

RICHARD M. RYAN, VERONIKA HUTA and EDWARD L. DECI

LIVING WELL: A SELF-DETERMINATION THEORY PERSPECTIVE ON EUDAIMONIA

ABSTRACT. This article distinguishes between hedonic and eudaimonic approaches to wellness, with the former focusing on the outcome of happiness or pleasure and the latter focusing not so much on outcomes as on the process of living well. We present a model of eudaimonia that is based in self-determination theory, arguing that eudaimonic living can be characterized in terms of four motivational concepts: (1) pursuing intrinsic goals and values for their own sake, including personal growth, relationships, community, and health, rather than extrinsic goals and values, such as wealth, fame, image, and power; (2) behaving in autonomous, volitional, or consensual ways, rather than heteronomous or controlled ways; (3) being mindful and acting with a sense of awareness; and (4) behaving in ways that satisfy basic psychological needs for competence, relatedness, and autonomy. In fact, we theorize that the first three of these aspects of eudaimonic living have their positive effects of psychological and physical wellness because they facilitate satisfaction of these basic, universal psychological needs. Studies indicate that people high in eudaimonic living tend to behave in more prosocial ways, thus benefiting the collective as well as themselves, and that conditions both within the family and in society more generally contribute toward strengthening versus diminishing the degree to which people live eudaimonic lives.

KEY WORDS: autonomy, awareness, happiness, intrinsic aspirations, mindfulness, self-determination theory, the good life, wellness.

In both traditional and current views hedonia and eudaimonia are often juxtaposed as opposing perspectives on human wellness. The hedonic approach defines well-being as happiness, interpreted as the occurrence of positive affect and the absence of negative affect (Kahneman et al., 1999). Hedonistic psychology therefore has a clear and measurable target for research, which is one of its major advantages as a focus for a science of well-being. In contrast, the concept of eudaimonia, generally

defined as living a complete human life, or the realization of valued human potentials (Ryan and Deci, 2001) has been used in more varied ways, and assessments of eudaimonia have been multiple and not always well coordinated. In short there is a notable imbalance in the exactingness with which hedonic and eudaimonic well-being researchers have specified their targets.

Our principal aim is to articulate a framework for the general study of eudaimonia, and to introduce a specific working model of eudaimonia derived from self-determination theory (SDT; Deci and Ryan, 1985; Ryan and Deci, 2000), with elements that are amenable to empirically based testing and elaboration. Because eudaimonia refers to living well, any theory of eudaimonia consists of a set of prescriptions and proscriptions. How well the theory fares in terms of yielding a high quality life is thus an empirical question. In other words, the criteria for judging a theory of eudaimonia rest in its ability to predict, and when implemented, bring about, outcomes that people value deeply and that can be said to represent wellness. In this way, the proposed framework is also intended to connect with the existing bodies of research on values, motives, well-being, and quality of life.

A central premise of our thesis is that hedonic versus eudaimonic psychologies do not in principle constitute a debate about what well-being “feels like” or what “happiness,” considered as a state of mind, entails. Rather, eudaimonic conceptions focus on the *content* of one’s life, and the *processes* involved in living well, whereas hedonic conceptions of well-being focus on a specific *outcome*, namely the attainment of positive affect and an absence of pain. Thus, in our view, hedonic and eudaimonic perspectives are not distinct because they conceive of different types of well-being states or outcomes but rather because they have altogether different targets. The foci of eudaimonic research are to specify what living well entails and to identify the expected consequences of such living. These consequences may include hedonic satisfactions, but typically eudaimonic theorists have been especially interested in other outcomes indicative of a good life, such as vitality, intimacy, health, and sense of meaning, among others.

By contrast, the focus of hedonic research is on a valued but delimited state, namely pleasure. Although pleasure is often

demeaned as an important human outcome, it is in our view a very significant one. Pleasure and positive affect are important human experiences not only because they represent intrinsically preferred states, but also because they can facilitate and support other human functions (Isen, 2003; King et al., 2006). Moreover, it is clear that pleasure, psychological health, and optimal functioning are inter-correlated.

Accordingly, from our perspective, positive affect and pleasure are both correlates and consequences of living well – of eudaimonia. That is, a person who engages in meaningful endeavors, actualizes potentials, and is “fully functioning” – all characteristics frequently mentioned as hallmarks of eudaimonia – will typically experience considerable happiness and pleasure (Ryan and Deci, 2001). Yet antecedents of pleasure can also include goals and lifestyles antithetical to most eudaimonic conceptions, such as living a life of shallow values, greed, or exploitation of others. There are, in short, multiple routes to pleasure, not all of which entail living eudaimonically. The hedonic/eudaimonic distinction is thus neither a trivial nor a simple one.

Defining health and wellness is not only of theoretical interest to researchers but also has substantial applied significance. If one aims to develop interventions one has to know what the target is. In the past, both psychological and medical researchers have often done this negatively – seeing health and wellness as the absence of disease or psychopathology. In the context of modern positive psychology, both hedonic and eudaimonic conceptions of wellness have gained salience, but each may lead to a different set of prescriptions (Ryan and Deci, 2001; Maddux, 2002).

Because it can be so variously produced, we suggest that a focus on hedonic outcomes cannot by itself reliably lead to either individual or collective well-being. Indeed, in the view we shall propose, the more directly one aims to maximize pleasure and avoid pain the more likely one is to produce instead a life bereft of depth, meaning, and community. Prescriptions based on maximizing pleasure are too often associated with dead-end routes to wellness such as selfishness, materialism, objectified sexuality, and ecological destructiveness, thus demonstrating

how easily a map derived from hedonic thinking can mislead. By contrast, specification of eudaimonic living might not only be of value as a guide to a more complete and meaningful life; it should also yield more stable and enduring hedonic happiness (Huta and Ryan, 2006).

The distinction between eudaimonia and hedonia is also significant on a broader societal level. Whether one is making comparative national health assessments or actually creating social and economic policies, the kind of good life we are targeting makes a difference. Numerous authors have pointed out that a focus on hedonic happiness is by no means culturally neutral; it is both presupposed by and a reflection of individualistic, market-based economics (e.g., Ferguson, 1990; Christopher, 1999; Kasser et al., in press). Focusing instead on broader eudaimonic outcomes may suggest important alternative routes to individual and societal wellness and may play a critical function with respect to economic and social policies.

We begin by briefly reviewing the concept of eudaimonia as formulated by Aristotle, who introduced this seminal idea. We then propose an SDT-based framework for eudaimonia that focuses on intrinsic goals, autonomy, basic psychological need satisfactions, and the connections of these processes with both hedonic phenomena and other, more eudaimonic indicators of well-being. We will also review some of the empirical evidence that supports SDT and its eudaimonic conception.

ARISTOTLE'S CONCEPTION OF EUDAIMONIA

The eudaimonic tradition in well-being studies derives from Aristotle's philosophy of happiness, especially as articulated within his *Nicomachian Ethics* (translated by Broadie and Rowe, 2002). Therein he sets out a definition of human happiness that is centered on what it means to live a good life, a life representing human excellence. Yet, by beginning with Aristotle we do not suggest that his formulation of eudaimonia is fully definitive. Aristotle had his own historically and culturally shaped ideas of human excellences and the processes of obtaining them that in no way should be taken as the "final word." Indeed,

some of his emphases concerning optimal human living match ours, and others do not. Moreover, whereas Aristotle's approach was wholly deductive, our intent is to use a scientific approach that inherently entails openness to what the data tell us about eudaimonia. Nonetheless, insofar as Aristotle supplied the starting point for this school of thinking, his approach merits consideration.

