Motivation, Personality, and Development Within Embedded Social Contexts: An Overview of Self-Determination Theory

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Abstract and Keywords

Self-determination theory maintains and has provided empirical support for the proposition that all human beings have fundamental psychological needs to be competent, autonomous, and related to others. Satisfaction of these basic needs facilitates people's autonomous motivation (i.e., acting with a sense of full endorsement and volition), whereas thwarting the needs promotes controlled motivation (i.e., feeling pressured to behave in particular ways) or being amotivated (i.e., lacking intentionality). Satisfying these basic needs and acting autonomously have been consistently shown to be associated with psychological health and effective performance. Social contexts within which people operate, however proximal (e.g., a family or workgroup) or distal (e.g., a cultural value or economic system), affect their need satisfaction and type of motivation, thus affecting their wellness and effectiveness. Social contexts also affect whether people's life goals or aspirations tend to be more intrinsic or more extrinsic, and that in turn affects important life outcomes.

Keywords: self-determination, autonomy, motivation, control, autonomy support, social contexts, intrinsic motivation, life goals, autonomous motivation, embedded social contexts

To be autonomous means to behave with a sense of volition, willingness, and congruence; it means to fully endorse and concur with the behavior one is engaged in. Autonomy—this capacity for and desire to experience self-regulation and integrity—is a central force within both the life span development of individuals and in the movement of history toward greater freedom and voice for citizens within cultures and governments.

In healthy individual development, people move in the direction of greater autonomy. This entails internalizing and integrating external regulations over behavior, and learning to effectively manage drives and emotions. Additionally, it means maintaining intrinsic

motivation and interest, which are vital to assimilating new ideas and experiences. When people are more autonomous, they exhibit greater engagement, vitality, and creativity in their life activities, relationships, and life projects.

Yet autonomy is not just an individual affair. Across history, groups of people have struggled to protect or gain autonomy, and to be free of coercive forces from their own dictatorial governments or from invasions by other collectives. They have fought, and often died, to be free of oppression, as well as to express and actualize their valued aims and ideals. These struggles continue today, with respect to both totalitarian regimes and the controlling forces of wealth and power wherever they subjugate or disenfranchise individuals or cultural subgroups.

Although autonomy is clearly a central issue in both individual and collective development and wellness, it is nonetheless a complex construct, manifest in different ways. Within self-determination (p. 86) theory (SDT), the concept of autonomy is, at different times, used to refer to a motivational state, to an enduring motivational orientation, and to a fundamental psychological need, depending on what problem is being addressed. Each of these more specific concepts relates to the formulations of autonomy and autonomy support within SDT, and the purpose of this chapter is to discuss these multiple aspects of the construct and their meanings within theory and practice.

A central function served by the concept of autonomy within SDT is to differentiate types of motivation with their corresponding qualities of functioning. Many historical and contemporary theories of motivation have treated motivation as a unitary concept, either by not specifying types of motivation or by specifying types but then adding them together to form total motivation (e.g., Bandura, 1996; Hull, 1943). Such theories have sometimes been able to effectively predict amount of behavior, but they have been much less effective in predicting qualities of behaviors. SDT maintains that knowing whether people's motivation is more *autonomous* or more *controlled* is far more important for making predictions about the quality of people's engagement, performance, and well-being than is the overall amount or intensity of motivation. And even more refined predictions can be made from the subtypes of either autonomous or controlled motivation, as we will explain in the pages ahead.

Motivation Within Embedded Contexts

Motivated individuals exist within social contexts, and research indicates that contexts vary in the degree to which they support the individuals’ autonomy versus control their behaviors, thoughts, and feelings. Furthermore, at any given time people are under the influence of numerous embedded contexts (Bronfenbrenner, 1979; Connell & Wellborn, 1991). Both proximal interpersonal contexts (e.g., the behavior of people's parents or managers) and distal contexts (e.g., the cultural norms and economic structures of their society) can variously support or undermine intrinsic motivation and the integrative

tendency, which together are the bases of autonomous behavior. Thus, SDT uses the quality of the social contexts within which people exist, as well as the individuals' own motivational states, orientations, and experiences of need satisfaction, to make predictions about such outcomes as the quality of behaviors, emotional experiences, cognitive structures, and psychological and physical health.

The majority of research within SDT has focused on people's proximal social contexts and the salient people within them: parents, teachers, coaches, managers, friends, physicians, and partners, for example (e.g., Deci & Ryan, 2008). Yet it is not just these immediate social connections that affect people's development and functioning, because each proximal interpersonal context is embedded in various other more distal ones. For example, classroom teachers create the interpersonal climate that affects the motivation of students on a daily basis, yet the classrooms are embedded within schools where key administrators also create broader climates, affecting the teachers' motivation, goals, and behaviors (Deci, Spiegel, Ryan, Koestner, & Kauffman, 1982; Pelletier, Séguin-Lévesque, & Legault, 2002). Schools in turn are embedded within school districts, and the key administrators of the districts affect the behaviors, motivations, and experiences of principals, and then onward down to teachers and students. District administrators, in turn, are impacted by local, state, and national government policies, which themselves will tend to be either autonomy supportive or controlling.

Ryan and Weinstein (2009) discussed an example of embedded effects, detailing how government policies concerning high-stakes testing have had a coercive influence on educational administrators' objectives and in turn on classroom practices. This has resulted in more teaching to tests, and less teacher and student autonomy, engagement, and satisfaction at the bottom of this chain of embedded contexts. In short, increasingly distal contexts such as government policies can affect individuals (in this example, the students), primarily via mediation by the important intervening contexts (viz., state governments, district administrators, principals, and teachers). This is true not only in relation to education; one sees similar embedded context affects in relation to work organizations, sport teams, health care practices, and in many other domains.

At the most distal levels of analysis, considerable research has examined how cultural contexts and values (e.g., individualism and collectivism) affect and characterize individual motivation and behaviors (e.g. Chirkov, Ryan, Kim, & Kaplan, 2003). Typically, the research focuses only on how various cultural dimensions describe individuals within a culture, but presumably much of the effect of the culture ripples through different embedded contexts at both distal and proximal levels. Parents and schools, for example, serve to transmit their cultures' values to the young people within those (p. 87) cultures. Cultures and countries differ not only in their ambient values, they also have economic systems (e.g., capitalism, socialism) and political systems (e.g., democracy, totalitarianism), which impact individuals—from the everyday motivations of workers, to the value systems and lifestyles embraced by their citizens (e.g., Kasser, Cohn, Kanner, & Ryan, 2007; Vansteenkiste, Ryan, & Deci, 2008). Furthermore, countries typically create laws that tend to be congruent with the economic and/or political systems and that either

constrain or support the growth of competencies, the abilities of citizens to affiliate and connect, and the exercise of people's autonomy, and in so doing the laws affect the wellness and effectiveness of the citizens.

The social contexts at each of these levels of analysis can be examined with SDT concepts to investigate their effects on the behaviors, thoughts, feelings, and well-being of the people within those contexts. Throughout this chapter we will review research examining the effects of different levels of social contexts on individuals' motivation, integrity, and psychological health.

Contexts and Basic Psychological Needs

According to SDT, social contexts, whatever their level, have their impact on individuals by facilitating versus impairing satisfaction of *basic psychological needs*. We define *needs* as organismic necessities for health. Psychological needs are a subset of these necessities that are essential for psychological growth, integrity, and wellness. We have posited that people require three specific psychological nutriments for healthy functioning: They need to feel *competent* in negotiating their external and internal environments; they need to experience *relatedness* to other people and groups; and they need to feel *autonomy* or self-determination with respect to their own behaviors and lives. To the extent that these needs are satisfied, people will develop healthily and thrive, but to the extent that the needs are not satisfied, people will experience various psychological detriments. Social contexts at each level of proximity vary considerably in the degree to which they facilitate versus impair satisfaction of the basic psychological needs, and SDT is concerned in part with an examination of the factors within contexts that impact the degree to which basic psychological need satisfactions are afforded or frustrated.

It is worth noting that these three needs—for competence, relatedness, and autonomy—were not simply assumed or formulated based on casual theorizing but were instead derived empirically. In other words, we found it necessary to posit these needs as human universals in order to provide meaningful interpretations of various phenomena that had emerged from research projects—phenomena such as the undermining of intrinsic motivation by tangible rewards (Deci, Koestner, & Ryan, 1999), contextual factors promoting the internalization of extrinsic motivation (Ryan & Connell, 1989), and goal contents and lifestyles affecting well-being (Vansteenkiste et al., 2008). Subsequent research was designed to test the existence and operation of these needs, and numerous studies have shown, for example, that across cultures (e.g., Chirkov et al., 2003), ages (e.g., Kasser & Ryan, 1999), and socioeconomic levels (Williams, McGregor, Sharp, Levesque, et al., 2006) people who experience greater satisfaction of the basic psychological needs also display greater psychological health.

