

Self-determination theory in schools of education

Can an empirically supported framework also be critical and liberating?

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ABSTRACT

In many graduate schools of education there is strong resistance to formal theories, especially those that are supported through quantitative empirical methods. In this article we describe how self-determination theory (SDT), a formal and empirically focused framework, shares sensibilities with critical theorists concerning the importance of actors' own embedded experiences of the world, and the importance of liberation and resistance to hegemony. Yet we argue that, unlike many post-modern views that are largely negative, SDT is truly critical precisely because it posits a common human nature, which can be more or less supported and allowed to flourish in different cultural and institutional contexts.

KEYWORDS *autonomy, educational theories, qualitative research, self-determination theory*

IN MANY GRADUATE SCHOOLS OF EDUCATION TODAY there is strong resistance to the use of quantitative, empirical methods and formal, testable theories. Such resistance stems, in part, from fears that quantitative methods reflect the hegemonic forces entrenched in societies, or that the scientific method ultimately reduces humans to mere objects in causal chains. As an alternative, educational scholars often advocate qualitative methods that aspire to impose pre-existing ideologies less heavily on the targets of their investigations and

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ensure that the voices of all actors in the domains being studied can be heard. Moreover, some educators express resistance to *theory*, on the supposition that formal theory is necessarily an imposition on the phenomena that interest educators and, therefore, distorts the field of inquiry. Insofar as all theories are historically and culturally constructed, they necessarily reflect biased and limited foundations for inquiry but, as the critics highlight, few include reflective, self-critical considerations.

It is therefore interesting to be positioned within *self-determination theory* (SDT; Deci and Ryan, 2000; Niemiec et al., in press; Ryan and Deci, 2000), a formal theory, which at the same time is phenomenologically informed and critical of hegemony in all its forms. SDT is substantively focused on human liberation and enhancement, as well as on the association between our inherent tendencies toward active growth and realization of potentials and ambient social, economic, and cultural supports or obstructions. Practically, both SDT and its empirical findings have been used to fight against heteronomy in schools and cultures, from opposition to high-stakes testing (Ryan and Brown, 2005) to advocacy for students' autonomy across cultures (Vansteenkiste et al., in press) to making greater autonomy and belongingness in schools available to the urban poor (Deci, this issue). As an organismic theory, SDT opposes reductionism and instead focuses on the internal frame of reference of participants in understanding and predicting what energizes, directs, and sustains behavior. In these and numerous other ways SDT aligns with many of the values reflected in critiques of, and resistance to, mainstream sciences in the domain of education.

Yet SDT is unabashedly a strong empirically based theory, making explicit assumptions about human nature and proposing testable hypotheses that organize its experimental and field studies that are primarily (though not exclusively) supported through quantitative methods. As both a formal theory and an approach that not only welcomes but indeed advocates empirical tests of its tenets, SDT stands at odds with the ideas of many scholars in today's schools of education.

In this concluding comment we do not argue against perspectives that are critical of empirical methods in education, but instead we highlight the value of SDT regarding some of the very aims and concerns that critics of empirico-theoretic approaches have championed. Specifically, we address how SDT's formal theorizing and quantitative methods support cultural critiques, take seriously the unique meanings of individuals, and represent a resistance to hegemony and reductionism – themes at the heart of the critical, post-modern viewpoints found in so many schools of education. In addition, we suggest that the development, testing, and application of strong theory and the use of quantitative methods (in addition to other methods of garnering

understanding) can have extraordinary power to influence systems and to promote change in the direction of more humanistic, liberating practices.

Beyond that, we assert that SDT is in certain ways *more* prepared to provide a truly critical perspective precisely because, unlike most post-modern perspectives, SDT posits a *human nature* that can be violated or supported by social contexts. It is precisely our focus on what facilitates or thwarts the flourishing of human nature that makes SDT not only a practical theory, but also one that can challenge the status quo. That is, positing a human nature that can be damaged or nurtured by social environments provides a solid basis for critique, whereas theories that deny any inherent nature to humans often lack such criteria.

IN DEFENSE OF EMPIRICALLY SUPPORTED
PSYCHOLOGICAL THEORY AND METHODS

Our claim is not that quantitative methods have any epistemological priority over qualitative ones (we embrace pluralism in this regard), but rather that quantitative methods can be legitimately and critically applied to questions of educational practice and, more importantly, they can make a theory like SDT more practical because such methods can speak reliably to what constitutes effective versus ineffective practice.

The fundamental norm for science is to advance accurate predictions, have control over outcomes, and understand mediating and moderating processes by investigating how systematic variations in conditions affect change in a given phenomenon. As we have seen throughout this volume, SDT researchers have continuously exploited quantitative methods, using both experimental and observational study designs, to chart how social conditions facilitate or undermine autonomous self-regulation and wellness.

