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Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions

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Intrinsic and extrinsic types of motivation have been widely studied, and the distinction between them has shed important light on both developmental and educational practices. In this review we revisit the classic definitions of intrinsic and extrinsic motivation in light of contemporary research and theory. Intrinsic motivation remains an important construct, reflecting the natural human propensity to learn and assimilate. However, extrinsic motivation is argued to vary considerably in its relative autonomy and thus can either reflect external control or true self-regulation. The relations of both classes of motives to basic human needs for autonomy, competence and relatedness are discussed. © 2000 Academic Press

To be motivated means *to be moved* to do something. A person who feels no impetus or inspiration to act is thus characterized as unmotivated, whereas someone who is energized or activated toward an end is considered motivated. Most everyone who works or plays with others is, accordingly, concerned with motivation, facing the question of how much motivation those others, or oneself, has for a task, and practitioners of all types face the perennial task of fostering more versus less motivation in those around them. Most theories of motivation reflect these concerns by viewing motivation as a unitary phenomenon, one that varies from very little motivation to act to a great deal of it.

Yet, even brief reflection suggests that motivation is hardly a unitary phenomenon. People have not only different amounts, but also different kinds of motivation. That is, they vary not only in *level* of motivation (i.e., how much motivation), but also in the *orientation* of that motivation (i.e., what type of motivation). Orientation of motivation concerns the underlying attitudes and goals that give rise to action—that is, it concerns the why of actions. As an example, a student can be highly motivated to do homework out of curiosity and interest or, alternatively, because he or she wants to procure the approval of a teacher or parent. A student could be motivated

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to learn a new set of skills because he or she understands their potential utility or value or because learning the skills will yield a good grade and the privileges a good grade affords. In these examples the amount of motivation does not necessarily vary, but the nature and focus of the motivation being evidenced certainly does.

In Self-Determination Theory (SDT; Deci & Ryan, 1985) we distinguish between different types of motivation based on the different reasons or goals that give rise to an action. The most basic distinction is between *intrinsic motivation*, which refers to doing something because it is inherently interesting or enjoyable, and *extrinsic motivation*, which refers to doing something because it leads to a separable outcome. Over three decades of research has shown that the quality of experience and performance can be very different when one is behaving for intrinsic versus extrinsic reasons. One purpose of this review is to revisit this classic distinction between intrinsic and extrinsic motivation and to summarize the functional differences of these two general types of motivation.

Intrinsic motivation has emerged as an important phenomena for educators—a natural wellspring of learning and achievement that can be systematically catalyzed or undermined by parent and teacher practices (Ryan & Stiller, 1991). Because intrinsic motivation results in high-quality learning and creativity, it is especially important to detail the factors and forces that engender versus undermine it.

However, equally important in the current review is the explication of the very different types of motivation that fall into the category of extrinsic motivation. In the classic literature, extrinsic motivation has typically been characterized as a pale and impoverished (even if powerful) form of motivation that contrasts with intrinsic motivation (e.g., deCharms, 1968). However, SDT proposes that there are varied types of extrinsic motivation, some of which do, indeed, represent impoverished forms of motivation and some of which represent active, agentic states.

Students can perform extrinsically motivated actions with resentment, resistance, and disinterest or, alternatively, with an attitude of willingness that reflects an inner acceptance of the value or utility of a task. In the former case—the classic case of extrinsic motivation—one feels externally propelled into action; in the later case, the extrinsic goal is self-endorsed and thus adopted with a sense of volition. Understanding these different types of extrinsic motivation, and what fosters each of them, is an important issue for educators who cannot always rely on intrinsic motivation to foster learning. Frankly speaking, because many of the tasks that educators want their students to perform are not inherently interesting or enjoyable, knowing how to promote more active and volitional (versus passive and controlling) forms of extrinsic motivation becomes an essential strategy for successful teaching.

We detail in this article not only the different types of motivational orientation that exist within the global extrinsic category, but moreover, their differential antecedents and consequences.

