

Oxford Handbooks Online

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

Richard M. Ryan and Patricia H. Hawley

The Oxford Handbook of Hypo-egoic Phenomena

Edited by Kirk Warren Brown and Mark R. Leary

Print Publication Date: Nov 2016 Subject: Psychology, Social Psychology

Online Publication Date: Oct 2016 DOI: 10.1093/oxfordhb/9780199328079.013.14

Abstract and Keywords

People find inherent satisfactions in helping and contributing to others for nonselfish reasons. Self-determination theory (SDT) suggests that being benevolent is often intrinsically motivated, or alternatively done out of deeply internalized social values that are autonomously enacted. In turn such behaviors satisfy basic psychological needs and thereby enhance subjective well-being. A further question concerns more ultimate explanations. Drawing on both SDT and evolutionary psychology, this chapter argues that the association of these proximal need satisfactions with moral and prosocial actions has persisted because these propensities and satisfactions have yielded manifold selective advantages. In addition, need-thwarting conditions evoke more aggressive, competitive, and self-protective strategies. The fact that people typically experience benevolence as deeply need satisfying, and doing harm to others as need frustrating, is thus an aspect of how proximally experienced satisfactions in individual development are linked with the evolutionary roots of our human nature.

Keywords: evolution, human nature, self-determination theory, autonomy, eudaimonia, selfishness, aggression, benevolence, prosocial behavior

In societies everywhere people are typically found cooperating, being interested in and helpful to others, and giving, not only to kin but also to strangers. They are in most circumstances (with caveats to come) fair-minded and even kind. Indeed, when psychologists employ technically useful but esoteric terms like “hypo-egoic” (Leary & Brown, this volume) or “eudaimonic” (Ryan & Deci, 2001) to describe the expression of positive human attributes, one might imagine that something very rarified and nonnormative is being depicted. Yet in reality, not only do people commonly act in ways

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

that are not selfishly motivated, responding to and even seeking out opportunities to be virtuous, but also they derive great satisfaction from such voluntary prosocial acts.

In this chapter we explore this propensity for social contributions and benevolence using both the lens of self-determination theory (SDT; Deci & Ryan, 2000) and contemporary models of evolutionary thinking on prosocial behavior and altruistic motivation (Hawley, 2014). We review research supporting the view that people find strong inherent satisfactions in internalizing and integrating social regulations, and in helping and contributing to others for nonselfish reasons. In fact, although many classic motivation theories emphasize either an underlying selfish and/or exchange oriented calculus to human motives (e.g., Homans, 1958; Thibaut & Kelley, 1959), SDT suggests that being benevolent toward others is often intrinsically motivated (done for its own sake) or alternatively done out of deeply internalized social values that are quite willingly enacted. In fact, according to SDT, it is precisely when acts of caring are experienced as *willingly* done for the other that they yield the most robust basic psychological need satisfactions. Such enhanced positive experiences no doubt support such prosocial behavior, even though these satisfactions are not the person's conscious aim. In contrast, when acts of helping are performed for extrinsic reasons that are not psychologically "altruistic" (e.g., out of guilt, bowing to external pressure, or expecting benefits to oneself) the same psychological need satisfactions do not accrue (Weinstein & Ryan, 2010). Oppositely, violating propensities to help or be benevolent can frustrate these psychological needs (e.g., Legate, DeHaan, Weinstein, & Ryan, 2013), contributing to internal distress and potentially discouraging such behaviors.

Insofar as helping and benevolence are often autonomously and even altruistically motivated at a phenomenal level, as well as supported by basic psychological need satisfactions, a further question concerns more ultimate explanations. How could such prosocial and phenomenally altruistic propensities and accompanying satisfactions evolve? Our account suggests that the association of these proximal needs satisfactions with moral and prosocial actions has persisted because these propensities and satisfactions supported reproductive success through inclusive fitness (support of genetic relatives), reciprocal altruism (alliance building and resource sharing with non-kin) and group fitness (enhancing collaborative effectiveness) (Deci & Ryan, 2000; Stump, Ratliff, Wu & Hawley, 2009). In other words, finding satisfactions in behaviors involving cooperation, sharing, and internalizing prosocial group values, including those that reflect benevolence and helping, has yielded manifold evolutionary selective advantages. The fact that people typically experience benevolence as deeply need satisfying, and doing harm to others as need frustrating, is thus an aspect of how proximally experienced motives in individual development are linked with the evolutionary roots of our human nature.

Yet humans are clearly not all "good." Evolution has also amply supplied us with behavioral capacities to be offensively and defensively selfish, deceptive, and aggressive. In addition people can internalize norms that sanction violence and even malevolent behaviors against transgressors or out-groups. The SDT evidence suggests, however, that

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

such norms, and controlling and punitive forms of norm enforcement are more likely to develop and be expressed under circumstances where basic psychological needs for autonomy are thwarted, and where people are or have been harshly socialized. In fact, evidence strongly suggests that people pursue more selfish, less prosocial lives under harsh, need thwarting, nonnurturing conditions (e.g., Biglan, Flay, Embry, & Sandler, 2012; T. Kasser, Ryan, Zax, & Sameroff, 1995; Ryan, Deci, Grolnick, & Laguardia, 2006; Staub, 2005). In societies characterized by such conditions violence also becomes normative and is more likely seen as “acceptable” to members of those societies. This is not simply a between-culture difference. In everyday life people continuously adjust their prosocial versus selfish or defensive strategies, both consciously and nonconsciously, based on cues as to what kind of context they are in (e.g., Weinstein, Hodgins, & Ryan, 2010). Understanding these dynamics of psychological needs can thus help to explain when both socially benevolent and the less prosocial sides of human nature are likely to be manifest.

Throughout this chapter an important paradox is highlighted that reflects the differences between proximal (psychological) and ultimate (evolutionary) levels of analysis: Being psychologically selfless or hypo-egoic may be a wonderfully selfish genetic strategy. What is altruistically motivated from a psychological and proximal (ontogenetic) viewpoint may be quite instrumental and self-serving from an evolutionary (ultimate) one. In addition we suggest that the natural propensities toward benevolence are conditional on features in ambient social and material ecologies. They are most robust under nurturing conditions that emotionally and materially support need fulfillment, and are compromised by proximal conditions of need threat.

Self-Determination Theory and Human Nature

Self-determination theory suggests that people have a common nature (Deci & Ryan, 2000). The theory argues that humans are inherently, and thus universally, motivated to (p. 207) connect with others, to internalize and attempt to integrate social values, and to self-regulate in accord with those values. People take interest in, and want to assimilate the ideas, norms, and practices in their ambient social environments, and they have a natural readiness to cooperate and contribute within their social groups. Yet these propensities to internalize social regulations and mores, and to connect and cooperate with others, although inherent, are *experience dependent* for their expression (Vansteenkiste & Ryan, 2013). That is, individual differences in the expression of these propensities are *calibrated* by the material and social features of the environment (a process of development; Ellis et al., 2012; Hawley, 2011). Fostering such optimal functioning and wellness entails socially afforded requirements, understood within SDT as support for *basic psychological needs*.

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

Deci and Ryan (2000) defined psychological needs as psychological nutriments that are essential for ongoing psychological growth, integrity, and well-being. In contrast, when these needs are chronically unmet, behavioral problems and psychopathology often result (Ryan et al., 2006). Failure of social, familial, and material contexts to support these basic needs leads to poorer self-development, impaired internalization, and ultimately to the collateral damage that stems from need frustration, and consequently the compensatory and defensive behaviors associated with many manifestations of the darker sides of human nature (Ryan & Deci, 2000). At the same time, these darker sides of nature have their own functional value, as we might expect increases in these more negative human characteristics the more stressful, competitive and threatening one's environment (e.g., Caspi et al., 2002; Van Honk, Harmon-Jones, Morgan, & Schutter, 2010).

