seen across a wide span of human cultures from around the world. Consistent with the developmental evidence reported above, adults’ prosocial action may reflect an intuitive or automatic response. For instance, in some experiments, people forced to make fast economic decisions (<10 s) were more generous than people forced to make slow economic decisions (>10 s), especially if they are prosocially oriented people (Rand et al., 2012). This may help explain why some people are willing to pay more money to decrease harm to a stranger than they are to decrease harm to themselves.

Not only are people prosocial beings, but prosocial behavior makes people happy. Toddlers under the age of two given edible treats and asked to share their resources with others smiled more when giving treats away than when receiving treats themselves. Moreover, their smiles were rated as significantly larger when giving away their own treat (that is, when engaging in costly giving) than when giving away an identical treat that was provided by the experimenter (that is, when engaging in non-costly giving), suggesting that giving is not only rewarding for young children, but that it may be especially rewarding when costly (Aknin, Hamlin et al., 2012). Among adults, people donating money to charity or making a public pledge to donate in the near future show greater activation in areas of the brain typically associated with reward processing than those receiving various forms of self-benefit (Park et al., 2017). Similarly, participants randomly assigned to spend money on others report higher levels of happiness afterwards than those randomly assigned to spend money on themselves, a finding that has been replicated in rich and poor countries around the world (Aknin et al., 2013).

Large datasets tell a similar story. Mirroring the importance of social connections for well-being, data from the Gallup World Poll indicate that giving to others (measured as donations to charity in the last month) is one of the six main predictors of life satisfaction around the globe (Helliwell et al., 2017).

It isn’t just the act of giving that makes people happy. Prosocial behaviours also come with positive externalities, or spillovers. In other words, if you live in a community with high levels of volunteering, even if you do not volunteer, your subjective wellbeing will still tend to be increased by all that good will around you, while at the same time greater strength of local social norms is likely to increase your own future generosity. While anger may beget anger, kindness triggers future benevolence.

So happiness and prosocial behavior reinforce each other (Aknin, Dunn et al., 2013). Another attribute—trust—is closely related to both prosocial behavior and happiness. In fact, a virtuous circle links them all. People who believe that others are trustworthy are happier, are more likely to cooperate with each other, and are substantially protected against the loss of happiness that otherwise comes with unemployment, ill-health, and discrimination (Helliwell et al., 2018). High trust itself has been associated with good physical health (Kawachi 2018), while decades of experiments and field trials have shown that those with closer social connections are more likely to trust others, and to develop cooperative solutions for using and preserving scarce planetary resources (Balliet 2010). Societies with higher trust and positive social connections are happier places in which to live. And, in the other direction, people living in happier societies are more likely to behave in prosocial ways.

Interestingly, people often underestimate the level of trustworthiness in their communities. **Figure 8.1** shows survey data results from the Statistics Canada General Social Survey in Toronto. Respondents were asked to assess the probability that a lost wallet (containing $200) would be returned if found by a neighbour (the left bar) or by a stranger (the middle bar). The *Toronto Star* then conducted an experiment: dropping 20 cash-bearing wallets on streets; the result is shown on the bar on the right (Zlomislic, 2009). Strangers were significantly more trustworthy than people expected.

**Figure 8.1**: Survey estimates of trustworthiness (the probability of a lost wallet being returned) versus the observed probability that a lost wallet is returned.

If people are inherently prosocial, and if prosocial behavior increases happiness and trust, can prosocial behavior be encouraged? Examples from around the world suggest that the answer is yes: successful campaigns to increase blood and charity donations, tax breaks that successfully encourage people to give more. Other campaigns have been environmental in nature, such as a cleanup campaign that removed 5.3 million kgs of rubbish from a Mumbai beach in under 2 years (Arora, 2017). But there is much to be discovered.

The Mumbai campaign raises a final question: how might a more prosocial society benefit planetary health?

**Harnessing prosocial behavior to build happiness and planetary health**: Many of the most pressing environmental concerns today involve protecting common-pool resources (such as fish stocks or forests). These may be national, regional or global in scope. Economists understand very well that such goods suffer from classic free-rider problems: a market failure that occurs when people take advantage of using a common resource, or collective good, without paying for it (Hardin, 1968). Such problems occur when people, either as individuals or in corporations, behave individualistically and consider only the costs and benefits that directly affect themselves, without considering their impact on others, or on the sustainability of the common pool resource. My choice to spend the weekend fishing may fill my freezer, but it will reduce what is available for my neighbors to catch, and even perhaps impact the long-term sustainability of the fishery.