Yet, unlike many empirical approaches, SDT's understanding is not that environments directly control behavior, but rather that social contexts affect people's *experience* and, moreover, their satisfaction of some very basic psychological needs. SDT specifically traffics in a psychological level of analysis, locating the causes, reasons, and sources of human motivation primarily in terms of human meanings (implicit and explicit) and the reactions, emotions, and cognitions to which they give rise. Insofar as the 'cause' of a behavior is the event that supplies its impetus, it is precisely these psychologically meaningful states that are the *regnant causes* of most behavioral events (Ryan and Deci, 2003). As examples, it is the felt humiliation by a teacher that causes despair; it is the experience of mastery accompanying a student's accomplishment that sustains further effort; it is the feeling of being emotionally supported that helps a classroom cohere; and it is the

experience of threat when being controlled that incites reactance or rebellion. Experiences such as humiliation, mastery, support, and threat are not simply 'brain processes', although clearly they are manifest at that level of analysis, nor are they environmental events, even though they are embedded in, and convey a relation to, the world; rather, they are the most proximal and most meaningful aspects of the processes energizing human actions and reactions.

Psychological theories are not distinct from materialistic accounts, and any reasoned scientific perspective suggests the need for consilience and coordination between levels of analysis. But too often we lose sight of how important psychological events are in their own right. Not only are they phenomenally the proximal causes of behavior, but *they are the most, if not only, practical level at which we can typically intervene*. A teacher is not likely to influence behavior by directly manipulating students' brains, but rather by influencing how they interpret and experience the materials before them. An educator cannot transmit a value or practice to another individual simply by redirecting neurons, but rather must do so through interpersonal interactions that impact the learner's motives, values, and goals. Thus, scientific understanding is needed at the level of analysis of controllable causes, which lie in human experiences and the concrete social contexts that give rise to them.

Additionally, we focus on experience because experience – and here we mean each moment of it – *is* the life of our students. It seems that the most important task of schools is to provide a quality experience for students, comprising interest, engagement, and growth (Tsai et al., 2008). This is an intrinsic value, insofar as it addresses a certain quality of life, which is not merely an *outcome* following schooling – in point of fact, much of our children's, adolescents', and young adults' lives are spent *in* schools. Schools at all levels should therefore exemplify a climate conducive to positive experience and living.

WHY HAVE THEORY AT ALL?

Some educators are suspicious of theory because it imposes a framework on events and people rather than letting them speak for themselves. SDT is a theory, but includes as a tenet the importance of sharing in people's internal frame of reference as a starting point for understanding their motivations and supporting their autonomy. So we are sympathetic to the idea that voices must be heard, and studies in the SDT tradition show that in contexts where people have voice they show greater engagement and performance, as well as experience greater wellness (Ryan and Deci, 2000).

At the same time, we question whether an absence of theory actually enhances or diminishes people's voices being heard. The purpose of theory

is generalizability. Accordingly, if all our knowledge were atheoretical, we could not generalize from one time or context to another. We would have no guides or principles to organize action. So the intent of theory construction is explicitly to provide an organizing framework for perception and practice. And since all practice and perception is organized (whether one admits it or not), we would prefer a theory that guides us in the direction of human liberation, full functioning, and wellness.

WHY USE QUANTITATIVE METHODS?

Often underlying the quantitative–qualitative debate are differing epistemological and ontological assumptions. For instance, many qualitative researchers resist generalizations. For them, to understand any phenomenon requires becoming deeply immersed in its context to grasp its unique emergence and meanings. Rather than constructing and testing a fixed set of questions with constrained methods, qualitative researchers prefer allowing the questions to formulate and change as a spontaneous process of immersion. This strategy connects with assumptions of *cultural relativism* – the belief that one cannot impose meanings on another culture or context, as each situation must be understood from the inside. Additionally, some qualitative researchers do not assume that any reality exists apart from our perceptions; that is, each individual experiences a different reality. Accordingly, they can be opposed to methods that summarize or generalize across individuals, which quantitative methods invariably do. They also argue that the researcher herself is biased historically, culturally, and personally, which adds reason to be skeptical about any attempt to establish the validity of general propositions. At best, then, what a qualitative researcher can hope for is to deeply interpret one’s own situated viewpoint.

Although a quantitatively supported theory, SDT shares some of these sentiments. Specifically, in the SDT view it is the individual meaning or experience that has functional significance in behavioral events (Deci and Ryan, 2000), and this focuses us on the embedded meanings and perceptions of individuals as the determinants of behavior. Moreover, there is a strong assumption within SDT that people internalize ambient cultural values and ideologies, which in turn shape, influence, and/or organize their perceptions and experience. These cultural ideologies and values can be more or less problematic for the flourishing of motivation and wellness.