In sum, our aim in this article is to revisit the classic distinction between intrinsic and extrinsic motivation and detail the conditions that fosters each. Second, we describe a model of differing types of extrinsic motivation. Our concern here is with how teachers, parents and other socializers can lead students to internalize the responsibility and sense of value for extrinsic goals or, alternatively, how they can foster the more typically depicted ''alienated'' type of extrinsic motivation that is associated with low student persistence, interest, and involvement.

INTRINSIC MOTIVATION

Intrinsic motivation is defined as the doing of an activity for its inherent satisfactions rather than for some separable consequence. When intrinsically motivated a person is moved to act for the fun or challenge entailed rather than because of external prods, pressures, or rewards. The phenomenon of intrinsic motivation was first acknowledged within experimental studies of animal behavior, where it was discovered that many organisms engage in exploratory, playful, and curiosity-driven behaviors even in the absence of reinforcement or reward (White, 1959). These spontaneous behaviors, although clearly bestowing adaptive benefits on the organism, appear not to be done for any such instrumental reason, but rather for the positive experiences associated with exercising and extending ones capacities.

In humans, intrinsic motivation is not the only form of motivation, or even of volitional activity, but it is a pervasive and important one. From birth onward, humans, in their healthiest states, are active, inquisitive, curious, and playful creatures, displaying a ubiquitous readiness to learn and explore, and they do not require extraneous incentives to do so. This natural motivational tendency is a critical element in cognitive, social, and physical development because it is through acting on one's inherent interests that one grows in knowledge and skills. The inclinations to take interest in novelty, to actively assimilate, and to creatively apply our skills is not limited to childhood, but is a significant feature of human nature that affects performance, persistence, and well-being across life's epochs (Ryan & LaGuardia, in press).

Although, in one sense, intrinsic motivation exists within individuals, in another sense intrinsic motivation exists in the relation between individuals and activities. People are intrinsically motivated for some activities and not others, and not everyone is intrinsically motivated for any particular task.

Because intrinsic motivation exists in the nexus between a person and a task, some authors have defined intrinsic motivation in terms of the task being interesting while others have defined it in terms of the satisfactions a person gains from intrinsically motivated task engagement. In part, these

different definitions derive from the fact that the concept of intrinsic motivation was proposed as a critical reaction to the two behavioral theories that were dominant in empirical psychology from the 1940s to the 1960s.

Specifically, because operant theory (Skinner, 1953) maintained that all behaviors are motivated by rewards (i.e., by separable consequence such as food or money), intrinsically motivated activities were said to be ones for which the reward was in the activity itself. Thus, researchers investigated what task characteristics make an activity interesting. In contrast, because learning theory (Hull, 1943) asserted that all behaviors are motivated by physiological drives (and their derivatives), intrinsically motivated activities were said to be ones that provided satisfaction of innate psychological needs. Thus, researchers explored what basic needs are satisfied by intrinsically motivated behaviors.

Our own approach focuses primarily on psychological needs—namely, the innate needs for competence, autonomy, and relatedness—but we of course recognize that basic need satisfaction accrues in part from engaging in interesting activities. Thus, we do sometimes speak of intrinsically interesting activities, but when we do so we are really only talking about tasks that, on average, many people find to be intrinsically interesting. There is considerable practical utility in focusing on task properties and their potential intrinsic interest, as it leads toward improved task design or selection to enhance motivation.

Operational Definitions

Intrinsic motivation has been operationally defined in various ways, although there have been two measures that have been most often used. Basic experimental research (e.g., Deci, 1971) has rested primarily on a behavioral measure of intrinsic motivation called the ''free choice'' measure. In experiments using this measure participants are exposed to a task under varying conditions (e.g., getting a reward or not). Following this period, the experimenter tells participants they will not be asked to work with the target task any further, and they are then left alone in the experimental room with the target task as well as various distractor activities. They thus have a period of ''free choice'' about whether to return to the activity, and it is assumed that, if there is no extrinsic reason to do the task (e.g., no reward and no approval), then the more time they spend with the target task, the more intrinsically motivated they are for that task. This measure has been the mainstay through which the dynamics of intrinsic motivation have been experimentally studied.