Eudaimonia Defined

In Aristotle's view eudaimonia is the chief human good. He defined eudaimonia as a character of persons that entails living in accordance with reason and moderation, and aiming toward excellence and the realization of a complete human life. This summary definition is quite complex, and has been variously interpreted. Herein we highlight some of its essential features.

Feeling Good Versus Living Well

Most importantly, Aristotle distinguished between happiness as experiencing pleasure (i.e., hedonia) versus happiness as living well (i.e., eudaimonia). Broadie and Rowe (2002), in commenting on the *Nicomachian Ethics* state that even Aristotle's use of the word *eudaimonia* implies this distinction. They suggested that an ancient Greek citizen, knowing that someone was in a state of pleasure, would not on that account apply the term eudaimonia to him or her. Eudaimonia is not a "feeling", it is instead a description of character: it is an adjective suggesting an exemplary life. As they stated it: "gluttons smacking greasy lips are happy, but not *eudaimones*. By contrast, to ascribe eudaimonia is to honor the recipient" (p. 12). Such a person has qualities that characterize an excellent human life, whether or not he or she happens to "feel good." Eudaimonia is thus not conceived of as a mental state, a positive feeling, or a cognitive appraisal of satisfaction, but rather as a way of living.

Living Well Means Pursuing the Right Ends

For Aristotle eudaimonic living requires engaging one's best human capacities by actively pursuing virtues and excellences. In this view, as people pursue excellence they are actualizing their most authentic or highest natures (daimon), though not

their only natures. Moreover, Aristotle suggested that the pursuit of these excellences is an intrinsically worthy endeavor. It is an end in itself. In contrast, he was particularly critical of the pursuit of wealth or power, because these are ends without inherent value. As he stated it: “wealth is clearly not the good we are looking for, since it is useful, and for the sake of something else” (p. 98). Thus, whereas wealth and power have extrinsic value, the pursuit of human excellences and virtue is intrinsically valued. He went on to suggest that such elevation of means, whether they be power, influence, or material goods, compromises and distracts from eudaimonic living. Aristotle similarly debated whether the pursuit of pleasure per se can be eudaimonic, because pleasure can at times be an end in itself. Yet it became clear that, in his view, it is usually not. Pleasure seeking typically stalls the pursuit of human excellences, reducing individuals to no better than “grazing cattle.”

So what ends does the eudaimonic person specifically pursue? Aristotle’s model of eudaimonia included a list of specific virtues and excellences that constitute a good life, each of which he defends with extensive arguments. The list includes attributes such as courage, generosity, wisdom, and being fair and just in relation to others. Without doubt, his list contained important human goods, but what attributes it ought to include or exclude is certainly open to debate.

Eudaimonia Entails Reflectiveness and Reason

Aristotle explicitly argued that in pursuing the excellent life the eudaimonic person is continuously engaged in reflectivity and deliberation concerning his or her actions and aims. A reflective life, characterized by deliberation and reason, is thus one that both facilitates the development of human excellence and is, he believed, an end in itself that expresses uniquely human capacities. Indeed, for Aristotle, the contemplative or reflective life was considered the most eudaimonic, expressing as it does a uniquely human attribute of the highest intrinsic worth. Philosophically, Aristotle’s view represents a self-affirming stance, that would resonate for psychologists such as us who value self-knowledge and awareness.

For Aristotle, application of reason and reflection included seeing what is true and not being self-deceived. As he stated it,

“what most distinguishes the good person is his ability to see what is true in every set of circumstances...but most people are deceived, and the deception seems to come about because of pleasure; for it appears a good thing when it is not. So they choose what is pleasant as something good, and they avoid pain as something bad” (p. 129).

He was suggesting that a focus on pleasure and pain, rewards and punishments, can lead people to biased insights, or avoidance of truths, because they bend their perceptions for hedonic purposes.

Eudaimonia is Based on Volition and Reflects the Self

We cannot deem a person eudaimonic except insofar as we attribute his or her seeking of excellence and virtues to the person's own volition. As Aristotle put it, the excellences “depend on us and are voluntary” (p. 132). Their pursuit is actively chosen. Thus, external coercion and ignorance were both considered obstacles to voluntary action through which the excellences are pursued. Waterman (1993) highlighted this in his characterization of eudaimonia as *personal expressiveness*.

To summarize, the Aristotelian view of eudaimonia considers well-being not as a state of pleasure versus pain, but as living well. As he put it, “the happy man both lives well and does well” (p. 103). Living well entails actively and explicitly striving for what is truly worthwhile and is of inherent or intrinsic human worth, and it contrasts with the pursuit of crass endeavors such as materialism or pleasure seeking that pull one away from virtues. Eudaimonia is characterized by reflectiveness and reason. Finally, eudaimonic pursuits are voluntary, and are expressions of the self rather than products of external control or ignorance. Together, Aristotle's eudaimonia is thus characterized as living well, and entails being actively engaged in excellent activity, reflectively making decisions, and behaving voluntarily toward ends that represent the realization of our highest human natures.

SELF-DETERMINATION THEORY: A BRIEF OVERVIEW OF ITS DEVELOPMENT

As already stated, we began with Aristotle's view because he was the originator of the eudaimonic tradition. We culled some of the reasons why he was compelled to distinguish eudaimonic happiness from hedonic happiness, and to denigrate the later. In addition, we highlighted aspects of his conception of living well that entailed pursuit or actualization of intrinsic human excellences, accomplished through mindful reflection and volition.

Many of these elements in Aristotle's conception of eudaimonia are at the core of self-determination theory's (SDT's) conceptions of wellness. SDT began with a focus on *intrinsic motivation*, or the pursuit of an activity because of its inherent interest and enjoyability (e.g., Deci and Ryan, 1980). In this research the role of rewards, the importance of competence, and the central role of autonomy in motivation became topics of study. We then shifted attention to *extrinsically motivated* activities, those that are instrumental rather than inherently enjoyable, and to how they are adopted and enacted. We demonstrated that whereas many such activities are regulated by external or introjected controls, others are assimilated and integrated as personal values, and thus are more autonomously pursued. The relative autonomy of extrinsic goals in turn has strong predictive relations for human performance, persistence, and well-being outcomes. The process of *internalization*, through which external regulations and values become integrated to the self, thus became a central focus of SDT (Deci and Ryan, 1985; Ryan and Connell, 1989).

As we studied intrinsic motivation and internalization processes and their determinants and consequences, it became increasingly clear that there are some necessary conditions for each to flourish, and moreover that these conditions were universally associated with personal and relational well-being. Thus SDT articulated a theory of *basic psychological needs* that are the foundations of personal growth (as manifest in intrinsic motivation), integrity (as manifest in integrative processes), and well-being (Ryan, 1995; Deci and Ryan, 2000). Building on this

basic needs theory, SDT research began to distinguish the types of goals and aspirations people pursue in terms of their relation to both basic needs and well-being outcomes (e.g., Kasser and Ryan, 1996). Intrinsic aspirations, such as those for personal growth, deep relationships, and generativity, were empirically distinguished from extrinsic aspirations, such as those for wealth, fame, or image, and shown to have differential relations with psychological and physical wellness, and distinct social antecedents. Most recently, as we explore the impact of varied life goals, need satisfaction, and the social contexts that engender volition and vitality, the central role of mindfulness and awareness in volition and goal adoption has become a salient concern (Brown and Ryan, 2003).

Throughout there has also been a practical or applied bent to SDT, stemming from the aim of identifying the factors that facilitate versus thwart motivation and wellness in development in general, and in specific domains such as work, education, sport, parenting, and clinical care.