There are a number of potential solutions to free-rider problems. Conventional environmental-economic policy often finds itself arguing about, and choosing among, taxes, regulations, subsidies and tradable pollution permits and the level and structure of utility prices. While these tools, especially those that enable users to know the overall social and environmental costs of the resources they are consuming, are an essential part of the story, they are based on the idea of *homo economicu*s: the premise that people are largely interested in themselves rather than others. Indeed it is these behaviors that lead to free-rider problems in the first place.

But these tools fail to exploit the power of social norms to create better solutions. Yes, people, companies, and communities show self-interest sometimes. But they also use reciprocity in the right circumstances. Even more importantly, empathy and generosity can fuel behavior that benefits people in distant lands and far-future generations, well beyond the boundaries of communities linked by reciprocity. And the fact that such behaviors promote happiness suggests that they can be readily promoted.

Attitudes toward and our understanding of planetary systems are changing, and with these changes comes the possibility of creating and harnessing new environmental norms. This means there are other ways to approach environmental degradation, especially if enough people in a society do not behave—or want to behave—as free-riders. This may be because they learn that pro-social behavior makes them happy, or come to adopt better social (and environmental) norms.

As we have argued, subjective well-being rises when people are offered and accept the opportunity to do things for others. Actions to improve local and global environments for the benefits of others in current—and very importantly future—generations fall right into that sweet spot. As political scientist Elinor Ostrom and her co-authors argued in 1999, “reciprocal cooperation can be established, sustain itself, and even grow if the proportion of those who always act in a narrow, self-interested manner is initially not too high” (Ostrom et al, 1999).

People enjoy doing things with and for others, and under the right circumstances are willing to subsume their own personal interests for the sake of a broader shared purpose. What are the conditions required to harness this potential to support planetary health? Although it may be useful to seek national or global consensus or guidelines, local circumstances matter greatly. Evidence suggests that people are happier acting in prosocial ways if the choice is theirs, and if they are neither coerced nor offered payment to do so. They are also happier if and when they are convinced that their actions are efficient ways of serving a good purpose (Helliwell and Aknin, 2018).

Prosocial actions can happen anywhere. Virtuous circles can be started as simply as through random acts of picking up sidewalk litter. For the benefits of these activities to spread more widely, and to create broader pro-social norms, we need more systematic evidence that such actions work, and compelling, effective narratives widely distributed. In settings where self-interest is considered to be normal or even to be emulated, even more evidence of the prevalence and power of pro-social actions may be required.

Simply persuading people’s conscious minds to accept what their unconscious might already know, is an important first step, because people appear to underestimate systematically the positive impact that giving will have on themselves and others. This was powerfully illustrated in an experiment in which people were given $20 and randomly asked to spend it on themselves or someone else. When asked to predict which of the two options would make them feel happier, most people predicted that it would be spending on themselves. In fact, the opposite was true (Dunn, Aknin & Norton 2008).

The “Green Gyms” initiative of the South Tyneside Metropolitan Borough Council in northeast England, centered in the most deprived wards of the borough, provides a nice example (Bacon et al., 2010). These community-led projects include allotment development, nature reserve conservation, and restoration of community gardens and public open spaces. Similarly inspired neighborhood gardens are starting to appear, or reappear, in urban areas throughout the world (Soga et al., 2017). These activities require leadership and supporting social norms to get started, but the individual and community-level rewards they provide – ending or reducing social isolation, building connections that increase both current well-being and community capacity, increasing physical activity, and promoting pro-environmental attitudes—are likely to make them self-sustaining (Teig et al., 2009; Hale et al., 2011). With luck they provide beacons for others to adopt and improve.

To broaden social norms to apply more broadly over space and time, as needed to address major global challenges such as CO2 emissions, will require altruism and trust that extend beyond the borders of one’s own country (let alone community) and to future generations. This is likely to be more difficult for many reasons, not least because evidence suggests that groups of people who can identify one another are more likely than strangers (in Ostrom’s words) to “draw on trust, reciprocity and reputation” to develop norms that limit resource use (Balliet et al., 2014).

