

Reconciling Humanistic Ideals and Scientific Clinical Practice

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A rift currently exists between two camps in clinical psychology: mental health practitioners, who resonate to concepts such as self-actualization and personal growth, and research scientists, who often shun such concepts as overly value-laden or as empirically indefensible. In the present article we first suggest that this gap is bridged by self-determination theory (SDT), which incorporates aspects of humanistic theories and also stands up to rigorous scientific investigation (Deci & Ryan, 1985, 2000). We then demonstrate how self-determination principles may be applied in the context of empirically supported medical and clinical treatments, to promote enhanced client motivation and treatment compliance. We conclude that scientifically supported treatments and the humanistic tenets of SDT actually facilitate one another, such that clinicians who ignore either of the two aspects may shortchange their clients.

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Despite the widespread popularity of the concept of “self-actualization” among the general public and many mental health practitioners, the concept has fallen out of favor with the clinical research community. Research-oriented clinicians focus their effort on the development and validation of empirically sound techniques for alleviating specific disorders, often to the exclusion of concepts like personal

growth or self-actualization. In contrast, popular writers and many practicing psychotherapists focus on such concepts as vital for healthy human beings. Consequently, two juxtaposed positions emerge, with clinical scientists pondering why the general public and the therapeutic community often ignore empirically proven procedures and the general public and the therapeutic community feeling frustrated over researchers’ dismissal of the importance of concepts like personal growth and human potential.

To understand the roots of this fragmentation, it is necessary briefly to trace the historical development of the two camps and their underlying assumptions. Both camps coalesced in the 1960s in reaction, at least in part, to strict behaviorism. Also, both camps strove to incorporate mental processes within the realm of scientific psychology. Cognitive psychology, to which the current clinical scientist camp owes much, rectified the failure of behaviorist researchers to consider the signal processing that goes on within the minds of individuals. Humanistic psychology, currently represented by many practicing psychotherapists, rectified the failure of behaviorist researchers to consider the selves and personhood of individuals.

Although the two camps shared an emphasis on mental processes, they differed in many ways. The most divisive difference between humanistic theorists and the mainstream research community was their disagreement on the role that quantitative methodology should play within the knowledge-acquisition process. Many humanists rejected empirical quantification and large-sample studies as inappropriate and ultimately dehumanizing, and opted instead for a descriptive case-by-case approach. That approach, however, often produced unimpressive and nongeneralizable results. Furthermore, humanists undermined their own credibility with the implicit assumption that their theories were immune from conventional scientific proof.

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Thus, humanism became largely marginalized in academic psychology. In contrast, the early cognitivists maintained the experimental standards and statistical methodology of the behaviorists, thrived in academic settings, and positioned themselves to receive federal funding for their research. Consequently, cognitivism has become the dominant force in academic psychology.

The cognitive perspective has led to many research triumphs. However, we believe that cognitivism, like strict behaviorism before it, faces the danger of an overly reductionistic stance. Namely, many contemporary research psychologists believe, just as the behaviorists did, that human feelings of choice, agency, and autonomy are illusory (Wegner & Wheatley, 1999; Bargh & Chartrand, 1999). Thus, in one sense, the only difference between behaviorism and cognitivism is that behavior is now said to be determined by subconscious cognitive processes, rather than by environmental contingencies and past reinforcements—in either case, of course, the conscious self has little or no control.

However, in denying the potential causal importance of the human self, cognitivists may unnecessarily enter a dead end. It is quite possible to assign the self an important causal role in behavior without discarding rigorous science. For example, new developments within chaos theory, dynamical systems theory, and hierarchical control theory all suggest that complex systems can manifest surprising emergent processes, whose effects are irreducible to lower-level or more molecular functioning. In the brain, it appears that such processes are often characterized by consciousness and subjectivity. Although undergirded by neuronal activity, conscious experiences involving a sense of self have special characteristics that can strongly influence the functioning of the systems in which they emerge (Damasio, 1999). More specifically, brain events possessing the property of experienced self-awareness may have substantial consequences for future (nonconscious) brain events, consequences that are not deducible simply from knowledge of the underlying neuronal states that supported the original events (also see Sperry, 1990); to understand such effects, one must consider higher-level processes “at their own level.” In short, by embracing an overly reductionist stance and denying the potential efficacy of the conscious self, cognitivists may lose important explanatory potential.

It seems that one manner of resolving this fragmentation between clinical scientists (e.g., cognitivists) on the one hand, and the lay and therapeutic communities on the other (e.g., humanists), would be to establish a *science* of the

self—a science which showed how to incorporate concepts like self-integrity, psychological authenticity, and personal growth into empirically validated treatments and theories. Such a science would bring down walls separating mechanistic theories and personalistic theories within psychology as well as bridge the gap between research-oriented clinicians and the needs and demands (which are manifest in the perennial popularity of self-help books and personal growth manuals found in bookstores) of the public whose tax dollars support much of the research conducted by the scientists.

One of the main points of this article is to show that a science of the self has *already* been developed over the past 30 years: self-determination theory (SDT). Before discussing this theory, however, it is first necessary to define what we mean by “science of the self.” Simply put, we refer to research approaches that focus on the conceptual issues addressed by humanistic and self-actualization theories, such as the integrity of the self and the meaning of healthy agency, while at the same time employing experimental and quantitative methodologies acceptable to mainstream research communities. Again, some humanists would argue that these two objectives *cannot* be compatible—for example Maslow, the originator of the concept of self-actualization, insisted that it could not be evaluated by traditional methodologies, because of its multi-faceted and individualized nature. Other proponents of this position argue that in order to properly study and appreciate concepts such as “human potential” and “self-actualization,” one must *necessarily* employ qualitative and descriptive studies, typically focused on particular cases rather than large samples of individuals (Georgi, 1993).