Psychological and Evolutionary Adaptive Significance of Needs

Self-determination theory focuses primarily on three basic psychological needs that have relevance across developmental epochs and cultures, and obvious adaptive significance. First, the *need for competence* concerns a sense of effectiveness and mastery vis-à-vis one's environment (White, 1959). Competence feelings attend assimilative, exploratory, and skill-building activities, many of which are intrinsically motivated. Second, *the need for relatedness* concerns being connected to others, feeling both cared for and caring in one's relations with others. This need is satisfied when an individual feels belongingness and a sense of mattering to others (Baumeister & Leary, 1995; Deci & Ryan, 1985b). Finally, the need for autonomy concerns having an internal perceived locus of causality when acting (De Charms, 1968). When autonomous, one's actions feel self-endorsed and fully volitional instead of controlled, alien, or imposed (Deci & Ryan, 1985b). Finally, the need for autonomy reflects organismic preferences for self-organization, reflected in a sense of ownership and integration in behavior. The need for autonomy is most satisfied when one's actions are congruent and self-endorsed, and most readily thwarted when behavior is externally controlled, pressured, or imposed.

The evolutionary repercussions of each of these psychological need satisfactions are manifold. To be sensitive to impingements on autonomy (Waller, 1998), deficits in competence (Deci & Moller, 2005), and potential ostracism or rejection (de Waal, 2009) and conversely to find satisfaction in assimilating knowledge, connecting with and helping others, and in being effective within social contexts, are parts of our psychological make-up that have yielded multilevel (individual- and group-based) selective advantages (Deci & Ryan, 2000; Stump et al., 2009). Moreover, psychological need satisfactions are satisfied through and supported by many specific adaptations and exaptations (Ryan & Deci, 1985). For example, gratitude, sense of fairness, intrinsic motivations to help, and propensities to be empathic are associated with enhanced need satisfaction. Moreover, an ever-growing body of research demonstrates how satisfaction of these basic psychological needs significantly predicts a wide array of well-being outcomes (Ryan & Deci, 2000), a higher quality of behavioral engagement (Deci & Ryan, 2012), and enhanced cognitive and decisional functioning (e.g., Di Domenico, Fournier, Hasan, & Ruocco, 2013). The importance of all three needs has been validated cross-culturally (e.g., Chen et al., 2014) and shown at between- and within-person levels of analysis (e.g., Ryan, Bernstein, & Brown, 2010) and across the life span from toddlers (e.g., Whipple, Bernier, & Mageau, 2011) to (p. 208) elders (e.g., V. M. Kasser & Ryan, 1999). Need satisfaction predicts general health and wellness (Gonzalez, Swanson, Lynch, & Williams, 2014; Miquelon & Vallerand, 2008) and wellness and performance within specific domains such as education (e.g., Jang, Reeve, Ryan, & Kim, 2009), health behavior change (Ng et al., 2012), and work (e.g., Baard, Deci, & Ryan, 2004). In brief, basic psychological need satisfaction facilitates self-development, which in turn underpins propensities to be socially engaged, effective, and healthy.

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

Healthy self-development occurs under conditions wherein the basic needs essential to psychological growth and integrity can be satisfied (Vansteenkiste & Ryan, 2013), making it evident that the attainment of healthy self-functioning is by no means an individual accomplishment. Self-regulation is clearly dependent on proximal social, material, and cultural supports. Parents and caregivers providing nurturing environments facilitate the development of both secure attachments (Whipple et al., 2011) and coherent and effective self-regulatory capacities (Ryan et al., 2006). Evidence shows that internalization of both social norms and values is dependent on need satisfaction, particularly the needs for autonomy and relatedness. In turn, people with greater internalization and integration of social norms are typically (though not always) more prone toward positive social acts with respect to their in-groups. Educational, workplace, political, and economic systems can further maintain and enhance capacities for self-regulation and responsibility, and in doing so contribute to individual health and wellness (Deci & Ryan, 2012).

Although SDT's view that a healthy, autonomous self is important to effective social functioning might not sound controversial, in fact the role of the self and autonomy has been frequently denigrated within some frameworks in social psychology. For example, the concept of self has been defined and understood by some as merely an individualistic Western ideology (e.g., Iyenger & Devoe, 2003) and by others as simply a vacuous illusion (e.g., Bargh, 2008). Such definitions and characterizations of self do not correspond to our view of self as an integrative and regulatory function that is healthiest when autonomous (Ryan & Rigby, 2015). Moreover, these views of the self as either individualistic or as nonexistent do not address the robust and pancultural research evidence showing that when an individual's self is characterized by autonomy, competence, and relatedness she or he is likely to be more productive, more caring, and to experience greater social integration and wellness.

The Contingent Nature of Human Nature

What is the nature of human nature? There is no single answer. In SDT's formulation people express distinct "natures" as a function of the psychological need supports versus thwarts they face in development (Vansteenkiste & Ryan, 2013) and in situations (Deci & Ryan, 2000). In this view, the positive sides of human nature are manifest under conditions that support basic need satisfaction (see also Biglan et al., 2012). Indeed, these positive human capacities are built out of nurturing exchanges with caregivers in which access to emotions, awareness of needs, and synchrony with and empathy for others are cultivated. Proximal and pervasive contexts that thwart individuals' capacities to satisfy these needs impair capacities for empathy, internalization, and the regulation of emotions, resulting in greater tendencies toward greed, divisiveness, and interpersonal aggression (Niemic, Ryan, & Brown, 2008; Ryan, Legate Niemic, & Deci, 2012).

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

Self-determination theory's understanding of human nature thus differs from some alternative views often implicitly or explicitly embraced by contemporary social scientists. One alternative view is that of a highly malleable nature, without intrinsic propensities or basic needs, that is largely plastic in the hands of culture (e.g., Markus & Kitayama, 1991; Iyenger & Devoe, 2003). Such views were described by Tooby and Cosmides (1992) as the standard social science model (SSSM) and underlie most social learning theories and many forms of constructivism and cultural relativism. In emphasizing social malleability and minimizing any intrinsic human needs or inherent propensities, these approaches leave the predominant determination of behavior to cultural environments and the reward and punishment contingencies within them (Hawley, 2007).

An alternative to the malleability viewpoint is a fixed nature viewpoint. Although fixed nature views could in principle, emphasize (p. 209) either positive or negative features of our makeup, many theorists embracing the fixed nature view present a fairly negative portrait of our "natural" attributes. The idea is usually posed that we evolved in a competitive, hostile environment in which the selfish and dominating individuals more likely survived; thus human nature is fundamentally aggressive, greedy, and Machiavellian (Dawkins, 1989). Ample prima facie evidence can be mustered to support this portrait, as people readily display such attributes in many contexts. Yet as de Waal (2009) argued, scholars invoking evolutionary processes to cast humans as competitive, greedy, and aggressive ignore a plethora of data from comparative biology to anthropology showing "that we are group animals, highly cooperative, sensitive to injustice, sometimes warmongering but mostly peace loving. There is thus both a social and a selfish side to our species" (p. 5). Moreover, those who draw conclusions from a starting point of genetic selfishness are at risk for concluding that behaviors that are in an evolutionarily sense selfish must also be psychologically selfish. Such a conclusion, however tempting, can be neither defended nor logically derived from an understanding of evolutionary mechanisms (Hawley, 2014).

In contrast to both the malleable and fixed views of human nature, SDT assumes both a social and selfish side to our psychological natures (see also Boehm, 1999; de Waal, 2009; Hawley, 1999). The theory further assumes that these phenomenally distinct modes of functioning are predictable responses to particular types of environments. Specifically, under conditions where there are sufficient developmental, familial, societal, and cultural supports for basic material and psychological needs, healthier self and social functioning, including more autonomous self-regulation, results. In turn, this successful need support promotes prosocial sensibilities and behaviors within social groups and societies.