In what follows, we first discuss the nature of autonomous and controlled motivation, focusing on differences in processes and outcomes that follow from the different kinds of motivation, reviewing studies that have confirmed these differences across many life domains—including home, school, work, leisure, and health care—in multiple developmental periods and cultural contexts. We begin with a focus on the more state-like or domain-specific experiences of autonomy and control, and we move on to the more enduring individual differences in autonomy and control that are termed *causality orientations* (Deci & Ryan, 1985). We then turn to different types of life goals or aspirations that have distinct motivational and well-being consequences. We also discuss social-contextual conditions at various levels as they affect the development and functioning of autonomous and controlled motivations and of intrinsic and extrinsic life goals. Finally, we review studies that have assessed satisfaction of the basic psychological needs as mediators between social contextual conditions and various outcomes such as performance and wellness, and we consider the relations of need satisfaction to motivations and goals.

Autonomous and Controlled Motivation

SDT has two important meta-theoretical assumptions concerning the nature of people that have played an important role in the theory's development. First, people are assumed to be inherently active and thus to proactively initiate engagement with their environments. *Intrinsic motivation* is the energizing basis for this activity. Second, people are assumed to have an evolved developmental (p. 88) tendency toward integration and organization of psychic material. This process includes taking in or *internalizing* various types of information from the external world (e.g., values, attitudes, contingencies, and knowledge), as well as integrating the regulation of internal forces (e.g., drives and emotions). These two fundamental assumptions are extremely important for our discussion of autonomous motivation, because autonomous motivation comprises two broad categories of motivation: intrinsic motivation, which is a manifestation of our active nature and is the prototype of autonomous motivation; and well-internalized extrinsic motivation, which develops because of the natural integrative tendency that is the basis of healthy development. Thus, nonintrinsic, socially transmitted motivations and regulations can become fully internalized and form the basis for autonomous or self-determined extrinsically motivated behavior (e.g., Ryan & Deci, 2003).

Intrinsic motivation involves doing an activity because it is interesting and enjoyable. It is often said that when people are intrinsically motivated, doing the activity is its own reward. However, although it may be heuristically useful to think about it that way, a more precise way of defining intrinsic motivation is in terms of the inherently satisfying internal conditions that occur when doing an intrinsically motivated behavior, thus helping to sustain it. These inherent satisfactions (experienced directly as interest and

enjoyment) derive primarily from experiences of competence and autonomy as well as, in some cases, from relatedness.

One typically delightful example of intrinsically motivated behavior is children playing. In play, children are often wholly absorbed in activities, experiencing a sense of interest and joy as they manipulate objects and explore their environments. As this occurs, their basic psychological needs for competence and autonomy are likely being met, as they self-organize their actions and experience effectance. And through play, the children are learning. With adults as well, learning can be intrinsically motivated; people sometimes learn simply because they find the material or activity interesting. This is especially important because studies have shown that, when children (Grolnick & Ryan, 1987) or college students (Benware & Deci, 1984) are intrinsically motivated to learn, their learning tends to be deeper and more conceptual, and they tend to remember it longer, than when the learning is extrinsically motivated by grades or rewards. Similarly, accomplishment can be intrinsically motivated; that is, people will often be eagerly engaged in activities because they enjoy the process of accomplishing some task or goal. At work or in sport, for example, people may be very immersed in doing a task well and experience deep satisfaction of competence and autonomy needs as they do.

In contrast to intrinsic motivation, *extrinsic motivation* involves doing an activity because it leads to a separable consequence—the goal is separate from the activity itself. Carrots (rewards or accolades) and sticks (punishments or threats) are the classic extrinsic motivators. Extrinsic motivation, when driven by such classic contingencies, is often experienced as controlled—that is, people often feel pressured, through the seduction of rewards or the coercion of threats, to do a task. Their behavior tends to become dependent on the contingencies, so they do not do the behaviors if the contingencies are not operative. To the extent that people do feel controlled by extrinsic motivators, their need for autonomy will be thwarted and some negative motivational, performance, and well-being consequences are likely to follow. Extrinsic motivation is not invariantly controlled, however, and to account for this phenomenon, SDT has differentiated extrinsic motivation using the concept of internalization.

Differentiation of Extrinsic Motivation

As noted, the classic example of being extrinsically motivated is acting in the pursuit of rewards or the avoidance of punishments. Within SDT we refer to this as *external regulation*, which is the type of regulation emphasized in operant psychology (Skinner, 1953). External regulation is a highly controlling form of motivation. Here the focus is on contingencies that are controlled by external agents, along with the resulting outcomes. However, Ryan, Connell, and Deci (1985) argued that people have an inclination, as part of the inherent integrative process, to internalize the regulation of behaviors that are valued by important others in their environments. Parents may convey to their children that they value an activity by doing it themselves, and the children may thus internalize the value of the behavior. Ryan and colleagues further argued that although

internalization is typically treated as a dichotomous concept—that is, as being either external to the person or internal (Sears, Maccoby, & Levin, 1957)—it is useful to recognize that values or behavioral regulations can be internalized to differing degrees.

Specifically, Ryan et al. described three different types of internalization that differ in the degree to (p. 89) which they represent *full* internalization and thus the degree of autonomy of the resulting behaviors. The authors used the term *introjection* (e.g., Perls, 1973) to refer to the least autonomous form of internal regulation. Here, people have taken in a behavioral regulation, but it has retained more or less the same form it was in when it was still external. For example, parents may convey to their children that they will give them more rewards if the children do well in school and will reward them less, or punish them if they do not do well (Grolnick, 2003). Introjection of these contingencies would involve the children esteeming themselves to the degree that they do well in school. In short, their self-esteem would be contingent on doing their schoolwork well (Assor, Roth & Deci, 2004; Deci & Ryan, 1995). If they did not do well, they would feel unworthy and would have a general sense of being disapproved of by others (Roth, Assor, Niemiec, Ryan, & Deci, 2009). Although introjected regulations are “internal” or intrapersonal, they are nonetheless controlling in nature, as the individuals are being controlled by these contingencies of self-worth, which results in negative well-being consequences (Kernis & Paradise, 2002). Moreover, because the values enforced by these contingencies are only partially internalized, people typically do not feel fully volitional when enacting them so the behaviors are motivationally unstable and usually are either weakly related or unrelated to long-term commitment or performance (Deci & Ryan, 2000). Accordingly, external and introjected regulations are considered to be the two subtypes of controlled extrinsic motivation.

The regulation of extrinsically motivated behaviors is more autonomous when the individuals understand and accept the real importance of the activity for themselves. We refer to this type of regulation as *identified regulation* because the individuals have identified with the value of the behavior for themselves. The experience of identified regulation is thus distinct from the experience of introjected regulation, and the two have different correlates. For example, research has shown when the regulation of religious behaviors is introjected, such behaviors are negatively associated with well-being, whereas when the regulation is identified, religious behaviors are positively associated with well-being (Ryan, Rigby, & King, 1993). Finally, when an identification has become congruent with other identifications, needs, and experiences, the resulting regulation is referred to as *integrated regulation*, which represents the most highly autonomous form of extrinsic motivation.

We have now specified three subtypes of autonomous motivation: identified and integrated forms of extrinsic motivation, along with intrinsic motivation. Typically, behaviors that are initially extrinsically motivated are not transformed into intrinsically motivated behaviors, because they retain their instrumental focus; however, some behaviors are motivated by both intrinsic and extrinsic elements. These extrinsic motivations may begin as external or introjected regulations and be transformed into the

more autonomous types of extrinsic motivation—namely, identified and integrated regulation—although they may be retained in a quite controlling form. Intrinsic motivation and integrated extrinsic motivation share various characteristics, such as flexibility and volitional engagement, but they are different because intrinsic motivation refers to doing the behavior because it is interesting and enjoyable in its own right, whereas integrated regulation refers to doing the behavior because it is personally, though instrumentally, important, valued, and meaningful for the person. Furthermore, studies have shown that, whereas intrinsic motivation tends to be the better predictor of being engrossed in an activity, identified and integrated regulations tend to be better predictors of doing more effortful tasks that require discipline (e.g., Burton, Lydon, D'Alessandro, & Koestner, 2006; Koestner, Losier, Vallerand, & Carducci, 1996).

Having specified different types of motivation, it is important to highlight that any given behavior can be energized by more than one of these motivations. For example, one might be both identified with the value of an action and also introjected concerning one's performance at it. One might pursue an activity that one identifies with and also feel intrinsic motivation while enacting at least parts of it. In other words, types of regulation can co-occur, and thus within SDT we often look at the overall *relative autonomy* of a person's actions, using procedures that aggregate these multiple motives (see Ryan & Connell, 1989).

