UNIVERSITY OF LEUVEN

DEPARTMENT OF PSYCHOLOGY

RESEARCH CENTER FOR MOTIVATION AND TIME PERSPECTIVE

RESEARCH REPORTS

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SELF-DETERMINATION THEORY AND BASIC NEED SATISFACTION: UNDERSTANDING HUMAN DEVELOPMENT IN POSITIVE PSYCHOLOGY

Number 126, 2003

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KEY WORDS: basic needs, self-determination theory, positive psychology
RUNNING HEAD: basic needs and positive psychology

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Abstract

Positive Psychology has focused attention on positive human experiences and healthy outcomes, which is an important step toward a fuller understanding of human functioning in the social world. We argue, however, that the positive psychology movement has not gone far enough in specifying a meta-theoretical basis for a true positive psychology and that a full understanding of optimal experience and healthy development can not be achieved without relating those processes and outcomes to non-optimal experiences and diminished functioning. In this article we discuss self-determination theory, specifying an organismic-dialectical meta-theory and suggesting that the concept of basic psychological needs provides a useful basis for predicting whether the social environment will support optimal functioning or will, alternatively, promote maladaptation and ill-being.

Self-determination Theory and Basic Need Satisfaction: Understanding Human Development in Positive Psychology

The positive psychology movement (Seligman & Csikszentmihalyi, 2000; Sheldon & King, 2001) has prompted many researchers to examine issues that concern human strengths and positive outcomes. Rather than adopting a disease model focused on the healing of weaknesses and illness, positive psychology researchers work to identify personality and social factors that nurture individuals' strengths, virtues, and development. Herein, we suggest that self-determination theory (SDT; Ryan & Deci, 2000a), a macro-theory of human motivation, personality, and optimal functioning, not only fits with this positive psychology movement but also provides a theoretical framework that could be useful for integrating a good deal of the work that exists within positive psychology.

From our perspective, the critical starting point for a true positive psychology is an active-organism meta-theory. Specifically, SDT maintains that three elements are essential for a meta-theory that could underlie a comprehensive positive psychology (Deci & Ryan, 1985).

The first is that human beings are inherently proactive, that they have the potential to act on and master both the inner forces (viz., their drives and emotions) and the external (i.e., environmental) forces they encounter, rather than being passively controlled by those forces. Most researchers in the field of positive psychology subscribe to this first important assumption (e.g., Seligman & Csikszentmihalyi, 2000).

Second, human beings, as self-organizing systems, have an inherent tendency toward growth, development, and integrated functioning. They are not mere products of social learning or programming but instead are oriented toward development and health and toward engaging their inner and outer environments in ways that promote these positive processes and outcomes. Although positive psychology researchers are working to identify factors that enhance individuals' capacities, development, and well-being, only a few (e.g., Massimini & Delle Fave, 2000) fully embrace and utilize this critical meta-theoretical assumption for grounding their research or building their theoretical perspectives. Without this assumption the positive outcomes must be attributed either to environmental causes or to genetics, with it evolutionary basis, for there is not basis for attributing then to the organism's activity.

The third important philosophical assumption is that, although activity and optimal development are inherent to the human organism, these do not happen automatically. For people to

actualize their inherent nature and potentials—that is, to be optimally active and to develop effectively—they require nutriments from the social environment. To the extent that they are denied the necessary support and nourishment by chaotic, controlling, or rejecting environments, there will be negative consequences for their activity and development. Thus, the organismic-dialectical meta-theory that underlies SDT (e.g., Deci & Ryan, 2000; Ryan & Deci, 2000a) highlights the interaction between the proactive, growth-oriented human being and the social world that can either thwart or support activity, growth, and psychological well-being. Some positive psychology researchers have discussed the nurturing versus debilitating impact of the social environment on people's growth trajectories (e.g., Simonton, 2000; Winner, 2000). However, SDT is relatively unique in emphasizing that a positive psychology should be concerned with the nexus out of which human development and well-being will either be enhanced or diminished—that is, with the processes that determine whether people's potentials will be actualized or their vulnerabilities will dominate.