In fact, we shall review ample evidence below that human beings (and some other primates) are quite prosocially oriented, and are known to spontaneously give, share, help, and show empathy. These proximal prosocial attributes have considerable adaptive payoff both in terms of proximal ontogeny and ultimate reproductive success. That is, altruistic motivation need not and indeed does not imply altruistic genes (a biological unlikelihood). Behavior and orientations that are phenomenally unselfish and other-serving can yield psychological benefits such as connection to others (friendships),

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

reciprocal alliances, and positive reputations, and thus contribute to well-being. Evolutionarily speaking, if these qualities make one attractive to the other sex, a desirable ally, a competitive long-term mating partner, and an attentive parent (which we argue they do), or even make one's group more competitive relative to other groups, then there are reproductive payoffs. These reproductive payoffs are the currency of natural selection. Thus it is no stretch to say that prosocial behavior and altruistic motivation are adaptations.

In contrast, SDT suggests that need-thwarting contexts readily foster and catalyze self-protective, defensive, and aggressive propensities. While these capacities also represent adaptive mechanisms available to individuals, especially in conditions that are hostile or highly competitive, they may be less conducive to cohesive modern societies. Under conditions in which people are controlled, overchallenged, or threatened with ostracism, they are also prepared to address such unfavorable circumstances through both internal and external defenses, including psychological and behavioral mechanisms of resource protection that bypass any intrinsic prosocial sensibilities. Most relevant here, need thwarting is associated with more competitive interpersonal attitudes and more destructive and reactive forms of aggression. Thus in the SDT view, the occurrence of these "dark sides" to human nature is both systematic and predictable, catalyzed by conditions that undermine basic need satisfactions. Stated differently, identifiable features of environments are associated with thriving and sociality, the violation of which brings out the more negative aspects of human nature (Ryan & Deci, 2000).

In short, SDT sees basic psychological needs as representing the deep structure of the psychological system, and thus satisfactions and frustrations to these needs serve as basic inputs to our most human propensities and sensibilities. Our tendencies toward finding satisfaction in these needs and defending against threats to basic needs has emerged and persisted because, over millennia, finding happiness and satisfaction in fulfilling these basic psychological needs (p. 210) has allowed human beings, individually and collectively, to negotiate more successfully their complex social and physical circumstances. That is, what people find intrinsically rewarding is heavily sculpted to favor attributes that promoted reproductive success.

Having these basic psychological needs as facilitators of social functioning does not, however, encompass all of our evolved drives, tendencies, or proclivities. Myriad adaptive tools have emerged over human evolution that are contingent on contexts for their expression. In addition, behavioral reactions and tendencies that may have been especially advantageous during earlier epochs can change in relevance and meaning with cultural transformation. For example, dominance and status motives, supported by biological pathways and emotional reactions in relevant contexts, remain significant, and they too are part of human nature that can be readily activated and deployed (e.g., Hawley, 2007). Sexual interest, though not a basic psychological need in SDT, is also a "natural" motive that fuels behaviors from display to competition, again in relevant contexts.

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

Yet unlike these other natural inclinations, SDT's basic psychological needs support a superordinate capacity for self-regulation, which can oversee and monitor such inclinations, be they toward dominance, sex, or other aims. In other words, self-regulation plays a critical role in mediating resource acquisition, often through managing other motives and urges so that one can fit within a social world. The importance and variability of human social contexts are highlighted by the relative rapidity of cultural evolution, especially within the past 10,000 years (Cochran & Harpending, 2009). Consequently, a strong case can be made for having an integrative self-system that can appropriately internalize and assimilate social practices and values, and regulate and transform propensities such as those for aggression, sexual activity, dominance over others, and many others that may have provided selective advantages when used in specific contexts. Ironically then, the healthier the self, the less proximally "selfish" people appear to be. A healthy, well-nurtured self leaves one more rather than less in touch with and caring of others, as well as more in touch with one's own values, interests, and concerns. Thus, rather than viewing "self" as "in the way" of compassion, SDT sees healthy self-functioning as conducive to it, as well as to other attributes supporting ontogenetic and evolutionary success.

Self-determination theory also recognizes that individuals often internalize social norms that support nonprosocial, and even violent and cruel practices. That is, people will act to punish, control, and deprive others insofar as these others threaten their social relationships or abiding social values. This view that people can internalize nonprosocial practices is consistent with many evolutionarily informed perspectives (e.g., Boehm, 2012; Fiske & Rai, 2015). What SDT adds to this idea is first that ambient social conditions potentiate more versus less humane or benevolent norms; and second that even though people can internalize just about anything, some social norms and contents are simply more easily integrated, whereas others can at best be introjected (Deci & Ryan, 2000). Thus although the contents of social internalizations clearly vary in their qualities of humanness, this can be related both to the social/familial conditions that either support or thwart basic psychological needs, and to the type of self-regulation (e.g., introjection versus integration) through which people will likely enact their internalized social norms.

To summarize, debates about human nature have varied between those who deny we have any nature, and those who think we do, but see it as fixed and largely selfish and competitive in character. Self-determination theory, an approach grounded in organismic thinking, offers a somewhat different set of assumptions. Rather than infinitely malleable, SDT sees humans as adaptively designed to develop their intrinsic integrative and social capacities under conditions of resource security and nurturance. Our intrinsic natures lead us to prefer need-supportive contexts and to feel that we thrive within them. This assumption is necessary to explain why healthy maturing organisms resist psychological nutriment-impoverished contexts and at times will even, despite the risks, rebel against oppressive, stigmatizing, or helplessness-inducing social conditions. Unfortunately, social and material ecologies are not always optimal, and people are routinely born into harsh and need-thwarting contexts, with real or imagined resource scarcity. In these settings,

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

competition, status, and judgments about transgressions become more (p. 211) instrumentally and emotionally salient, and less benevolent societal norms are more likely to develop. That is, people may be prosocial under conditions of psychological support but have an alternative plan at the ready for harsh and nonnurturing conditions. We argue that any conception of a “default” human nature depends on the prevailing conditions accompanying human evolutionary history, a matter of much debate (Boehm, 2012).

Research on Our “Natural” Proclivities to be Prosocial

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

Research on volitional helping exemplifies our understanding of inherent psychological supports for prosocial behavior. Self-determination theory suggests that voluntarily caring for or helping others brings with it inherent psychological satisfactions. This fact suggests that even though one's personal aims in helping may, phenomenally speaking, be altruistically motivated, such aims are nonetheless supported by evolved subjective satisfactions that may help us select such behaviors with more frequency.

That such prosocial tendencies and their intrinsic satisfactions are deeply evolved is evidenced by both developmental and anthropological data (Bloom, 2013; Boehm, 2012). For example, evidence for the intrinsic propensities to help others comes from developmental research by Warneken and Tomasello (2008), who examined helping behavior in 20-month-old toddlers. They observed that children at this age will spontaneously help others (for instance picking up dropped objects) without external pressure or prompting. At the same time, these authors demonstrated that when toddlers were externally rewarded for such spontaneous helping, they were subsequently less likely to help. This finding suggests that the intrinsic motivation behind such helping was subject to the undermining effect of rewards (Deci, Koestner, & Ryan, 1999). Helping, that is, appears to be intrinsically motivated, and external rewards can undermine the intrinsic satisfactions such behavior typically yields.

These intrinsic satisfactions in helping others were further highlighted in studies of young adults by Weinstein and Ryan (2010). They argued that altruistically helping others yields all three basic psychological need satisfactions and, furthermore, that these need satisfactions mediate the relations of helping with well-being outcomes. Specifically, in volitionally helping others, one can feel competence in affecting outcomes; relatedness through the involvement of empathy and interest in others; and autonomy, precisely because altruistic helping (which by definition is not driven by salient external rewards or pressures) reflects one's personal values.

Weinstein and Ryan (2010) presented four studies using various methods to test these ideas. They first used an event sampling method to show that daily incidents of helping impacted the helper's psychological need satisfaction, subjective well-being, vitality, and self-esteem. As hypothesized, when helping was autonomous (rather than externally pressured), these effects were especially substantial and positive. In a further, experimental study, participants were given money that they could donate or not to another participant, without the other participant knowing about the choices available to the target. Half of the participants were in a choice condition in which they decided how much to give; half were in a "yoked" condition in which they were directed to donate specified amounts. As expected, in the choice condition, the more the participant donated, the more he or she experienced enhanced well-being (greater positive affect, vitality, and self-esteem), an effect that was fully mediated by basic need satisfactions as measured by self-reports of relatedness, competence, and autonomy. In contrast, being directed to donate produced no such effects.