There are also concomitant challenges, which Ostrom describes, of cultural diversity. Diversity may bring more ideas of how to solve problems, but cultural diversity can increase the complexity of finding shared interests and understandings (Balliet et al., 2014). In earlier generations this complexity limited the size and diversity of groups that could cooperate. But now the Internet and social media can enable very large numbers of people to connect with one another, and to learn more easily what works and what does not work in the search for sustainable futures. That said, these same technologies provide an equally powerful tool for those bent on spreading suspicion, hate and distrust. The net social and environmental effects of these technological changes thus remain in question. What is certain is the need for broader social identities, solidarity, and shared values to provide a basis for long-term planetary health to become a central value for individual and collective human behavior. These shared social identities and values themselves build life satisfaction, as we have shown.

The needed transformation may not happen overnight but a fundamental first step is appealing to humanity’s inherent prosociability. Unlocking that requires empowering people, while recognizing – in Ostrom’s words—that people are more likely to develop prosocial and environmentally responsible norms under governments that “facilitate their efforts [rather] than in regimes that ignore resource problems entirely or that presume that central authorities must make all decisions.” It is also usefulto abandon, or at least sideline, the blame game in the interests of developing more productive, optimistic, and realistic views about the motives and behavior of others. We are struck by evidence that even in the more trusting and happier countries there are prevailing and falsely pessimistic beliefs about the goodwill and pro-social behavior of their fellow citizens.

Social norms, especially where they are supported by broader social identities that encompass global populations and future generations, can play a vital role in sustaining the planet’s health. These broad social identities can, by creating a wider sphere of empathy – a larger “us”—help to bridge what might otherwise be cleavages that result in conflict and selfish behavior and threaten both the human and environmental aspects of planetary health.

**Changing how policies are designed and delivered:** The ways in which public and private services are designed and delivered matter. Inclusive community involvement fosters social norms that favor the long-term over the short, the future over the present, and others over the self. Collaboratively designed and delivered services yield happier lives for both provider and recipients of the services.

In 2004, for instance, the government of Singapore introduced a “No Wrong Door” (NWD) initiative designed to ensure that every request for information or services from a government employee would trigger best efforts either to deal directly with the request or to find someone who can help. This government-wide policy aimed to redesign the social relationships between citizens and their government by changing the “how” rather than just the “what” of public services. The purpose was no doubt to increase the quality of life for citizens (Helliwell, 2018).

Subsequent applications of the NWD policy have been conducted in many places, including for children and youth services in Durham, Ontario, for mental health services in Sydney, Australia, for elderly services in the state of Virginia, and more broadly to streamline access to long-term service options in US states, and for young people served by the UK’s North Yorkshire County Council. This latter programme is rare in having had a systematic effectiveness evaluation, from its introduction in April of 2015 until March of 2017 (Lushey et al., 2017). The evaluation revealed significant improvements in overall scores on the Strength and Difficulties Questionnaire, which screens for behavioral and emotional problems in children and youth. Central to this and other successful applications of the NWD policy are more collaborative and forward-looking linkages among government departments and agencies. The effects of this closer cooperation on the happiness of the care workers are very likely positive, but remain to be properly evaluated. Similarly, although the children and families kept out of trouble and treatment by these early positive interventions almost surely have happier lives as a consequence, these effects are still relatively unstudied.

The lessons gradually emerging here could surely translate into human services policy more generally and, beyond that, into many other policies aimed at caring for the planet’s health. Though evidence is scant it seems entirely reasonable to assume that citizens and businesses will be more likely to offset or reduce their carbon emissions, dispose responsibly of toxic waste, or follow any environmental directive, if the process is straightforwardly effective, and they are treated with respect, courtesy and even friendliness.

**Conclusions**

This chapter has made the case that happiness ought to be a central measure of a society’s progress, and that this would promote planetary health through a variety of routes. Some of these gains are direct and well understood: societies focused on growing happiness instead of GDP would focus less on consuming energy and materials; and happier people are generally healthier. Some arguments are indirect and as yet untested in policy applications. But there is wealth of experimental evidence that a happier, more prosocial citizenry, would have - or develop - the encompassing social identities, with their matching trust networks, needed to build planetary health and tackle formidable planetary challenges.

