

# Psychological Need Satisfaction, Personal Well-Being, and Ecological Sustainability

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## Abstract

*This article presents a need-based theory to explore the potential compatibility of ecological sustainability and personal well-being. Relevant theoretical and empirical evidence is reviewed to demonstrate how ecological degradation can interfere with the satisfaction of needs for safety/security, competence, relatedness, and autonomy, thus causing lower well-being, and how ecologically sustainable environments and behavior can promote satisfaction of these four needs and thus higher well-being. Three avenues for interventions and policy change are then described, each of which has empirical evidence suggesting it holds promise for simultaneously promoting higher personal well-being and greater ecological sustainability. These include shifting individuals' values from extrinsic, materialistic aims to intrinsic aims, helping individuals live voluntarily simple lifestyles, and supporting people's desires for "time affluence."*

In order to both survive and thrive, plants require certain soil nutrients and atmospheric conditions and certain amounts of water and sunlight; without each of these in proper amounts, a plant will eventually wither and die. Similarly, in order to both survive and thrive *psychologically*, substantial research and theory suggests that humans must have certain psychological needs satisfied (Deci & Ryan, 2000; Kasser, 2002; Maslow, 1954). At least four psychological needs appear to be crucial for determining the extent to which individuals flourish, are satisfied, and experience personal well-being<sup>1</sup> (see Sheldon, Elliot, Kim, & Kasser, 2001, for a review and relevant data). First, happiness requires feeling safe and secure, as worries about whether one

will eat tomorrow or be shot, bombed, or otherwise rendered dead soon clearly interfere with optimal psychological health. Second, people need to feel competent and efficacious; unhappiness frequently results when people believe that they are either not able to successfully do the things they care about or that they are generally unworthy. The third need, for relatedness or connection with other people, stems from the fact that humans are social animals who require love and intimacy but struggle under conditions of loneliness, rejection, and exclusion. Finally, people have a need to feel free and autonomous, choosing their own behavior rather than feeling coerced or controlled by internal or external pressures.

Whether people's psychological needs are satisfied depends both on the environments in which they live and on the behaviors in which they engage. For example, a long tradition in self-determination theory (Deci & Ryan, 2000, 2002) shows that the satisfaction of people's needs for autonomy and competence depends on their experiences in their social and cultural environments; when their bosses and teachers and parents listen to their opinions and support their choices, people have greater need satisfaction (and well-being) than when these authority figures are more psychologically controlling (see Deci & Ryan, 2002). In addition, research shows that people's needs for autonomy and competence are better satisfied when they engage in behaviors that are intrinsically motivating (like playing with puzzles and pursuing their own interests) rather than focused primarily on attaining rewards and praise or on avoiding punishment and displeasure.

This need-based approach, therefore, suggests the usefulness of asking two sets of questions in order to understand whether and how ecological sustainability can be compatible with personal well-being. First, one needs to ask whether the experience of living in ecologically sustainable (vs. degrading) environments is conducive to psychological need satisfaction. Second, one needs to ask whether the kinds of behaviors that promote ecological

sustainability can also generally satisfy the psychological needs crucial for well-being.

There is good reason to try to understand these connections more fully because at least three empirical studies suggest that personal well-being and practicing environmentally sustainable ways of living can be compatible. First, Kasser and Sheldon (2002) found that Americans who reported more satisfaction and less stress at Christmastime also engaged in more environmentally friendly holiday behaviors like using organic or locally grown foods and giving environmentally friendly presents. Second, Brown and Kasser (2005, Study 1) found a positive correlation between the happiness of American adolescents and how much they reported engaging in environmentally friendly behaviors such as turning off electric lights, recycling, and reusing paper, aluminum foil, and plastic baggies. Third, Brown and Kasser (2005, Study 2) reported that Americans who experienced high life satisfaction and high levels of positive vs. negative affect also reported significantly more engagement in ecologically sustainable behaviors and significantly lower ecological footprints.