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

Additional experiments in this series not only showed that volitional helping enhanced the need satisfaction and wellness of the helper, but also that recipients of help had increased well-being—but only when the helpers' motivation (of which the recipients were unaware) was autonomous. Weinstein and Ryan's (2010) findings thus suggest that well-being benefits for recipients of aid accrue most when the help is perceived as willingly given. Evolutionarily speaking, feeling good about any aid received from others would function as added social glue that binds helper and recipient positively over time. Helping that is well received is more likely to be reciprocated. Additionally, to the extent that these processes occur, group norms would be shifted in a positive direction and in (p. 212) ways that are psychologically and functionally adaptive to all group members.

That the proximal satisfactions of prosociality generalize beyond one's immediate social groups is evident from many studies. Indeed, intrinsic satisfactions can even be derived in caring for nonhumans. For example Gagné (2003) demonstrated that autonomous volunteer work in an animal shelter positively affected the volunteers' well-being through the satisfaction of the basic psychological needs. Clearly, these intrinsic satisfactions of helping are not restricted to kin.

On a societal level, people focused on selfish, extrinsic goals can be costly. For example, Sheldon and McGregor (2000) conducted a "tragedy of the commons" experiment in which people were allowed to harvest in a game with scarce resources. Participants who on pregame measures were found to be more focused on extrinsic life goals such as money, fame, and image were also more likely to harvest more quickly in this simulation. Ultimately, however, groups with more extrinsically oriented players performed more poorly than those with players higher in intrinsic value orientations. Sheldon and McGregor suggested that *acquisitiveness*, a strong motive in the extrinsic group, led to faster resource depletion.

Does Harming Hurt?

Yet if we are indeed "built" to experience proximal need satisfactions from helping, what happens when we do the opposite—when we hurt others? Legate et al. (2013) reported results of experiments investigating this question. In the tradition of Milgram (1953), they asked participants in an experiment to inflict social pain by excluding another person whom they did not know. They found that although most people followed the instructions to exclude the other, they experienced compliance with this directive as distressing, as Milgram had also found. This greater distress was, in turn, fully mediated by diminished autonomy and relatedness. These negative reactions were strong—in fact, comparably negative to participants who were excluded in these studies. Such findings suggest that people do not typically derive satisfaction from acts that hurt others; instead exclusionary acts can be need frustrating. This is especially true when they have (as in these experiments) no "reason" to aggress on others—that is when the other has done nothing to threaten one's needs or one's internalized value system.

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

In fact, although some might argue that violence is intrinsically need satisfying or intrinsically motivated, SDT says it is neither. To illustrate this point, Przybylski, Rigby, and Ryan (2009) performed a series of experiments examining whether virtual violence was intrinsically motivating and, in that sense, yielded any inherent satisfactions. Results showed that the enjoyment of violent video games was accounted for not by the violent contents, per se, but rather by the opportunities for competence and autonomy experiences that such games afford. Thus the war, zombie, and alien-killing scenarios that often supply the narrative contexts for video games also present opportunities for challenge, strategic choices, and camaraderie that readily satisfy competence, autonomy, and relatedness needs. These satisfactions (rather than violence per se) fully accounted for the “fun” reported in the virtual violence.

Other research has shown that prosocial norms are more willingly followed than social exclusion norms. For example, Amiot, Sansfaçon, Louis, and Yelle (2011) applied SDT to intergroup behaviors, specifically to group norms concerning discrimination versus fairness or parity. They reported two studies that examined how group norms that were oriented more toward discrimination rather than parity were associated with less autonomy. Specifically they manipulated ingroup norms in favor of parity versus discrimination and then assessed whether the group members’ behaviors were consistent or inconsistent with the norm; they further assessed their motivations for engaging in the behavior. When the ingroup norm promoted was parity and fairness, members whose behavior was congruent with this norm reported more autonomous motives. Yet, echoing Legate et al.’s (2013) experiments discussed above, when the ingroup norm was discrimination, group members behaving in accord with this norm reported less autonomous and more controlled motivations.

Of course, this line of reasoning returns us to the more general *eudaimonic* stance of SDT (see, e.g., Besser-Jones, 2014; May, 2010; Ryan, Curren, & Deci, 2012), in which, as Aristotle (p. 213) argued, it is primarily the pursuit of human virtues and excellence that fosters sustained and authentic happiness. When living eudaimonically, one’s aim in altruistic or prosocial behaviors is not to get more happiness; rather, it just happens that happiness and satisfaction are a result of volitionally pursuing such ends. Aristotle, though obviously not employing ideas from modern psychology or evolutionary theory, expected this pattern of effects, because in his view eudaimonic living most accords with “human nature.”

This same set of ideas similarly helps to explain why intrinsic aspirations and goals tend to be experienced as more autonomously pursued than extrinsic ones, and to be associated with greater well-being (see T. Kasser, 2002; V. M. Kasser & Ryan, 1996; Sheldon, Ryan, Deci, & Kasser, 2004; Twenge, Gentile, DeWall, Ma, Lacefield, & Schurtz, 2010). That is, goals and aspirations that are more associated with prosocial behaviors (e.g., giving to one’s community, caring about others) yield more positive personal and interpersonal outcomes—including happiness and relationship satisfaction—than those associated with more selfish aims (e.g., to be wealthy or look great). Notably, these differential relations of aspirations to well-being are mediated by basic psychological

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

need satisfactions (e.g., Niemeic, Ryan, & Deci, 2009). This aspirations literature is therefore congruent with the eudaimonic model in highlighting that the pursuit and attainment of more intrinsically valued, prosocial goals satisfies needs for autonomy, competence, and relatedness, and accordingly fosters greater happiness and well-being.

It is important to reiterate that neither the conscious “aims” of individuals nor their underlying psychological motives need be identical to, or even aligned with, ultimate evolutionary mechanisms. That is, neither prosocial behavior nor psychological altruism need be explained by evolutionary altruism or similar models not currently embraced by the biological community (Hawley, 2014). Claims that “genetically selfish” behavior must be psychologically selfish are simply false (parenting behavior is a good example of the disconnection). Reproductive success has long been thought to be well served by prosocial behavior and psychologically altruistic orientations in cooperative (especially cooperatively breeding; de Waal, 2008) and communal living groups (Frank, 1988). Prosocial goals—even those that are altruistically motivated—are often recompensed by need satisfaction and a concomitant boost in well-being and social cohesion. In the end, such behaviors can enhance capacities to secure social and material resources, and ultimately, achieve reproductive success.

Evolutionary Grounding of Hypo-egoic Tendencies

The above framing of SDT dovetails with an increasing focus within both motivational and evolutionary psychologies, evolutionary economics, and anthropology on the robustness of human prosocial propensities. Very early models of evolution highlighted the intragroup competitive nature of natural selection, reflecting Darwin’s hypothesized “struggle for existence.” Helping others, or “the altruism question” was a puzzle in biology for decades. Why do individuals of many species come to the aid of others if existence is a struggle?

The ground-breaking formulation of inclusive fitness theory (Hamilton, 1964), also known as kin selection, provided the selective mechanism for aiding genetic relatives. “If a sister is concerned for the welfare of her brother, the sister’s self-interest can be thought of as including ... this concern for the welfare of her brother” (Axelrod & Hamilton, 1981, p. 7). Aid, one would predict, would be disproportionately directed toward those sharing genetic material, given that the cost of the helping is directly proportional to how related the individuals are.

An additional gene-centered view was proposed by Trivers (1971) in his seminal work on *reciprocal altruism*, which provided the natural selection mechanism among non-kin: the expectation that the favor would be returned such that benefits would be bestowed on the

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

actor in the long term. Here the term “altruism” is a misnomer, at least biologically. The biological definition of altruism requires a fitness cost on the part of the actor. In Trivers’s work, no fitness cost is proposed; in fact, these costs that are assumed to be recouped over time by returned favors may enhance reproductive fitness.