This brief schematic of developments within SDT thus points to the scope of the theory, and underscores why we can only superficially review elements of the theory in this paper. More importantly it suggests how extensively the foci of SDT research overlap with the themes that occupied Aristotle in his writings on eudaimonia. Our interests in intrinsic versus extrinsic life goals, the basic and universal human needs underlying wellness, the critical role of reflection and awareness, and the centrality of volition all exemplify obvious points of convergence. Thus, we will not review the details of SDT or the empirical findings supporting it. Instead, our aim is to specify a formal model of eudaimonia that builds on our prior work, and to articulate some testable and expandable ideas for future eudaimonic assessments and studies.

TOWARD A FORMAL THEORY OF EUDAIMONIA

As we stated at the outset, we conceive of eudaimonia as referring to *a way of living*, not to a psychological state or outcome. Specifically, it is a *way of living that is focused on what is intrinsically worthwhile to human beings*. In stating this we are

making a broad claim that there are intrinsic values built into human nature and that these values are universal (Deci and Ryan, 2000). Within our formal theory of eudaimonia we specify at least some of these intrinsic values, and at the same time we argue that the list is not in any way closed. In fact, because we argue that intrinsic values have specific attributes and consequences, there may be additional values that can be empirically identified or that fit with the criteria we lay out.

Eudaimonia and the Pursuit of First-order Outcomes

The concept of intrinsic worth means more than simply that the values in question are inherent or natural to humans. There are, for example, inherent and natural attributes in humans that do not represent intrinsic values. For example it is “natural” to respond to threats with aggression or fear, but aggression and fear are not intrinsically valued. People value these capacities not for their inherent value, but because they can help us survive. Thus, life and survival are inherently valued, but aggression is not. Thus, another attribute of an intrinsic value is that it is a *first-order value* defined as: (1) a value not reducible to other values, and (2) a value that does not exist for the sake of another value. It must be a basic value in its own right.

We illustrate this with an example. First, consider the value of wealth. If we asked a person, “Why are you working so hard?” one common answer might be, “To accumulate money or wealth.” If we then asked, “Why do you want wealth?” there again might be various answers. One might be, “because I want to be admired.” We would then need to ask, “Why do you want to be admired?” Again, various answers might emerge, because so far we have not reached a “bottom line.” But suppose the person answers, “because I want to feel loved.” When we get to this answer we can try again, asking “Why do you want to be loved?” But here our interviewee will likely be puzzled. When it comes to love, we seem to have hit an irreducible. Our subject might say: “I don’t know what you mean, everyone wants love;” or “Because love is good.” This is not to say that some evolutionary theorists might not see love as instrumental to adaptation, or some health specialists might argue that love promotes immunological responsiveness. But at a fundamental

psychological level, love is irreducible. It is a good that explains itself. It is a first-order value.

Eudaimonia is therefore a way of living in which intrinsic values predominate in the sense that people are focused on what has inherent worth and on the goals that are by nature first order. We therefore can distinguish a eudaimonic lifestyle from a non-eudaimonic one by the degree to which people's energies and interests are focused on intrinsic values versus second- or third-order values and/or goals whose value is either derivative or unclear.

Indeed, it follows from the above that most second and third-order values will be associated with extrinsic aspirations. The concept of extrinsic has twofold implications in this context: (1) the aspirations will often be instrumental, having their salience because there is something more basic that they serve, even though the person may not be conscious of the connection, and (2) they are goals without inherent value in their own right. In addition, many extrinsic goals (though not all) are not inherent in human nature but are acquired. Thus a woman stock trader may have wealth and power as primary foci without realizing that they are derivative. For example, she may be unaware that the hyper-desire for power is actually driven by a need for autonomy that was thwarted at an earlier age, or that her desire for wealth is driven by a need for love or regard that was similarly not well satisfied. Instead, these motives represent need substitutes based in underlying intrinsic needs that were thwarted (Deci, 1980). Put differently, a non-eudaimonic lifestyle is often one in which an individual becomes preoccupied with second and third-order values or motives that are derivative and now disconnected from intrinsic needs that were unsatisfied.

In a different vein, a man who very highly values a first-order content such as love may find himself overly invested in achieving some greatness, be it material or symbolic, to enhance the lives of those he loves. Yet in so doing, his time and interests are drawn away from *loving*. Although such "sacrifice" may be in some ways admirable, it nonetheless reduces the degree of eudaimonia characterizing the man's life. Such examples show how many instrumental goals in life, even when well intended,

can move people away from eudaimonia, because they are engaged in derivative activities that are too infrequently fulfilling. This was an issue about which Aristotle seemed acutely aware.

Are Intrinsic Goals Always First-order Goals?

Previously we argued that intrinsic goals are first-order goals, insofar as they are not reducible to other goals, but are done for their own sake. Typically that is the case. For example, when a person has the goal of intimacy and relatedness, it is nearly always valued in its own right. However, a person might cultivate intimacy with someone in order to get an inheritance. In this case, the “real” goal is money, not intimacy, and that in turn, has its own underlying lower-order goals. Similarly a person could value community contributions in order to impress others, but again that shows that we still have not gotten to the bottom line goal. In other words, an intrinsic goal is really only an intrinsic goal when it is a first-order goal. This bespeaks the importance of a thorough analysis of goal contents.

In most of the empirical investigations of goal contents accomplished within SDT, it is the relative weight given to intrinsic versus extrinsic goals that has been used to predict well-being and mental health outcomes. This relative weight approach, originally developed by Kasser and Ryan (1993, 1996) provides an indication of where the most important emphasis is within a person’s configuration of goals, and thus gives an estimate of the degree to which the person is focused on more instrumental, extrinsic goals, or those goal contents that are intrinsically valuable in the manner described by Aristotle.

We have suggested that there are values and goals that can be distinguished as intrinsic and extrinsic in accord with the definitions we provided above. From this it follows that we should be able to distinguish between such values empirically and to establish that they have differential consequences for well-being outcomes. We turn now to each of these issues.

Distinguishing Intrinsic from Extrinsic Aspirations

Kasser and Ryan (1993, 1996) and Kasser (2002) initiated a program of research exploring the distinction between intrinsic

and extrinsic aspirations. They specifically proposed that there are significant individual differences in people's focus on intrinsic versus extrinsic aspirations and that these would have a predictable effect on a variety of wellness-relevant outcomes, from subjective happiness, to relationship quality, to physical health.

In their first published study, Kasser and Ryan (1993) found that persons whose aspirations for financial success were strong relative to those for relationships, growth, and community had lower well-being on a number of indicators. Subsequently, Kasser and Ryan (1996) examined seven life goals. They hypothesized that three of them, wealth and material possessions, social recognition and fame, and image or attractiveness, would represent extrinsic goals. Four others were thought to represent intrinsic goals: personal growth, affiliation and intimacy, contributing to one's community, and physical health. Kasser and Ryan found that these aspirations loaded cleanly on two factors. Wealth, fame, and image loaded on a factor they labeled *extrinsic aspirations*, while growth, affiliation, community contribution, and health loaded on an *intrinsic aspirations* factor. Further, results revealed that the strength of intrinsic relative to extrinsic aspirations, as indexed by ratings of goal importance, was positively related to a host of psychological well-being indicators, including self-actualization, positive affect, and vitality, and negatively to indicators of ill-being, including depression, negative affect, anxiety, and physical symptoms.