Outcomes Associated With Autonomous Motivation

Ryan, Connell, and Plant (1990) found that students' intrinsic motivation for a learning task positively predicted their learning and recall both immediately following the reading and a week later. Wang (2008) found similar results among Chinese college students in that those who were more intrinsically motivated performed better on the final exam in the course, thus confirming the relation of (p. 90) intrinsic motivation to learning in an Eastern culture. Boiché, Sarrazin, Grouzet, and Pelletier (2008) assessed autonomous motivation (both intrinsic and identified) of high school physical education students and found that students who were more autonomously motivated performed better in the course activities than those who were lower on autonomous motivation. Lévesque, Zuehlke, Stanek, and Ryan (2004) found that autonomous motivation (as well as perceived competence) in both German and American college students positively predicted their well-being. Pelletiere, Fortier, Vallerand, and Brière (2001) found that elite swimmers who were more autonomously motivated persisted at their sport longer than those who were more controlled in their motivation.

Studies have also shown that when people are more autonomously motivated for changing their health-compromising behaviors—for example, stopping smoking, eating a healthier diet, or exercising more regularly—they are more successful in changing such behaviors and maintaining the changes over time. Such findings have been verified in multiple ways, including through physiological indicators such as decreases in glycosylated hemoglobin and LDL cholesterol (e.g., Williams, Freedman, & Deci, 1998;

Williams, McGregor, Sharp, Kouides, et al., 2006). In a similar vein, studies have shown that when clients are more autonomous in their motivation for participating in psychotherapy, they experience more successful outcomes, such as decreased depression (Pelletier, Tuson, & Haddad, 1997; Zuroff et al., 2007). Other research has shown that people who are more autonomously motivated behave in healthier ways, such as consuming alcohol responsibly (Pavey & Sparks, 2009).

Research has further shown that autonomous motivation promotes not only behaviors that are personally healthy, but it also leads to behaviors that promote well-being of the collective. For example, Séguin, Pelletier, and Hunsley (1999) found that people who were more autonomously motivated to engage in pro-environmental behaviors sought out more information about environmental health risks and acted more pro-environmentally.

Furthermore, across these and other domains, research suggests that people who are more autonomously motivated display greater psychological wellness (e.g., Ryan et al., 1993; Sheldon, Ryan, Deci, & Kasser, 2004). This is important because SDT assumes that when afforded autonomy people are more apt to behave in ways that further their own capabilities and thriving (Vansteenkiste et al., 2008). Stated differently, autonomy facilitates integrated action, need fulfillment, and wellness.

To summarize, we have reviewed just a few of the hundreds of studies, done in multiple domains and cultures and with participants of varied ages, that have shown that more autonomous motivations are more effective than controlled motivations with respect to learning, performing effectively, behaving in healthier ways, and other important outcomes.

Causality Orientations

The autonomous and controlled motivations being addressed thus far have been either *(1)* state-level motivations that people experience at a particular time and that might be prompted by a particular situation, or *(2)* domain-specific motivations—motivations in school, at home, or at work, for example—that are somewhat more stable than state motivations but apply just to specific areas of life. Yet autonomous functioning can also be studied at a more global, or individual difference, level, as specified within Vallerand's (1997) hierarchical model of motivation. Individual differences (i.e., between-person differences) in personality can have influences across domains and over time. We refer to this level of analysis of motivational types as *causality orientations*, and SDT specifies three such orientations—autonomous, controlled, and impersonal orientations—and maintains that all people have each orientation to some degree.

The *autonomy orientation* is defined as the degree to which people tend to be generally autonomous and also to interpret the environment as both being supportive of their autonomy and providing information relevant to choices they are making. When autonomy oriented, people regulate behavior on the basis of interests and abiding values. The *controlled orientation* indexes the level to which people are controlled across domains of their lives and interpret environments as being pressuring and coercive. When control oriented, people are focused on rewards or punishments, both tangible and social, in the regulation of behavior. The *impersonal orientation* refers to a general sense of not being intentional or motivated and of seeing the environment as providing obstacles to getting desired outcomes. When impersonally oriented, people feel little agency, and often fail to regulate their behavior effectively.

Considerable research has shown that the autonomy orientation is positively associated with self-actualization, self-esteem, ego development, and the tendency to support autonomy in others; it is also negatively associated with many indicators of (p. 91) ill-being. The controlled orientation is associated with such characteristics as public self-consciousness and the Type-A coronary-prone behavior pattern. The impersonal orientation is correlated with variables such as self-derogation, social anxiety, external locus of control, and depressive symptoms.

Williams, Grow, Freedman, Ryan, and Deci (1996) found that morbidly obese patients who were in a medically supervised dietary program were more likely to lose weight and keep it off for 2 years if they were high rather than low on the autonomy orientation. Baard, Deci, and Ryan (2004) found that employees of a banking firm who were high rather than low on the autonomy orientation experienced greater need satisfaction at work and received better performance evaluations from their managers. Knee, Patrick, Vietor, Nanayakkara, and Neighbors (2002) found in a laboratory study of romantic partners that individuals who were high on the autonomy orientation displayed fewer negative emotions, more positive behaviors, and more relationship-maintaining coping strategies;

whereas those high on the controlled orientation were more negative and wanted their partners to be more like themselves.

Weinstein, Deci, and Ryan (2011) found that people high in the autonomy orientation integrated both positive and negative past identities into their current sense of self, whereas those high on the controlled orientation accepted their past positive, but rejected their past negative, identities. These findings were mediated by defensiveness, with people high in the controlled orientation also being higher in defense. The results followed up on a study by Hodgins, Koestner, and Duncan (1996), which found that college students who were high in autonomy were less defensive (i.e., more honest and disclosing) with their parents, reported more pleasant affect, and felt better about themselves in those interactions than were students high in the controlled orientation. Other studies by Hodgins and colleagues (Hodgins & Liebeskind, 2003; Hodgins, Liebeskind, & Schwartz, 1996) revealed that people higher in autonomy, relative to the other orientations, used fewer lies in explaining wrongdoings and provided more apologies when they had caused harm to others.

As noted, the SDT perspective maintains that all people have some level of all three causality orientations. One orientation may be much stronger than the others and thus, on average, be the dominant personality-level influence on a person's functioning; however, other orientations may be dominant at particular times. This happens in part because factors in the environment prime (i.e., nonconsciously prompt) specific orientations regardless of the ongoing levels in the strengths of the three orientations (e.g., Friedman, Deci, Elliot, Moller, & Aarts, 2010; Hodgins, Yacko, & Gottlieb, 2006). In the Weinstein et al. (2011) research mentioned earlier, some of the studies assessed causality orientations with the self-report measure, but others primed the autonomous and controlled orientations in people randomly assigned to conditions, thus making the primed orientations more salient. The researchers found that those primed to be autonomous integrated both positive and negative past identities, whereas those primed to be controlled integrated positive past identities but not negative ones, thus paralleling exactly the findings by these authors in which individual differences in causality orientations (assessed with a questionnaire) were used as predictors of integrating past identities. Similarly, Hodgins et al. (2006) primed causality orientations in college students and found that autonomy-primed individuals displayed lower use of the defenses such as self-serving bias and self-handicapping, whereas control-primed individuals were higher in self-serving responding and self-handicapping, results that paralleled those found in studies by Knee and Zuckerman (1996, 1998) who had used causality orientations assessed as individual differences.

To summarize, research on causality orientations has indicated that being more autonomy oriented has far more positive outcomes for effective performance and psychological health than being high on the other two orientations. Furthermore, studies have shown that subliminal prompts can prime causality orientations and produce effects that parallel those that are predicted by self-reported individual differences in causality orientations.

Intrinsic and Extrinsic Life Goals

Although SDT focuses primarily on the “why” of people's goals and behaviors (i.e., on autonomous versus controlled motivations), we have also studied the *contents* of people's goals, or the “what” of behavior. A central notion is that, because the effects of any behavior on wellness is mediated by basic psychological need satisfactions, “not all goals are created equal” (Ryan, Sheldon, Kasser, & Deci, 1996), because some goals are more directly satisfying of basic needs and some are less satisfying or even thwarting of basic need satisfaction, and thus have different effects on psychological wellness.

(p. 92) Pursuing Intrinsic and Extrinsic Aspirations

Especially studied in this regard are aspirations or life goals that people value, pursue, and sometimes attain. Kasser and Ryan (1996) found that, when participants reported how much importance they placed on a variety of life goals, the goals separated into two factors that the investigators referred to as *extrinsic* and *intrinsic aspirations* or *life goals*. The extrinsic aspirations that have been studied most are accumulating wealth, becoming famous, or having an attractive image. The intrinsic ones that have gotten considerable empirical attention are personal growth, developing meaningful relationships, contributing to the community, and being physically fit and healthy.