These gene-centered views were beautifully—albeit misleadingly—captured by Dawkins’s (p. 214) “selfish gene” metaphor. This metaphor led many to erroneously conclude that if genes are “selfish” (and costs recouped), so too must be the organisms themselves (e.g., see E. O. Wilson, 2012). For both kin selection and reciprocal altruism, no matter how genetically “selfish” these mechanisms are, *proximately* (i.e., psychologically) the term “altruism” may still be appropriate because phenomenally we are moved to aid others in part out of other-concern (and doing so leads to need satisfactions). Thus, herein lies a source of confusion; genetic selfishness need not entail psychological selfishness. For these reasons, reciprocal altruism has come to be referred to as direct reciprocity, and has weak, strong, and indirect versions (Hawley, 2014). Consequently, the term “altruism” has been more or less dropped by contemporary evolution scholars.

An additional evolutionary mechanism that has been proposed to account for the evolution of aid to nonrelated others is *group* or *multilevel selection* (Nowak, Tarnita, & Wilson, 2010; D. S. Wilson, 2003). Multilevel selection refers to a mechanism of evolution that confers benefit to an individual (or to an individual’s genes) indirectly through the advancement of the social group to which one belongs. One may engage in a behavior that is phenomenally or behaviorally altruistic, but the cost incurred is mitigated by the benefit enjoyed by the group, which includes oneself and presumably genetic relatives. In short, groups whose constituents more readily cooperated and altruistically exchanged aid could outreproduce those that did not.

A good deal of ink is being spilled in discussions and disagreements about the relative merits of these three proposed mechanisms, with multilevel selection being the new kid on the block. Yet for our purposes, we need not take a strong stand as to which mechanism best accounts for psychological altruism and the concomitant need satisfactions we have highlighted. The fact is that all three mechanisms converge on a common claim—namely, that prosocial behavior and altruism are evolutionarily instrumental due to the benefits they yield in the long term, be these benefits accrued through relatedness, reciprocity among social partners, or reciprocity at a higher-level group abstraction.

Together, these varied selection models point to the manifold adaptive advantages in people’s general proneness toward, and derivation of satisfaction from, internalizing social values and volitionally helping ingroup others. Indeed, such behaviors and satisfactions have often been observed in anthropological data from hunter-gatherer societies (Boehm, 2012; Diamond, 2012). Clearly, such positive prosocial attitudes and behaviors can be just as adaptive as competitive and aggressive styles so often characterized as examples of “fitness.” As Hawley (2014) suggested, given that fitness is enhanced by garnering social resources, in some social contexts resource garnering will

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

best be accomplished through agonistic strategies, whereas in others prosocial strategies will excel. Because individuals have evolved attributes and skills associated with both strategies, their differential expression will be moderated by contextual cues.

Such sensitivity to context can be readily demonstrated. For example, Weinstein et al. (2010) had individuals come to an experiment where they would play a game of “charades” with a stranger. Before playing, participants were primed using a semantic priming technique, in one condition with words associated with autonomy, in another with words associated with being socially controlled. Cameras then recorded the performance of the players for behavioral evidence of cohesiveness and connection. Those primed with autonomy words stood closer to each other, were more verbally encouraging and mirroring, and they reported more liking and closeness. They also performed better at this communicative game. Priming with concepts related to external or introjected control, in contrast, dampened participants’ cooperative social natures and the effectiveness of their interpersonal signaling.

So Why Are Humans Destructively Aggressive?

The capacities to be prosocial, to internalize humane values, and to care and connect with others, while clearly human potentials that bring satisfaction, are neither preordained nor reliably manifest. Humans can be selfish and cruel. On a daily basis people are attacked, mistreated, or murdered in all parts of the world. On a lesser scale, aggressive behaviors, from verbal assaults to “road rage,” to acts of meanness and bullying, harm individuals everywhere. Moreover, there are robust individual (p. 215) differences in propensities to be interpersonally aggressive, with thresholds for violence and reactivity much lower for some people than for others (Raine, 2013). Clearly, other-harming activities are within the human repertoire—they are part of our “natures.”

These observations thus lead us to turn to the issues of destructive aggression and the truly darker sides of human behavior. Yet before proceeding, some distinctions are needed. First, aggression is an umbrella concept that has many expressions and forms, many of which are valued and adaptive, and only some of which are truly antisocial or problematic. For example, aggression can be motivated by instrumental or self-protective motives rather than motivated by an inherent drive or by pleasure. Violence in defense of oneself and close others is thus not motivated by any need for, or satisfaction in, aggression per se, but rather by preservation or response to real or perceived provocations. Here aggression is a tool rather than an intrinsic motive. In addition, in situations of scarcity or deprivation, aggression deployed in efforts to garner resources is as aspect of self-protection preservation. These types of aggression, when judiciously and strategically employed, are not only proximally adaptive but also evolutionarily adaptive (Bjorklund & Hawley, 2013).

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

Instead our concern is the motives behind destructive aggression, defined as behavior aimed at hurting or harming others, independent of instrumental or self-protective concerns. Indeed, destructive aggression is not evenly distributed across populations, being strongly affected by economic, familial, and cultural factors. Thus, although there are rare cases of persons who are simply “born violent” (Raine, 2013), we suggest that destructive aggression on others is more typically due to factors of need thwarting. People can clearly become situationally aggressive when faced with proximal need threats, and show more generalized aggressive tendencies when needs are chronically frustrated, in part related to the impaired self-regulatory capacities that results from need-thwarting conditions.

Self-determination theory thus sees destructive aggression as typically either a result of controlled extrinsic motivations or motivational dysregulation (e.g., unregulated anger) rather than being autonomously motivated. Children who grow up in need-thwarting homes and cultural contexts are likely to be more antisocial and violent (Ryan et al., 2006). Persons who aggress for reasons other than self-protection have usually suffered significant need thwarting, and in more extreme cases of violent offenders, often truly heinous treatment at the hands of others (e.g., Goldberg, 2000). People who are prone to destructive aggression will be those driven by ego-involvement and easily shaken self-esteem, and those with stronger controlled causality orientations, as potentiating factors (see Ryan et al., 2012). More generally, destructive aggression reflects a failure of prosocial internalizations and thus is potentiated by the conditions of need thwarting we have argued accompany controlled motivational orientations (Vansteenkiste & Ryan, 2013). Finally, when people do aggress against, intentionally harm, or kill other humans, because aggression is not inherently palatable or capable of integration, they must in some way defensively rationalize or compartmentalize it. Specifically, they must dehumanize the victim and suppress awareness and empathy, and/or they must find a way to justify or legitimize it. Indeed, there is a significant relation between feeling controlled or thwarted and propensities to objectify, dehumanize, or sit in harsh judgment of others (see Moller & Deci, 2010; Vansteenkiste, Mouratidis, & Lens, 2010),

Supporting this view, the literature of developmental psychology is increasingly showing that children who develop greater aggressive tendencies and externalizing behavior problems have often come from backgrounds associated with controlling, often coercive, parenting (Ryan et al., 2006). For example, Shields, Ryan, and Cicchetti (2001) collected narratives from maltreated and nonmaltreated children aged 8 to 12, focused on family life, which they coded for representations of parents. Narratives that were more negative (e.g., those containing more instances of coercion and lower autonomy support) were associated with children being more aggressive (e.g., more starting of fights), disruptive, and peer rejected, as evidenced from observational data collected in a summer camp setting.

More recently, Joussemet and colleagues (2008) investigated SDT’s parental control hypothesis in a large-scale, multischool sample, in which trajectories of aggressive behavior were (p. 216) measured over several years. Although approximately 5% of

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

preschool children show strong and problematic aggressive tendencies, most develop away from these tendencies. Others escalate in their aggressive tendencies. Examining the trajectories of thousands of children to detect such trends, Joussemet et al. identified a number of risk factors for being aggressive—among them being male, having a reactive temperament, or having parents who are separated or divorced. Yet even after controlling for these factors, maternal controllingness (versus autonomy support) was a robust predictor of children remaining aggressive. Similarly, Miklikowska, Duriez, and Soenens (2011) looked at the development of empathy or lack thereof. Mirroring Joussemet et al.'s findings, they found in their longitudinal data that parents who were less supportive of their child's basic psychological needs had children with less emotional and cognitive empathy. In contrast need-supportive parenting was associated with greater empathy for others.