We have some sympathy for this position, because we believe that a pluralistic approach is likely to be best. Qualitative and descriptive data should of course be part of the picture, and indeed such data can be especially useful for suggesting new questions and theoretical avenues to explore. It is also worth pointing out that humanism’s rich tradition of qualitative research continues today, as evidenced by the recent appearance of an impressive edited volume, the *Handbook of Humanistic Psychology* (Schneider, Bugental, & Pierson, 2001). As can be seen in this book, heuristic, hermeneutic, and phenomenologically oriented researchers are alive and well.

Unfortunately, this newer work may still not receive the attention it deserves. In part this is because many research psychologists reject nonquantitative data as leading

too often to unreliable, nonreplicable or nonfalsifiable conclusions. We have some sympathy with this position also, as we believe that all real patterns in the world should in principle be measurable, even if their quantification sometimes yields very complex and multi-faceted datasets requiring very sophisticated data analysis techniques. In other words, we believe that the qualitative patterns and individual complexities referred to by Maslow and other humanists should be able to be documented empirically with the help of sufficiently sophisticated quantitative and statistical methodologies.

To illustrate briefly, consider two data-collection methodologies that have been developed in the last 15 years: experience sampling and personal goal assessment. Experience-sampling methodologies allow researchers to capture, in fine detail, the ebb and flow of individual experience over time (Nakamura & Csikszentmihalyi, 2001). Although the data obtained by such methods pose difficult analytical problems, recent advances in hierarchical linear and latent growth-curve modeling are up to the challenge (Bryk & Raudenbush, 1992). Thus, we now know much more about peoples' daily "patterns of life" than we did ten years ago (see Zelenski & Larsen, 2000, for an excellent example). Or consider personal goal methodologies, which allow researchers to capture, in fine detail, an individual's unique concerns and motives (Emmons, 1999). Although the qualitative data obtained by such idiographic methods are inherently individualized, they can also yield useful nomothetic data and between-subject comparisons, for example, when participants are asked to make common Likert ratings regarding each of their unique goals or when goals are content coded for various themes. Sheldon and his colleagues have used such methodologies to provide much new support for humanistic theories and assumptions. For example, they have published longitudinal path-models demonstrating how self-concordant goal striving can lead to new personal growth and enhanced well-being by way of psychological need satisfaction (see Sheldon, 2002, or Sheldon & Kasser, 2001, for reviews of this program of research).

Space prohibits further discussion of these and other methodological and analytical advances, so let us simply reiterate the general point: *humanistic research questions and quantitative methodologies are by no means inconsistent with one another*. Again, part of the purpose of this article is to argue that there is a synthesis available of these two positions, in which the problems of authentic selfhood are approached and studied using conventional quantitative methodolo-

gies. Although self-determination theory may miss some of the subtleties and complexities discussed by the founders of humanism (i.e. Maslow, Rogers, May, Frankel, and others) and also by contemporary humanists (i.e., Greening, Giorgi, Wertz, Moustakas, and others), it has advantages also: namely, it can reintroduce humanistic issues and questions to mainstream theorists and granting agencies while at the same time showing them that such issues and questions *can* be addressed quantitatively. In addition, as we hope to show, self-determination theory can supply compelling ideas and data concerning the nature of optimal motivation and human functioning and thus can provide well-documented prescriptions for designing environments to maximize human potential.

By way of introducing this synthesis, we first consider some further definitional issues. First, what *is* the self—is there really such a thing or is it a fiction? Does it really have any importance, or is it a fiction, an acausal epiphenomenon? Our position is that the self is indeed a "fiction," in that it is a construction of the human mind and in that it has no existence apart from brain functioning. Nevertheless, the fact that people *believe* that they have a self has important consequences for brain and behavior (Smith, 1982). Thus, although the self is a fiction, it is a *fiction with a function*, indeed, with a wide variety of important functions, such as constituting the organism as a stable and coherent entity within an interacting social network of selves; feeling and thus hopefully determining what is "right" for the organism; generating and selecting long-term goals and plans for the organism; and, most importantly for the present paper, motivating behavior over long periods of time, particularly adaptive behavior which is not necessarily enjoyable for its own sake (Markus & Nurius, 1987).

But what is the nature and source of the proactive human self, and how is it rooted in biological and organismic processes? Progress concerning this mysterious question leaped forward when White (1959) proposed that humans have an innate need for feelings of mastery or effectance, which pulls them to explore the environment and to master new challenges, even in the absence of external rewards. He argued that the "reward" for such behavior comes in the activity itself, that is, in the enjoyment and mastery the individual experiences while doing the activity. Thus was born the concept of intrinsic motivation. Research in the late 1960s and early 1970s supported White's view. Furthermore, work by scientists such as Deci, Kruglanski, Lepper, and Amabile suggested that external rewards may actually undermine intrinsic motiva-

tion. In contrast to behavioristic principles, this research indicated that people may actually desist in behavior precisely *because* it has been rewarded.

Self-Determination Theory

These and other findings led Deci and Ryan (Deci, 1975; Deci & Ryan, 1985b, 2000) to develop self-determination theory (SDT; see Deci and Ryan's (2002) edited volume for a synopsis of contemporary SDT). SDT is an organismic theory of human motivation that begins by attempting to identify fundamental psychological needs (as did Maslow). One of these is the need for *competence*: as White pointed out, the need for competence within the human organism motivates much exploratory and growth-relevant behavior. Although experience is its own reward in this case, such experiences doubtless provide indirect rewards, in that they facilitate skill development and successful coping behavior. SDT's assertion that humans have a need for competence is relatively uncontroversial and is echoed in many related concepts in psychology, which emphasize the importance of high self-efficacy, control beliefs, feelings of optimism, and the like.