Similar findings have since been found in a number of diverse cultures, and with working adults as well as college students (e.g., Ryan et al., 1999; Schmuck et al., 2000; Vansteenkiste et al., 2004). Recently, in fact, Grouzet et al. (2005) demonstrated that the intrinsic/extrinsic goal distinction stood up empirically in samples from 15 different cultures, with the two goal types lying on opposite sides of a circumplex model. Of note in this piece is that additional values were placed in the derived map of aspirations. Hedonism, a desire for fun and pleasure, interestingly turned out to fall midway between intrinsic and extrinsic categories. This stands to reason insofar as hedonic pursuits are in many circumstances done for their own sake and worthwhile in terms of a good life. However, they are at other

times sought out as distractions, or ways of avoiding responsibilities or anxieties, and in such cases will function more as extrinsic goals. Thus hedonic goals need to be differentiated for us to understand their contributions to eudaimonia. Similarly, religious aspirations also fell midway between intrinsic and extrinsic poles, representing the well-known fact that religious motivations can be both intrinsic and extrinsic in nature (e.g., Ryan et al., 1993).

An important point here is that the question of how goals align with these conceptual distinctions is today, unlike in Aristotle's time, in part an empirical question that does not depend solely on speculation and argument. The point of an empirical model is to specify criteria by which we can distinguish goals of different types. Studies using this SDT framework have at least some starting methods and criteria to support or disconfirm theoretical proposals.

Intrinsic Versus Extrinsic Goal Attainment

Many social-cognitive theorists suggest that people feel good when they achieve their goals and that goal attainment (regardless of content) is beneficial to psychological health (e.g., Bandura, 1989; Locke and Latham, 1990). However, SDT proposes that such "expectancy" models must be qualified by the content of goals. It is primarily when people achieve intrinsic (rather than extrinsic) aspirations that they should experience greater well-being and less ill-being.

A number of studies have examined this hypothesis. For example, Kasser and Ryan (2001) examined the relation of the attainment of intrinsic versus extrinsic aspirations to various mental health outcomes in two samples. In the first sample, they found that the attainment of intrinsic goals was positively related to a composite index of well-being, whereas attainment of extrinsic goals was not. Moreover, the attainment of both intrinsic and extrinsic aspirations, relative to the attainment of intrinsic aspirations alone, did not additionally contribute to psychological health. Finally, the adjustment of people who attained only extrinsic aspirations was comparable to those who were low in their attainment of both intrinsic and extrinsic

aspirations. In another sample, the attainment of intrinsic (relative to extrinsic) aspirations was again associated with higher well-being and more positive relationships. In addition, people high in their attainment of extrinsic aspirations reported lower quality of friendships, relative to those who were high in their attainment of intrinsic and extrinsic aspirations. Sheldon and Kasser (1998) assessed the impact of intrinsic versus extrinsic goal progress on changes in well-being over a several month interval, finding that although progress toward the attainment of all goals positively predicted changes in well-being, these relations were most apparent for intrinsic goals. Finally, Ryan et al. (1999) examined intrinsic and extrinsic aspiration attainments in samples from both the U.S. and Russia. They demonstrated that whereas attainment of extrinsic goals did not predict greater well-being when controlling for intrinsic goal attainment, intrinsic goal attainment predicted enhanced well-being even when controlling for extrinsic attainments. These results suggest that the attainment of intrinsic aspirations is beneficial for well-being and social functioning whereas the attainment of extrinsic aspirations is largely unrelated to psychological health.

Basic Psychological Needs and Intrinsic and Extrinsic Aspirations

Ryan et al. (1996) suggested that the key difference between the intrinsic and extrinsic aspirations, and the reason that the pursuit and attainment of the two groups of aspirations are differentially related to psychological health, is the degree to which they are linked to the satisfaction of the basic psychological needs for autonomy, competence, and relatedness. The *need for autonomy* refers to a sense of choice and volition in the regulation of behavior. The *need for competence* concerns the sense of efficacy one has with respect to both internal and external environments. The *need for relatedness* refers to feeling connected to and cared about by others. According to SDT satisfaction of these basic needs fosters well-being, and support for and satisfaction of each is a necessary condition for a person's growth, integrity, and well-being, both within and across domains. Deci and Ryan (2000) supplied an extensive review of the theory of basic needs and its empirical support.

Intrinsic goals and aspirations are particularly apt at satisfying these three psychological needs. For instance, take the example of personal growth. A person who is focused on personal growth, which includes self-development, learning, and assimilation, is likely to a high degree to experience greater competence and to be involved in volitional and social activities. Similarly, community contributions, and altruistic or generative acts more generally, are hypothesized to satisfy all three needs fairly directly. When a person willingly gives to others he or she will exercise autonomy and feel a sense of connection with others. Further, the act of giving is likely to be associated with a sense of competence, as it means that people are in the position of being able to help.

SDT therefore hypothesizes that the attainment of intrinsic goals satisfies these needs, and in turn those attainments should enhance well-being. That is, psychological need satisfaction is specifically hypothesized to mediate between intrinsic goal attainments and well-being. By contrast, extrinsic goals are typically not as well linked with basic need satisfaction, and thus will not typically facilitate greater well-being, even when attained. This proposition was recently tested by Niemiec et al. (2006). They examined the consequences of pursuing and attaining intrinsic versus extrinsic aspirations over a 1-year period, beginning one year after the participants had graduated from college. Results indicated that although valuing either intrinsic or extrinsic aspirations led to greater attainment of the respective goals, only the attainment of intrinsic aspirations facilitated psychological well-being. In fact, on some measures extrinsic goal attainment was associated with greater ill being. Moreover, the positive relations between intrinsic goal attainment and well-being were mediated by satisfaction of the basic needs for autonomy, competence, and relatedness, which extrinsic attainments did not foster.

The What and Why of Life Goals

Numerous studies have demonstrated the systematic relations between intrinsic and extrinsic goal contents and well-being outcomes. However, SDT also views all behaviors as capable of being regulated by both controlled and autonomous motivations, raising the idea that, beyond goal contents – that is, beyond the

“what” of goals – the reasons why the goal was undertaken is also of import in predicting well-being.

Regarding this “why” behind behavior, SDT specifies a continuum of types of regulation that vary along the dimension of autonomy. The most heteronomous form of regulation on this dimension is *external regulation*, which is exemplified by a person acting to avoid punishments or obtain contingent rewards. A somewhat less controlling reason for acting is *introjection*, in which the person acts because of internally controlling states, including contingent self-regard, or avoidance of shame and guilt. Still more autonomous is *identified regulation*, in which the motivation for acting is based on an explicit value for the action and/or its outcomes. One can be even more autonomous if such values are well integrated into one’s system of values, which constitutes *integrated regulation*. Finally *intrinsic motivation* also represents a highly autonomous form of regulation. Beginning with Ryan and Connell (1989), dozens of studies accomplished in diverse cultures have shown empirically that this continuum of relative autonomy applies to behaviors in multiple domains (Vallerand, 1997; Ryan and Deci, 2000).

First, it is noteworthy that several studies have shown that, on average, intrinsic goals tend to be more autonomously enacted than extrinsic goals. That is, people are more likely to enact goals for money, image, or fame because of introjects or external regulations. They feel pressured to make more, look better, or attain recognition. By contrast, relatedness, growth, health, and community contribution all tend to be supported by autonomous reasons, including identified or integrated values, and, in some cases, intrinsic motivation.

Nonetheless, the relative autonomy of a goal can be considered independently of the intrinsic or extrinsic content of the goal, and SDT predicts that each of these issues will bear on well-being. For instance one could give to one’s community, a presumably intrinsic goal content, but do so because one feels pressured to do so by others or by one’s introjects. Alternatively one could contribute because of an integrated value, and thus the giving would be autonomous. Put differently, SDT predicts that both the “what” (goal contents) and the “why” (the relative

autonomy underlying actions) are important to consider in the relations between goals and well-being outcomes. This too has been demonstrated in numerous studies. Perhaps the first was accomplished by Carver and Baird (1998) whose results showed independent variance associated with both the “what” and the “why” of a monetary goal in predicting self-actualization. Sheldon et al. (2004) provided three studies showing the independent contributions of these what and why effects, on a variety of well-being outcomes, which they demonstrated at both within- and between-subject levels of analysis.