**Thought Questions**

1. Although we might all agree we want to be happy, why might governments be reluctant to adopt this as a policy making goal? Are the same reasons likely to apply in neighbourhoods and among colleagues at work or in school?
2. The paper argues that *homo sapiens* are inherently a pro-social species and quite capable of acting in the interests of the planet. If that is the case, what can be done to better harness these motivations in the interests of a healthier planet?
3. Think of an example of a time when you have interacted with authority (whether in school, university, government or business) in a way that has left you feeling frustrated or miserable. What would you do to improve the interaction?
4. Think of an example of a time when you have interacted with authority (whether in school, university, government or business) in a way that has left you feeling engaged, satisfied, and happier. How would you suggest that these occasions could be made more frequent?

**References**

Aboriginal Affairs and Northern Development Canada. General briefing note on Canada's self-government and comprehensive land claims policies and the status of negotiations. Ottawa: AANDC, 2015. Available: <http://publications.gc.ca/site/eng/9.836051/publication.html>.

Aknin LB, Dunn EW, Norton MI. Happiness runs in a circular motion: Evidence for a positive feedback loop between prosocial spending and happiness. *Journal of Happiness Studies* 2013;13(2):347-355.

Aknin L, Hamlin JK, Dunn E. Giving Leads to Happiness in Young Children. *PLoS One* 2012b;7:e39211.

Aknin LB, Barrington-Leigh CP, Dunn EW, et al. Prosocial spending and well-being: cross-cultural evidence for a psychological universal. *Journal of Personality and Social Psychology* 2013;104:635-52.

Ambrey C, Fleming C. Public greenspace and life satisfaction in urban Australia. *Urban Studies* 2013;51:1290-321.

Ambrey CL. An investigation into the synergistic wellbeing benefits of greenspace and physical activity: Moving beyond the mean. *Urban Forestry & Urban Greening* 2016;19:7-12.

Arora M. From filthy to fabulous: Mumbai beach undergoes dramatic makeover. *CNN World News*, 22 May 2017. <https://www.cnn.com/2017/05/22/asia/mumbai-beach-dramatic-makeover/index.html>.

Bacon N, Brophy M, Mguni N, Mulgan G, Shandro A. *The state of happiness: Can public policy shape people’s wellbeing and resilience?* London: The Young Foundation, 2010. Available: <https://youngfoundation.org/publications/the-state-of-happiness/>.

Balliet D. Communication and cooperation in social dilemmas: A meta-analytic review. *Journal of Conflict Resolution* 2010;54(1):39-57.

Balliet D, Wu J, De Dreu CKW. Ingroup favoritism in cooperation: A meta-analysis. *Psychological Bulletin* 2014;140:1556-81.

Biddle N, Swee H. (2012). The relationship between wellbeing and indigenous land, language and culture in Australia. *Australian Geographer* 2012;43(3):215-232.

Capaldi CA, Passmore H-A, Nisbet EK, Zelenski JM, Dopko RL. Flourishing in nature: A review of the benefits of connecting with nature and its application as a wellbeing intervention. *Int J Wellbeing* 2015;5:1-16.

Carson RT, Mitchell RC, Hanemann M, Kopp RJ, Presser S, Ruud PA. Contingent valuation and lost passive use: damages from the Exxon Valdez oil spill. *Environmental and Resource Economics* 2003;25:257-86.

Cervinka R, Roderer K, Hefler E. Are nature lovers happy? On various indicators of well-being and connectedness with nature. *J Health Psychol* 2012;17:379-88.

Chida Y, Steptoe A. Positive psychological well-being and mortality: a quantitative review of prospective observational studies. *Psychosom Med* 2008;70:741-56.

Clark A, Fleche S, Layard R, Powdthavee N, Ward G. The key determinants of happiness and misery. Chapter 5 in: Helliwell J, Layard R, Sachs J, Eds. *World Happiness Report 2017*. New York: Sustainable Development Solutions Network, 2017. Available: <http://worldhappiness.report/ed/2017/>.

Cohen S, Doyle WJ, Turner RB, Alper CM, Skoner DP. Emotional style and susceptibility to the common cold. *Psychosom Med* 2003;65:652-7.

Cohen S, Alper CM, Doyle WJ, Treanor JJ, Turner RB. Positive emotional style predicts resistance to illness after experimental exposure to rhinovirus or influenza a virus. *Psychosom Med* 2006;68:809-15.

Daniel TC, Muhar A, Arnberger A, et al. Contributions of cultural services to the ecosystem services agenda. *Proc Natl Acad Sci USA* 2012;109:8812-9.