Roth, Kanat-Maymon, and Bibi (2010) extended this idea, examining how autonomy-supportive teaching was associated with bullying and aggression in school. They reasoned that teachers being more autonomy supportive in school would lead both to less student need frustration and greater internalization of considerateness toward peers, factors that would result in less frequent interpersonal aggression and bullying. They further predicted that the relations between teachers' autonomy-supportive styles and student bullying would be mediated by students' identification, or autonomous internalization, of the value of considerateness toward others. Testing junior high school students from Israel, they found support for these hypotheses and suggested that a climate of autonomy support can play an important role in the promotion of more civil behaviors in schools.

Another line of evidence concerning destructively aggressive behaviors grows out of the literature on *causality orientations*, which concerns people's general tendencies toward autonomy, control, or amotivation (Deci & Ryan, 1985a). Knee, Neighbors, and Vietor (2001), for example, examined aggressive driving behaviors, finding that drivers with strong controlled orientations reported more anger at other drivers, more aggressive driving behaviors, and more traffic tickets and citations. Goldstein and Iso-Ahola (2008) took interest in parent aggression at youth sporting events. They found that more parental anger and aggression was associated with controlled causality orientations. McHoskey (1999) reported that persons with controlled causality orientations, as well as those higher in extrinsic goal orientations, were higher on Machiavellian attitudes—including a willingness to manipulate or use others to accomplish their ends. Autonomy orientations were inversely associated with these outcomes. Duriez, Vansteenkiste, Soenens, and De Witte (2007) found that those endorsing extrinsic aspirations and goals were higher in right-wing authoritarian attitudes and in racial prejudice. Such studies suggest that thwarting of autonomy, either represented by controlling environments in development or as assessed through control orientations, are associated with more destructive, aggression-related outcomes. We suggest that this is because lack of autonomy support in development leads to poorer internalization and poorer regulation of

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

aggressive impulses, and less development of sensibilities and values supporting more empathic and compassionate behaviors (Ryan et al., 2006). In addition, situational need thwarting leads to frustrations that are often expressed in externalized hostile or aggressive acts.

Although the studies reviewed above largely concern autonomy, SDT suggests that the thwarting of any of the basic psychological needs can be a source of aggression. For example, Przybylski, Deci, Rigby, and Ryan (2014) examined how thwarting needs for competence can engender aggressive reactions following video game play. Across six studies using varied methods, they found that, independent of violent game contents, post-play aggression occurred to the degree that game controls or complexity thwarted players' need for competence. Other studies show that relatedness frustrations, especially stemming from social rejection, also can precipitate reactive aggression and anger. Indeed, Leary, Twenge, and Quinlivan (2006), after reviewing a substantial literature showing such effects across contexts, concluded that social rejection is among the most common precursors to antisocial and aggressive acts.

Although space constraints prohibit a thorough review of supporting evidence for each (p. 217) need, converging lines of evidence connect destructive aggression to psychological need-thwarting contexts. We suggest that such contexts potentiate aggression, whereas need supportive social and developmental contexts foster prosocial orientations. That we have evolved both prosocial and antisocial capacities is obvious. Less acknowledged is that these pro- and antisocial capacities are differentially potentiated as a function of ambient social contexts, and their provision of basic psychological need supports.

Implications of Our Divergent Natures

Clearly we have capacities to express divergent natures—peaceful or destructively aggressive, selfish or altruistic. The probabilities that these human natures will be manifest by any given individual are altered by contextual supports for basic need satisfactions: In conditions characterized by need support, people are more prone to exhibit prosocial and hypo-egoic attributes; in need-thwarting conditions one sees opposing results. We thus concur with Biglan and Cody (2013, p. S159), whose review of empirical evidence concluded, “virtually every behavioral and psychological problem becomes more likely amid non-nurturing environments.”

This formulation extends to the issue of socially endorsed violence as well. It is clearly true that many violent acts that are culturally sanctioned, and acts of so-called virtuous violence are common (Fiske & Rai, 2015). Yet the degree to which a cultural group embraces or rejects destructive aggression or more extreme uses of violence is itself conditional. Some cultural forms amplify insecurities and the salience of threat, for example, to enhance ingroup cohesion, consumerism, or competitiveness, among other

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

outcomes (T. Kasser, 2002; Wilkinson & Pickett, 2010). Some cultures control and suppress individuals, stifling autonomy and engendering defensiveness and displaceable hostility (e.g. Weinstein, W. Ryan, et al., 2012). Other cultures are oppressive to subgroups such as women and children, resulting in varied symptoms of ill-being for all. We thus see that cultures differ in the extent to which they are need thwarting, with resulting increases in hyper-egoic and aggressive behaviors. Economic, political, and religious elements can also exploit these more violent capacities in our natures. Still other societal elements alternatively try to expand the availability of psychologically nurturing environments, toward fostering more positive social outcomes and increased social tolerance and civility (Deci & Ryan, 2012; Phelps, 2013).

Noting this wide variation in the conditions of nurturance and support versus maltreatment and neglect faced by people across the globe, and noting as well the varied social outcomes associated with these differing conditions, we should thus be asking, Under what social conditions are people likely to evidence propensities to be “good”? What contexts support caring, empathy, and acting with morality and integrity? Conversely, what social conditions conduce to the internalization and enactment of greed, selfishness, or even evil?

By asking not what people are naturally like, but rather how people naturally respond to differing social and material conditions, we come closer to the model of human nature at the base of SDT (Ryan & Deci, 2000). It seems clear that humans, who have evolved to possess empathic and self-protective capacities, can be naturally prosocial (when nurtured) and naturally ego-involved and aggressive (when basic psychological needs are frustrated). In sum, the most fundamental question about hypo-egoic functioning is not whether people are good or bad but rather whether we have the intelligence to recognize that we have evolved capacities to support either type of behavior and to create social environments conducive to activating the better aspects of our natures.

References

- Amiot, C. Sansfaçon, S., Louis, W. R., & Yelle, M. (2011). Can intergroup behaviors be emitted out of self-determined reasons? Testing the role of group norms and behavioral congruence in the internalization of discrimination and parity behaviors. *Personality and Social Psychology Bulletin*, *38*, 63–76. doi: 10.1177/0146167211429804
- Axelrod, R., & Hamilton, W. D. (1981). The evolution of cooperation. *Science*, *211*, 1390–1396.
- 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*, 2045–2068.

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

Bargh, J. A. Free will is un-natural. In J. Baer, J. Kaufmann, & R. F. Baumeister, (Eds.), *Are we free?* (p. 218) *Psychology and free will* (pp. 128–154). New York, NY: Oxford University Press.

Baumeister, R., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497–529.

Besser-Jones, L. (2013). *Eudaimonic ethics*. New York, NY: Routledge.

Biglan, A., & Cody, C. (2013). Integrating the human sciences to evolve effective policies. *Journal of Economic Behavior and Organization*, *90*, S152–S162.

Biglan, A., Flay, B. R., Embry, D. D., & Sandler, I. N. (2012). The critical role of nurturing environments for promoting human well-being. *American Psychologist*, *67*, 257–271.

Bjorklund, D. F., & Hawley, P. H. (2014). Aggression grows up: Looking through an evolutionary developmental lens to understand the causes and consequences of human aggression. In Shakelford, T. K., & Hansen, R. D. (Eds.), *The evolution of violence* (pp. 159–186). New York, NY: Springer.

Bloom, P. (2013). *Just babies: The origins of good and evil*. New York, NY: Crown.

Boehm, C. (1999). *Hierarchy in the forest: Egalitarianism and the evolution of human altruism*. Cambridge, MA: Harvard University Press.

Boehm, C. (2012). *Moral origins: The evolution of virtue, altruism and shame*. New York, NY: Basic Books.