Perhaps most impressively, Vansteenkiste and his colleagues have engaged in a series of studies in multiple domains where goal contents and relative autonomy have been experimentally manipulated. Goal contents are manipulated by *goal framing*, in which the focus of the activity is differently introduced. For example, in introducing people to a dietary regimen, they could either be told that it will make them more attractive (an extrinsic goal) or more healthy (an intrinsic goal). They could at the same time be subjected to a more controlling motivational approach (“you should do this”) or a more autonomy supportive approach (“it is your choice”). In studies of obesity, learning, exercise, second language learning, ecological behaviors, and job searching, among other goals, Vansteenkiste and his co-workers have consistently demonstrated the significant impact of both the what and the why, not only on well-being outcomes, but also on goal persistence and success (see Vansteenkiste et al., 2006 for a recent review of this body of work).

Furthermore, the measures of both the what and why of goals have been directly linked to measures of eudaimonia. In a study that assessed Aristotle’s definition of eudaimonia in relation to people’s strivings and actual daily activities, the measures of eudaimonia had moderately positive correlations with indices of both what and why (Huta and Ryan, 2006).

AUTONOMY AND MINDFULNESS IN EUDAIMONIC LIVING

Aristotle, as we indicated, depicted a eudaimonic life as one in which the individual is reflective and applies a sense of

reason to his or her activities. In line with this we have already highlighted that goals associated with eudaimonia tend to be autonomous, and that autonomy is associated with greater wellness, as well as more persistence and higher quality performance in what one does. We now briefly consider the issue of autonomy in somewhat more depth, especially its association with mindfulness, or awareness of what is truly occurring.

The term *autonomy* literally means “self-governing” and implies, therefore, the experience of regulation by the self. Its opposite, *heteronomy*, refers to regulation from outside the self, by alien or external forces. An autonomous act is one done freely and willingly by the actor. In the case of intrinsic motivation this is obvious, because intrinsic motivation represents doing an activity because of its inherent satisfactions, which one typically does quite freely. But in the case of activities that are not intrinsically motivated, the issue is not inherent enjoyment, but rather inherent and self-endorsed value. A person who acts autonomously reflectively embraces an activity as his or her own, endorsing it at the highest order of reflection. This idea of reflective endorsement of one’s actions is indeed central to nearly all sophisticated philosophical treatments of the concept of autonomy, be they phenomenological (e.g., Ricoeur, 1966; Pfander, 1967) or analytic (e.g., Dworkin, 1988; Friedman, 2003). It is especially important to note that autonomy does not require acting in the absence of constraints or demands, nor does acting in opposition to a constraint or demand necessarily imply autonomy. Specifically, if one behaves in accord with constraints or external influences the key issue is whether the person reflectively concurs with them. A person could, for example, pay taxes out of fear of the consequences of not doing so, in which case the behavior would be heteronomous (i.e., controlled) and compliant. But a person could also pay taxes autonomously because he or she concurs with the importance of collecting this revenue for the good of all. Similarly, a person could refrain from paying taxes by cheating because he or she does not care about the needs of the many, in which case the behavior would be heteronomous (i.e., controlled) and defiant. But a person could also honestly withhold

a portion of his or her taxes because of a moral objection to the way that portion of the taxes are being used, in which case the action would be autonomous. The point is that autonomy is defined by one's reflective and thoughtful endorsement of actions (whether in accord with or in opposition to a constraint or demand), and heteronomy is defined as action that does not involve a reflective self-endorsement (see Ryan, 1993, for a fuller discussion).

This leads to yet a further strong claim: eudaimonia is necessarily rooted in human autonomy, as Aristotle also claimed. One cannot be following one's true self and not be autonomous. Indeed, autonomy is ideally behaving in accord with one's daimon, as Waterman among others has emphasized. Nor can one be eudaimonic and unreflective (Ryan and Deci, 2004). It is through reflective consideration of one's goals and activities that one can come to endorse some and reject others. Thus reflective capacities support the development of autonomy, and vice versa (Ryan, 2005). Eudaimonia therefore necessitates the exercise of reflective capacities, in which one considers the meaning and value of one's way of living.

Brown and Ryan (2003) recently began empirically investigating the role of awareness and reflectivity in action through the concept of mindfulness. Mindfulness is defined as awareness of what is occurring in the present moment, and is characterized by an open and receptive processing of events, both internal and external. It is akin to what Aristotle was describing when he said the eudaimonic person sees what is true in every set of circumstances. When mindful people are aware of what is really occurring, and thus they are in a better position to make meaningful choices and to act in an integrated manner.

Evidence from recent research underscores the importance of mindfulness and awareness in promoting both autonomous regulation and enactment of values. Brown and Ryan (2003) showed at both within- and between-person levels of analysis an association between greater mindfulness and autonomous self-regulation. More recently, studies have shown that people who are more mindful are less materialistic, embrace more intrinsic (relative to extrinsic) values, and experience less discrepancy

between what they have and what they want (Brown and Ryan, 2004). Thus, it seems minimally that mindfulness is characteristic of people who are engaged in eudaimonic living. It is likely, however, that mindfulness actually conduces to eudaimonia, by facilitating awareness of what is worth doing, and doing it well.

THE OUTCOMES OF EUDAIMONIC LIVING

A central aspect of our model is that eudaimonia refers to the contents and process of living—to a lifestyle—and is not defined by its specific outcomes. Nonetheless we hypothesize that eudaimonia is predictably associated with numerous outcomes, including varied aspects of psychological well-being, relationship qualities, and one's impact on collective outcomes.

Subjective Well-being

First, consider subjective well-being (SWB; Diener, 1984), conceived of as pleasure and satisfaction in life, which Kahneman et al. (1999) described as hedonic well-being. In our model, both eudaimonic and non-eudaimonic activities can lead to SWB (Ryan and Deci, 2001). That is, eudaimonia supplies one route to feeling good, but not an exclusive one. In fact, the direct pursuit of hedonic activities may also be a way of attaining pleasure, especially in the very short run. A person who exploits others, greedily consumes goods, or pursues fun and sensation may not be eudaimonic, but the person may derive pleasure.

Among the benefits of eudaimonic pursuits is that they may yield a more enduring sense of subjective well-being. Recent work by Huta and Ryan (2006) has supported this prediction. They followed students using an experience sampling method. Their results indicated that, at a within-person, momentary, level of analysis, only hedonic activities were consistently positively linked with positive affect and negatively linked with negative affect; eudaimonic activities on average had little relation with these. Yet, at the between-person level, it was people who engaged in a lot of eudaimonic activity or had eudaimonic goals who consistently had high life satisfaction and a high

mean level of positive affect. By contrast, people occupied with hedonic activities or goals did not show these enduring benefits. These findings were consistent with the expectation that eudaimonia gradually enhances a person's baseline level of well-being, whereas hedonia has more temporary effects.