Much of the research has examined the association between the relative strength of the extrinsic versus intrinsic life goal pursuits and their relations to various indicators of psychological health and well-being. Consistently, the studies have shown that when people's aspirations for pursuing extrinsic outcomes are relatively stronger than their aspirations for pursuing intrinsic outcomes, individuals tend to have lower self-esteem and self-actualization, as well as higher depression, anxiety, narcissism, and Machiavellianism, among other outcomes (e.g., Kasser & Ryan, 1993; McHoskey, 1999). They also engage more in high risk behaviors (Williams, Cox, Hedberg, & Deci, 2000).

Some commentators (e.g., Carver & Baird, 1998) have suggested that the reason pursuing extrinsic goals is related to poorer psychological health than is pursuing intrinsic goals is that extrinsic goals are likely to be pursued for controlled motives, whereas intrinsic goals are likely to be pursued for autonomous motives. In other words, they argued that the problem is not in “what” was being pursued (the extrinsic goal) but in “why” it was being pursued (the controlled motive). Sheldon et al. (2004) tested this reasoning in three studies. They found that there was indeed a correlation between the “what” and the “why” of behavior—people more oriented toward extrinsic goals did tend to be more controlled and those oriented toward the intrinsic goals did tend to be more autonomous. However, when both the goals and the motives were entered simultaneously into regression analyses to predict well-being, results showed that both the what and the

why accounted for independent variance. That is, what people pursue and why they pursue it both make a significant difference in their psychological well-being. In short, being controlled in one's motivation and pursuing extrinsic aspirations are both negative predictors of well-being.

The SDT interpretation of the results for aspirations is that the intrinsic goals are quite directly related to satisfaction of the basic psychological needs. Personal growth, for example, is closely related to becoming more integrated and autonomous, as well as somewhat more competent and, most likely, more related to others because personal growth tends to make satisfying relationships easier. Furthermore, both meaningful relationships and community involvement are strongly tied to satisfaction of the relatedness need and they are likely to relate to people feeling more autonomous and competent to the extent that the goals are pursued volitionally (e.g., see Weinstein & Ryan, 2010). In contrast, the extrinsic aspirations are typically at best only indirectly related to basic need satisfaction, and they may in many cases be antagonistic to satisfaction of the basic needs. For example, the pursuit of wealth is likely to leave people feeling less autonomous, as acting in the service of monetary rewards has been shown to undermine autonomy, and, furthermore, the time devoted to the pursuit of wealth is likely to interfere with relatedness satisfaction. Similar kinds of arguments can be made for fame and image when they are highly valued as life goals.

Attaining Intrinsic and Extrinsic Aspirations

Recently, Niemiec, Ryan, and Deci (2009) examined how the *attainment* (rather than the pursuit) of intrinsic versus extrinsic aspirations contributes to wellness versus distress in early adulthood. The study followed young adults beginning 1 year after they had graduated from college (Time 1) and ending 1 year after that (Time 2). At the beginning and end of that year four important concepts were assessed: *(1)* the personal importance of intrinsic and extrinsic goals, *(2)* the level of attainment of intrinsic and extrinsic goals, *(3)* the degree of satisfaction of the basic psychological needs, and *(4)* indicators of both well-being and ill-being. Results showed first that the importance people place on goals at Time 1 strongly predicted attainment of those goals at Time 2, and this was true for both intrinsic and extrinsic goals. People tended to attain that which they considered important. Second, increases in the attainment of intrinsic goals over the year related to increases in well-being and to decreases in ill-being over that period. In contrast, increases in attainment of extrinsic goals did *not* predict increases in well-being but did predict symptoms of ill-being. Finally, the research showed (p. 93) that the relations between changes in intrinsic goal attainment and changes in well-being were mediated by corresponding changes in satisfaction of the basic psychological needs (Niemiec et al., 2009). This study seems to be a warning: “Be careful what you wish for” because people tend to attain the goals they value, but the consequences of doing so may be negative for some of the goals.

Manipulating Goal Orientations

Thus far we have treated aspirations as individual differences that are learned as a function of satisfaction versus thwarting of the basic psychological needs during development, and the primary outcomes in the research have generally been well-being indicators. In another important strand of this research the salience of people's goals has been experimentally manipulated. Vansteenkiste, Simons, Lens, Sheldon, and Deci (2004) did two studies of college students and one of younger, physical education students in which all the students were engaged in learning activities and the introduction they received to the task oriented them toward viewing the task as leading to either an intrinsic goal or an extrinsic goal. For example, business students were given material to learn about communication processes; half were told the learning would help them understand themselves better (i.e., an intrinsic goal of personal growth) and the other half were told that the learning would help them earn more money in their business careers (i.e., an extrinsic goal of wealth). Results indicated that those who had been oriented toward the intrinsic goal learned the material better than those who had been oriented toward the extrinsic goal. Furthermore, 5 days later, when making a presentation about the material, the students who had learned with the intrinsic goal set were rated as having given better presentations. Additionally, those who had been given the intrinsic goal orientation spent more subsequent time exploring the topic by engaging in voluntary activities related to the learning.

Summary of Life Goals Research

Research shows that many life goals can be grouped into two categories: intrinsic aspirations such as growth, relationships, and community, and extrinsic aspirations such as wealth, fame, and image. Numerous studies further indicate that pursuit and attainment of the intrinsic aspirations is associated with greater well-being and less ill-being, whereas the pursuit and attainment of extrinsic aspirations is associated with less well-being and greater ill-being. These relations tend to be mediated by satisfaction versus thwarting of the basic psychological needs, such that intrinsic goals tend to have a direct relation to satisfaction of the basic psychological needs, whereas extrinsic goals tend to be either indirectly related to or antagonistic to satisfaction of the basic needs. Finally, these intrinsic and extrinsic aspirations can also be manipulated by or primed within social contexts, such that, when extrinsic goals are made salient, performance and well-being tend to be worse, whereas when intrinsic goals are made salient performance and well-being tend to be better. We turn now to a consideration of how social contexts facilitate autonomous versus controlled motivations and intrinsic versus extrinsic aspirations.

Effects of Social Contexts on Motivation, Life Goals, Behavior, and Well-Being

Autonomous motivation, intrinsic aspirations, effective functioning, and well-being are theorized to be facilitated both developmentally and situationally by social contexts. As we noted earlier, facilitators of (and obstacles to) optimal functioning, of which autonomous motivation and intrinsic aspirations are a central components, are conceptualized within SDT in terms of supports (or thwarts) for satisfaction of the basic psychological needs for competence, autonomy, and relatedness.

Specific Contextual Factors and Autonomous Motivation

Some of the studies of social-contextual effects on motivation-related outcomes have been experiments examining specific factors such as the offer of rewards, provision of choice, imposition of deadlines, or introduction of competition as they affect autonomous motivation, and many of these have used intrinsic motivation as the dependent variable. For example, nearly 100 experiments have investigated whether tangible-reward contingencies tend to promote versus diminish intrinsic motivation, and the results confirmed that the use of the most common reward contingencies tend to decrease the experience of autonomy and promote controlled motivation (Deci et al., 1999). These authors interpreted this as indicating that, on average, the rewards thwart satisfaction of the need for autonomy while prompting a shift in the perceived locus of causality from internal to external (de Charms, 1968). Rewards have frequently been used to control people's behavior, so the rewards have tended to take on a controlling functional significance and (p. 94) to end up thwarting autonomy and undermining intrinsic motivation.

Other research revealed that threats of punishment, deadlines, evaluations, surveillance, and pressured competition also decreased intrinsic motivation because they too are often experienced as thwarting the autonomy need (see Ryan & Deci, 2000a for a review). Like rewards, these other specific aspects of social environments tend to be experienced as pressuring rather than supportive. In contrast, offering choice and acknowledging people's feelings enhanced intrinsic motivation and facilitated fuller internalization because they prompted an internal perceived locus of causality and satisfied people's need for autonomy (e.g., Deci, Eghrari, Patrick, & Leone, 1994; Koestner, Ryan, Bernieri, & Holt, 1984; Oliver, Markland, Hardy, & Petherick, 2008; Patall, Cooper, & Robinson, 2008).

Experiments have also examined the effects of feedback on autonomous motivation. In general, these studies indicate that positive feedback tends to enhance intrinsic motivation and facilitate internalization, because such feedback provides satisfaction of the competence need and may also support autonomy. That is, when people get positive

feedback that is authentic, they are likely to infer that they are responsible for their good performance, thus experiencing autonomy as well as competence satisfactions. Situations that provide positive feedback and are accompanied by some support for autonomy are referred to as *informational*, and they have consistently been shown to enhance autonomous motivation (see Deci & Ryan, 2000). Yet when positive feedback is given in a controlling way—for example, in a form such as, “Good, you did just as you should”—it tends to be detrimental to autonomous motivation and to shift the perceived locus of causality toward external (Ryan, 1982). When feedback is negative, the message tends to convey “incompetence” and decreases autonomous motivation. If the negative feedback is persistent, and especially if it is demeaning, it will tend to result in amotivation.

