

3: The Self-Concordance Model of Healthy Goal Striving: When Personal Goals Correctly Represent the Person

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How do people decide what to strive for in their lives, and how can this process go awry? In this chapter I discuss the self-concordance model of goal-striving (Sheldon & Elliot, 1999), which addresses these questions by building from and extending self-determination theory (SDT). Specifically, the model attempts to account for longitudinal increases in levels of well-being and personality development, issues that have received relatively little research attention from self-determination researchers. The model focuses on the idiographic personal goals that individuals set and pursue, devoting special attention to the perceived locus of causality (PLOC) that they have for those goals. As will be shown below, people sometimes fail to select goals that are appropriate to their true or actual needs, values, and interests, which can have profound costs for their adjustment and growth. Before considering these theoretical issues, however, it is first necessary to consider the nature of idiographic goal-assessment procedures.

Idiographic Goals as Units of Motivational Analysis

Idiographic goal methodologies begin by asking participants to list the salient personal goals (Brunstein, 1993), life-tasks (Canor & Blanton, 1996), personal strivings (Enmons, 1989), personal projects (Little, 1993), or current concerns (Klinger, 1977) that they engage in or will be engaging in. These idiographic methodologies offer a number of important advantages for motivational researchers. First, they are *personally valid*, given that individuals themselves provide the units of analysis and are thus typically invested in them. This links the approach to one of the most respected traditions of personality psychology

(Allport, 1937; Murray, 1938), in which researchers attempt to understand persons in their own terms (King & Napa, 1998). Second, these goal methodologies are *flexible*, in that once participants provide the basic "stems," a variety of issues can be explored. By aggregating a participant's appraisals across the multiple goals in his or her system, a researcher can gain reliable trait-level information about many constructs of interest (Sheldon & Elliot, 2000). Third, goal methodologies lend themselves well to *longitudinal* research, given that the goals specified naturally occupy participants' attention over time. Thus, these methodologies open up a potentially powerful window into the temporal dynamics of basic personality functioning, and they also offer a focus for conceptualizing and measuring the entire process of proactive adaptation in which individuals engage (Aspinwall & Taylor, 1997; Snyder & Cantor, 1998). Fourth, as will be argued below, personal goal methodologies have the potential to shed new light on important *conceptual* issues not yet addressed by self-determination researchers. An encapsulated review of SDT's development helps illustrate this claim.

Self-Determination Theory and the Proactive Individual

SDT began in the realm of social psychology, examining the impact of potentially controlling situational forces upon intrinsic motivation, adjustment, and performance (Deci, 1975; Deci & Ryan, 1980). The theory began to move deeper into the person when Ryan (1982) showed that people can also be controlled by internal forces, that could be aroused by ego-involving situational manipulations. The PLOC internalization continuum (Ryan & Connell, 1989) and the organismic integration concept (Deci & Ryan, 1985b, 1991) took the theory to the very core of person-hood, as researchers explored the motivational dynamics of religious behavior (Ryan, Rigby & King, 1993), the internalization of family values (Grolnick, Deci, & Ryan, 1997), the nature of psychological vitality (Ryan & Frederick, 1997), and many other issues. These theoretical developments helped shed important new light on a host of basic personality and self-regulatory processes.

However one process not extensively addressed by self-determination researchers is that by which individuals proactively select new life-directions for themselves from among the potentially bewildering variety of possible choices (Schwartz, 2000). That is, how do people generate personal initiatives, initiatives that will hopefully serve to advance them in their own developmental process and give broad meaning and purpose to their lives (Ryff & Singer, 1998)? Given the wide freedom that people have in selecting such initiatives (Schwartz, 2000), is it possible for them to choose the "wrong" goals for themselves? If individuals do

in fact generate self-inappropriate goals even in the absence of any contextual controls or constraints (as is the case during open-ended goal-assessments), then there would appear to be important personality factors involved in proper goal-selection, factors that have received little attention in prior SDT research.

Of course idiographic goal-assessment procedures may indeed have some controlling aspects, in that some people may feel forced to come up with goals "for the experimenter" when they would not have generated goals, otherwise. However two facts are worth noting in this regard. First, participants in our longitudinal goal-studies typically rate themselves as being quite committed and involved in the goals they generate. That is, at least initially, they tend to view their participation in the study as an interesting and even exciting opportunity—a chance to devote focused effort on getting what they want—although, unfortunately, this initial rush of enthusiasm does not necessarily last. Second, because of the ambiguity of the situation and the paucity of information given participants regarding *what* goals to list, the procedure bears important similarities to projective testing (Ermons & McAdams, 1991). That is, participants must of necessity project their underlying desires and inclinations onto the sheet of paper. Along with other goal researchers I assume that such information is important and revealing, regardless of participants' conscious attitude towards the task.