Psychological Well-being

In addition to greater SWB, there are other aspects of well-being that may be more enhanced by eudaimonic than non-eudaimonic ways of living, as revealed by research on both autonomous regulation, and intrinsic and extrinsic goals. Many of these are captured by Ryff and Singer's (1998) dimensions of psychological well-being (PWB), which Ryff and Singer construed as outcomes of a life well lived. Measures of PWB include indicators of personal growth, environmental mastery, positive relationships, life purpose, self-acceptance, and autonomy (conceived of within the PWB model as being primarily independence rather than self-endorsement and volition as in SDT). Moreover, Ryff and Singer have shown that PWB in turn fosters additional outcomes in terms of physical health and wellness.

In terms of the model being proposed in this paper, we construe the dimensions of PWB not as a measure of eudaimonia per se, but rather as indicators that one has been living well. That is, as assessed, PWB is more a measure of a set of outcomes of eudaimonic living rather than a definition of eudaimonia. Accordingly, Huta and Ryan (2006) has shown that her measures of eudaimonia, which assesses striving to be the best one can be, developing one's potential, and having concerns for the greater good, are indeed positively related to most of Ryff and Singer's facets of psychological well-being.

Although we have just portrayed PWB as an outcome of eudaimonic living, it is important to recognize that PWB can, in turn, yield other outcomes such as the presence of healthy psychological and physical functioning and the absence of psychopathology and disease. Indeed, in their paper in this issue, Ryff and Singer reviewed several studies showing that PWB did in fact lead to better physical health. When viewed in this way, PWB can be understood as a set of processes that mediate

between the independent variables of intrinsic goals and autonomous regulation on the one hand, and the dependent variables of psychological and physical wellness on the other hand. This would place PWB in the same type of mediating role in which we have placed basic psychological need satisfaction.

Other Outcomes Associated with Eudaimonic Living

Meaning

A sense of meaning, which is one of the PWB dimensions mentioned above is also sometimes viewed as an outcome of eudaimonia (e.g., McGregor and Little, 1998). In our view, eudaimonic living as represented by a focus on intrinsic goals and a practice of reflection and mindfulness would undoubtedly produce a sense of meaning and a greater sense of purpose in life (Ryan and Deci, 2004). Moreover, eudaimonic living as we define it ought to provide a strong elixir against a sense of alienation or lack of life purpose, presumed opposites of finding meaning. Indeed, Huta and Ryan (2006) found that eudaimonic goals and activities were positively related to several measures of meaning in life.

Vitality

One interesting variable that we have considered to be enhanced through eudaimonia is *subjective vitality* (Ryan and Frederick, 1997). Subjective vitality is defined in terms of a sense of psychological and physical energy that is available to the self for life pursuits. Ryan and Frederick (1997) assessed people's subjective vitality and showed its close associations with autonomy, and Nix et al. (1999) showed in experimental settings how behaviors regulated by external controls reduced vitality relative to comparisons that were not controlled. Numerous studies comparing intrinsic and extrinsic goals have shown greater subjective vitality associated with, or in many cases, brought about by, investment in or attainment of intrinsic goals (e.g., Kasser and Ryan, 1996, 2001; Niemiec et al., 2006). Several studies have shown the close association between mindfulness and vitality, such that, when mindful, people experience more available energy (Brown and Ryan, 2003). Finally, Huta and Ryan (2006)

found that trait eudaimonia had a consistent positive link with vitality. In short, this configuration of distinct variables, namely autonomous regulation, intrinsic goal focus, and mindfulness all enhance subjective vitality, which in turn strongly covaries with an array of mental and physical health outcomes.

Physical Health

In some studies of intrinsic goals, autonomous regulation, and mindfulness, physical symptoms and physical health have been assessed and positively related to these independent variables (e.g., Kasser and Ryan, 1996; Williams et al., 1998). Moreover, basic psychological need satisfaction, which in the current model plays a mediational role, also predicts physical symptoms and health outcomes (e.g., Reis et al., 2000). Physical health is a major focus of Ryff and Singer's research, which they have directly related to PWB (see their article in this issue). Some of this body of work makes it plausible that it is eudaimonic living that yields better physical health, such as the within-person approach of Reis et al. (2000) and some of the in-depth studies accomplished by Ryff and colleagues. At the same time, because physical health makes living well more possible, there are undoubted reciprocal relations at work, making for an intriguing area of study. Currently we are working to disentangle relations between mindfulness and health through intervention studies (see Brown and Ryan, 2003, for a preliminary study of this kind).

Still Other Outcomes

Research has also been initiated to map out additional kinds of well-being to which eudaimonia might be linked. Huta and Ryan (2006) hypothesized that eudaimonia often produces states and outcomes that are subtle or not fully captured by the well-being concepts typically assessed. The researchers showed that eudaimonic individuals: have high levels of inner peace, as well as frequent experiences of moral elevation and deep appreciation of life; feel connected not only with themselves but also with a greater whole that transcends them as individuals; have a sense of where they fit in to a bigger picture and are able to put

things in perspective; and describe themselves as “feeling right” (as opposed to “feeling good,” the state that hedonically oriented individuals seem to pursue). A life of hedonia has in most analyses been unrelated to these outcomes.

PUTTING IT TOGETHER: AN INTEGRATIVE, YET OPEN, EMPIRICAL MODEL

To summarize our model, eudaimonia is viewed as living well, defined in terms both of pursuing goals that are intrinsically valued and of processes that are characterized by autonomy and awareness. The ways in which goals, regulatory styles, and capacities for mindfulness operate together has been detailed over many studies, but our major claim here is that they are all aspects of eudaimonic living. A further claim is that eudaimonic living is associated with a wide array of wellness outcomes. Those outcomes include hedonic happiness as typically assessed, but it also produces a fuller, more stable and enduring type of happiness than that obtained when one’s goals are more directly hedonistic. Among these enduring positive outcomes are a sense of meaning, subjective vitality, higher quality relationships, and better physical health indicators, especially with respect to symptoms related to stress. Finally we claim that these relations between eudaimonia and well-being outcomes are mediated by satisfaction of the basic psychological needs for autonomy, competence, and relatedness. That is, eudaimonic living fosters well-being because it provides satisfaction of people’s most fundamental psychological needs.

SOCIAL IMPLICATIONS OF EUDAIMONIC LIVING

The starting point for our model of eudaimonia was the question of what constitutes the “good life”, or living well. As we have outlined, we consider living well to involve pursuing intrinsic goals, acting autonomously and volitionally, and fostering one’s own awareness or mindfulness. Considerable research has connected these three motivational processes to psychological and physical health outcomes, and has shown that satisfaction of the

basic psychological needs for competence, relatedness, and autonomy mediate the relations between the motivational processes and the wellness outcomes.

We now turn to a consideration of broader issues that address two important and related questions, specifically: (1) what are the implications of eudaimonia for societal and collective well-being; and (2) what are the conditions within a society that conduce toward its members being able to pursue the kind of life represented by eudaimonia?

The Prosocial Nature of People High in Eudaimonia

Given our depiction of people high in eudaimonia as pursuing worthwhile goals and being mindfully self-regulated, it follows that such persons would likely be more socially responsible. The emerging evidence suggests that to be so. For example, Brown and Kasser (2005) found that people embracing the extrinsic goal of materialism consumed more and left bigger environmental footprints. Sheldon and McGregor (2000) used a “tragedy of the commons” paradigm to show that people with more intrinsic goals were less likely to over-consume, and thus were more likely to foster a sustainable environment. McHoskey (1999) demonstrated that people embracing intrinsic goals were less prone to Machiavellian behavior and more prone towards social interests. These and other studies attest to the fact that promotion of eudaimonic living may be better for a society as a whole, insofar as its members show more care, concern, and responsibility in their actions. Waterman (1981) also reviewed studies showing that eudaimonia is positively linked to prosocial concerns.