Dickinson DC, Hobbs RJ. Cultural ecosystem services: Characteristics, challenges and lessons for urban green space research. *Ecosystem Services* 2017;25:179-94.

Diener E, Chan MY. Happy people live longer: subjective wellbeing contributes to health and longevity. *Appl Psychol Health Well-Being* 2011;3(1):1e43.

Diener E, Helliwell JF, Kahneman D, Eds. *International Differences in Wellbeing*. New York: Oxford University Press, 2010.

DuBois CM, Lopez OV, Beale EE, Healy BC, Boehm JK, Huffman JC. Relationships between positive psychological constructs and health outcomes in patients with cardiovascular disease: A systematic review. *Int J Cardiology* 2015;195:265-80.

Dunn EW, Aknin LB, Norton MI. Spending money on others promotes happiness. *Science* 2008;319:1687-8.

Hale J, Knapp C, Bardwell L, et al. Connecting food environments and health through the relational nature of aesthetics: Gaining insight through the community gardening experience. *Soc Sci Med* 2011;72:1853-63.

Hall J, Barrington-Leigh CP, Helliwell J. Cutting through the clutter: Searching for an overarching measure of well-being. *CESifo DICE Report* 2010;8(4):8-12. Available: <https://www.cesifo-group.de/DocDL/dicereport410-forum2.pdf>.

Hall J, Helliwell JF. Happiness and human development. UNDP Human Development Report Office Occasional Paper. New York: United Nations Development Programme, 2014. Available: <http://hdr.undp.org/sites/default/files/happiness_and_hd.pdf>.

Hardin G. The tragedy of the commons. *Science* 1968;162:1243-8.

Helliwell JF. Global happiness policy synthesis. Chapter 2 in: Global Happiness Council, *Global Happiness Policy Report 2018*. New York: Sustainable Development Solutions Network, 2018, pp 10-25. Available: <http://www.happinesscouncil.org/report/2018/>.

Helliwell J, Aknin L. Expanding the social science of happiness. *Nature Human Behavior* 2018;2:248-52.

Helliwell JF, Huang H, Wang S. New evidence on trust and well-being. In: Uslaner EM, Ed. *The Oxford Handbook of Social and Political Trust*. New York and Oxford: Oxford University Press, 2018, pp 409-46.

Helliwell J, Layard R, Sachs J, Eds. World Happiness Report 2017. New York: Sustainable Development Solutions Network, 2017. <http://worldhappiness.report/ed/2017/>.

Helliwell JF, Wang S. How was the weekend? How the social context underlies weekend effects in happiness and other emotions for U.S. workers. *PLoS One* 2015;10:e0145123.

Houlden V, Weich S, Jarvis S. A cross-sectional analysis of green space prevalence and mental wellbeing in England. *BMC Public Health* 2017;17:460.

Jennings V, Bamkole O. The Relationship between Social Cohesion and Urban Green Space: An Avenue for Health Promotion. *Int J Environ Res Public Health* 2019;16(3):452.

Kawachi I. Trust and population health. In: Uslaner EM, Ed. *The Oxford Handbook of Social and Political Trust*. New York and Oxford: Oxford University Press, 2018, pp 447-72.

Krutilla JV. Conservation reconsidered. *American Economic Review* 1967;57:777-86.

Kubzansky LD, Huffman JC, Boehm JK, et al. Positive Psychological Well-Being and Cardiovascular Disease: JACC Health Promotion Series. *J Am Coll Cardiology* 2018;72:1382-96.

Kuznets S. National Income, 1929–1932. Senate Document No. 124, 73rd Congress, 2nd Session. –73. Washington: U.S. Congress, 1934. Available: [www.nber.org/chapters/c2258.pdf](http://www.nber.org/chapters/c2258.pdf).

Lushey C, Hyde-Dryden G, Holmes L, Blackmore J. Evaluation of the No Wrong Door Innovation Programme: Research report. Loughborough University Children’s Social Care Innovation Programme Evaluation Report 51. London: UK Department for Education, July 2017. <https://www.gov.uk/government/publications/no-wrong-door-innovation-programme-evaluation>.

MacKerron G, Mourato S. Happiness is greater in natural environments. *Global Environ Change* 2013;23:992-1000.

McCarthy J. Holidays, weekends still Americans’ happiest days of year. Gallup News, 13 January 2015. Available: <https://news.gallup.com/poll/180911/holidays-weekends-americans-happiest-days-year.aspx>.