We maintain that the dialectical relation between the active organism and the social environment, as well as the positive as well as negative consequences that follow from it, can best be understood by considering the degree to which the environment thwarts versus satisfies people's basic psychological needs (Deci & Ryan, 2000). In other words, basic psychological need satisfaction is considered the means through which optimal development and authentic functioning (outcomes that appear to form the primary interest of positive psychology researchers) versus passivity and alienation can be understood. Thus, basis need satisfaction is important for both the bright and the dark sides of human life (Ryan & Deci, 2000b).

Basic Psychological Needs

At the heart of self-determination theory is the postulate that people have three inherent psychological needs—the needs for competence, relatedness, and autonomy. Needs, within SDT, are defined as universal necessities. In other words, they constitute the nutriments that are required for proactivity, optimal development, and psychological health of all people. Thus, these needs are not learned but are an inherent aspect of human nature and thus operate across gender, across culture, and across time (e.g., Chirkov, Ryan, Kim, & Kaplan, 2003) to promote optimal functioning and prevent diminished functioning. To the extent that the needs are thwarted, one would expect to find passivity, ill-being, fragmentation, and alienated functioning.

The *need for competence* concerns people's inherent desire to be effective in dealing with

the environment (White, 1959). Throughout life, people engage their world in an attempt to master it and to feel the sense of effectance when they do. The *need for relatedness* concerns the universal propensity to interact with, be connected to, and experience caring for other people (Baumeister & Leary, 1995). Many of the activities of life involve others and are directed at experiencing the feeling of belongingness. Finally, the *need for autonomy* concerns people's universal urge to be causal agents, to experience volition, to act in accord with their integrated sense of self (i.e., with their interests and values), and to endorse their actions at the highest level of reflective capacity (e.g., deCharms, 1968). To be autonomous does not mean to be independent of others, but rather it means to feel a sense of willingness and choice when acting, whether the actions are independently initiated or are in response to a request from significant others (Chirkov et al., 2003).

Because these needs are essential, people tend to orient toward those situations that allow satisfaction of the needs and away from those that thwart the needs. However, in many cases, people's behavior is not specifically intended to satisfy their basic needs. Rather, they do what the find interesting and personally important, and they experience need satisfaction in doing so.

The proposition that there are these three fundamental psychological needs is not an assumption; that is, it is not part of the SDT meta-theory. Instead, it is a theoretical postulate that was formulated because it provided an interpretation of various empirical results. According to the theory, satisfaction of basic psychological needs constitutes the central psychological process through which intrinsic motivation, the integrative tendency, and intrinsic goal pursuits are facilitated, resulting in well-being and optimal development. Thwarting of the basic needs, conversely, is the process through which alienation, extrinsic goal striving, and ill-being result. The role of need satisfaction in these outcomes is discussed in the following sections.

Basic Needs and Intrinsic Motivation

The concept of intrinsic motivation emerged from the work of Harlow (1958) and White (1959) in opposition to the behavioral theories that were dominant at the time. Intrinsically motivated behaviors were defined as those that are not energized by *physiological* drives or their derivatives and for which the reward is the spontaneous satisfaction associated with the activity itself rather than with operationally separable consequences. Intrinsic motivation is the motivational instantiation of the proactive, growth-oriented nature of human beings. Indeed, it is intrinsically motivated activity that is the basis for people's learning and development. White suggested that a need for competence underlies intrinsic motivation, that people engage in many

activities in order to experience a sense of effectance and joy. Later, deCharms (1968) proposed that people have a primary motivational propensity to engage in activities that allow them to feel a sense of personal causation and that this is the basis of intrinsic motivation. Thus, White and deCharms together were proposing that the needs for competence and autonomy are the energizing basis for intrinsically motivated behavior.

In the initial studies of intrinsic motivation in humans, Deci (1971) examined the effects of extrinsic rewards on people's intrinsic motivation for an interesting activity. Results indicated that when people received tangible extrinsic rewards (e.g., money) for doing an interesting activity they were less interested in the activity and less likely to do it later than were those who had done the same activity without getting the reward. This highly controversial finding has been replicated dozens of times, and an extensive meta-analysis provided strong confirmation (see Deci, Koestner, & Ryan, 1999). The finding is particularly interesting because it is an instance in which people are approaching outcomes they value, but the process of doing so is having a negative effect on the prototype of their proactive, growth-oriented nature. Deci interpreted this undermining of intrinsic motivation as indicating that the participants' behavior, which had initially been intrinsically motivated, became controlled by the reward so their sense of autonomy was undermined. Because extrinsic rewards are so often used as instruments of social control, they can leave people feeling like pawns to the rewards (deCharms, 1968) and thus thwart the people's need for autonomy. Additional studies showed that other external factors such as deadlines (Amabile, DeJong, & Lepper, 1976) which tend to control people's behavior also decreased intrinsic motivation.