What Kinds of Families and Societies Foster Eudaimonic Lifestyles

A tougher question concerns what kind of social contexts facilitate people becoming eudaimonic. We can ask that question at the micro level of the family, as well as at the more macro level of cultural and economic conditions. We take each in turn.

Kasser et al. (1995) tapped into an ongoing longitudinal project to examine the antecedents of intrinsic versus materialistic,

extrinsic goals in a sample of largely urban 18-year olds. The researchers found that psychological need support – specifically a maternal environment characterized by greater autonomy support and greater warmth – promoted the adoption of less materialistic goals, greater community participation, and in general better mental health. This study employed multiple methods to assess maternal environments and well-being outcomes, including maternal reports, clinical interview ratings, and self-reports from the teens. Moreover, the study showed that these supports for autonomy and relatedness were prospectively predictive of the intrinsic versus extrinsic goal outcomes. Kasser et al. suggested that to the extent children are provided with supports for basic needs they will develop more eudaimonic lifestyles. In contrast those treated in controlling ways, or who experienced coldness or rejection from caregivers were more prone to insecurity and low self-esteem, which in turn appears to have made them more susceptible to extrinsic goals. That is, they seek external trappings of worth to the extent they have felt inwardly unloved or unworthy (see also Ryan et al., 1996; Kasser, 2002). A study by Williams et al. (2000) of high school students found that those students whose parents tended to be need thwarting also expressed strong extrinsic aspirations and engaged in high risk behaviors such as using tobacco and alcohol.

On a more societal level it does seem clear that within modern capitalistic societies, which are increasingly dominating the global scene, there are pervasive forces that pull people away from eudaimonic living. Consumerism is prompted by continuous exposure to desire-creating advertisements, which often attempt to promote insecurity in order to create a sense of need. Moreover, the winner take all atmosphere associated with the values of a competitive market economy can crowd out altruism, sense of community, and other prosocial attitudes. It seems that the eudaimonic life is continuously threatened by the individualistic attitudes associated with such economies, whereas hedonic well-being has a much closer fit with the capitalist ethic (Kasser et al., in press). It is indeed paradoxical that, whereas the capitalistic system provides resources that could facilitate eudaimonic living among those individuals who have not fallen

through the bottom of the system, it also has seductive and coercive aspects that undermine the very goals, values, and lifestyles that constitute eudaimonic living.

At the same time, some policy makers and social scholars do seem attuned to the fact that competitive individualism and hedonic happiness for the masses will lead to and ultimately be compromised by an unsustainable environment. Indeed, the tragedy of the commons is ever becoming our real situation, rather than a simulation game. Moreover, there is increasing awareness, in part aided by many of the studies reviewed herein, that materialistic living, even when successfully attained, does not significantly enhance well-being – even hedonic well-being let alone eudaimonic living. Instead, human happiness and quality of life will be facilitated best by policies and structures that allow people to feel both maximal psychological freedom and strong relatedness to one another, neither of which is facilitated by materialism.

As we move further into our new century, it appears that the topic of eudaimonia is ever more relevant and timely. In this respect the study of what constitutes eudaimonia, and what promotes it, are among the most important agendas in contemporary behavioral science, much as it was a critical part of ancient philosophies.

REFERENCES

- Aristotle.: 2002, *Nicomachean Ethics* (S. Broadie and C. Rowe, translators and commentary) (Oxford, New York).
- Bandura, A.: 1989, 'Human agency in social cognitive theory', *American Psychologist* 44, pp. 1175–1184.
- Broadie, S. and C. Rowe: 2002, 'Preface' in Aristotle: 2002, *Nicomachean Ethics* (S. Broadie and C. Rowe, translators) (Oxford, New York).
- Brown, K.W. and T. Kasser: 2005, 'Are psychological and ecological well being compatible? The role of values, mindfulness, and lifestyle', *Social Indicators Research* 74, pp. 349–368.
- Brown, K.W. and R.M Ryan: 2003, 'The benefits of being present: Mindfulness and its role in psychological well-being', *Journal of Personality and Social Psychology* 84, pp. 822–848.
- Brown, K.W. and R.M. Ryan: 2004, Fostering healthy self-regulation from within and without: A self-determination theory perspective, in P.A. Linley

- and S. Joseph (eds), *Positive Psychology in Practice* (Wiley, New York), pp. 105–124.
- Carver, C.S. and E. Baird: 1998, 'The American dream revisited: Is it what you want or why you want it that matters?', *Psychological Science* 9, pp. 289–292.
- Christopher, J.C.: 1999, 'Situating psychological well-being: Exploring the cultural roots of its theory and research', *Journal of Counseling and Development* 77, pp. 141–152.
- Deci, E.L.: 1980, *The Psychology of Self-Determination* (D.C. Heath, Lexington, MA).
- Deci, E.L. and R.M. Ryan: 1980, 'The empirical exploration of intrinsic motivational processes', in L. Berkowitz (ed.), *Advances in Experimental Social Psychology* (Academic Press, New York), Vol. 13, pp. 39–80.
- Deci, E.L. and R.M. Ryan: 1985, *Intrinsic Motivation and Self-Determination in Human Behavior* (Plenum Publishing Co, New York).
- Deci, E.L. and R.M. Ryan: 2000, 'The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior', *Psychological Inquiry* 11, pp. 227–268.
- Diener, E.: 1984, 'Subjective well-being', *Psychological Bulletin* 95, pp. 542–575.
- Dworkin, G.: 1988, *The Theory and Practice of Autonomy* (Cambridge University Press, New York).
- Ferguson, H.: 1990, *The Science of Pleasure: Cosmos and Psyche in the Bourgeois World View* (Routledge, London).
- Friedman, M.: 2003, *Autonomy, Gender, Politics* (Oxford University Press, New York).
- Grouzet, F.M.E., T. Kasser, A. Ahuvia, J.M. Fernandez-Dols, Y. Kim, S. Lau, R.M. Ryan, S. Saunders, P. Schmuck and K. Sheldon: 2005, 'The structure of goal contents across 15 cultures', *Journal of Personality and Social Psychology* 89, pp. 800–816.
- Huta, V.M. and R.M. Ryan: 2006, 'Pursuing pleasure versus virtue: Links with different aspects of well-being', University of Rochester, unpublished manuscript.
- Isen, A.M.: 2003, Positive affect as a source of human strength, in L.G. Aspinwall and U.M. Staudinger (eds), *A Psychology of Human Strengths: Fundamental Questions and Future Directions for a Positive Psychology* (American Psychological Association, Washington, DC), pp. 179–195.
- Kahneman, D., E. Diener and N. Schwarz: 1999, *Well-Being: The Foundations of Hedonic Psychology* (Russell Sage Foundation, New York).
- Kasser, T.: 2002, Sketches for a self-determination theory of values, in E.L. Deci and R.M. Ryan (eds), *Handbook of Self-Determination Research* (University of Rochester Press, Rochester, NY), pp. 123–140.
- Kasser, T., S. Cohn, A.D. Kanner and R.M. Ryan: in press, 'Some costs of American corporate capitalism: A psychological exploration of value and goal conflicts', *Psychological Inquiry*.