However, according to SDT, the self struggles for more than mere mastery of external tasks. More generally, the conscious self struggles to "own" itself and its choices, to feel a sense of concordance with its own behavior. This is reflected both in struggles at the "internal boundary," where the self tries to master and regulate its drives and impulses, and at the "external boundary," where the self tries to integrate with other selves, at the same time that its own needs and values are expressed. The ultimate goal that the self seeks is regulation of the self by the self, rather than by non-assented-to internal and external forces. Deci and Ryan refer to this as the need for *autonomy*. The need for autonomy remains somewhat controversial in the empirical literature, as there are debates on the definition, conceptualization, and cross-cultural importance of autonomy (see Deci & Ryan, 2000, for a description and rebuttal of these issues; in particular, they argue that autonomy should not be confused with independence, reactance, individualism, self-esteem, and other self-related constructs). Interestingly, the mainstream's resistance to the concept of autonomy may be seen as paralleling its resistance to humanistic themes more generally.

Consistent with its emphasis on interpersonal as well as intrapersonal integration, SDT postulates a third basic psychological need in addition to competence and autonomy: the need for *relatedness*. This refers to the self's desire to

achieve communion with other selves, to transcend the boundary between self and other. This need is also uncontroversial and is echoed in the writings of many relationship, attachment, and evolutionary psychologists (see Baumeister & Leary, 1995). Importantly, although autonomy and relatedness may appear to be opposing needs, they are actually complementary. For instance, people reporting strong feelings of autonomy in social settings typically report strong feelings of relatedness as well (Hodgins, Koestner & Duncan, 1996; Sheldon & Bettencourt, 2002). Further, adolescents who feel their autonomy is acknowledged by their parents also feel a strong sense of relatedness with their parents (Ryan & Lynch, 1988). By communing with others, the self expands itself (Aron & Aron, 1997), simultaneously fulfilling both its desire to express itself and its desire to be related to something larger.

The importance of all three needs has now been shown by ample empirical research. Typically, this research measures all three qualities of experience, showing that they have independent and additive effects upon positive outcomes such as psychological well-being (Sheldon, Elliot, Kim, & Kasser, 2001), secure attachment (La Guardia, Ryan, Couchman, & Deci, 2000), worker performance and satisfaction (Deci et al., 2001) and positive evaluations of college teachers and courses (Filak & Sheldon, in press).

Of the three basic needs proposed by SDT, the need for autonomy assumes a position of precedence because it represents the organism's overall attempt to move towards greater integration, self-regulation, and indeed, self-actualization. However, as mentioned above, autonomy can also be fragile and readily undermined by coercive contexts and authorities. As such, it is most relevant to our discussion of motivating clients for treatment, and will be considered in further depth in the following paragraphs.

Self-regulated and autonomous functioning is characterized, according to Deci and Ryan, by an internal perceived locus of causality (I-PLOC)—a person's perception that he/she causes and endorses his/her own behavior. In this case the sense of self is fully engaged within the behavioral sequence, and thus there is self-responsibility for behavior. Furthermore, autonomous behavior tends to be skillfully and creatively executed, as all of the organism's integrative capacities are engaged (Deci & Ryan, 1985a, 1985b). In contrast, an external perceived locus of causality (E-PLOC) is characterized by a feeling of being regulated by the environment and can lead to disengagement of self from behavior. The individual is unlikely to feel full responsibility for actions and is also unlikely to function as

successfully as possible. Contemporary SDT proposes that all “intrinsic motivation underminers” work by instantiating an E-PLOC within people. Importantly, not all extrinsic motivations are problematic, according to SDT. Extrinsic motivation may be subdivided into three types: external (acting primarily in order to get rewards or avoid punishment), introjected (acting primarily in order to avoid self-imposed guilt or anxiety), and identified (acting primarily as an expression of strongly felt personal values; Ryan & Connell, 1989). Although all three types of extrinsic motivation can give rise to behavior that is not intrinsically pleasurable, the three extrinsic motives vary in the degree of autonomy and self-integration they represent. External motivation is not at all self-integrated, insofar as people feel that outward forces and contingencies cause their behavior. External motivation corresponds to tenets of operant behaviorism, in which people have no free will and disliked behavior only takes place in anticipation of concrete rewards. Introjected motivation is partially self-integrated, and corresponds to ideas discussed by various psychodynamic theorists, in which a person acts out of an internal sense of pressure or guilt, as one part of the self attempts to force the compliance of another part. Identified motivation is fully self-integrated, and corresponds to tenets of existentialist theory, in which maturity involves finding meaning and feeling a sense of choice even in the face of disliked necessities. This is the most desirable form of extrinsic motivation, according to the theory. External, introjected, identified, and intrinsic motivation can be arranged on a continuum, ranging from least to most autonomous (Deci & Ryan, 2000).

An important feature of the PLOC continuum is that it can represent a crucial issue within psychosocial developmental theory (Erikson, 1963), namely, whether people have *internalized* the doing of socially valued tasks (such as voting, jury duty, and diaper changing), tasks that may have little intrinsic appeal. The question is, do people perform such activities with a sense of resistance and “having to,” or do they embrace them as important expressions of their values and commitments (Sheldon & Kasser, 2001)? According to SDT, internalized motivation is vital for sustained positive behavior. Fortunately, internalization is an inherent predisposition within humans—because of their needs for autonomy and for relatedness, people want to develop greater ownership of their own behavior, at the same time that they integrate themselves into the social surround. For example, children have a natural desire to incorporate important norms and values into their selves,

values such as sharing with others, devoting effort to academic achievement, and so on. Unfortunately, internalization is far from certain. Similarly to intrinsic motivation, the internalization process may be undermined when authorities and the social environment do not support autonomy and relatedness needs.