Of course these studies show negative rather than positive outcomes resulting from commonly used motivators. More in line with the interest of positive psychology, other studies have highlighted external factors that enhance intrinsic motivation. In one such study, participants were provided the opportunity to choose among various interesting activities and they evidenced increases in subsequent intrinsic motivation relative to a control-group participants who did the same activities without choice (Zuckerman, Porac, Lathin, Smith, & Deci, 1978). Other studies have also found choice to have positive effects on people's intrinsic motivation by increasing their sense of autonomy with respect to the activity, although there is indication that there are limits to the conditions under which choice will have it positive effects (Reeve, Nix, & Hamm, 2003). Other studies have shown that acknowledging people's feelings when asking them to do something also enhances intrinsic motivation (Koestner, Ryan, Bernieri, & Holt, 1984). When taken together,

the studies suggest that controlling factors undermine intrinsic motivation by thwarting the need for autonomy, but supporting autonomy enhances intrinsic motivation. Autonomy in turn has been found to be an important predictor of peak experiences such as flow, which is a prototype of intrinsic motivation (Kowal & Fortier, 2001).

In other research, positive feedback about people's performance on an activity led to an increase in intrinsic motivation for the activity relative to not receiving the positive feedback (Deci, 1971). Deci interpreted this as indication that the positive feedback satisfied people's need for competence and thus enhanced their intrinsic motivation. Conversely, negative feedback was found to decrease intrinsic motivation by thwarting people's need for competence (Vallerand & Reid, 1984; Vansteenkiste & Deci, 2003).

In sum, the use of the needs for autonomy and competence provided a useful way of interpreting a large number of experimental findings concerning how people's spontaneous interest in an activity can be forestalled versus promoted. There is some evidence (Frodi, Bridges, & Grolnick, 1985) that the need for relatedness affects intrinsic motivation, but the need for relatedness seems less integral for supporting intrinsic motivation than are the needs for autonomy and competence.

Basic Needs and Internalization

Research on intrinsic versus extrinsic motivation was an initial attempt to differentiate the concept of *motivation*, which in many theories is unitary and differs in amount but not type. Conceptually, intrinsic motivation is the prototype of autonomy and embodies the growth tendency, as it involves doing an activity for its own sake, with a full sense of volition. In contrast, extrinsic motivation means that the behavior is instrumental to some separable consequence, rather than being satisfying in its own right. Although various studies showed that many extrinsic motivators (e.g., tangible rewards, deadlines, evaluations) tend to be controlling (i.e., tend to pressure people to behave, thereby decreasing their autonomy), it seemed that people should be capable of pursuing extrinsic outcomes in a relatively self-determined way.

Accordingly, SDT (Ryan, Connell, & Deci, 1985) proposed that, whereas intrinsic motivation is invariantly autonomous, extrinsic motivation can vary in the degree to which it is autonomous. Ryan et al. used the concept of internalization to explain that the regulation of extrinsically motivated behavior (e.g., doing something initially because someone requested it) can be more versus less fully internalized by people and integrated into their sense of self. To the

extent that a regulation is internalized and integrated, it provides the basis for autonomous regulation of extrinsically motivated behaviors.

Ryan et al. (1985) specified four types of extrinsic motivation that vary in their degree of autonomy. The least autonomous are *externally regulated*; for example doing something to get an external reward or avoid a punishment. To the extent that a behavioral regulation has been taken in by people but not accepted as their own, the behavior will be buttressed by self-esteem contingencies or by shame, guilt or anxiety. This type of internalization is referred to as introjection and, in a sense, is only a partial internalization. *Introjected regulation*, like external regulation, is relatively controlled, but, whereas with external regulation the pressure comes from external sources, with introjected regulation, the pressure comes from within. People pressure themselves with internal contingencies. When people have succeeded in identifying with the regulation and value of a behavior they will have more fully accepted it as their own, so *identified regulation* is considered relatively autonomous. Finally, the most autonomous form of extrinsic motivation is *integrated regulation* in which people have integrated the identification with the other aspects of the self.