Caspi, A., McClay, J., Moffitt, T. E., Mill, J., Martin, J., Craig, I. W., Taylor, A., & Poulton, R. (2002). Role of genotype in the cycle of violence in maltreated children. *Science*, *297*(5582), 851–854.

Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. L., Van Der Kaap-Deeder, J. (2015). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motivation and Emotion*, *39*, 219–236. doi: 10.1007/s11031-014-9450-1

Cochran, G., & Harpending, H. (2009). *The 10,000 year explosion: How civilization accelerated human evolution*. New York, NY: Basic Books.

Dawkins, R. (1989). *The selfish gene*. New York, NY: Oxford University Press.

De Charms, R. (1968). *Personal causation*. New York, NY: Academic Press.

Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin*, *125*, 627–668.

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

Deci, E. L., & Ryan, R. M. (1985a). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality, 19*, 109–134.

Deci, E. L., & Ryan, R. M. (1985b). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum.

Deci, E. L., & Ryan, R. M. (2000). The “what” and the “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*, 227–268.

Deci, E. L., & Ryan, R. M. (2012). Motivation, personality, and development within embedded social contexts: An overview of self-determination theory. In R. M. Ryan (Ed.), *Oxford handbook of human motivation* (pp. 85–107). Oxford, England: Oxford University Press.

De Waal, F. B. (2008). Putting the altruism back into altruism: The evolution of empathy. *Annual Review of Psychology, 59*, 279–300.

De Waal, F. (2009). *Primates and philosophers: How morality evolved*. Princeton, NJ: Princeton University Press.

Diamond, J. (2012). *The world until yesterday*. New York, NY: Penguin Books.

Di Domenico, S. I., Fournier, M. A., Hasan, A., & Ruocco, A. C. (2013). In search of integrative processes: Basic psychological need satisfaction predicts medial prefrontal activation during decisional conflict. *Journal of Experimental Psychology: General, 142*, 967–978.

Duriez, B., Vansteenkiste, M., Soenens, B., & De Witte, H. (2007). The social costs of extrinsic relative to intrinsic goal pursuits: Their relation with social dominance and racial and ethnic prejudice. *Journal of Personality, 75*, 757–782.

Ellis, B. J., Del Giudice, M., Dishion, T. J., Figueredo, A. J., Gray, P., Giskevicius, V., ... Wilson, D. S. (2012). The evolutionary basis of risky adolescent behavior: Implications for science, policy, and practice. *Developmental Psychology, 48*, 598–623.

Fiske, A. P., & Rai, T. S. (2015). *Virtuous violence*. Cambridge, UK: Cambridge University Press.

Frank, R. H. (1988). *Passions within reason: The strategic role of the emotions*. New York, NY: Norton.

Gagné, M. (2003). The role of autonomy support and autonomy orientation in prosocial behavior engagement. *Motivation and Emotion, 27*, 199–223.

Goldberg, C. (2000). *The evil we do: The psychoanalysis of destructive people*. Amherst, NY: Prometheus.

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

Goldstein, J. D., & Iso-Ahola, S. E. (2008). Determinants of parents' sideline-rage emotions and behaviors at youth soccer games. *Journal of Applied Social Psychology, 38*, 1442-1462.

Gonzalez, M. G. Swanson, D. P., Lynch, M., & Williams, G. C. (2014). Testing satisfaction of basic needs as a mediator of the relationship between socioeconomic status and physical health. *Journal of Health Psychology*. [Epub ahead of print.] doi 10.1177/13591053145433962

Iyenger, S. S., & Devoe, S. E., (2003). Rethinking the value of choice: Considering cultural mediators of intrinsic motivation. *Nebraska Symposium on Motivation, 49*, 129-174.

Hamilton, W. D. (1964). The genetical evolution of social behavior: I, II. *Journal of Theoretical Biology, 7*, 1-52.

(p. 219) Hawley, P. H. (1999). The ontogenesis of social dominance: A strategy-based evolutionary perspective. *Developmental Review, 19*, 97-132.

Hawley, P. H. (2007). Social dominance in childhood and adolescence: Why social competence and aggression may go hand in hand. In P. H. Hawley, T. D. Little, & P. Rodkin (Eds.), *Aggression and adaptation: The bright side to bad behavior* (pp. 1-29). Hillsdale, NJ: Erlbaum.

Hawley, P. H. (2011). The evolution of adolescence and the adolescence of evolution: The coming of age of humans and the theory about the forces that made them. *Journal of Research on Adolescence, 21*, 307-316.

Hawley, P. H. (2014). Evolution, prosocial behavior, and altruism: A roadmap for understanding where the proximate meets the ultimate. In L. Padilla-Walker & G. Carlo (Eds), *Prosocial development: A multidimensional approach* (pp. 43-69). New York, NY: Oxford University Press.

Homans, G. C. (1958). Social behavior as exchange. *American Journal of Sociology, 63*, 597-606.

Jang, H., Reeve, J., Ryan, R. M., & Kim, A. (2009). Can self-determination theory explain what underlies the productive, satisfying learning experiences of collectivistically-oriented Korean students? *Journal of Educational Psychology, 101*, 644-661.

Joussemet, M., Vitaro, F., Barker, E. D., Cote, S., Nagin, D., Zoccolillo, M., & Tremblay, R. E. (2008). Controlling parenting and physical aggression during elementary school. *Child Development, 79*, 411-425.

Kasser, T. (2002). *The high cost of materialism*. Boston, MA: MIT Press.

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

- Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin*, *22*, 280-287.
- Kasser, T., Ryan, R. M., Zax, M., & Sameroff, A. J. (1995). The relations of maternal and social environments to late adolescents' materialistic and prosocial values. *Developmental Psychology*, *31*, 907-914.
- Kasser, V. M., & Ryan, R. M. (1999). The relation of psychological needs for autonomy and relatedness to health, vitality, well-being and mortality in a nursing home. *Journal of Applied Social Psychology*, *29*, 935-954.
- Knee, C. R., Neighbors, C., & Vietor, N. (2001). Self-determination theory as a framework for understanding road rage. *Journal of Applied Social Psychology*, *31*, 889-904.
- Leary, M. R., Twenge, J. M., & Quinlivan, E. (2006). Interpersonal rejection as a determinant of anger. *Personality and Social Psychology Review*, *10*, 111-132.
- Legate, N., De Haan, C. R., Weinstein, N., & Ryan, R. M. (2013). Hurting you hurts me too: The psychological costs of complying with ostracism. *Psychological Science*, *34*(4), 583-588. doi:10.1177/0956797612457951
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion and motivation. *Psychological Review*, *98*, 224-253.
- May, H. (2010). *Aristotle's ethics: Moral development and human nature*. London: Continuum.
- McHoskey, J. W. (1999). Machiavellianism, intrinsic versus extrinsic goals, and social interest: A self-determination theory analysis. *Motivation and Emotion*, *23*, 267-283.
- Miklikowska, M., Duriez, B., & Soenens, B. (2011). Family roots of empathy-related characteristics: The role of perceived maternal and paternal need support in adolescence. *Developmental Psychology*, *47*, 1342-1352.
- Moller, A. C., & Deci, E. L. (2010). Interpersonal control, dehumanization and violence: A self-determination theory perspective. *Group Processes and Intergroup Relations*, *13*, 41-53.
- Ng, Y., Ntoumanis, N., Thøgersen-Ntoumani, C., Deci, E. L., Ryan, R. M., Duda, J., & Williams, G. C. (2012). Self-determination theory applied to health contexts: A meta-analysis. *Perspectives on Psychological Science*, *7*(4), 325-340. doi:10.1177/1745691612447309
- Niemiec, C. P., Ryan, R. M., & Brown, K. W. (2008). The role of awareness and autonomy in quieting the ego: A self-determination theory perspective. In H. A. Wayment & J. J.

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

Bauer (Eds.), *Transcending self-interest: Psychological explorations of the quiet ego* (pp. 107–116). Washington, DC: American Psychological Association.