The PLOC Methodology Applied to Personal Goals

An important concept within SDT concerns individuals' perceived locus of causality for their behavior (Ryan & Connell, 1989). According to this view, behaviors vary on a continuum of internalization, ranging from noninternalized (or controlled) to fully internalized (or autonomous). PLOC concerns the degree to which the regulation of a behavior is external or noninternalized versus internal or fully internalized. The PLOC methodology has now been applied to study the quality or degree of internalized motivation within a wide variety of specific domains or contexts. These include school (Vallerand, Fortier, & Guay, 1997), work (Baard, Deci, & Ryan, 2000), sports (Pelletier, Fortier, Vallerand, & Tanson, 1995), environmentalism (Seguin, Pelletier, & Hunsley, 1998), dyadic relationships (Blais, Sabourin, Bouche, & Vallerand, 1990), medical regimens (Williams, Rodin, Ryan, Grolnick, & Deci, 1998), and political behavior (Koesner, Losier, Vallerand, & Carducci, 1996). Typically in such research a scale is developed so that people can rate why they behave within the particular domain being studied. Scale items tend to focus people's attention upon the forces and contingencies residing within that domain, as well as the reasons they behave in the context of those forces. The basic issue concerns whether people can feel self-determined in the face of these situational influences. A measure of felt self-determination with-

that domain is derived, often by subtracting the strength of controlled reasons from that of autonomous reasons.

However, as noted above, my program of research takes leave of particular domains and instead asks people to list (6 to 10) broad personal goals. These idiographic stems then become the focus of PLOC appraisals; that is, participants proceed to rate the extent to which they pursue each goal for autonomous vs. controlled reasons. Because the goals concern participants' entire lives (i.e., they represent a variety of life-domains and/or address trans-domain issues), such appraisals, when aggregated across the goal-system, take on the status of *trait* measurements similar to the Autonomy orientation and Control Orientation subscales of the General Causality Orientations Scale (Deci & Ryan, 1985a). Again, however, I argue that trait motivation measures based on idiographic goals may have especially desirable properties, given that they concretely represent participants' proactive growth attempts, and naturally occupy participants' attention over time.

Conceptualizing Self-Concordance

The goal-PLOC variable discussed in this chapter was originally called goal self-determination (Sheldon & Kasser, 1995, 1998). However, in later work we were led to revise this term (Sheldon & Elliot, 1999; Sheldon & Houser-Marko, 2001), in order to avoid ambiguity and to better capture the desired meaning. The ambiguity was that during goal assessment individuals project a set of goals, with almost no guidance, onto the assessment form (Emmons 1989). Thus, in one sense, *all* personal goals are self-determined, at least nominally so, in that they are created *ex nihilo* by the person himself or herself. Because of this, and also because we wished to focus on the issue of whether chosen goals are congruent or concordant with the person's deeper or true condition, we have now adopted the term "self-concordance." The basic question becomes, can the individual correctly perceive his or her own needs and developmental trends, thereby generating self-concordant goals that will remain salient over time and, if attained will satisfy the person's needs? As will be illustrated below, this understudied self-perceptual ability has important implications for positive functioning, psychological adjustment, and personality growth.

Figure 3-1 provides a graphic illustration of the concept of self-concordance, which includes four salient aspects of the PLOC continuum. Self-concordant goals are defined as those that are inspired by a person's lifelong evolving interests (Gruber & Wallace, 1999) and deeply-felt core values (Little, 1993; Lydon & Hanna, 1990). In other words, they are goals undertaken by intrinsic and/or identified motivation. Such goals are assumed to represent the "best" of people,

proactively shaping themselves and their environments to permit further growth and expansion. As can also be seen in Figure 3-1, however, not all goals are integrated with the self. Specifically, some goals are felt to be compelled by external or introjected forces, and are not felt to reflect core values or deeper interests. In our research, we typically compute an aggregate self-concordance variable for each participant, by summing the intrinsic and identified ratings the person makes for each of his or her (6 to 10) goals, and subtracting the external and introjected ratings.