Autonomy-Supportive and Controlling Climates

Other studies have examined autonomy-supportive versus controlling social environments as concepts that capture the quality of an interpersonal climate or the ambience of a situation—be it, say, a home, classroom, workgroup, or clinic. Autonomy-supportive environments are ones in which the perspectives of individuals in that environment are acknowledged (typically by an authority figure); the individuals are encouraged to experiment and are provided some choice; and the use of controlling language and contingencies is minimized. In contrast, controlling contexts are ones that pressure people to think, feel, or behave in specific ways (Deci & Ryan, 2000) through the use of coercive or seductive pressures and demands. The concept of an autonomy-supportive versus controlling climate has been assessed with several methods, including self-reports from the authority figures in the situations (e.g., teachers, managers, parents, coaches, physicians, or therapists); reported perceptions of the authorities’ autonomy supportiveness from people for whom the authority is responsible; interviews with the authorities that are rated or coded for autonomy support; and direct observations that are, similarly, rated or coded.

As mentioned earlier, autonomy-supportive contexts of course support satisfaction of the autonomy need. It turns out, furthermore, that these contexts also tend, to some degree, to support the other basic psychological needs—the needs for relatedness and competence. First, when an authority takes another's perspective, the other typically feels like he or she has been related to in a genuine way, thus providing support for relatedness (e.g., La Guardia, Ryan, Couchman, & Deci, 2000). In addition, because autonomy support includes perspective taking, autonomy-supportive authorities will be more mindful of obstacles to satisfaction of the people's other needs—that is, of frustrations to competence and relatedness needs. Finally, when people are in situations where their autonomy is supported, they are likely to feel freer to do what is necessary to get their other needs satisfied.

Relational Supports and Structure

It is important to note that there are factors other than autonomy support that specifically facilitate satisfaction of the basic needs for relatedness and competence. For example, direct expressions of caring, time spent together mutually sharing feelings, and involvement of one person in the life of another are examples of factors likely to promote satisfaction of the relatedness need (e.g., Grolnick, Benjet, Kurowski, & Apostoleris, 1997). Furthermore, providing noncontrolling *structure* and informational feedback are factors likely to promote satisfaction of the competence need (e.g., Jang, Reeve, & Deci, 2010; Ryan, 1982). In other words, research in SDT suggests specific nutriments that can enhance each of the basic need satisfactions, beyond the general facilitating impact of autonomy support.

(p. 95) Studies of Social Contexts in Various Domains

Many studies conducted over the past 30 years have examined the relations of autonomy-supportive contexts to motivation and other outcomes, beginning with Deci, Schwartz, Sheinman, and Ryan (1981). These investigators had elementary school teachers report on the degree of their own autonomy-supportive versus controlling classroom styles, and these teacher self-reports were then related to the students' experiences of intrinsic motivation, perceived competence for school, and self-esteem. It was found that when teachers were more autonomy supportive, their students became more intrinsically motivated and perceived themselves more positively by the end of the first 2 months of the school year. Ryan and Connell (1989) found that when elementary school teachers were perceived as more autonomy supportive, their students showed greater internalization of achievement-related values. Black and Deci (2000) found that college students taking organic chemistry from instructors who were more autonomy supportive became more autonomous and got higher grades in the course, after controlling for SAT scores and grade point averages.

Grolnick and Ryan (1989) in an interview study of the parents of elementary school students found that parents who were rated by interviewers as more autonomy supportive had children who were more autonomously motivated to do schoolwork, were rated by their teachers as more competent and better behaved, and got better grades. Landry et al. (2008) found that when mothers trusted in the natural developmental process, they were more autonomy supportive, and both the mothers and children evidenced more positive adaptation. Gagné, Ryan, and Bargmann (2003) found that when coaches were more autonomy supportive, gymnasts evidenced greater vitality, autonomous motivation, and well-being. These and many other similar studies have shown the pervasive effects of support for autonomy across youth development.

Similar evidence is found in the workplace (see Gagné & Deci, 2005). For example, managers of a Fortune 500 company who were more autonomy supportive had employees who were more satisfied with their jobs and more trusting of the company's top management (Deci, Connell, & Ryan, 1989). Baard et al. (2004) found that banking industry employees who perceived their managers as more autonomy supportive

displayed better psychological well-being and received higher performance evaluations than employees who perceived their managers as more controlling.

In health care settings numerous studies have shown that patients who perceive their practitioners as more autonomy supportive tended to make greater improvements in health behaviors and outcomes. For example, when practitioners (e.g., physicians, nurses, health counselors, dental professionals) were perceived as more autonomy supportive, their patients were more likely to quit smoking (e.g., Williams, McGregor, Sharp, Levesque, et al., 2006); to more effectively regulate their glucose levels (e.g., Williams, McGregor, Zeldman, Freedman, & Deci, 2004); to achieve and maintain more weight loss (Williams et al., 1996); and to attend dental clinics more regularly (Münster Halvari, Halvari, Bjørnebekk, & Deci, 2010). Philippe and Vallerand (2008) found that when nursing home staff were more autonomy supportive, residents both reported more autonomy and displayed greater well-being.

Mutual Autonomy Support in Peer Relationships

In friendships and romantic relationships autonomy support also matters. Here, however, the situation is a bit different. In each of the relationships discussed earlier there was an authority differential between the two people in the relationship—teachers-students, managers-employees, and coaches-athletes, for example. With friends, relationships are typically more mutual. A study of friends by Deci, La Guardia, Moller, Scheiner, and Ryan (2006) found that the mutuality of autonomy support was indeed advantageous. Each relational partner benefited in terms of well-being not only when receiving autonomy support from his or her partner but also when giving autonomy support to the partner. Other studies of intimate relationships (Knee et al., 2002; La Guardia & Patrick, 2008) similarly attest to the impact of need-related supports in close relationships for enhancing versus debilitating people's healthy functioning and wellness.

Other research has shown positive effects on well-being of both giving and receiving help even to a stranger, assuming that the helping was autonomously done rather than being controlled. Weinstein and Ryan (2010) found in a series of diary studies and experiments that the more autonomously motivated an individual was to provide help to another, the more the helping predicted well-being outcomes not only in the helper but also in the recipients of that help. In short, it seems that giving to and caring (p. 96) for others can be very positive for both the giver and the receiver so long as the giver is autonomous in his or her actions.

Contextual Effect on Intrinsic and Extrinsic Aspirations

Studies have examined the effects of social contexts not only on autonomous and controlled motivation but also on the development of intrinsic and extrinsic life goals or aspirations. We saw earlier that having a strong extrinsic life-goal orientation tends to

thwart basic psychological need satisfaction, resulting in more negative outcomes, such as increased ill-being. The SDT perspective suggests that it is also the case that the *development* of a strong extrinsic life-goal orientation tends to result from thwarting of basic psychological need satisfaction over time. This thwarting creates a sense of anxiety and inadequacy that leads to the pursuit of external indicators of worth in order to make up for the lack of inner feelings of worth. For example, Kasser, Ryan, Zax, and Sameroff (1995) studied the importance late teenagers' placed on the extrinsic aspiration for wealth, relative to intrinsic aspirations for growth, relatedness, and community. They found that teenagers who placed the strongest importance on wealth had mothers, according to reports from both the adolescents and their mothers, who were more authoritarian, controlling, and cold. This early thwarting of children's basic need satisfaction is assumed to have created an inner insecurity in the children for which they developed strong extrinsic aspirations in an attempt to compensate.

Similarly, Williams, Cox, Hedberg, and Deci (1999) found that adolescents who rated their parents as low in autonomy support placed stronger importance on the extrinsic relative to intrinsic aspirations, and this in turn was associated with the adolescents engaging in more risky behaviors such as early engagement in tobacco use, alcohol consumption, and sexual intercourse. Sheldon and Kasser (2008) found that when college students experienced psychological threats (including existential, financial, and interpersonal threats), they tended to become more strongly focused on extrinsic life goals. It seems from these various studies that when young people experience thwarting of their basic psychological needs they tend to become more oriented toward the extrinsic goals in order to compensate for the inner feelings of anxiety. Unfortunately, as we saw earlier, becoming more strongly oriented toward extrinsic aspirations in turn causes greater need thwarting and poorer outcomes, thus perpetuating a cyclical negative dynamic of need thwarting, causing a stronger extrinsic orientation and that in turn causing greater need thwarting.