Applying SDT to the Treatment Setting

To make the above arguments and theory more concrete, we will now try to outline the interpersonal conditions that best enable and motivate people to change their unhealthy behavior or to adopt new, more healthy behavior. More specifically, we are interested in how both medical and mental health practitioners may enhance their clients’ motivation in treatment (for more discussion, see Sheldon, Williams, & Joiner, in press). We assert that the key lies in engaging the “self” of the client so that the necessary new behaviors may be better internalized.

According to SDT, clinicians may engage the client’s self by providing *autonomy support* within the treatment context. Autonomy support is a mode of communication and persuasion in which the persuader (or practitioner) fully acknowledges and respects the selfhood of the persuadee (or client). Autonomy support is context-free in that it can be applied in any social interaction, regardless of what type of information or persuasive communication is being exchanged. Thus, it can serve as a “mode” for enhancing the efficacy of any treatment or procedure.

Autonomy support is important because an unequal balance of power exists in all practitioner-client relationships, and effectively managing this inequality is crucial to treatment. The three distinct components of autonomy support, as conceptualized by Deci and Ryan (1985b), provide guidance for navigating this delicate interpersonal dance. First, the authority should take and acknowledge the perspective of the client. That is, as much as possible within the limits of his/her empathic ability, the authority should address and honor the other’s world view. Second, the authority should provide choice whenever he or she can. That is, as much as possible within the limits of the situation, the authority should allow the client to determine what to do. This includes supporting the client’s own initiatives with respect to addressing the problem or reaching the desired goal. Third, the authority should provide a meaningful rationale when choice cannot be provided. When clear evidence exists for the superiority of one treatment compared to others, the rationale that is provided needs to include that information. In this manner, when

the person in power insists on a course of action, he/she carefully explains why the “trump card” is being played in this situation.

These three components may seem obvious, but approaches emphasizing the authority or superiority of the clinician still pervade the helping professions (Karoly & Anderson, 2000). Such approaches often disregard the self of the client and may consequently fail to motivate or may even alienate the client. According to SDT, this outcome may occur because the demeanor of the authority induces an external perceived locus of causality within clients. In other words, clients may come to feel that they are not the cause of their actions—rather, the authority is. Unfortunately, once the authority is gone, action may cease.

In contrast, fostering an I-PLOC by encouraging clients to own the recommended behavior may help them to follow through with the agentic intentions that brought them into the treatment context in the first place. When clinicians solicit clients’ point of view, offer whatever choices are possible, and provide sensitive rationales when choices must be restricted, then clients are enabled to feel that they are the autonomous cause of their resulting actions, while at the same time feeling meaningfully related to the clinician. In such a context the client is most likely to be able to invest the sustained effort and commitment necessary to begin to feel a new sense of competence within his or her situation. In addition, he/she will be best able to gradually internalize the doing of unpleasant behaviors (i.e., to take in extrinsic motivations and make them his/her own, as when a diabetic fully accepts the responsibility of rigorous but tedious self-management). And, indeed, research has confirmed that each of the three facets of autonomy support promote internalization (Deci, Eghrari, Patrick, & Leone, 1994; Williams & Deci, 1996), whereas controlling interpersonal styles may actually produce less of the desired behavior rather than more (Deci, Spiegel, Koestner, & Kauffman, 1982; Flink, Boggiano, & Barrett, 1990; Pittman, Emery, & Boggiano, 1982).

Although it is client centered, autonomy support should not be mistaken for a permissive, nondirective approach. Indeed, autonomy-supportive authorities must demonstrate expertise, provide structure, and convey information, as well as communicate expectations and sometimes punish transgressions (Ryan & Stiller, 1991). Still, according to SDT, the clinician must cede ultimate control to the client, acknowledging that it is up to him/her to decide what to do. This is also consistent with clinical medical ethics (Beauchamp & Childress, 1989). From the broader

humanistic viewpoint, the growth impulse and the person’s own choices *must* be trusted, because these are the only things that can effect real change.

Practicing an autonomy-supportive approach can be difficult at times, especially when clients pull for controlling behaviors from authorities (Grolnick & Ryan, 1989; Skinner & Belmont, 1993). In other words, some individuals demonstrate a “control-oriented” personality style, habitually seeking rewards and constraints in the environment with which to align their behavior (Deci & Ryan, 1985b, 2000). However, research indicates that all patients evidence better outcomes in an autonomy-supportive setting, regardless of their personality styles. That is, even those who would prefer controls and restrictions do better, ultimately, when their autonomy is supported.

Specific Suggestions for Clinicians

Given the evidence in support of the beneficial effects of an autonomy-supportive approach, we offer the following general suggestions for both medical and psychological clinicians:

1. *Practice the three facets of autonomy support: That is, take the client’s perspective, offer the client choices, and provide a meaningful rationale when choice is not possible.* Although these suggestions may sound simple, they are not. Autonomy support is a skill that takes work, and perhaps even a lifetime, to develop. In part this is because, in order to fully acknowledge the self of another person, the provider must fully acknowledge his or her own self. Thus, in trying to be autonomy supportive to their clients, providers may encounter unresolved issues and emotions within themselves at their own “internal boundaries.” Another source of difficulty is the fact that the objective situation is often conducive to controlling interpersonal tactics. Time is short, and the provider often believes he/she knows clearly what the client should do. This may be so, but if the clinician comes across as controlling, then the certainty of his or her knowledge may backfire. Fortunately, it appears that an autonomy-supportive style can be learned, even by formerly control-oriented authorities (see Reeve, 1998).