The other common approach to the measurement of intrinsic motivation is the use of self-reports of interest and enjoyment of the activity per se. Experimental studies typically rely on task-specific measures (e.g. Ryan, 1982; Harackiewicz, 1979). Most field studies have instead used more gen-

eral, ''domain'' focused measures, such as one's intrinsic motivation for school (e.g., Harter, 1981).

Facilitating versus Undermining Intrinsic Motivation

Despite the observable evidence that humans are liberally endowed with intrinsic motivational tendencies, this propensity appears to be expressed only under specifiable conditions. Research into intrinsic motivation has thus placed much emphasis on those conditions that elicit, sustain, and enhance this special type of motivation versus those that subdue or diminish it. Self-Determination Theory is specifically framed in terms of social and environmental factors that *facilitate* versus *undermine* intrinsic motivation. This language reflects the assumption that intrinsic motivation, being an inherent organismic propensity, is catalyzed (rather than *caused*) when individuals are in conditions that conduce toward its expression.

Cognitive Evaluation Theory (CET) was presented by Deci and Ryan (1985) to specify the factors in social contexts that produce variability in intrinsic motivation. CET, which is considered a subtheory of self-determination theory, argues that interpersonal events and structures (e.g., rewards, communications, feedback) that conduce toward *feelings of competence* during action can enhance intrinsic motivation for that action because they allow satisfaction of the basic psychological need for competence. Accordingly, for example, optimal challenges, effectance promoting feedback, and freedom from demeaning evaluations are all predicted to facilitate intrinsic motivation.

CET further specifies that feelings of competence will *not* enhance intrinsic motivation unless they are accompanied by *a sense of autonomy* or, in attributional terms, by an *internal perceived locus of causality* (IPLOC; deCharms, 1968). Thus, people must not only experience perceived competence (or self-efficacy), they must also experience their behavior to be self-determined if intrinsic motivation is to be maintained or enhanced. Stated differently, for a high level of intrinsic motivation people must experience satisfaction of the needs both for competence and autonomy. Much of the research has focused on the effects of immediate contextual conditions that either support or thwart the needs for competence and autonomy, but some has recognized that the supports can, to some extent, come from individuals' abiding inner resources that support their ongoing feelings of competence and autonomy.

The tenets of CET, with their primary focus on the needs for competence and autonomy, were formulated to integrate a set of results from initial studies of the effects of rewards, feedback, and other external events on intrinsic motivation. Subsequently, they have been confirmed in both laboratory experiments and applied field studies, many of which have been done in classrooms.

Several early studies showed that positive performance feedback enhanced intrinsic motivation (e.g., Deci, 1971; Harackiewicz, 1979), whereas negative performance feedback diminished it (e.g., Deci & Cascio, 1972). Others (e.g., Vallerand & Reid, 1984) showed that perceived competence mediated these effects, and still others supported the hypothesis that increases in perceived competence must be accompanied by a sense of autonomy in order for the enhanced feelings of competence to result in increased intrinsic motivation (Ryan, 1982).