More Distal and Pervasive Influences

Certainly proximal social contexts—our immediate interpersonal worlds—typically provide the most phenomenally salient experiences of autonomy support or control both situationally and developmentally. But from an SDT perspective the cultural, economic, and political contexts within which people live have overarching and pervasive, yet often hidden, roles in supporting or thwarting the fulfillment of their basic needs. These distal contexts both set horizons on people's possibilities and also introduce norms, constraints, and policies that either facilitate or diminish need fulfillments.

Cultural Values

Autonomous Motivation and Wellness

Chirkov et al. (2003) examined the relations of cultural values to the well-being of individuals in those cultures. The researchers focused on whether the cultures of South Korea, Russia, Turkey, and the United States tended to emphasize individualism or collectivism and whether the societies were more horizontal or vertical in their structures. The researchers found first that although the cultures differed in terms of the values placed on individualism versus collectivism, it was not the values themselves that predicted well-being; it was instead the degree to which people had internalized the values that predicted their well-being. In other words, autonomy (resulting from full internalization) was important for individuals' well-being in all these cultures, regardless of whether the cultures were oriented more toward the collective or more toward the individual.

The study further found that vertical structures were, on average, more difficult to internalize than were horizontal structures. We understand this as indicating that a vertical or hierarchical system is likely (though not invariantly) to be experienced as more controlling than a horizontal one and would thus tend to thwart people's need for autonomy, making it more difficult to accept the hierarchical structure as their own. This of course is merely an "on average" finding, and it remains for the issue of hierarchy to be disentangled from the experience of autonomy versus control at the cultural level. In principle, according to SDT, one could congruently assent to some hierarchical arrangements without losing a sense of autonomy in following that (p. 97) arrangement. This kind of integrated identification with a hierarchical structure would be facilitated by authorities who behave in a need-supporting way toward the individual or group, making acceptance and assimilation more possible.

Culture, Aspirations, and Well-Being

The issue of broader contextual effects and well-being can also be addressed with respect to aspirations or life goal. The goals of wealth, fame, and image are very central to what we think of as the "American Dream"—that is, the set of values our culture and its economic system tend to promote. Indeed, having people within the culture be oriented toward the pursuit of wealth, fame, and attractiveness is necessary for the culture to grow (Kasser et al., 2007), so the advertising industry within America has become enormous, and its primary purpose is to get people to buy more goods and services that represent external indicators of worth—namely, appearing attractive, wealthy, and popular. Of course, doing that requires actually pursuing more wealth to pay for the goods and services, thus contributing to economic growth.

Our cultural context, emphasizing the American Dream, supplies the backdrop in which schools and parents are embedded as they influence children's motivation. Simply stated, the culture with its capitalist economic system strongly promotes extrinsic aspirations, through direct means such as advertising and through indirect means such as prompting stress within families and thus creating conditions of insecurity that conduce toward

extrinsic valuing. While these psychological conditions may facilitate consumption and spending, they are unlikely to be conducive to wellness and high quality of life.

Twenge, Gentile, DeWall, Ma, Lacefield, and Schurtz (2010) recently examined cultural trends in the mental health of U.S. college students over the past seven decades. They first found a rather disconcerting pattern: Over this time U.S. college students evidenced increases in symptoms of depression, anxiety, and antisocial tendencies as detected with equated assessments. Examining numerous factors that might account for this negative trend toward greater distress and psychopathology, they ruled out numerous issues from prosperity to family structure. What they concluded was that the increasing shift toward poorer mental health and psychopathology may be "due to an increased focus on money, appearance, and status rather than on community and close relationships" (p. 153). That is, the slide toward more extrinsic life goals appears to have led at least this U.S. cultural subgroup toward more distress and lower wellness.

Cultural Values and Need Satisfaction

Together, these findings about cultures and values are important because they suggest that cultures play a role in whether the people can experience satisfaction of their basic needs. The results further suggest that having the need for autonomy satisfied in any culture, regardless of the culture's values, would contribute to psychological wellness. Conversely, studies show that people feel more estranged from and less accepting of their cultures to the degree that they are not experiencing basic need satisfaction (e.g., Chirkov, Ryan, & Willness, 2005). Thus, one basis for alienation and instability within any culture may be the extent to which the culture's ambient values and behavioral regulations fail to support or facilitate opportunities for basic need satisfaction among its constituents.

Evaluating Cultural Values and Practices

It is of course treacherous for social scientists to evaluate cultural value systems or practices. Many scholars today in fact ascribe to a *cultural relativism* view, which maintains that it is not appropriate to evaluate any cultural milieu from the "outside." In this regard, SDT is in a particularly interesting position. In our view, need support means supporting the self-regulation of individuals so they can have the freedom to experience and pursue *their own* preferred values and life projects. In taking this *internal frame of reference*, SDT is therefore not imposing particular contents, but rather is specifying a criterion for evaluating any cultural value or practice. To the extent that the value or practice supports (rather than thwarts) satisfaction of the basic human needs underlying growth, effective functioning, and wellness, the evaluation would be positive.

Economic Systems

Just as cultural systems set affordances, constraints, and boundaries that affect people's pursuit and attainment of basic psychological need satisfactions, so too do economic systems. From the way in which work behavior is managed and regulated, to the macro-arrangements responsible for distributing wealth and caring for citizens, SDT takes interest in how various economic structures support or thwart people's basic psychological needs. We have already discussed how proximal management styles impact work motivation. Variations (p. 98) in macro-structures—from the direct deprivations of autonomy and competence often witnessed in central planning economies, to the economic and social oppression that can be experienced within market capitalisms also differentially support or diminish human wellness. SDT uses the construct of basic psychological needs as mediating factors to link these distal structures to the experiences and outcomes of particular individuals and communities. Although we have interest in varied economic systems (e.g., Deci et al., 2001), in what follows, we focus primarily on features found in modern corporate capitalism to illustrate how the standard market economy can affect individuals' motivation and well-being (e.g., Frey, 1997).

Corporate capitalism is most notable in part because of its increasing global reach and its capacity to transform the other cultures it reaches (Kasser et al., 2007). Still, the capitalist system has variations, in part because cultures have varied in the degree to which they have also embraced social-welfare policies. It is clear, for example, that these additions and variations to an unbridled or laissez-faire economic approach modify and constrain some of capitalism's influences on need satisfactions.

Briefly, capitalism is characterized by private ownership of capital and sale of goods and services at the highest price attainable. The basic idea is that people are acting in terms of their "self-interests" in a competitive system, so they are "free to choose" (Friedman & Friedman, 1990) how to act in an assumed attempt to maximize their earnings and wealth, whether they own capital or merely work for others who do. One's own labor, ideas, time, and products of effort are thus all commodities that can be exchanged or sold to others. From the perspective of SDT, capitalist systems are complex and have elements that both support and thwart autonomy.

First, modern corporate capitalism, relative to other styles of economic organization, provides a multitude of choices, and, when coupled with democracies, it also manifests as a relative absence of *direct* external control over lifestyles and vocations. Of course, choices may be *highly* constrained for some individuals or groups within capitalist societies, especially those without access to education or resources and who thus have few options to develop competencies or the autonomy to pursue valued ends. Yet the array of opportunities for many and the relative freedom to pursue preferred vocations and projects are in large part responsible for the high levels of entrepreneurial activity, productivity, and creativity evidenced within sectors of the capitalist system. Perhaps no

other economic system in history has prompted so much productivity, both constructive and wasteful.

SDT research makes a compelling case for the significant role played by autonomy in fostering both creative development and amplifying “human capital” within an economic system. Within the workplace we know, for example, that autonomy maximizes creativity and flexible problem solving (Gagné & Deci, 2005). Similarly, at a systems level provision of choice and opportunities to develop competence (e.g., education, training) allow individuals to cultivate and apply more preferred talents and passions, which overall makes the system more effective and generative (e.g., Sen, 1999). Autonomy too is evident in the freedom to pursue innovation and expression, and it is enriched by shared ideas and flow of information. Autonomy, that is, is an engine of growth in its own right.

Accompanying these advantages, however, SDT highlights a number of less positive motivational implications associated with capitalism. Perhaps most salient is capitalism's capacity to externally regulate people's behavior. The outcomes of pay and other tangible rewards are viewed as the primary motivators of behavior and are offered with contingencies that are either directly (e.g., commissions, piece-rate payments, stock-option bonuses) or indirectly (salaries) related to people's performance on the job. As outlined by Deci et al. (1999), the contingencies widely used within the capitalist system are nearly always either engagement-contingent (pay depends on doing the job) or performance-contingent (pay depends on the quality of the work produced) with most of the people whose pay is performance-contingent not receiving the maximum amount possible. These contingencies are considered the key motivators of the principal-agent theory of the modern market economy (Petersen, 1993), and yet they are the ones that have been found to be most detrimental to human autonomy.