McMahan EA, Estes D. The effect of contact with natural environments on positive and negative affect: A meta-analysis. *J Positive Psychol* 2015;10:507-19.

Nisbet EK, Zelenski JM. Underestimating nearby nature: affective forecasting errors obscure the happy path to sustainability. *Psychol Sci* 2011;22:1101-6.

Orban E, Sutcliffe R, Dragano N, Jöckel K-H, Moebus S. Residential Surrounding Greenness, Self-Rated Health and Interrelations with Aspects of Neighborhood Environment and Social Relations. *J Urban Health* 2017;94:158-69.

Ostrom E, Burger J, Field CB, Norgaard RB, Policansky D. Revisiting the commons: Local lessons, global challenges. *Science* 1999;284(5412):278-282.

Park SQ, Kahnt T, Dogan A, Strang S, Fehr E, Tobler PN. A neural link between generosity and happiness. *Nat Commun* 2017;8:15964.

Peters K, Elands B, Buijs A. Social interactions in urban parks: Stimulating social cohesion? *Urban Forestry & Urban Greening* 2010;9:93-100.

Rand DG, Greene JD, Nowak MA. Spontaneous giving and calculated greed. *Nature* 2012;489(7416):427-430.

Ryan RM, Deci EL. On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology* 2001;52:141-166.

Sachs J. Restoring virtue ethics in the quest for happiness. Chap 5 in: Helliwell JF, Layard R, Sachs J, Eds. *World Happiness Report 2013*. New York: UN Sustainable Development Solutions Network. pp 80-97. Available: <http://unsdsn.org/resources/publications/world-happiness-report-2013/>.

Schroeder DA, Graziano WG. Prosocial behavior as a human essence. In: van Zomeren M, Dovidio JF, eds. *The Oxford Handbook of the Human Essence*. Oxford: Oxford University Press; 2018.

Siahpush M, Spittal M, Singh GK. Happiness and life satisfaction prospectively predict self-rated health, physical health, and the presence of limiting, long-term health conditions. *Am J Health Promot* 2008;23(1):18e26.

Silk JB, House BR. Evolutionary foundations of human prosocial sentiments. Chapter 16 in: Strassman JE, Queller DC, Avise JC, et al., Eds. *In the Light of Evolution: Volume V: Cooperation and Conflict*. Washington: National Academies Press, 2011.

Slopen N, Goodman E, Koenen KC, Kubzansky LD. Socioeconomic and other social stressors and biomarkers of cardiometabolic risk in youth: A systematic review of less studied risk factors. *PLoS One* 2013;8:e64418.

Slopen N, Koenen KC, Kubzansky LD. Childhood adversity and immune and inflammatory biomarkers associated with cardiovascular risk in youth: a systematic review. *Brain Behav Immun* 2012;26:239-50.

Soga M, Cox D, Yamaura Y, Gaston K, Kurisu K, Hanaki K. Health benefits of urban allotment gardening: Improved physical and psychological well-being and social integration. *Int J Environ Res Public Health* 2017;14:71.

Stiglitz JE, Sen A, Fitoussi JP. *Mismeasuring Our Lives: Why GDP Doesn’t Add Up.* New York: The New Press, 2010.

Teig E, Amulya J, Bardwell L, Buchenau M, Marshall JA, Litt JS. Collective efficacy in Denver, Colorado: Strengthening neighborhoods and health through community gardens. *Health & Place* 2009;15:1115-22.

Tsurumi T, Imauji A, Managi S. Greenery and Subjective Well-being: Assessing the Monetary Value of Greenery by Type. *Ecological Economics* 2018;148:152-69.

Veenhoven R. Healthy happiness: effects of happiness on physical health and the consequences for preventive health care. *J Happiness Stud* 2008;9:449-69.

Yuan L, Shin K, Managi S. Subjective Well-being and Environmental Quality: The Impact of Air Pollution and Green Coverage in China. *Ecological Econ* 2018;153:124-38.

Zlomislic D. We left 20 wallets around the GTA. Most came back. *Toronto Star*, 25 April 2009. <https://www.thestar.com/life/2009/04/25/we_left_20_wallets_around_the_gta_most_came_back.html>.

1. Of course, for societies plagued by poverty, instability, and conflict, achieving a minimum level of prosperity and stability are important foundations of happiness. [↑](#footnote-ref-1)