According to SDT, just as basic need satisfaction plays a crucial role in the maintenance of intrinsic motivation, it is also important for promoting the internalization process. To illustrate, people take in regulations because they feel related to important others who advocate the behaviors and because they feel competent and effective in functioning within the social world. However, support for these needs does not ensure identified or integrated regulation. For instance, a girl might do her homework effectively because her mother's love was made contingent upon it, so she would have gotten both positive feedback and love when she did well. However, although the girl would have experienced effectance and relatedness, contingent love is a controlling approach to socialization, which thwarts the need for autonomy, and it has been found to promote introjection rather than identification or integration (Assor, Roth, & Deci, in press). Support for autonomy, as well as that for competence and relatedness, is required to facilitate the fuller internalization of a regulation so that people will be autonomous while enacting the behavior.

For instance, research by Grolnick and Ryan (1989) found that, when parents of fifth-grade students were rated as more autonomy supportive by interviewers, their children tended to be more identified with respect to doing their schoolwork. Similar findings were obtained for secondary-school adolescents in domains such as job searching and friendship (Soenens & Vansteenkiste,

2003). Further, using an experimental design, Deci, Eghrari, Patrick and Leone (1994) manipulated the amount of autonomy support provided in a laboratory setting while participants were doing a dull boring task. The reasoning was that such tasks, not being intrinsically interesting, would be done only for extrinsic motivations and thus would require relatively full internalization for people to do them autonomously. The researchers found that the amount of autonomy support predicted the amount of internalization as reflected in the participants' freely engaging in the behavior when they had a subsequent opportunity to do so. Furthermore, the results showed that if there were relatively little autonomy support, the internalization that did occur was only introjected, whereas when there was greater autonomy support the internalization that occurred was more integrated. Thus, more autonomy support led to more internalization, and even more importantly to integration rather than just introjection.

When the work on intrinsic motivation and internalization of extrinsic motivation are considered together, one sees that the critical way in which the concept of motivation has been differentiated concerns the degree to which a behavior is *autonomous* versus *controlled.* Autonomy is in evidence when behaviors are intrinsically motivated or when they are regulated by extrinsic motivations that people have identified with and integrated. In contrast, control is represented by behaviors regulated either by external contingencies of reward and punishment or by internal contingencies that have been introjected and thus not transformed into one's own. Further, whether a person's behavior is relatively autonomous versus controlled is a function of the degree to which their basic needs have been satisfied. This differentiation between autonomous and controlled regulation has been theoretically important because it moves beyond a unitary conceptualization of motivation, and it has had practical utility because it captures people's experiences of feeling either engaged and authentic or relatively alienated and inauthentic in their daily activities. The concept of basic needs has also provided a means for differentiating the type of goals individuals are pursuing as we will now illustrate.

Basic Needs and Life Goals

To a substantial degree people conduct their lives in an attempt to achieve aims or goals they have set for themselves. The goals held by different individuals vary considerably and are influenced by both personal and environmental factors. According to SDT (Deci & Ryan, 2000), at the core of the goal-setting process are people's basic needs, and the extent to which they have been able to satisfy these needs affect the life goals they tend to hold for themselves. To the extent

that they have been relatively successful in attaining need satisfaction, they set goals based on their interests and values. However, when people have experienced repeated need thwarting—for example, when they have been consistently unable to find love or have been repeatedly criticized for their incompetence—they tend to defend against those experiences and compensate by developing need substitutes. Stated differently, they set goals that do not actually satisfy their basic needs but provide some substitute gratification. For example, people unable to find love might instead focus on trying to garner fame and adulation, which does not represent love but does provide some compensatory, if short-lived, positive experience.