In fact, the majority of the research on the effects of environmental events on intrinsic motivation has focused on the issue of autonomy versus control rather than that of competence. And this issue has been considerably more controversial. The research began with the demonstration that extrinsic rewards can undermine intrinsic motivation (Deci, 1971; Lepper, Greene, & Nisbett, 1973), which we interpret in terms of the reward shifting people from a more internal to external perceived locus of causality. Although the issue of rewards has been hotly debated, a recent meta-analysis (Deci, Koestner, & Ryan, in press) confirms that virtually every type of expected tangible reward made contingent on task performance does, in fact, undermine intrinsic motivation. Furthermore, not only tangible rewards, but also threats (Deci & Cascio, 1972), deadlines (Amabile, DeJong, & Lepper, 1976), directives (Koestner, Ryan, Bernieri, & Holt, 1984), and competition pressure (Reeve & Deci, 1996) diminish intrinsic motivation because, according to CET, people experience them as controllers of their behavior. On the other hand, choice and the opportunity for self-direction (e.g., Zuckerman, Porac, Lathin, Smith, & Deci, 1978) appear to enhance intrinsic motivation, as they afford a greater sense of autonomy.

The significance of autonomy versus control for the maintenance of intrinsic motivation has been clearly observed in studies of classroom learning. For example, several studies have shown that autonomy-supportive (in contrast to controlling) teachers catalyze in their students greater intrinsic motivation, curiosity, and the desire for challenge (e.g., Deci, Nezlek, & Sheinman, 1981; Ryan & Grolnick, 1986). Students who are overly controlled not only lose initiative but also learn less well, especially when learning is complex or requires conceptual, creative processing (Benware & Deci, 1984; Grolnick & Ryan, 1987). Similarly, studies show children of parents who are more autonomy supportive to be more mastery oriented—more likely to spontaneously explore and extend themselves—than children of parents who are more controlling (Grolnick, Deci, & Ryan, 1997).

To summarize, the CET aspect of SDT suggests that classroom and home environments can facilitate or forestall intrinsic motivation by supporting versus thwarting the needs for autonomy and competence. However, it is critical to remember that intrinsic motivation will occur only for activities that hold intrinsic interest for an individual—those that have the appeal of

novelty, challenge, or aesthetic value for that individual. For activities that do not hold such appeal, the principles of CET do not apply. To understand the motivation for activities that are not experienced as inherently interesting, we need to look more deeply into the nature and dynamics of extrinsic motivation.

EXTRINSIC MOTIVATION

Although intrinsic motivation is clearly an important type of motivation, most of the activities people do are not, strictly speaking, intrinsically motivated. This is especially the case after early childhood, as the freedom to be intrinsically motivated becomes increasingly curtailed by social demands and roles that require individuals to assume responsibility for nonintrinsically interesting tasks. In schools, for example, it appears that intrinsic motivation becomes weaker with each advancing grade.

Extrinsic motivation is a construct that pertains whenever an activity is done in order to attain some separable outcome. Extrinsic motivation thus contrasts with intrinsic motivation, which refers to doing an activity simply for the enjoyment of the activity itself, rather than its instrumental value. However, unlike some perspectives that view extrinsically motivated behavior as invariantly nonautonomous, SDT proposes that extrinsic motivation can vary greatly in the degree to which it is autonomous. For example, a student who does his homework only because he fears parental sanctions for not doing it is extrinsically motivated because he is doing the work in order to attain the separable outcome of avoiding sanctions. Similarly, a student who does the work because she personally believes it is valuable for her chosen career is also extrinsically motivated because she too is doing it for its instrumental value rather than because she finds it interesting. Both examples involve instrumentalities, yet the latter case entails personal endorsement and a feeling of choice, whereas the former involves mere compliance with an external control. Both represent intentional behavior, but the two types of extrinsic motivation vary in their relative autonomy.

Given that many of the educational activities prescribed in schools are not designed to be intrinsically interesting, a central question concerns how to motivate students to value and self-regulate such activities, and without external pressure, to carry them out on their own. This problem is described within SDT in terms of fostering the *internalization and integration* of values and behavioral regulations (Deci & Ryan, 1985). Internalization is the process of taking in a value or regulation, and integration is the process by which individuals more fully transform the regulation into their own so that it will emanate from their sense of self. Thought of as a continuum, the concept of internalization describes how one's motivation for behavior can range from amotivation or unwillingness, to passive compliance, to active personal commitment. With increasing internalization (and its associated