Specifically, research has shown that these reward contingencies have the negative consequences of undermining autonomy and intrinsic motivation (Deci et al., 1999) and can lead to poorer quality performance as reflected in more superficial learning, less flexible problem solving and heuristic processing, and less creativity (e.g., Ariely, Gneezy, Loewenstein, & Mazar, 2009; McGraw & McCullers, 1979). Thus, the controlling use of rewards, which is common within capitalism, can interfere with effort and quality of engagement, and, as we shall see later, can even lead people to distort or (p. 99) ignore organizational goals. Thus, as explained by Frey (1997), the external intervention of financial incentives can have the positive price effect emphasized by economics but at the same time have the negative undermining effect emphasized in SDT.

Furthermore, competition, which is a central aspect of capitalism, has also been found on average within the American culture to be controlling and undermining of autonomous motivation, especially when there is interpersonal pressure to beat the opponents (Reeve & Deci, 1996). Additionally, performance evaluations, which are a feature of most corporate organizations, have similarly been found to be detrimental to autonomy (e.g., Harackiewicz, Manderlink, & Sansone, 1984). In short, research has linked the controlling use of rewards, competition, and evaluations to decreases in basic

psychological need satisfaction and autonomous motivation. Because these are all commonly used motivational elements in a capitalist system, the economic system can be expected to yield negative effects on the autonomous motivation and heuristic information processing of individuals. Furthermore, because the capitalist system, by its very nature, holds people directly accountable for results, it is likely that the system will make the managers who work within it more controlling (e.g., Deci et al., 1982), which is likely to represent yet another blow to the autonomy of employees.

Another feature of capitalism is its explicit support for lifestyles focused on achievement, competitiveness, consumerism, and material accumulation. Each of these orientations is fostered through embedded contexts, from parental and school ideologies to national values, that vary both in how controllingly they instill values and in the contents of those values. We maintain that capitalism as a system both directly and indirectly promotes extrinsic aspirations or life goals that focus on accumulation, personal gains, and recognition. As such, it is inherently in opposition to goals for community and thus global welfare (e.g., Kasser & Ryan, 1996). Kasser et al. (2007) discuss at length the antipodal nature of intrinsic and extrinsic values and their relation to capitalist social climates.

In sum, capitalism, like every complex economic system, has structures and features that can either support or thwart the autonomy, competence, and relatedness needs of the people within the system. The vitality and quality of the system's functioning reflects its supports for people's basic needs, including the three psychological needs. For example, where features enhance autonomy, more thriving is evidenced, and where autonomy is undermined, alienation, passivity, and gaming the system typically result.

High-Stakes Rewards and Sanctions

An example of traditional “rewards gone wrong” within capitalism is the current use of high-stakes bonuses, rewards, and sanctions to pressure people or organizations to attain specific outcomes. From the gargantuan financial bonuses and stock options doled out to executives for hitting stock-price targets, to sanctions on schools for not raising test scores, “accountability” enforced by high-stakes contingencies is in fashion. SDT has a particular take on such rewards that, sadly, is showing its validity across these multiple settings.

Notably, for example, around the globe various nations have applied *high-stakes tests* to drive higher achievement in students, with the ultimate aim of fostering greater economic productivity. The strategy of placing high-stakes contingencies behind test scores is based on an undifferentiated view of motivation that considers external incentives to be the effective way to foster motivation for all behaviors, from widget making to intellectual creativity. Policies such as the Bush-era *No Child Left Behind* and the Obama-era *Race to the Top* have threatened to close schools that did not perform sufficiently well on specific tests and to reward schools that excelled. Analogous strategies of rewarding states for holding their schools accountable, of paying teachers for their students’ performance on

achievement test, and even of paying students for attending school or doing well on tests have been increasingly advocated and, in some places, implemented despite well-known evidence of the negative effects of such reward structures on motivation, learning, and persistence.

Accordingly, as SDT predicts, accompanying the increased emphasis on high stakes has been research showing an increase in a variety of negative consequences that follow from it (see Nichols & Berliner, 2007, Ryan & Brown, 2005; Ryan & Weinstein, 2009, for reviews). These include increases in student dropout, failing to categorize all students who have left school as dropouts, excluding some students from taking the high-stakes tests so they wouldn't lower the school's scores, more teaching to the tests, more teaching of test-taking strategies, and less teaching of content. Additionally, there is evidence that “improvements” on high-stakes test scores often do not generalize to independent indices of achievement (e.g., the National Assessment (p. 100) of Educational Progress exams) that do not have teacher- or school-level stakes associated with them. This simply highlights that a “teach to the test” culture has been realized and appears not to be improving achievement.

Erroneously, backers of high stakes in education and elsewhere often suggest that their strategies are supported by behaviorist (i.e., operant) principles (Skinner, 1953). But in fact operant theory advocates rewarding *behaviors* and not *outcomes* (see Ryan & Brown, 2005; Ryan & Weinstein, 2009). In contrast, SDT predicts that making rewards contingent on outcomes typically has the functional effect of *reinforcing any route to the rewarded end* (e.g., Shapira, 1976). In addition, because the approach is controlling in nature, such rewards inspire a shortest-route mentality. This *contamination effect* is manifest in counterproductive activities intended to increase reward attainment, including “gaming” outcome data, sacrificing long-term organizational goals to reach short-term targets, and even outright cheating. SDT attributes such contamination effects to the controlling nature of outcome-focused rewards, and thus has anticipated many of the unintended negative results of high-stakes approaches, including how they undermine intrinsic motivation and internalization of values in students and teachers alike, and drive out best practices.

As we noted, high-stakes reward structures are not limited to schools. High-stakes bonus structures have been widely implemented to “drive results” on Wall Street, Tokyo, and other stock markets or to reap short-term profits. Where implemented, they have also driven myriad “bad behaviors” by executives, from excessive risk taking to outright “cooking the books.” Indeed, the aforementioned contamination effect (Ryan & Brown, 2005) in which all routes to stock inflations or profits are reinforced has recently been the source of much economic stress and human misery across the globe, as well as selfish profit taking by the players at the top of many corporations, including failing ones. Here we see the direct relation between a distal structure involving controlling rewards that ultimately thwarts human need satisfaction and wellness on a broad scale. As high-stakes

contingencies are imported into other spheres of life from health care to the coaching of sports, SDT suggests that there are strong, evidence-based reasons for concern.

It is precisely because economists, policy makers, politicians, and pundits often ignore the negative consequences associated with the controlling use of rewards, and the interplay of extrinsic and intrinsic values, that they support interventions that are likely to fail or backfire. Beyond obvious calculations of incentive or loss, external contingencies impact outcomes in part by thwarting versus satisfying people's basic psychological needs. To make effective predictions outside of formal exchange situations requires a focus on human psychological needs and on the conditions that support versus undermine them. That focus provides SDT with a critical lens through which to view both micro- and macro-economic factors.

Political Systems

In addition to an economic system, each country has a political system that tends toward either totalitarianism or democracy. Totalitarian systems are centered on individual dictators who hold absolute power over the lives of their citizens. Through the use of propaganda via state-controlled media and the support from the military, most aspects of citizens' lives are subjugated to the dictates of government. Typically, totalitarianism is accompanied by central planning economies, although modified totalitarian systems may have some degree of capitalism. Totalitarianism is straightforwardly antagonistic to satisfaction of the basic psychological needs. There is little opportunity for autonomy, except perhaps if one is working under the political umbrella of the dictator, but even then there is always the implicit or explicit threat of serious consequences if one offends someone higher in the hierarchy. As noted earlier, more vertical or hierarchical systems have been found to be more difficult to internalize, and this may be because the more hierarchical systems tend to be associated with at least some degree of totalitarianism.

Democracies, in contrast, are inherently oriented toward giving individuals some say in the processes that govern their lives. Through direct voting and by having representatives in all levels of government, individuals can, ideally, have the opportunity to contribute to the political process and to experience freedom from constraints other than those necessary to keep the system functioning effectively. There can be little doubt that, in general, the democratic system has great advantages relative to the totalitarian system in terms of human autonomy and satisfaction of the needs for competence and relatedness, which also tend to be diminished within a totalitarian system.

Nonetheless, democracies are vulnerable to distortion by forces within the countries. For example, in democratic systems individuals or groups (p. 101) can attain power by amassing huge wealth. Thus, through financial support of activities such as advertising and lobbying, the influence of wealth-based power can, through subtle or overt coercion or seduction, overrun the voices of the average citizens. Power through force can similarly yield undue influence within a democratic system and thus diminish the

autonomy of individuals within the system. In such cases, it is the role both of the legislative system to create laws and regulatory agencies to limit the undue influence of the few and of the judicial system to prevent individuals and groups from acting outside the laws. Different cultures have been differentially effective in these regards.