These data speak against the common assumption that living in an ecologically sustainable fashion must involve sacrifices that will interfere with personal well-being and instead suggest that living in an ecologically sustainable way can promote personal well-being. The theoretical viewpoint presented in this article suggests that these positive associations between ecological sustainability and personal well-being may occur, at least in part, because living sustainably creates environments and supports behaviors that satisfy psychological needs.

### Psychological Need Satisfaction

To explore this possibility, this section examines how the four psychological needs may or may not be satisfied by different types of environments and behaviors relevant to ecological degradation vs. sustainability. Before commencing, however, I should mention three qualifiers. First, I am not aware of much research that has *directly* examined this hypothesis, so a good deal of what follows will be somewhat speculative and in need of further empirical exploration. Second, the research that does exist is largely correlational in nature, limiting our ability to make causal conclusions. Third, although individual variation obviously exists in how people experience different kinds of behaviors or environments, my focus below is on how the majority of individuals, now and in the future, are likely to experience different behaviors and environments.

Let us begin with the need for safety/security, which is the one seemingly most likely to be influenced by ecological circumstances. Global warming, pollution, diminishing water supplies, and a host of other forms of ecological degradation each have clear ramifications for the potential satisfaction of the need for safety/security. For example, many environmental scientists believe that these and other environmental problems may interfere with humans' ability to grow food in the consistent manner necessary to feed billions of people daily, with access to sufficient sources of potable water, with the necessity of breathing clean air, and with living in places safe from the ravages of floods, drought, hurricanes, or rising sea levels. In addition, many fear that global climate disruption will expand the geographical range of diseases that currently occur primarily in tropical areas (e.g., malaria), causing significant health problems for many. Finally, if resources such as clean water and sufficient food do indeed become scarce, history suggests that aggressive battles for those resources may soon follow. Clearly, any of these circumstances is likely to decrease the felt safety and security of a substantial portion of humanity (especially the poor), resulting in decrements to their personal well-being. In contrast, if humans were to instead successfully create circumstances and policies that obviated the ecological problems mentioned above, the result would be increased confidence that they would have sufficient food and water, as well as adequate shelter, and thus greater chances for survival. This confidence should result in greater satisfaction of the need for safety/security, ultimately resulting in the improvement of people's well-being.

The need for competence seems to me to have a potentially complicated relationship to ecological sustainability. In particular, de Young (1996) has emphasized that attempts to increase the likelihood that individuals will engage in environmentally sustainable behaviors not only must encourage people to do such behaviors, but also should recognize that many individuals will not feel especially competent when they try activities new to them such as recycling, composting, planting home organic gardens, or fixing things they previously would have thrown away. Since the Industrial Revolution, an enormous amount of what used to be "common knowledge" with regard to many ecologically sustainable behaviors has been more or less lost to the common citizen, replaced by complicated technology and trained specialists who conduct the activities many people used to do themselves. As such, any attempt to help individuals behave in more ecologically sustainable ways must recognize that, at least initially, many people are likely to feel rather incompetent at new behaviors; this

feeling of incompetence, in turn, is likely to interfere both with their persistence at the new behaviors and with their personal well-being. The good news, however, is that if individuals can learn ecologically sustainable behaviors, they may ultimately experience greater feelings of competence than what they currently derive from engaging in technologically heavy and often environmentally degrading behaviors. That is, the satisfaction of competence needs that comes from growing and making one's own food is likely to eventually be higher than the satisfaction of competence that results from driving to the grocery store and purchasing a frozen meal. Similarly, people are likely to feel more competent by repairing an item themselves than by driving to the local store and purchasing a new one. In sum, with regard to competence, it seems crucial to help individuals overcome initial feelings of incompetence so that they might eventually obtain greater feelings of competence that will both sustain the new ecologically friendly behaviors and promote higher levels of well-being.