2. *Be autonomy supportive with everyone, not just those who seem to prefer it.* Again, there is no empirical support for a “matching” hypothesis, according to which control-oriented persons do better when treated in a controlling manner. Even strongly control-oriented persons will do better in the long run if their own self-agency is acknowl-

edged, although they may be uncomfortable at first. In part this is because autonomy support is likely to boost the quality of interpersonal relatedness between clinician and client, and clients who feel more related to the self of the clinician are more likely to internalize the behaviors the clinician recommends. Indeed, it is a well-known fact in the clinical literature that the quality of the therapeutic relationship is a major predictor of positive change in the patient, regardless of the particular technique being practiced by the clinician (Teyber & McClure, 2000).

3. *Don't emphasize the monetary aspect of the relationship.* Clients who perceive the clinician as extrinsically motivated are less likely to expect positive outcomes and to view the clinician as supportive and interesting (Wild, Enzle, & Hawkins, 1992; Wild, Enzle, Nix, & Deci, 1997). Although clients realize that clinicians are paid (and clinicians who ignore this fact may not seem genuine), things will most likely go best if they perceive sincere interest and conviction in the clinician's demeanor (i.e., if they view the clinician as autonomously motivated). If the clinician cannot find or manifest such an attitude, then his/her potential effectiveness is severely compromised.

Applications to Preventative Medicine

One example of the principles we have discussed can be found in preventative medicine. Indeed, in this realm is found one of the most urgent needs for a better ability to motivate patients. For example, Koop (1995) stated that preventable illness accounts for approximately 70% of the burden and costs of illness, and reports suggest that over 40% of the deaths in the United States each year are premature and are attributable to tobacco use, diet and activity patterns, alcohol abuse, or infections such as HIV (McGinnis & Foege, 1993). Other studies report similar findings, confirming the crucial role that motivated behaviors such as taking medications, exercising regularly, following a healthy diet, and quitting smoking can play in the maintenance of health. In short, many people have the means readily at hand to improve their condition, assuming that they are willing to act.

Unfortunately, many are not. For example, evidence suggests that patients only take about 50% of the medication that is prescribed (Haynes, McKibbin, & Kanani, 1996), and that half of all patients who are prescribed medications for two weeks or longer take a level of medication that is below what is necessary to be effective (Roter et al.,

1998). Clearly, improving patient adherence to medications could yield potentially large improvements in public health. The factors contributing to medication nonadherence are complex, but one undoubtedly important factor is the motivation of the patient to use the medications.

Let us pause to ask: What is motivation, exactly? Motivation may be thought of as the psychological forces that impel continued effort towards a goal, regardless of the success of that effort. This definition of motivation has two features: It refers to both a goal or target and the impetus to reach that target. These represent the directive and energization components of motivation, respectively, within classical motivation theory (Deci & Ryan, 1985b; McClelland, 1985). Logically, improving one's health involves attending to each of these two dimensions. That is, ideally, people would select appropriate treatment goals and would muster the energy needed to reach the selected goals.

The first of these two dimensions, the specific content of what the patient can do to maintain or improve his/her health, is largely defined by advancing medical knowledge. Of course, physicians must stay current to satisfy this first dimension. The second dimension involves helping patients access the energy and resolve to implement that knowledge. Again, we assert that this energy-based dimension of motivation is largely under the patient's potential control. Indeed, SDT assumes that people are naturally inclined to take such control, a fact that has particular importance for health care clinicians, because it means that clinicians do not have to make their patients want to be healthy. The general goal of maintaining or improving health is almost always shared by the clinician and patient from the start. The energy is already there.

Nevertheless, this energy may be easily eroded, in part because of the short-term comfort of many health-impairing behaviors. In addition, individuals' natural motivation towards health may be subverted when they feel that others are infringing on their freedom of choice. In contrast, according to SDT, people will experience more energy, or motivation, to reach a particular health goal if they feel more autonomous and competent in their health behavior, and also more related to their health care provider and to important others in their lives via that behavior. The implication of these assumptions for health care clinicians is that health-related information should be presented in a context that facilitates patients' natural motivation for health—specifically, a context that supports patient needs for autonomy, competence, and relatedness.

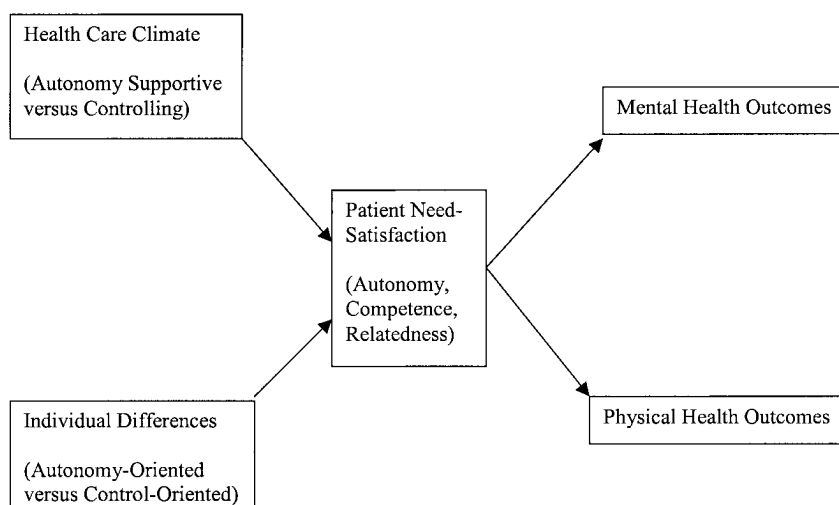


Figure 1. Self-determination theory's empirical model of health motivation.