Summary of Distal Social-Contextual Influences

Theory and research on social contexts, across levels of analysis from dyads to cultures, indicates that, to the degree that environmental factors are experienced as need supportive, they will foster greater autonomous motivation, more intrinsic aspirations, more effective performance, and higher well-being. Our analysis points to the embedded nature of contexts and suggests that the varied levels of analysis that support versus thwart human needs must be considered. In this section we have seen how the broadest level, cultural, economic, and political systems have substantial influences on individuals both directly and as mediated by various embedded contexts contained within the culture.

Basic Psychological Needs

As a motivational theory, SDT must account for the energization of behavior. The basic psychological needs for competence, autonomy, and relatedness represent one very important energizer of behavior. In support of the assertion that there are three universal psychological needs, we have reviewed evidence indicating that when social contexts in multiple cultures supported people's basic psychological needs, the people tended to thrive relative to people for whom the social contexts were thwarting of need satisfaction. In line with this, various studies have examined need satisfaction as a mediator both between autonomy-supportive contexts and positive outcomes such as well-being and between the pursuit and attainment of intrinsic versus extrinsic aspirations and positive outcomes.

For example, Adie, Duda, and Ntoumanis (2008) found that when coaches were more autonomy supportive, their adult athletes playing various team sports experienced greater satisfaction of the needs for autonomy, competence, and relatedness, which in turn led to greater subjective vitality, with the autonomy and competence needs each being partial mediators of the relations. Deci et al. (2001) found support for a cross-cultural structural model in Bulgarian and American work organizations in which autonomy support led to greater need satisfaction, which in turn led to higher work engagement and greater well-being.

Studies of within-person need satisfaction over time (e.g., Reis, Sheldon, Gable, Roscoe, & Ryan, 2000; Sheldon, Ryan, & Reis, 1996), using multilevel modeling have further found that in addition to between-person relations of need satisfaction to well-being, daily

fluctuations in satisfaction of each of the three needs predict unique variance in daily well-being. On days when people experience satisfaction of their basic psychological needs, they also feel happier and even physically healthier. For example, Ryan, Bernstein, and Brown (2010) recently demonstrated that the "weekend effect," in which U.S. workers experienced greater vitality and positive mood on weekends, is primarily a function of the low autonomy and relatedness satisfactions most workers experience in their Monday through Friday jobs. This brings us back to our earlier point that although capitalism offers its constituents choices and options, many of the vocations that are available and that people "have to" adopt involve jobs that thwart psychological needs.

Need satisfaction also turns up in odd places. For example, having identified that exposure to natural elements engenders greater vitality (Ryan et al., 2010), Weinstein, Przybylski, and Ryan (2009) showed that these positive effects were at least partially due to the increased autonomy and connectedness people feel when nature is salient to them. Przybylski, Ryan, and Rigby (2009) found that psychological need satisfaction could derive from certain elements in video games, but not from their violent content. Weinstein and Ryan (2010) studied the benefits of helping others, finding that autonomous helping fulfilled all three basic psychological needs, but controlled helping did not. These examples show how SDT research is always in search of sources, moderators, and obstacles to basic need satisfactions across the varied activities of life.

Earlier in the chapter we reviewed research by Niemiec et al. (2009) showing that people who attained intrinsic aspirations such as personal growth and community tended to display greater well-being and less ill-being but that those who attained extrinsic aspirations such as wealth and fame did not (p. 102) display enhanced well-being although they did display greater ill-being. The important point for the present discussion is that these effects on well-being and ill-being were mediated by satisfaction of the basic psychological needs for autonomy, competence, and relatedness.

Although need satisfaction supplies the essential nutriments for growth, integrity, and wellness, active thwarting of needs produces a range of negative outcomes, from defensiveness and aggression to psychopathology (Bartholomew, Ntoumanis, Ryan, & Thøgersen-Ntoumani, 2011; Ryan, Deci, Grolnick, & LaGuardia, 2006). Indeed, from an SDT view, behaviors such as aggression and violence are not themselves inherently motivated (Przybylski et al., 2009) but are instead consequences of need thwarting. That is, people are prone to aggression whenever basic functioning concerned with autonomy, competence, or relatedness is frustrated or threatened, rather than because it is an inherent drive or interest. More generally, the "dark sides" of human behavior can typically be traced to persistent or severe need thwarting and the substitute needs or compensatory activities related to it (Ryan & Deci, 2000b).

Awareness As an Important Part of Autonomy and Well-Being

Reviewing the powerful effects of proximal and distal contexts on human motivation, effective performance, and wellness, as mediated by basic psychological need satisfaction, might suggest to many a very deterministic and even passive view of human nature. But that is not the SDT viewpoint. It bears repeating that SDT assumes that people have an active, growth-oriented, challenge-seeking nature unless they experience pervasive conditions of threat and need thwarting, in which case defensive behaviors, need substitutes, and controlled and impersonal orientations can be catalyzed. When needs are satisfied, the inherent, active, and growth-oriented processes flourish. Part of the active nature that is supported by need satisfaction involves the development of integrative awareness (Hodgins & Knee, 2002).

According to SDT, autonomy is facilitated by awareness, which entails the authentic attempt to experience and become conscious of what is occurring within and around oneself. It is a relaxed and interested attention to what is happening within and without. One concept closely aligned with awareness is mindfulness, which refers to an open, receptive stance regarding what is occurring in any given moment (Brown & Ryan, 2003). Research has shown that mindfulness is associated with enhanced autonomous functioning—that is, people are more likely to act in accord with abiding values and interests when they are mindful (e.g., Niemiec et al., 2010). Moreover, mindfulness is associated with less focus on extrinsic values, more effective coping, and greater wellness, again in part because of its enhancement of autonomous functioning and fulfillment of the basic psychological needs (Weinstein, Brown, & Ryan, 2009). As such, awareness or mindfulness represents a very important means to take greater responsibility for oneself and thus to be less vulnerable to the controlling and amotivating forces that are all too prevalent in our social environments.

In this chapter, we have devoted considerable attention to social-environmental influences for two primary reasons. First, knowledge about the effects of social environments on the motivation, performance, and well-being of individuals provides a basis for creating systems—ranging, for example, from families, to corporations, to political policies—that conduce toward satisfaction of the basic psychological needs of individuals within those systems. Second, when people understand how social environments affect individuals, those people are more able to avoid or resist having the potentially negative effects impact them. Although we have emphasized social-contextual effects, we are equally as interested in people expanding their own awareness, for example, though mindfulness training, psychotherapy, and other such methods, in order to be more autonomous in managing their own lives and to be more autonomy supportive with others.

Summary and Conclusions

Herein, we have provided an overview of self-determination theory, arguing that the distinction between autonomous and controlled forms of motivation are crucial for making predictions about the quality of performance, well-being, and other important outcomes. We discussed the intrinsic, integrated, and identified forms of autonomous motivation, as well as the external and introjected forms of controlled motivation. Autonomous and controlled motivations were discussed in terms of the state level, the domain level, and the personality level, the last being referred to as causality orientations. Considerable research has verified that more autonomous motivation, both situationally (p. 103) and dispositionally considered, generally leads to more positive consequences than controlled motivation.

We then discussed research on people's life goals or aspirations, pointing out that these goals tend to fall into two categories, referred to as extrinsic aspirations (e.g., wealth, fame, and image) and intrinsic aspirations (e.g., growth, relationships, and community). The pursuit and attainment of extrinsic, relative to intrinsic, aspirations has been shown to be associated with poorer psychological health and inferior performance, because the intrinsic aspirations more directly lead to satisfaction of the basic psychological needs, whereas extrinsic aspirations are less closely instrumental to basic need satisfaction and may be hostile to it.

People's autonomous and controlled motivations, as well as their intrinsic and extrinsic life goals are influenced to a significant degree, in both the immediate situation and developmentally over time, by the degree to which their social contexts support versus thwart their basic psychological needs for competence, relatedness, and autonomy. We reviewed research and theory indicating that social contexts may be relatively proximal or increasingly more distal, with the more proximal being embedded within various levels of more distal contexts. An example of a proximal context is a child's home environment, and examples of more distal contexts are the neighborhood and, even more broadly, the culture, with its values, economics, and politics.

Today's increasingly global economic trends portend increased concentrations of wealth and power in the hands of a few, and at this global level raise concerns about increased top-down control and deprivations of autonomy, which is a threat to both national (Downie, Koestner, & Chua, 2007) and personal wellness (Twenge et al., 2010). Yet there are potentially offsetting trends as well. We live in a “wiki” world of fast Internet connections and instant communications that allow for much personal expression as well as bottom-up organization (e.g., Tapscott & Williams, 2006). In the context of these complex forces, understanding the basic needs of persons that are essential to wellness is crucial for interventions from levels of global policy (see, for example, work by the New Economics Foundation; http://www.neweconomics.org/) to individual psychotherapy (Ryan & Deci, 2008). The hope is that SDT research informs these policies and interventions and in doing so promotes more optimal functioning and wellness of both persons and the communities within which they are embedded.

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