Relatedness needs could also be improved by environments that support environmental sustainability. I have in mind here participation in local economies. Under the current economic structure, much consumption is of goods that were produced rather far away, creating environmental costs in terms of the emissions necessary to transport the goods and, in the case of food, the pesticide used to keep the food "fresh" before it is sold. Another problem with the current system is that most consumers are "distanced" (Princen, 2002) from production practices that often have high ecological (and social) costs. Distancing can lead many consumers to be unaware of or less concerned with production practices that might be immediately evident and of high concern were the goods produced locally. Thus, local economies can work to improve environmental outcomes via increased awareness, and thus pressures, for healthier means of production. At the same time, local economies might also improve the personal well-being of those who participate in them by connecting the participants in a local economy. For example, becoming involved in community-supported agriculture programs, co-ops of various sorts, and even local currencies are each likely to lead individuals to spend more time interacting with others who share common interests and values. Such interactions might then build a sense of community, connection, and relatedness that in turn will satisfy this psychological need and thus improve personal well-being at the same time that ecologically sustainable behavior is promoted.

As with competence, the need for autonomy may have its vicissitudes with regard to increasing ecological sustainability, but

can ultimately be satisfied and thus yield higher well-being. To understand why this is the case, it is important to understand what is meant here by autonomy; my presentation is based primarily on the conceptualization forwarded by self-determination theory (SDT; Deci & Ryan, 2000). Dozens of SDT studies show that people can be motivated by more autonomous reasons (such as by the fun, interest, and challenge of pursuing some behaviors or by the sense of enacting one's important values through the behavior) or by more controlled, nonautonomous reasons (such as by a sense of internal pressure that involves guilt, shame, and anxiety or by a sense of external pressure that results from praise, rewards, or the threat of punishments). When people act from autonomous rather than controlled reasons, the literature shows that they are more persistent and report higher levels of well-being, as their need to be self-directing and feel free is well-satisfied (see Deci & Ryan, 2002). This literature implies that it is crucially important to ensure that individuals engage in new ecological behaviors in a more autonomous manner and feel choiceful about their pursuit of such actions. Indeed, a meta-analysis of approximately 60 studies (Osbaldiston, 2005) found that treatments designed to encourage environmentally friendly behaviors are more effective (i.e., result in more pounds recycled or less fuel used) when they focus on encouraging people to pursue such behaviors because the behaviors are important or meaningful (autonomous regulation) than when treatments focus on guilt, anxiety, or rewards and punishment (controlled, nonautonomous reasons). As such, just as we must keep in mind how competent individuals feel when they learn new ecologically sustainable behaviors, interventions would do well to encourage autonomous rather than controlled regulation of these behaviors. Attending to people's need for autonomy will not only increase the likelihood that they will persist at such activities, but should promote greater happiness as well.

### Some Promising Avenues

Having discussed how the satisfaction of psychological needs, and thus personal well-being, might be promoted by ecologically sustainable behaviors and environments, next I shall describe three avenues that seem particularly promising for further research, interventions, and policy implementations. I focus on these three avenues because each has been shown by empirical research to be associated with both personal well-being (in large part because of psychological need satisfaction) and with ecologically sustainable outcomes. Although these data are largely correlational, thus limiting causal conclusion, they do seem to hold potential for serving as useful models for understanding how to

practically develop interventions and policies that might simultaneously promote both sustainability and personal well-being.

### *Personal goals and values*

Over a decade ago, Kasser and Ryan (1996) distinguished between two types of pursuits in life: intrinsic and extrinsic. Intrinsic goals involve concerns that are inherently satisfying in and of themselves because they satisfy people's psychological needs; the three most common intrinsic goals we have studied are for personal growth/self-acceptance (i.e., knowing and liking one's self), affiliation (i.e., having close interpersonal relationships with family and friends), and community feeling (i.e., working to make the world a better place). Extrinsic goals, however, concern external rewards and praise, and are typically pursued as means to some other end; financial success, image, and popularity/status are three domains that typify extrinsic goals. Across multiple studies and in a variety of cultures (e.g., Grouzet et al., 2005), we have consistently found that intrinsic and extrinsic goals are distinguishable and in psychological opposition to each other. Furthermore, studies have demonstrated that such pursuits differentially relate to personal well-being and to ecological behavior. For example, Kasser (2002) has reviewed a variety of studies demonstrating that extrinsically oriented, materialistic individuals report lower personal well-being, whereas those with strong intrinsic values are happier and healthier; much of this correlation seems to be due to poor need satisfaction on the part of those who strongly pursue extrinsic, materialistic goals and to greater need satisfaction for those focused on intrinsic goals. Other research shows how materialistic, extrinsic goals are associated with more ecologically degrading attitudes and behaviors: materialistic people have less concern for other living things, engage in fewer environmentally sustainable behaviors and, in resource-dilemma games, report being more motivated by greed and use up more of limited resources (see Crompton & Kasser, 2009, for a review).