Autonomy has been the most controversial of the three needs postulated by SDT, thus it is important to clarify what autonomy does and does not mean. Autonomy, by the SDT definition, is not the same thing as independence. It is not patients' independence that should be supported, because after all they are somewhat dependent on their provider. Indeed, supporting a patient's independence rather than his/her autonomy can lead that patient to a state of isolation with insufficient social support. Rather, it is the patient's sense of *volition* that should be supported. The goal of autonomy-supportive counseling is to leave patients with the feeling that *they* are the ones who made the decision to undertake a new behavior or treatment (ideally, of course, with the help and support of important others). It is also important to point out that autonomy support is not equal to indifference on the part of the clinician. Autonomy-supportive clinicians use evidenced-based standards, set limits, make recommendations, and give accurate feedback just as controlling clinicians do. However, autonomy-supportive clinicians do so in an understanding, encouraging, nonjudgmental style rather than an imperious, dismissive, or condescending style.

The SDT Health Motivation Model. SDT's general empirical model of health motivation is represented in Figure 1. This model specifies that (a) the degree of autonomy supportiveness of health care providers, and (b) the patient's general or trait orientation toward autonomy, both predict the patient's sense of autonomy in participating in particular treatments. In addition, a patient's sense of competence and relatedness are also predicted by both the provider's

support of autonomy and by the patient's trait levels of autonomy. In turn, the presence of these feelings predicts the patient's ability to maintain those new behaviors and to experience positive physical and mental health outcomes. Thus, psychological need satisfaction is viewed as the crucial mediator between personality/contextual conditions and performance/health outcomes.

Notably, this model demonstrates that both the "quality" and the "quantity" of motivation matter. In other words, people need to feel not only that they *can* do something (confidence or quantity), but also that *they* are responsible for initiating and maintaining that behavior (autonomy or quality). The model in Figure 1 has been supported in studies of motivation in alcohol treatment (Ryan, Plant, & O'Malley, 1995), methadone maintenance programs (Zeldman, Ryan, & Fiscella, 2002), weight loss programs (Williams, Grow, Freedman, Ryan & Deci, 1996), exercise and diet programs for coronary artery disease and diabetes (Williams, Freedman, & Deci, 1998), smoking cessation programs (Williams, Gagné, Ryan, & Deci, 2001), and medication adherence (Williams, Rodin, Ryan, Grolnick, and Deci, 1998).

Interestingly, the evidence also suggests that physicians have a difficult time distinguishing autonomous from controlled motivation. A patient who swears to make a change or to take a medication is often very persuasive. However, such patients often have controlled (nonautonomous) motivation, and may not be aware themselves that something is amiss. To detect the difference between the two, providers need to elicit more of the patient's reasons for their behaviors and to listen for whether the patient is acting

because the behavior is personally important or because someone or something is pressuring them. By taking the time to elicit such information, providers will be better able to tell which patients may need extra support or help in internalizing their health behaviors.

The Motivational Interviewing Approach to Promoting Change

Motivational Interviewing (MI) is a prominent contemporary approach for enhancing client motivation, especially in the field of addictions (Miller & Rollnick, 2002). MI is quite consistent with SDT, and we will draw from it to discuss some specific techniques that can be helpful when clinicians are faced with the difficult task of motivating patients to stop harmful behaviors or to engage in more adaptive behaviors (of course, clinicians should not lose track of the patient's self as they "apply techniques"!).

One such technique, and perhaps the most simple, is the use of reflection. All forms of reflection involve the clinician repeating part or most of the person's words back to the person. A *simple* reflection repeats the patient's words and allows the patient to know that he or she has been heard. The goal of a *summary* reflection is to present what the interviewer has heard over a longer period of time, while also putting it into a light that may enable the patient to recognize better and perhaps clarify his or her responses and feelings. *Double-sided* reflections, which juxtapose contrasting feelings patients may have, can help patients to integrate different facets of information at the same time that they become aware of their emotional responses to these facets. When people are particularly distraught, clinicians might try an *amplified* reflection, wherein they reflect and exaggerate the intensity of the patient's emotion. Reflecting in an exaggerated manner often helps people hear the intensity and perhaps irrationality of their emotional responses, putting them in a more autonomous position to decide if they want to allow these intense emotions to dictate their behavior. All forms of reflection help patients to feel empowered by their caretaker, thus supporting patients' autonomy needs and promoting internalization of behaviors.

A second technique available to enhance patient motivation is *mutual agenda setting*. In mutual agenda setting, the clinician identifies topics that he or she wishes to cover, and also solicits topics that the patient wishes to discuss, at the very beginning of a session. The goal of this technique is to incorporate explicitly both patient and clinician agen-

das into the current encounter. Engaging in mutual agenda setting facilitates patients' autonomous participation in their care, as it clearly acknowledges the equality of their concerns.

A third technique is that of asking patients to evaluate their own motivation explicitly. For example, they might be asked to rate their motivation on a 1 to 10 scale, indicating how much they feel their behavior to be "their choice." This technique gives both the patient and the clinician the opportunity to reflect concretely upon the patient's underlying motivations. Furthermore, follow-up questions and reflections may provide patients a chance to understand why they feel the way they do.

To further support a patient's autonomy needs and to deepen the relationship between clinician and patient, the clinician may explore the patient's values. *Values exploration* entails asking patients about their ultimate or long-term goals and then asking them how their current behaviors help or make it harder for them to reach those goals. Then the patients are asked how changing their behavior would affect their ability to reach those goals. The patients are left to decide which behavior best fits with their values. An additional benefit of this practice is that once the clinician understands the patient's larger goals, he/she will be in a position to provide more useful feedback regarding the patient's current status.