At the same time, SDT diverges from these ideas around their resistance to generalizations. Within SDT, we see a basis for generalizations precisely because, whatever our cultural differences, *we do have a common nature*. Specifically, we all have deeply evolved and developmentally persistent needs for

autonomy, competence, and relatedness. Given this, SDT addresses how social conditions, both macro and micro, can be more or less optimal for all who share that nature.

In short, SDT is allied with qualitative and critical theories in understanding the situational nature of learning and growth, and the importance of the individual's frame of reference in shaping meanings and the behaviors that follow from them. Yet we can ally with quantitative researchers in the belief that there are some general truths or principles about human nature that can be demonstrated and reliably observed.

WHAT NATURE?

SDT's approach specifically revolves around the dialectical relations between our natural processes toward intrinsically motivated activity and integration and the nutriments or supports present in the social context. More specifically, SDT holds that people have a set of *basic psychological needs* that must be satisfied for them to remain active and for optimal development to occur. Human vulnerabilities and compromised social and behavioral functioning are thus understood to primarily result from the thwarting of fundamental human needs. The concept of human needs therefore provides the linking pin in the SDT dialectic, as the satisfaction versus neglect of basic psychological needs is the critical determinant of whether people will be fully functioning and psychologically well.

Like physical needs, psychological needs are argued to be *objective* rather than merely subjective phenomena. They are objective in the sense that deprivation of any of them leads to readily observable decrements in growth, integrity, and wellness, at all points in development and across all settings and cultures. Although one's desires or values for any of these nutriments may impact upon their satisfaction, they are not determinative of their functional effects. This is analogous to the idea that, regardless of whether or not one subjectively values nutrition, deprivation of it will lead to ill health. Similarly, regardless of whether or not one values autonomy, competence, or relatedness, deprivation of any of these needs has demonstrable impact on growth and wellness. Our postulate of the essentialness and universality of human needs thus sets the stage for a truly *dynamic* theory of motivation, which means that we analyze behavior in terms of its relation to the three psychological needs, even when the surface content of a behavior may not appear to be directly related.

Specifying fundamental human needs serves a variety of purposes. It gives content to human nature by describing natural tendencies and inclinations.

It provides a basis for understanding the development of individual differences in integration versus fragmentation. And it represents a framework for making systematic and testable predictions about which aspects of a given social context will enhance versus undermine self-motivation, integrated functioning, and social relatedness.

We thus characterize social environments (e.g. families, classrooms, schools) in terms of the extent to which they are (1) autonomy supportive versus controlling; (2) competence supportive versus over-challenging, inconsistent, or otherwise discouraging; and (3) relationally supportive versus impersonal or rejecting. We then make predictions about the effects of specific contextual factors (e.g. controlling reward structures, positive feedback about one's performance, social acceptance) based on a reasoned consideration of the relation of those factors to the basic psychological needs. Our predictions concern not only the experience of wellness, but also the quality of people's engagement, performance, persistence, loyalty, and attitudes in a given context.

Specifying specific needs and their supports versus thwarts in turn is what allows SDT to be truly critical. Whereas cultural relativists feel unable to directly critique cultures, SDT does so directly and unabashedly. Cultural and institutional contexts that fail to support basic psychological needs are shown to be oppressive and deleterious. Thus, it is the case that SDT pinpoints many of the oppressive elements of authoritarian (Chirkov and Ryan, 2001), central planning (Deci et al., 2001) and capitalist (Kasser et al., 2007) cultures, as well as both individualist and interdependent cultures (Chirkov et al., 2005), as every culture poses both distinct threats and affordances with respect to basic human needs. Indeed, not all families, schools, cultures, or economic systems are equal in this regard and thus SDT has a metric for evaluating them non-arbitrarily, something that seems missing from so many 'critical thinkers'. Moreover, whereas so much critical theory is negative – it tells us what we cannot know or cannot impose – SDT is also positive. It prescribes, as well as proscribes, as it posits a nature that can be more or less nurtured.

SCHOOLS AND LEARNING: HOW LIBERATING IS SDT?

Much work on SDT in this issue has shown how parent, teacher, and institutional approaches to motivation can be controlling, autonomy supportive, or amotivating. More controlling motivational climates for learning foster external regulation, and the result is more superficial and less transferable learning. Controlled motivation has been shown to predict not only impoverished

learning, but also greater dropout and lower wellness. By contrast, support for basic psychological needs fosters more autonomous self-regulation, persistence, quality of learning, and greater wellness and feelings of connection. Finally, learning contexts that are either non-optimally challenging or appear to be irrelevant to the student spawn amotivation.