Because extrinsic, materialistic pursuits are so necessary to the maintenance of our current capitalistic economic structure (see Kasser, Cohn, Kanner, & Ryan, 2007), there are many processes in our social world that necessarily encourage materialism and discourage intrinsically oriented goals. To counter these, Kasser (2006) proposed a three-fold strategy that involves (a) decreasing the extent to which people are exposed to materialistic models in their environments (e.g., by banning ads to children or by removing tax write-offs for advertising); (b) increasing people's resilience to the materialistic messages that remain in

the environment (e.g., by building intrinsic values or by teaching individuals how to decode advertisement messages); and (c) helping people to act more consistently with the intrinsic goals that they may value (e.g., by encouraging ethical consumption and by developing alternative indicators of national progress). By following these strategies and the interventions and policies that fall out of them, people's values and goals, and thus behaviors, can be shifted away from extrinsic, materialistic goals and toward more intrinsic goals (see also Crompton & Kasser, 2009). As such, people's psychological well-being should improve as their behaviors and their social surround become more ecologically sustainable.

### *Voluntary Simplicity*

One lifestyle that acts in the service of the dual goals of happiness and ecological sustainability is voluntary simplicity (VS). VS has taken a variety of forms over its long history (see Elgin, 1993 for parallels in philosophy and religion, and Shi, 1985 for an overview of simplicity in the United States), but fundamentally, VS typically involves choosing to live in a manner that is less focused on consumption and acquisition, and more focused on the "inward riches" of personal growth, family, community, spirituality, and communion with nature. Anecdotal research using VS samples suggests that, although their lives involve certain struggles, most report improved well-being upon adopting the lifestyle, and many are living in more ecologically sustainable ways (Elgin, 1993; Pierce, 2000). Brown and Kasser (2005) followed up on these qualitative results by conducting a survey of 200 North American self-identified voluntary simplifiers and 200 mainstream Americans matched on age, gender, and geographical location. Analyses showed that VS participants were significantly happier (reporting more life satisfaction and positive affect, and less negative affect) than the mainstream group; furthermore, they participated in substantially more ecologically sustainable behaviors and had lower ecological footprints. Thus, VS people were able to live more lightly on the earth while remaining happy. Brown and Kasser (2005) also found that the extent to which people prioritized intrinsic vs. extrinsic pursuits helped to explain both the well-being and the ecological benefits of a VS lifestyle. That is, VS participants were more oriented toward intrinsic and less oriented toward extrinsic goals, and this statistically accounted for much of their greater happiness and for some of their more ecologically responsible behavior.

Part of the promise of VS, I think, stems from the fact that it is a rather flexible lifestyle that can encompass rural or urban lifestyles, spiritual or nonspiritual attitudes, and so on (see Elgin,

1993 or Pierce, 2000). Another reason VS seems promising is that many North Americans report a yearning for a more balanced life (Merck Family Fund, 1995) amidst the commercialized, hypercapitalistic culture in which they live. More research thus seems warranted on this lifestyle, both to identify other individual difference variables besides intrinsic/extrinsic values that co-occur with VS, satisfaction, and sustainability, and to determine whether interventions can be developed to help people live a VS lifestyle (e.g., Dominguez & Robin, 1992).