It is also worth discussing the more general assumptions of the MI approach in relation to the natural history of behavioral change. MI focuses on several phases in the behavioral change process. The first phase of the therapy—building motivation for change—involves several specific strategies, such as eliciting self-motivational statements, listening with empathy, questioning, presenting personal feedback, handling resistance, and summarizing (Miller & Rollnick, 2002). We will discuss each of these briefly below while pointing out their consistency with SDT principles.

Self-motivational statements are patient's stated intentions. Ideally, these intentions will come from the patient and not the physician, which helps maximize patients' I-PLOC for their intentions. Listening with empathy involves hearing and acknowledging the feelings behind the patient's utterances and is clearly consistent with SDT's emphasis on the authority taking the subordinate's perspective. Questioning involves regularly asking about patients' feelings, thoughts, worries, goals, plans, and so forth, so that the patient can process and integrate his or her emotions. Again, this keeps the patient's perspective front

and center. What about patient resistance? In MI, resistance is blamed on the therapist, not the client! In other words, if the client is resisting, the therapist must be pushing (i.e., controlling). In contrast, if the therapist can consistently acknowledge and reflect the patient's statements, then resistance should fade. Finally, summarizing at the end of a session has the advantage that patients hear their self-motivational statements for a third time (first, from themselves; second, through the therapist's empathic reflection; third, from the therapist's summary of the session). Practiced skillfully, these techniques can help elicit the patient's intrinsic motivation to be healthy, which is more likely to result in the client making a commitment to change.

The second phase of the therapy, according to MI, involves strengthening patients' commitment to change. The shift from building to strengthening commitment occurs when patients' motivation is slanted toward enacting or pursuing change, rather than contemplating it and discussing its pros and cons. Thus, the emphasis shifts from *reasons* for change to *plans* for change. Even though the emphasis in phase two shifts from reasons to plans for change, the patient's ultimate responsibility and freedom of choice continues to be a focus.

It is important to understand that patients may well cycle back and forth between these two phases as their motivations wax and wane over time. Just as clinicians learn the natural history of diseases so they can advise their patients about treatment options, they also need to learn the natural history of behavior change so they can properly facilitate their patients' efforts to implement their advice. Research on the change process has revealed that making changes that are maintained over the long term (such as permanent cessation of smoking) typically takes two to three years, during which time individuals may make three or four serious, but unsuccessful, change attempts. The behavior change research has also shown that each time a person makes a failed change attempt it increases the likelihood that the next attempt will be successful. Given the nature of this pattern, it is crucial that a person's unsuccessful change attempts not be portrayed as failures, but rather as indications of the person's growing motivation to change. When providers understand the typical pattern or "natural history" of change, they may be less discouraged when relapses occur, may better maintain their own motivation to counsel patients to change, and may display fewer signs that they view the patient as a failure.

Applications to Clinical Psychology

As noted at the beginning of this article, the conflict between many practicing psychologists who endorse self-actualization-type ideals and their more research-oriented brethren who focus on empirically validated treatments and procedures is having a profound negative influence on the profession as a whole. In this section we consider the application of SDT to various facets of the psychological change process. Although much less research has been conducted in this area, we will extrapolate from what is known to show that SDT has as much relevance for psychological change as it has for health behavioral change. We begin by considering the delivery of the clinical diagnosis.

Receiving a diagnosis can be stigmatizing or otherwise unsettling, particularly in the area of mental disorders where public misunderstanding of the disorders is rampant. But we argue that diagnosis is stigmatizing and unsettling only to the extent that diagnostic procedures ignore key SDT principles. Diagnostic procedures that incorporate the principles of autonomy support have the potential to be enlightening, reassuring, and, crucially, to point the way to optimal treatment choices. Moreover, they can help the client to begin internalizing the meaning of the disorder, accepting that self-motivational involvement will be needed to overcome the disorder. When a clinician attends carefully to the client's perspective upon the problem, offers meaningful rationales for the diagnosis and recommendations, and provides choices about how the client might proceed from here, then movement to the second phase of therapy is forwarded. It is important to point out, however, that much clinical/technical skill is required to know *which* diagnosis or diagnoses to assign, as well as to know attendant treatment options. Again, empirically based knowledge in conjunction with sound motivational knowledge provides the best package in both the mental as well as physical health domains.

Once the diagnostic bridge is crossed, the actual therapeutic intervention begins. Regardless of how effective the intervention is, patients will not benefit from it unless they show up to receive it. Sherman and Anderson (1987) provide a useful suggestion for reducing psychotherapy dropout rates. Their work is based on research demonstrating that explaining or imagining a hypothetical future behavior leads to increases in the likelihood of that behavior. They assigned patients to one of two groups. In one group, patients imagined and explained staying in therapy for four sessions. In the other group, patients imagined and explained an ir-

relevant event but received straightforward information regarding the importance of attending sessions.

In the group that imagined and justified staying in therapy, attendance became something that was construed in patients' own terms—patients' perspectives were thereby fully addressed and acknowledged. Thus, in doing this exercise, patients generated new and more personal rationales for attendance, as well as generating parameters of choice regarding attendance (e.g., timing and frequency of settings, tone of sessions). By contrast, the other group received information about attendance but did not imagine therapy in their own terms. Thus, as SDT would predict, attendance was demonstrably better in patients who imagined and thought of reasons for staying in therapy, as compared to those who only received information about staying in therapy.