In the SDT view the intrinsic value of education lies in its promise for enhancing human freedom and capabilities. Freedom concerns meaningful opportunities for realizing one's authentic aims. As articulated by Sen (1999), capabilities refer to the full range of human functionings associated with achieving happiness or well-being. Education must enhance freedom and capabilities both to engage its participants and to fulfill its promise. The opposite of freedom and capability is voicelessness and powerlessness: an absence of autonomy and competence to achieve one's aims.

The various articles collected in this special issue attest to the growing body of evidence from SDT demonstrating that when classroom conditions support the intrinsic motivation of learners by attending to their basic psychological needs for autonomy, competence, and relatedness, students are more likely to flourish and develop capabilities. In contrast, when education consists of controls, demands, pressures, and performance-contingent rewards, both its quality and its reach is diminished. Such findings not only teach us about efficacy in educational practices, but also something fundamental about human nature. Only when the autonomy at the core of human development is respected and nurtured does our nature flourish.

At the heart of SDT is a focus on the inherent inner resources of learners to assimilate and to self-organize knowledge under the right social conditions. This focus offers opportunities to reconceptualize our models of optimal educational environments. This perspective also moves us away from viewing teachers as controllers, monitors, and trainers to being facilitators, guides, and supporters of development. In the controlling approach, teachers are responsible for making students learn. Paradoxically, this undermines the student's sense of agency, ownership, and satisfaction in learning – experiences that can have cascading effects across the lifespan. Indeed, the thrust of SDT is to broaden the idea that schools are just about skills and contents for some future employment. Instead, in this view they are about developing capacities that include curiosity, interest, confidence, access to resources, and empowerment. When schools and educators embrace such a view, they can become liberators and help students become the critical thinkers they need to be in a changing world. In this regard, SDT is again aligned with those who understand that education can be a subjugating force in society, or a catalyst to human autonomy, competence, and community.

REFERENCES

- Chirkov, V.I. and Ryan, R.M. (2001) 'Parent and teacher autonomy-support in Russian and U.S. adolescents: Common effects on well-being and academic motivation', *Journal of Cross-Cultural Psychology* 32: 618–35.
- Chirkov, V.I., Ryan, R.M. and Willness, C. (2005) 'Cultural context and psychological needs in Canada and Brazil: Testing a self-determination approach to the internalization of cultural practices, identity, and well-being', *Journal of Cross-cultural Psychology* 36: 423–43.
- Deci, E.L. and Ryan, R.M. (2000) 'The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior', *Psychological Inquiry* 11: 227–68.
- Deci, E.L., Ryan, R.M., Gagné, M., Leone, D.R., Usunov, J. and Kornazheva, B.P. (2001) 'Need satisfaction, motivation, and well-being in the work organizations of a former Eastern bloc country: A cross-cultural study of self-determination', *Personality and Social Psychology Bulletin* 27: 930–42.
- Kasser, T., Cohn, S., Kanner, A.D. and Ryan, R.M. (2007) 'Some costs of American corporate capitalism: A psychological exploration of value and goal conflicts', *Psychological Inquiry* 18: 1–22.
- Niemiec, C.P., Ryan, R.M. and Deci, E.L. (in press) 'Self-determination theory and the relation of autonomy to self-regulatory processes and personality development', in R.H. Hoyle (ed.), *Handbook of Personality and Self-regulation*. Malden, MA: Blackwell Publishing.
- Ryan, R.M. and Brown, K.W. (2005) 'Legislating competence: High-stakes testing policies and their relations with psychological theories and research', in A.J. Elliot and C.S. Dweck (eds), *Handbook of Competence and Motivation*, pp. 354–72. New York: Guilford Press
- Ryan, R.M. and Deci, E.L. (2000) 'Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being', *American Psychologist* 55: 68–78.
- Ryan, R.M. and Deci, E.L. (2003) 'On assimilating identities to the self: A self-determination theory perspective on internalization and integrity within cultures', in M.R. Leary and J.P. Tangney (eds), *Handbook of Self and Identity*, pp. 253–72. New York: Guilford Press.
- Sen, A. (1999) *Development as Freedom*. New York: Alfred A. Knoph.
- Tsai, Y., Kunter, M., Lüdtke, O., Trautwein, U. and Ryan, R.M. (2008) 'What makes lessons interesting? The role of situational and individual factors in three school subjects', *Journal of Educational Psychology* 100: 460–72.
- Vansteenkiste, M., Ryan, R.M. and Deci, E.L. (in press) 'Self-determination theory and the explanatory role of psychological needs in human well-being', in L. Bruni, F. Comin and M. Pugno (eds), *Capabilities and Happiness*. Oxford: Oxford University Press.

BIOGRAPHICAL NOTES

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