### *Time Affluence*

As has been noted above, our hypercapitalistic, consumeristic society propounds a model of “material affluence” as the path to a happy and meaningful life. Among the many unfortunate results of such goals is the resulting “time poverty” experienced by many in contemporary society (de Graaf, 2003). Long work hours and hectic schedules seem to be a fundamental part of modern life, as many individuals are working longer hours and foregoing vacations, some because of their desire for greater wealth, but many due to corporate and national policies designed to maximize profit and economic growth. Among the variety of problems associated with time poverty and overwork (see de Graaf, 2003) are diminished personal well-being and greater ecological damage.

Indeed, Kasser and Brown (2003) and Kasser and Sheldon (2009) have both found that longer work hours and subjective reports that life is “too busy” or “too hectic” predict lowered life satisfaction, less positive affect, and greater negative affect. Kasser and Sheldon (2009) further demonstrated that these negative associations between time poverty and well-being are partially mediated by poor need satisfaction. That is, time poverty leads people to have fewer experiences that support their needs for autonomy, competence, and relatedness, which in turn helps explain why such individuals are less happy. When we recognize that being overly busy leaves little time to pursue our hobbies, take care of our health, and be with family and friends, these results are, of course, quite sensible.

Time poverty also creates situations that lead to more environmentally destructive behaviors. Using a subsample from the voluntary simplifiers and mainstream Americans described above, Kasser and Brown (2003) found that individuals who reported working fewer hours per week engaged in more environmentally friendly behaviors and had lower ecological footprints. Again, this is sensible given that “time affluence” provides more opportunities to utilize more sustainable, though somewhat slower, forms of transportation (i.e., walking, biking, or public transportation),

to prepare foods that are fresh rather than prepackaged (thereby cutting down on pesticide use, transportation costs, and excess packaging), and to recycle, reuse, and repair.

Such findings suggest that psychotherapists interested in maximizing people’s happiness and their ecological sustainability can talk with their clients about whether material affluence has been successful in providing the outcomes it promises and if time affluence might perhaps be a better solution for their lives. Policies can also be developed to make it easier for people to share jobs, to increase the generosity of the United States’ extremely stingy family leave and minimum vacation laws, to protect workers from mandatory overtime, and to shorten work weeks (see Kasser & Sheldon, 2009). Each of these changes could both improve people’s well-being and increase environmentally sustainable behaviors.

### **Conclusion**

This brief article has suggested that in order to understand the potential compatibility of people’s well-being and ecological sustainability, it may be helpful to attend to the extent to which people’s psychological needs for safety/security, competence, relatedness, and autonomy are satisfied. I reviewed a variety of ways in which various forms (and outcomes) of ecological degradation might work against the satisfaction of psychological needs (thus lowering personal well-being) and proposed some ideas regarding how living more sustainably could promote satisfaction of these four psychological needs (thus improving personal well-being). I then suggested three avenues for future research, intervention, and policy that seem to hold special promise for simultaneously promoting enhanced need satisfaction (and thus well-being) and ecologically sustainable behaviors. These included helping people to focus more on intrinsic rather than extrinsic, materialistic values, to pursue the lifestyle of VS, and to focus on attaining time affluence, rather than material affluence, in their lives. Each of these avenues can be promoted via a range of types of interventions or policy changes.

What is required next is substantially more research on the basic processes involved in supporting both well-being and ecological sustainability, including applied research on interventions and experimental research that can help support causal conclusions about the associations of these variables. It will also be necessary to tackle the rather massive social challenge of shifting people’s values and lifestyles, and of passing policies that can promote both happiness and ecological sustainability. While much remains to be done, the need-based perspective presented

here suggests that it is possible for humanity to move away from our current ecologically destructive and personally alienating lifestyles and social organizations, and to instead develop a way of existence that is both more ecologically sustainable and more personally satisfying.

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### Note

1. Throughout this article, I use the term *personal well-being* to refer to both the subjective, hedonic aspects of well-being (comprising life satisfaction and the experience of pleasant vs. unpleasant emotions) and the eudaimonic aspects of well-being (comprising feelings of vitality, meaning in life, etc.). See Ryan and Deci (2000) for an overview of this distinction. My sense is that the argument presented here is potentially relevant for both forms of well-being, although empirical research is necessary to test this hypothesis.

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