Life goals that people hold. Research guided by SDT has identified two classes of life goals or aspirations, namely intrinsic goals and extrinsic goals (Ryan, Sheldon, Kasser, & Deci, 1996). Intrinsic goals are those that are satisfying in their own right because they are directly linked to the basic psychological needs and because they reflect people's basic growth tendencies. Research by Kasser and Ryan (1996) identified meaningful relationships, personal growth, and community contributions as being important values that fall into the category of intrinsic goals. In contrast, the researchers identified wealth accumulation, attractive image, and fame as loading on a factor called extrinsic goals. These latter goals are not directly satisfying of the basic needs and can even interfere with basic need satisfaction, but they can provide some derivative or indirect satisfaction. For example, when people hold an unusually strong goal of accumulating wealth, it may interfere with their having a satisfying family life, and when they are obsessed with becoming famous, they may neither grow as individuals nor make meaningful contributions to their community. Because satisfaction from the attainment of these extrinsic goals tends to fade quickly, people are likely to go on to even bigger extrinsic goals (e.g., buying a more expensive car). In contrast, intrinsic goal pursuits are more likely to produce lasting positive well-being, because such goal pursuits are more inherently connected with satisfaction of the basic psychological needs.

Research has shown that when people place strong value on the extrinsic goals relative to the intrinsic goals, they display low levels of a variety of indicators of well-being, including low self-actualization, self-esteem, and vitality, and high levels of a variety of indictors of ill-being, including greater anxiety, depression, and narcissism (e.g., Kasser & Ryan, 1993, 1996). Further, they are more likely to engage in high-risk behaviors (Williams, Cox, Hedberg, & Deci, 2000). In contrast, placing strong relative value on intrinsic goals led to greater well-being and less ill-being, thus confirming that intrinsic goal pursuits represent an important path toward positive mental

health outcomes. Another study showed that employees who focused more on intrinsic than extrinsic work values displayed more effective functioning and greater well-being, because they were more able to satisfy their basic needs on the job (Vansteenkiste, De Witte, & Deci, 2003).

Studies have also confirmed that placing high value on intrinsic (relative to extrinsic) goals results from having had basic needs well satisfied at earlier times. For example, Kasser, Ryan, Sameroff, and Zax (1995) found that teenagers who were strongly oriented toward intrinsic values had mothers who were high in warmth and democratic parenting and low in control. The study by Williams et al. (1999) also showed that when teenagers perceived their parents as being autonomy supportive, the teens had stronger intrinsic life goals.

Although the studies mentioned so far concerned how the goals that people *pursue* relate to their psychological health, other studies have examined how *attainment* of the different goals relates to well-being. A study by Kasser and Ryan (2001) revealed that individuals' ratings of their current attainment of intrinsic goals was positively associated with well-being, but their ratings of current attainment of extrinsic aspirations was not. Further, Sheldon and Kasser (1998) found actual attainment of intrinsic goals enhanced well-being, whereas success at extrinsic goals provided little well-being enhancement. Together, the two studies suggest that even when individuals are highly capable and able to attain desired outcomes they may experience less than optimal well-being if they pursue and attain goals with contents that are more extrinsic than intrinsic.

Presenting goals to others. In the life-goal studies reviewed so far, the focus has been on individual differences in the strength of people's intrinsic versus extrinsic goals, which were assessed through questionnaires. Other studies have examined whether one person presenting intrinsic versus extrinsic goals to others—for example, children or students—would affect their feelings and the quality of their behavior. For example, one series of studies, considered the effects of framing a learning task in terms of intrinsic versus extrinsic goals on the quality of the individuals' learning and performance. Vansteenkiste, Simons, Lens, Sheldon, and Deci (2003) found that framing students' learning activities in terms of intrinsic goal attainments enhanced conceptual learning and persistence at learning activities, compared to framing the activity in terms of extrinsic goal-attainments. In addition, the context in which these goals were provided made a difference. Specifically, when the learning climate was autonomy-supportive (versus controlling), participants processed the learning material in a deeper manner, obtained higher achievement

scores, and persisted longer. Importantly, the autonomy-support climate and intrinsic goal content worked in a synergistic fashion, such that participants in the autonomy-supportive/intrinsic condition attained even higher performance scores than could be accounted for by the two main effects. The authors interpreted these results in terms of both intrinsic goal contents and autonomy-supportive contexts leading to greater need satisfaction.