Niemiec, C. P., Ryan, R. M., & Deci, E. L. (2009). The path taken: Consequences of attaining intrinsic and extrinsic aspirations in post-college life. *Journal of Research in Personality, 43*, 291–306.

Nowak, M. A., Tarnita, C. E., & Wilson, E. O. (2010). The evolution of eusociality. *Nature, 466*, 1057–1062.

Phelps, E. (2013). *Mass flourishing*. Princeton, NJ: Princeton University Press.

Przybylski, A. K., Deci, E. L., Rigby, C. S., & Ryan, R. M., (2014). Competence-impeding electronic games and players' aggressive feelings, thoughts, and behaviors. *Journal of Personality and Social Psychology, 106*, 441–457. doi: 10.1037/a0034820.

Przybylski, A. K., Ryan, R. M., & Rigby, C. S. (2009). The motivating role of violence in video games. *Personality and Social Psychology Bulletin, 35*, 243–259.

Raine, A. (2013). *The anatomy of violence*. New York, NY: Vintage.

Roth, G. Kanat-Maymon, Y., & Bibi, U. (2010). Prevention of school bullying: The important role of autonomy-supportive teaching and internalization of pro-social values. *British Journal of Educational Psychology, 81*, 654–666. doi:10.1348/2044-8279.002003

(p. 220) Ryan, R. M., Bernstein, J. H., & Brown, K. W. (2010). Weekends, work, and wellbeing: Psychological need satisfactions and day of the week effects on mood, vitality, and physical symptoms. *Journal of Social and Clinical Psychology, 29*, 95–122. doi: 10.1521/jscp.2010.29.1.95

Ryan, R. M., Curren, R. R., & Deci, E. L. (2013). What humans need: Flourishing in Aristotelian philosophy and self-determination theory. In A. S. Waterman (Ed.), *The best within us: Positive psychology perspectives on eudaimonic functioning* (pp. 57–75). Washington DC: APA Books.

Ryan, R. M., & Deci, E. L. (1985). The “Third Selective Paradigm” and the role of human motivation in cultural and biological selection: A response to Csikszentmihalyi and Massimini. *New Ideas in Psychology, 3*, 259–264.

Ryan, R. M., & Deci, E. L. (2000). The darker and brighter sides of human existence: Basic psychological needs as a unifying concept. *Psychological Inquiry, 11*, 319–338.

Ryan, R. M., & Deci, E. L. (2001). To be happy or to be self-fulfilled: A review of research on hedonic and eudaimonic well-being. In S. Fiske (Ed.), *Annual review of psychology* (Vol. 52; pp. 141–166). Palo Alto, CA: Annual Reviews.

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

Ryan, R. M., Deci, E. L., Grolnick, W. S., & LaGuardia, J. G. (2006). The significance of autonomy and autonomy support in psychological development and psychopathology. In D. Cicchetti & D. Cohen (Eds.), *Developmental psychopathology: Volume 1. Theory and methods* (2nd ed., pp. 295-849). New York, NY: Wiley.

Ryan, R. M., Legate, N., Niemiec, C. P., & Deci, E. L. (2012). Beyond illusions and defense: Exploring the possibilities and limits of human autonomy and responsibility through self-determination theory. In Shaver, P. R., & Mikulincer, M. (Eds.) *Meaning, mortality, and choice* (pp. 215-233). Washington, DC: APA Books.

Ryan, R. M., & Rigby, C. S. (2015). Did the Buddha have a self? No-self, self and mindfulness in Buddhist thought and western psychologies. In K. W. Brown, R. M. Ryan, & J. D. Creswell (Eds.), *Handbook of mindfulness: Research, theory and practice* (pp. 245-265). New York, NY: Guilford Press.

Sheldon, K. M., & McGregor, H. A. (2000). Extrinsic value orientation and "the tragedy of the commons." *Journal of Personality*, *68*, 383-411.

Sheldon, K. M., Ryan, R. M., Deci, E. L., & Kasser, T. (2004). The independent effects of goal contents and motives on well-being: It's both what you pursue and why you pursue it. *Personality and Social Psychology Bulletin*, *30*, 475-486.

Shields, A., Ryan, R. M., & Cicchetti, D. (2001). Narrative representations of caregivers and emotion dysregulation as predictors of maltreated children's rejection by peers. *Developmental Psychology*, *37*, 321-337.

Staub, E. (2005). The roots of goodness: The fulfillment of basic human needs and the development of caring, helping and nonaggression, inclusive caring, moral courage, active bystandership, and altruism born of suffering. *Nebraska Symposium on Motivation*, *51*, 33-72.

Stump, K. N., Ratliff, J. M., Wu, Y. P., & Hawley, P. H. (2009). Theories of social competence from the top-down to the bottom-up: A case for considering foundational human needs. In J. L. Matson (Ed.), *Practitioners guide to social behavior and social skills in children* (pp. 23-37). New York, NY: Springer.

Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. Oxford, England: Wiley.

Tooby, J., & Cosmides, L. (1992). The psychological foundations of culture. In J. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind*. New York, NY: Oxford University Press.

Trivers, R. L. (1971). The evolution of reciprocal altruism. *Quarterly Review of Biology*, *46*, 35-57.

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

- Twenge, J., Gentile, B., DeWall, C. N., Ma, D., Lacefield, K., & Schurtz, D. R. (2010). Birth cohort increases in psychopathology among young Americans, 1938–2007: A cross-temporal meta-analysis of the MMPI. *Clinical Psychology Review, 30*, 145–154.
- van Honk, J., Harmon-Jones, E., Morgan, B. E., & Schutter, D. J. (2010). Socially explosive minds: The Triple imbalance hypothesis of reactive aggression. *Journal of Personality, 78*(1), 67–94. doi: 10.1111/j.1467-6494.2009.00609.x
- Vansteenkiste, M., Mouratidis, A., & Lens, W. (2010). Detaching reasons from aims: Fair play and well-being in soccer as a function of pursuing approach goals for autonomous or controlled reasons. *Journal of Sport and Exercise Psychology, 32*, 217–242.
- Vansteenkiste, M., & Ryan, R. M. (2013). On psychological growth and vulnerability: Basic psychological need satisfaction and need frustration as a unifying principle. *Journal of Psychotherapy Integration, 23*, 263–280. doi: 10.1037/a0032359
- Waller, B. N. (1998). *The natural selection of autonomy*. Albany, NY: SUNY Press.
- Warneken, F., & Tomasello, M. (2008). Extrinsic rewards undermine altruistic tendencies in 20-month-olds. *Developmental Psychology, 44*, 1785–1788.
- Weinstein, N., Hodgins, H. S., & Ryan, R. M. (2010). Autonomy and control in dyads: Effects on interaction quality and joint creative performance. *Personality and Social Psychology Bulletin, 36*, 1603–1617.
- 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*, 222–244.
- (p. 221) Weinstein, N., Ryan, W. S., DeHaan, C. R., Przybylski, A. K., Legate, N., & Ryan, R. M. (2012). Parental autonomy support and discrepancies between implicit and explicit sexual identities: Dynamics of self-acceptance and defense. *Journal of Personality and Social Psychology, 102*, 815–832.
- Whipple, N., Bernier, A., & Mageau, G. A. (2011). Broadening the study of infant security of attachment: Maternal autonomy-support in the context of infant exploration. *Social Development, 20*(1), 17–32. doi: 10.1111/j.1467-9507.2010.00574.x
- White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review, 66*, 297–333.
- Wilkinson, R., & Pickett, K. (2009). *The spirit level: Why equality is better for everyone*. London: Penguin.
- Wilson, D. S. (2003). *Darwin's cathedral: Evolution, religion, and the nature of society*. Chicago, IL: University of Chicago Press.
- Wilson, E. O. (2012). *The social conquest of earth*. London: Norton. (p. 222)

Naturally Good?: Basic Psychological Needs and the Proximal and Evolutionary Bases of Human Benevolence

Richard M. Ryan

Richard M. Ryan, Department of Clinical and Social Sciences in Psychology,
University of Rochester

Patricia H. Hawley

Texas Tech University