- Kasser, T. and R.M Ryan: 1993, 'A dark side of the American dream: Correlates of financial success as a central life aspiration', *Journal of Personality and Social Psychology* 65, pp. 410–422.
- Kasser, T. and R.M Ryan: 1996, 'Further examining the American dream: Differential correlates of intrinsic and extrinsic goals', *Personality and Social Psychology Bulletin* 22, pp. 280–287.
- Kasser, T. and R.M. Ryan: 2001, Be careful what you wish for: Optimal functioning and the relative attainment of intrinsic and extrinsic goals, in P. Schmuck and K.M. Sheldon (eds), *Life Goals and Well-Being: Towards a Positive Psychology of Human Striving* (Hogrefe and Huber Publishers, Goettingen), pp. 115–129.
- Kasser, T., R.M. Ryan, M. Zax and A.J Sameroff: 1995, 'The relations of maternal and social environments to late adolescents' materialistic and prosocial values', *Developmental Psychology* 31, pp. 907–914.
- King, L.A., J.A. Hicks, J.L. Krull and A.K. Baker: 2006, 'Positive affect and the experience of meaning in life', *Journal of Personality and Social Psychology* 90, pp. 179–196.
- Locke, E.A. and G.P. Latham: 1990, *A Theory of Goal Setting and Task Performance* (Prentice-Hall, Englewood Cliffs, NJ).
- Maddux, J.E. (2002) Stopping the "madness": Positive psychology and the deconstruction of the illness ideology and the DSM, in C.R. Snyder and S.J. Lopez (eds), *Handbook of Positive Psychology* (Oxford, New York), pp. 13–25.
- McGregor, I. and B.R Little: 1998, 'Personal projects, happiness, and meaning: On doing well and being yourself', *Journal of Personality and Social Psychology* 74, pp. 494–512.
- McHoskey, J.W: 1999, 'Machiavellianism, intrinsic versus extrinsic goals, and social interest: A self-determination theory analysis', *Motivation and Emotion* 23, pp. 267–283.
- Niemiec, C.P., R.M. Ryan and E.L. Deci: 2006, 'The Path Taken: Consequences of attaining intrinsic and extrinsic aspirations in post-college life', University of Rochester, unpublished manuscript.
- Nix, G., R.M. Ryan, J.B. Manly and E.L. Deci: 1999, 'Revitalization through self-regulation: The effects of autonomous versus controlled motivation on happiness and vitality', *Journal of Experimental Social Psychology* 35, pp. 266–284.
- Pfander, A.: 1967, *Phenomenology of Willing and Motivation* (H. Spiegelberg, translator) (Northwestern University Press, Evanston, IL) Original work published 1908.
- Reis, H.T., K.M. Sheldon, S.L. Gable, J. Roscoe and R.M Ryan: 2000, 'Daily well-being: The role of autonomy, competence, and relatedness', *Personality and Social Psychology Bulletin* 26, pp. 419–435.
- Ricoeur, P.: 1966, *Freedom and Nature: The Voluntary and the Involuntary* (E. V. Kohak, translator) (Northwestern University Press, Chicago).

- Ryan, R.M.: 1993, 'Agency and organization: Intrinsic motivation, autonomy and the self in psychological development', in J. Jacobs (ed.), *Nebraska Symposium on Motivation: Developmental Perspectives on Motivation* (University of Nebraska Press, Lincoln, NE), Vol. 40, pp. 1–56.
- Ryan, R.M.: 1995, 'Psychological needs and the facilitation of integrative processes', *Journal of Personality* 63, pp. 397–427.
- Ryan, R.M.: 2005, 'The developmental line of autonomy in the etiology, dynamics, and treatment of borderline personality disorders', *Development and Psychopathology* 17, pp. 987–1006.
- Ryan, R.M., V.I. Chirkov, T.D. Little, K.M. Sheldon, E. Timoshina and E.L. Deci: 1999, 'The American Dream in Russia: Extrinsic aspirations and well-being in two cultures', *Personality and Social Psychology Bulletin* 25, pp. 1509–1524.
- Ryan, R.M. and J.P. Connell: 1989, 'Perceived locus of causality and internalization: Examining reasons for acting in two domains', *Journal of Personality and Social Psychology* 57, pp. 749–761.
- Ryan, R.M. and E.L. Deci: 2000, 'Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being', *American Psychologist* 55, pp. 68–78.
- Ryan, R.M. and E.L. Deci: 2001, 'On happiness and human potentials: A review of research on hedonic and eudaimonic well-being', in S. Fiske (ed.), *Annual Review of Psychology* (Annual Reviews Inc., Palo Alto, CA), Vol. 52, pp. 141–166.
- Ryan, R.M. and E.L. Deci: 2004, 'Avoiding death or engaging life as accounts of meaning and culture: A comment on Pyszczynski, Greenberg, Solomon, Arndt, and Schimel', *Psychological Bulletin* 130, pp. 473–477.
- Ryan, R.M. and C.M. Frederick: 1997, 'On energy, personality and health: Subjective vitality as a dynamic reflection of well-being', *Journal of Personality* 65, pp. 529–565.
- Ryan, R.M., S. Rigby and K. King: 1993, 'Two types of religious internalization and their relations to religious orientation and mental health', *Journal of Personality and Social Psychology* 65, pp. 586–596.
- Ryan, R.M., K.M. Sheldon, T. Kasser and E.L. Deci: 1996, 'All goals are not created equal: An organismic perspective on the nature of goals and their regulation', in P.M. Gollwitzer and J.A. Bargh (eds), *The Psychology of Action: Linking Cognition and Motivation to Behavior* (Guilford, New York), pp. 7–26.
- Ryff, C.D. and B. Singer: 1998, 'The contours of positive human health', *Psychological Inquiry* 9, pp. 1–28.
- Schmuck, P., T. Kasser and R.M. Ryan: 2000, 'The relationship of well-being to intrinsic and extrinsic goals in Germany and the U.S.', *Social Indicators Research* 50, pp. 225–241.
- Sheldon, K.M. and T. Kasser: 1998, 'Pursuing personal goals: Skills enable progress, but not all progress is beneficial', *Personality and Social Psychology Bulletin* 24, pp. 1319–1331.

- Sheldon, K.M. and H.A. McGregor: 2000, 'Extrinsic value orientation and "The Tragedy of the Commons"', *Journal of Personality* 68, pp. 383–411.
- Sheldon, K.M., R.M. Ryan, E.L. Deci and T. Kasser: 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, pp. 475–486.
- Vallerand, R.J.: 1997, 'Toward a hierarchical model of intrinsic and extrinsic motivation', in M.P. Zanna (ed.), *Advances in Experimental Social Psychology* (Academic Press, New York), pp. 271–360.
- Vansteenkiste, M., W. Lens and E.L. Deci: 2006, 'Intrinsic versus extrinsic goal contents in self-determination theory: Another look at the quality of academic motivation', *Educational Psychologist* 41, pp. 19–31.
- Vansteenkiste, M., J. Simons, W. Lens, K.M. Sheldon and E.L. Deci: 2004, 'Motivating learning, performance, and persistence: The synergistic effects of intrinsic goal contents and autonomy-supportive contexts', *Journal of Personality and Social Psychology* 87, pp. 246–260.
- Waterman, A.S.: 1981, 'Individualism and interdependence', *American Psychologist* 36, pp. 762–773.
- Waterman, A.S.: 1993, 'Two conceptions of happiness: Contrasts of personal expressiveness (eudaimonia) and hedonic enjoyment', *Journal of Personality and Social Psychology* 64, pp. 678–691.
- Williams, G.C., E.M. Cox, V. Hedberg and E.L. Deci: 2000, 'Extrinsic life goals and health risk behaviors in adolescents', *Journal of Applied Social Psychology* 30, pp. 1756–1771.
- Williams, G.C., Z.R. Freedman and E.L. Deci: 1998, 'Supporting autonomy to motivate glucose control in patients with diabetes', *Diabetes Care* 21, pp. 1644–1651.

Address for correspondence:

RICHARD M. RYAN

University of Rochester

Rochester, NY 14627

USA

E-mail: ryan@psych.rochester.edu