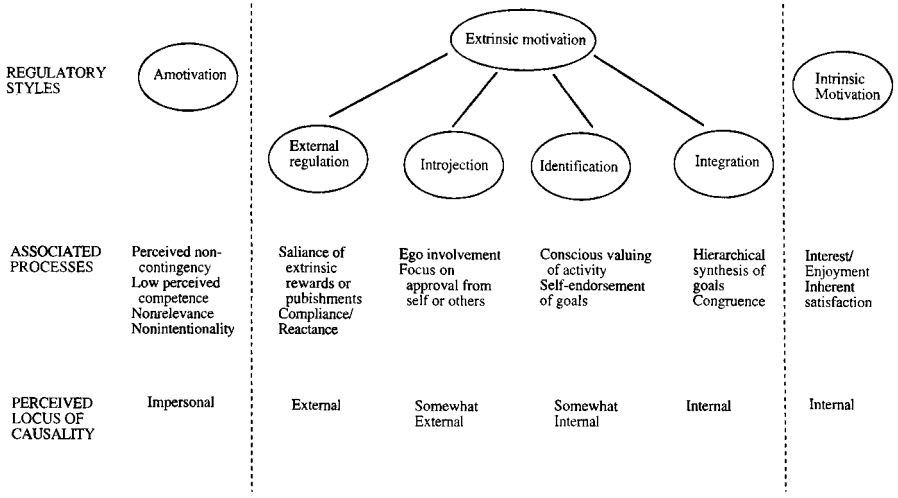

FIG. 1. A taxonomy of human motivation.

sense of personal commitment) come greater persistence, more positive self-perceptions, and better quality of engagement.

Within SDT a second subtheory, referred to as *Organismic Integration Theory* (OIT), was introduced to detail the different forms of extrinsic motivation and the contextual factors that either promote or hinder internalization and integration of the regulation for these behaviors (Deci & Ryan, 1985). Figure 1 illustrates the OIT taxonomy of types of motivation, arranged from left to right in terms of the extent to which the motivation for one's behavior emanates from one's self.

At the far left is *amotivation*, which is the state of lacking an intention to act. When amotivated, a person's behavior lacks intentionality and a sense of personal causation. Amotivation results from not valuing an activity (Ryan, 1995), not feeling competent to do it (Deci, 1975), or not believing it will yield a desired outcome (Seligman, 1975). Theorists who have treated motivation as a unitary concept (e.g., Bandura, 1986) have been concerned only with the distinction between what we call amotivation and motivation. However, one can see from Fig. 1 that to the right of amotivation are various types of motivation that we have organized to reflect their differing degrees of autonomy or self-determination.

Just to the right of amotivation, is a category that represents the least autonomous forms of extrinsic motivation, a category we label *external regulation*. Such behaviors are performed to satisfy an external demand or obtain an externally imposed reward contingency. Individuals typically experience externally regulated behavior as controlled or alienated, and their actions

have an *external perceived locus of causality* (EPLOC; deCharms, 1968). External regulation is the only kind of motivation recognized by operant theorists (e.g., Skinner, 1953), and it is this type of extrinsic motivation that was typically contrasted with intrinsic motivation in early lab studies and discussions.

A second type of extrinsic motivation is *introjected regulation*. Introjection describes a type of internal regulation that is still quite controlling because people perform such actions with the feeling of pressure in order to avoid guilt or anxiety or to attain ego-enhancements or pride. Put differently, introjection represents regulation by contingent self-esteem. A classic form of introjection is *ego involvement* (Nicholls, 1984; Ryan, 1982), in which a person performs an act in order to enhance or maintain self-esteem and the feeling of worth. Although the regulation is internal to the person, introjected behaviors are not experienced as fully part of the self and thus still have an EPLOC.

A more autonomous, or self-determined, form of extrinsic motivation is regulation through *identification*. Here, the person has identified with the personal importance of a behavior and has thus accepted its regulation as his or her own. A boy who memorizes spelling lists because he sees it as relevant to writing, which he values as a life goal, has identified with the value of this learning activity.