Similar to the problem of attendance, the problem of treatment adherence can easily thwart even the most effective clinical intervention. Treatments cannot work unless clients follow them. According to SDT, it is crucial to provide patients with choices regarding their treatments, if at all possible. If two or three approaches are likely equivalent from the clinician's perspective, then he/she should outline them all, and allow the client to decide which to follow. If only one course of treatment seems reasonable, the clinician should explain why, in clearly understandable language. Then he/she should provide as much choice as possible in *how* that treatment is to be enacted. Again, these approaches will help clients to internalize the treatment, so that they do it not "because the provider wants me to" (E-PLOC) but rather "because I have decided this makes the most sense for me" (I-PLOC).

Just as the time of diagnosis and treatment choice are important motivational moments, so also is the time of feedback, when patients discover whether, or how well, their efforts have been paying off. In fact, receiving accurate and appropriate feedback is crucial for patients so that they can make adjustments that are necessary to achieve health goals. Perhaps even more importantly, it is crucial that clinicians learn to provide this feedback in a manner that supports patients' motivation to make use of the information. Again, clinicians have greater power in the relationship and clients may well feel controlled or overwhelmed by their feedback, especially if the clinician conveys implicit disappointment or disapproval for suboptimal results. Instead, clinicians should continue to support clients' feelings of autonomy, competence, and relatedness.

By attending carefully to how they give patients feedback, clinicians will find many "teachable moments" in which patients are ready to learn a new skill or accept a new level of responsibility.

What if, despite the provider's efforts, the patient fails to improve? The SDT perspective can help clinicians to set realistic expectations about their own abilities and responsibilities and consequently reduce the chances of smothering and controlling the patient or burning themselves out. A therapist who fully endorses self-determination principles acknowledges the limits of his/her responsibilities because he/she fully acknowledges the fact that people must make their own choices. Make no mistake, the standard of care is important—at times, even life-saving—but beyond that, responsibility for life choices resides with patients. Therapists who see this are likely to enjoy their work more, to not be distracted by one patient when dealing with another, and, importantly, to enjoy their nonwork time as well.

Some humanistically oriented mental health professionals inaccurately believe that scientifically supported clinical treatments involve "programming" the client and construe therapists as robots reading from a script. In reality, structured treatments such as cognitive behavioral therapy, interpersonal psychotherapy, and brief psychodynamic therapy all require clinical/technical skill, sensitivity, warmth, and attention to motivational issues. There are clear areas of complementarity regarding these treatments and self-determination principles, as the patient's individual experience and relationship with the therapist is (or at least should be) front and center. In other words, there is important potential harmony between clinical science and humanistic concerns. Again, clinicians who ignore scientifically supported treatments may cause harm by needlessly prolonging real suffering in patients. Likewise, clinicians who ignore self-determination principles may also cause harm, by undermining the potential effectiveness of clinical procedures that have scientifically demonstrated efficacy.

Promoting Positive Motivation for Change. To summarize, four considerations are essential to facilitating motivation for both psychological and health behavioral change. First, physicians and clinical psychologists must know which behaviors or practices are unequivocally linked to health, so that facilitating those behaviors is fully justified. Of course, this requires staying current with the

best emerging research within one's field. Second, they must understand the typical pattern of change for health-related behaviors. As noted above, this requires understanding and accepting that behavioral change often occurs in fits and starts. Third, they must recognize that there are different types of patient motivation differently likely to be effective in producing maintained behavior change. This requires understanding the conceptual difference between autonomous and controlled motivation and knowing how to tell the difference in practice. Fourth, they should know what behaviors on their part (i.e., autonomy, competence, and relationship support) are most likely to facilitate autonomous patient motivations.

Bridging the Gap Between New-Age Therapy and Science

We maintain that an understanding of motivational processes and techniques may go a long way towards resolving a crisis facing clinical psychology today. Millions of distressed individuals are lured in and highly motivated by noncredentialed individuals touting alternative and new-age therapies, despite the lack of any scientific evidence that these treatments work. While these self-help books and radical therapies may offer patients little of substantive value, they may still effect considerable positive change in their readers and patients because they speak to and inspire patients' innate motivation for health and growth. Unfortunately, even in such positive cases the underlying causes of patients' symptoms are often not addressed and thus the improvement is not maintained. On the other hand, research-based clinicians who possess an intimate knowledge of pathology and an arsenal of empirically supported techniques to help such individuals often fail in helping patients because they are unable to motivate them.

SDT provides ways of understanding these dynamics. First, it can help us understand how alternative and new-age therapists succeed in motivating their patients and, indeed, in attracting the public's attention in the first place. Specifically, they speak to the health-seeking part of the client, which has important benefits. Second, SDT can suggest ways in which mainstream clinicians can draw upon this motivational energy themselves, via the ways in which they treat their patients. This is important because it is likely to further enhance the efficacy of scientifically validated therapeutic programs. Third, SDT can bridge the conceptual gulf between "new-age" theories and more mainstream psychological knowledge, by showing which aspects of new-age thinking are indeed correct and useful.

SDT can also help bridge the epistemological gulf between new-age-type ideas and mainstream psychological theory, because its humanistic theoretical postulates have been validated by the very best empirical methodologies. Finally, SDT can help bridge the gulf within the American Psychological Association between research psychologists and clinical practitioners. Again, many practicing clinicians resonate to humanistic concepts such as "self-actualization," "genuineness," and "personal growth," and SDT supplies a way for such concepts to be defined and validated to the satisfaction of "hard-nosed" clinical researchers.

In conclusion, we argue that humanistic theories and empirically oriented clinical researchers need each other. Technical knowledge without motivational abilities is unlikely to be sufficient for clinical success. Similarly, motivational abilities without technical knowledge are unlikely to be sufficient. Together, these two characteristics can maximize the chances for positive outcomes.

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