Basic Needs, Goal contents and Self-regulatory Styles

In the work discussed so far, we have seen how the concept of basic psychological need satisfaction helps us understand how people's intrinsic goal pursuits and their autonomous self-regulation can both be promoted and have positive well-being outcomes. An important issue that has elicited debate within the literature concerns whether the content of people's goals (viz., intrinsic versus extrinsic) and their motives for pursuing the goals (viz., autonomous versus controlled) *independently* predict optimal functioning.

The claim that they do was challenged by Carver and Baird (1998), who argued that the effects on well-being of intrinsic versus intrinsic goal contents are reducible to autonomous versus controlled regulatory styles. Thus, for instance, this argument implies that the negative effect on people's well-being of pursing the accumulation of wealth is really a function of the fact that when people pursue that goal they are generally controlled in doing so. As such, this view maintains, it is not the goal content that actually has the negative effect; it is the regulatory style.

However, a series of studies by Sheldon, Ryan, Deci, and Kasser (in press) in which the researchers assessed both the strength of people's intrinsic versus extrinsic goals and the regulatory styles or motives they had for pursuing them (viz., whether they were relatively autonomous or relatively controlled). The researches found that both goal-content and the motive for pursuing them contributed independent variance to the prediction of well-being, thus indicating that the content of people's goal pursuits can not be reduced to their motives for pursuing them.

Need Satisfaction and Well-being

Rather than studying the promotion of well-being through facilitating autonomous regulation and intrinsic goal pursuits and assuming the enhancement occurs because of basic psychological need satisfaction, some studies have examined the direct link between basic need satisfaction and well-being. Within SDT, well-being is not simply equated with the presence of positive affect but instead reflects a deeper sense of vitality and inner wellness that characterizes the fully functioning organism (Ryan & Deci, 2001). Accordingly, satisfaction of the needs for

autonomy, competence, and relatedness should contribute to people's lasting well-being and to the prevention of impoverished functioning and ill-being.

Various studies conducted in organizational settings demonstrated that, on average, people who experienced a higher degree of need satisfaction displayed better general health and self-esteem (Ilardi, Leone, Kasser, & Ryan, 1993), as well as less anxiety and psychosomatic symptoms (Baard, Deci, & Ryan, in press). These findings were obtained not only in individualistic cultures such as the U.S., but also in a collectivististic countries such as Bulgaria (Deci, Ryan, Gagné, Leone, Usonov, & Kornazheva, 2001). Further, in addition to these effects at the between-person levels of need satisfaction, studies have also examined whether daily within-person variations in the satisfaction of competence, autonomy, and relatedness, also predict fluctuations in daily well-being. Sheldon, Ryan, and Reis (1996) and Reis, Sheldon, Gable, Roscoe, and Ryan (2000) demonstrated that within-person differences in need satisfaction did matter for whether or not people experienced a good day rather than a bad day. That is, after removing between-person variation in need satisfaction, the researchers found that individuals who felt more competent and autonomous in their daily activities and felt more closely connected to others reported higher levels of daily well-being. Further, intra-individual variation in the daily satisfaction of all three needs independently contributed to the prediction of daily well-being. These findings are very important because they indicate that the needs for autonomy, competence and relatedness are, as theorized by SDT, necessary nutriments for the organism's vital functioning.

Conclusion

SDT maintains that positive psychology must begin with a meta-theory that recognizes the inherent proactivity and growth tendency of human beings but also acknowledges that this proactivity and growth orientation can be either facilitated or undermined by the interaction of the organism with the social world, resulting in either healthy development, effective functioning, and well-being, or thwarted development, diminished functioning, and ill-being. SDT has theorized that the concept of basic psychological needs for competence, relatedness, and autonomy provide the basis for predicting whether the social world will promote versus impair the positive outcomes that have been the focus of positive psychology.

Research guided by SDT has shown that autonomy-supportive interpersonal climates and environments focused on the attainment of intrinsic goal pursuits are likely to yield optimal

development, presumably because they promote basic need satisfaction. In contrast, controlling contexts and extrinsic goals have been found to result in passivity and impaired performance because such contexts and goals tend to thwart basic need satisfaction. In short, it appears that the concept of basic need satisfaction provides researchers with a basis for making predictions about when and why people will thrive or, alternatively, will be disaffected and alienated.

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