Finally, the most autonomous form of extrinsic motivation is *integrated regulation*. Integration occurs when identified regulations have been fully assimilated to the self. This occurs through self-examination and bringing new regulations into congruence with one's other values and needs. The more one internalizes the reasons for an action and assimilates them to the self, the more one's extrinsically motivated actions become self-determined. Integrated forms of motivation share many qualities with intrinsic motivation, being both autonomous and unconflicted. However, they are still extrinsic because behavior motivated by integrated regulation is done for its presumed instrumental value with respect to some outcome that is separate from the behavior, even though it is volitional and valued by the self.

At the far right hand end of the figure is intrinsic motivation. This placement emphasizes that intrinsic motivation is a prototype of self-determined activity. Yet, as implied above, this does not mean that as extrinsic regulations become more internalized they are transformed into intrinsic motivation.

The process of internalization is developmentally important, as social values and regulations are continually being internalized over the life span. Still, we do not suggest that the continuum underlying types of extrinsic motivation is a *developmental* continuum, per se. One does not have to progress through each stage of internalization with respect to a particular regulation; indeed, one can initially adopt a new behavioral regulation at any point along

this continuum depending upon prior experiences and situational factors (Ryan, 1995). Some behaviors could begin as introjects, others as identifications. A person might originally get exposed to an activity because of an external regulation (e.g., a reward), and (if the reward is not perceived as too controlling) such exposure might allow the person to experience the activity's intrinsically interesting properties, resulting in an orientation shift. Or a person who has identified with the value of an activity might lose that sense of value under a controlling mentor and move ''backward'' into an external regulatory mode. Thus, while there are predictable reasons for movement between orientations, there is no necessary ''sequence.'' Developmental issues are, however, evident in two ways: (1) the types of behaviors and values that can be assimilated to the self increase with growing cognitive and ego capacities and (2) it appears that people's general regulatory style does, on average, tend to become more ''internal'' over time (e.g., Chandler & Connell, 1987), in accord with the general organismic tendencies toward autonomy and self-regulation (Ryan, 1995).

Ryan and Connell (1989) tested the formulation that these different types of motivation do indeed lie along a continuum of relative autonomy. They investigated achievement behaviors (e.g., doing homework) among elementary school children, assessing external, introjected, identified, and intrinsic reasons for engaging in these behaviors. They found that the four types of regulation were intercorrelated according to a quasi-simplex (ordered correlation) pattern, thus providing evidence for an underlying continuum of autonomy. Differences in attitudes and adjustment were also associated with the different types of extrinsic motivation. For example, the more students were externally regulated the less they showed interest, value, or effort, and the more they indicated a tendency to blame others, such as the teacher, for negative outcomes. Introjected regulation was positively related to expending effort, but was also related to more anxiety and to poorer coping with failures. Identified regulation was associated with greater enjoyment of school and more positive coping styles. And intrinsic motivation was correlated with interest, enjoyment, felt competence, and positive coping.

Subsequent studies have extended these findings concerning types of extrinsic motivation, showing for example that more autonomous extrinsic motivation is associated with greater engagement (Connell & Wellborn, 1990), better performance (Miserandino, 1996), less dropping out (Vallerand & Bissonnette, 1992), higher quality learning (Grolnick & Ryan, 1987), and greater psychological well-being (Sheldon & Kasser, 1995), among other outcomes. Additionally, there appears to be cross-cultural generalizability to the model as presented in Fig. 1 (e.g., Hayamizu, 1997).

Greater internalization appears, then, to yield manifold adaptive advantages (Ryan, Kuhl, & Deci, 1997), including more behavioral effectiveness (due to lessened conflict and greater access to personal resources) and greater

experienced well-being. Given the clear significance of internalization for both personal experience and behavioral and performance outcomes, the critical applied issue concerns how to promote the autonomous regulation of extrinsically motivated behaviors.

Because extrinsically motivated behaviors are not inherently interesting and thus must initially be externally prompted, the primary reason people are likely to be willing to do the behaviors is that they are valued by significant others to whom they feel (or would like to feel) connected, whether that be a family, a peer group, or a society. This suggests that the groundwork for facilitating internalization is providing a sense of belongingness and connectedness to the persons, group, or culture disseminating a goal, or what in SDT we call a sense of *relatedness*. In classrooms this means that students' feeling respected and cared for by the teacher is essential for their willingness to accept the proffered classroom values. In support of this, Ryan, Stiller, and Lynch (1994) found that relatedness to teachers (and parents) was associated with greater internalization of school-related behavioral regulations.

A second issue concerns perceived *competence*. Adopting as one's own an extrinsic goal requires that one feel efficacious with respect to it. Students will more likely adopt and internalize a goal if they understand it and have the relevant skills to succeed at it. Thus, we theorize that supports for competence (e.g., offering optimal challenges and effectance-relevant feedback) facilitate internalization.

According to the SDT approach, a regulation that has been internalized may be only introjected, and that type of regulation could well leave people feeling satisfaction of their needs for competence and relatedness. However, to only introject a regulation and thus to be controlled by it will not leave the people feeling self-determined. We therefore suggest that autonomy support also facilitates internalization; in fact, it is the critical element for a regulation being integrated rather than just introjected. Controlling contexts may yield introjected regulation if they support competence and relatedness, but only autonomy supportive contexts will yield integrated self-regulation. To fully internalize a regulation, and thus to become autonomous with respect to it, people must inwardly grasp its meaning and worth. It is these meanings that become internalized and integrated in environments that provide supports for the needs for competence, relatedness, and autonomy.

Again, research has supported this reasoning. Deci, Eghrari, Patrick, and Leone (1994) experimentally demonstrated that providing a meaningful rationale for an uninteresting behavior, along with supports for autonomy and relatedness, promoted internalization and integration. Controlling contexts yielded less overall internalization, but even more interesting, the internalization that did occur in controlling contexts tended to be only introjected. In a study involving parent interviews, Grolnick and Ryan (1989) found higher levels of internalization and integration of school-related values among chil-

dren whose parents were more supportive of autonomy and relatedness. Williams and Deci (1996) used a longitudinal design to show greater internalization among medical students whose instructors were more autonomy and competence supportive. These are a few of the findings in this area that suggest how supports for relatedness and competence facilitate internalization and how support for autonomy additionally facilitates the integration of behavioral regulations. When that occurs, people not only feel competent and related, but also self-determined, as they carry out extrinsically valued activities.

CONCLUSIONS

We have briefly presented self-determination theory in order to make the critical distinction between behaviors that are volitional and accompanied by the experience of freedom and autonomy—those that emanate from one's sense of self—and those that are accompanied by the experience of pressure and control and are not representative of one's self. Intrinsically motivated behaviors, which are performed out of interest and satisfy the innate psychological needs for competence and autonomy are the prototype of self-determined behavior. Extrinsically motivated behaviors—those that are executed because they are instrumental to some separable consequence—can vary in the extent to which they represent self-determination. Internalization and integration are the processes through which extrinsically motivated behaviors become more self-determined.

We reviewed studies that have specified the social contextual conditions that support intrinsic motivation and facilitate internalization and integration of extrinsically motivated tasks. The studies have been interpreted in terms of the basic psychological needs. That is, we saw that social contextual conditions that support one's feelings of competence, autonomy, and relatedness are the basis for one maintaining intrinsic motivation and becoming more self-determined with respect to extrinsic motivation. We pointed out that in schools, the facilitation of more self-determined learning requires classroom conditions that allow satisfaction of these three basic human needs—that is that support the innate needs to feel connected, effective, and agentic as one is exposed to new ideas and exercises new skills.

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