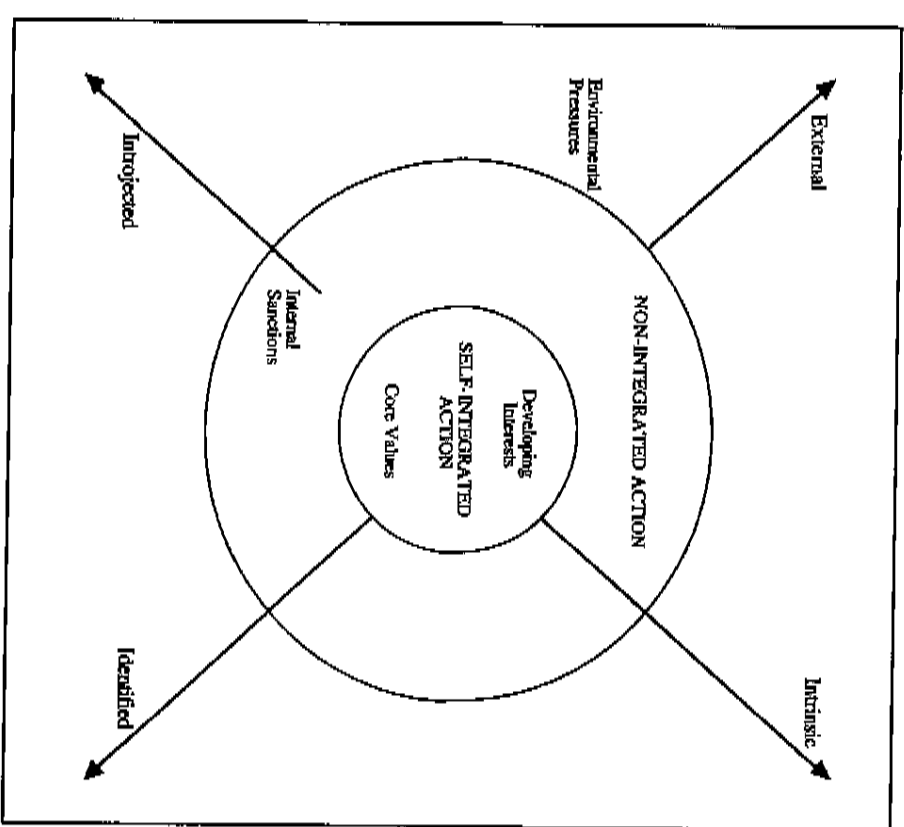


Figure 3.1. A Spatial Relationship of Self-Concordance

Self-Concordance and Well-being

Logically, non-concordant goal pursuit should present substantial problems for individuals. This is because the process of pursuing personal goals can consume a considerable amount of one's limited self-regulatory (Baumeister, Bratslavsky, Muraven, & Tice, 1998) and functional (Witensky, 1983) resources. If a person's goals do not accurately represent the interests and values of his or her deeper self, then that person may be unable to meet his or her deeper organismic needs through the goal pursuits. Thus, the person may exhaust important psychological and physical resources, in vain. If this view is correct, then clearly, whether or not a person pursues concordant goals has important implications for that person's well-being and personal thriving.

Self-Concordance and Concurrent Well-being

Sheldon and Kasser (1995) found support for this idea in a cross-sectional study of participants' personal strivings (i.e., the enduring teleological trends that characterize their personalities; Emmons, 1989). Specifically, self-concordant individuals were higher on a wide variety of well-being and healthy personality characteristics, such as openness, empathy, self-actualization, positive mood, vitality, and role-system integration. Sheldon and Kasser suggested that self-concordant people appear healthier because they are better satisfying their organismic needs via their goal pursuits.

A limitation of this study was that it was purely cross-sectional, that is, it focused on individuals' personal strivings and their well-being at a single moment in time. Because of this, Sheldon and Kasser were unable to establish the direction of any causal relationship between self-concordance and well-being. In fact, the relation may go the other way: perhaps those higher in dispositional well-being (apparently a highly heritable trait; Lykken & Tellegen, 1996) naturally report that they better enjoy and more strongly identify with their strivings. Thus, an important next step was to examine the potential causal influence of self-concordance upon well-being in a longitudinal context, using more concrete and focused personal initiatives.

Self-Concordance and Longitudinal Well-being

Sheldon and Kasser (1998) conducted a short-term prospective study of well-being, using the time-delimited personal project (Tidle, 1993) construct as a vehicle. Guided by Brunstein's (1993) findings, they hypothesized that longitudinal attainment promotes positive *change* in well-being. More importantly, they also

hypothesized that "not all progress is beneficial"—that is, that only individuals attaining self-concordant goals would experience enhanced well-being. This was based on the assumption that concordant goals, when obtained, would be more satisfying of individuals' organismic needs than less concordant goals. Again, concordant goals were assumed to better represent the individuals' true values, interests, and developmental trends, so attaining them should provide more emotional benefits for the person.

Figure 3-2 illustrates the support that Sheldon and Kasser (1998) found for their hypotheses. As can be seen, a significant interaction emerged such that individuals increased in their well-being from the beginning to the end of the study only if their goals were, as a set, largely self-concordant. Notably, Sheldon and Kasser also showed that self-concordance was *not* a mere proxy for self-reported goal commitment—apparently self-concordance provides motivational resources that go beyond participants' conscious estimations of their personal commitment to the goals. Interestingly, the data in Figure 3-2 also suggest that concordant individuals are at risk for reduced well-being if they fail to attain their goals. Sheldon and Kasser argued that this illustrates the deeper investment that individuals have in concordant goals. For example, a person seeking to transform a romantic relationship or grow in a new direction may feel substantial (legitimate) disappointment if he or she fails in those aims. To paraphrase an old saying, "no risk of pain, no potential for gain."

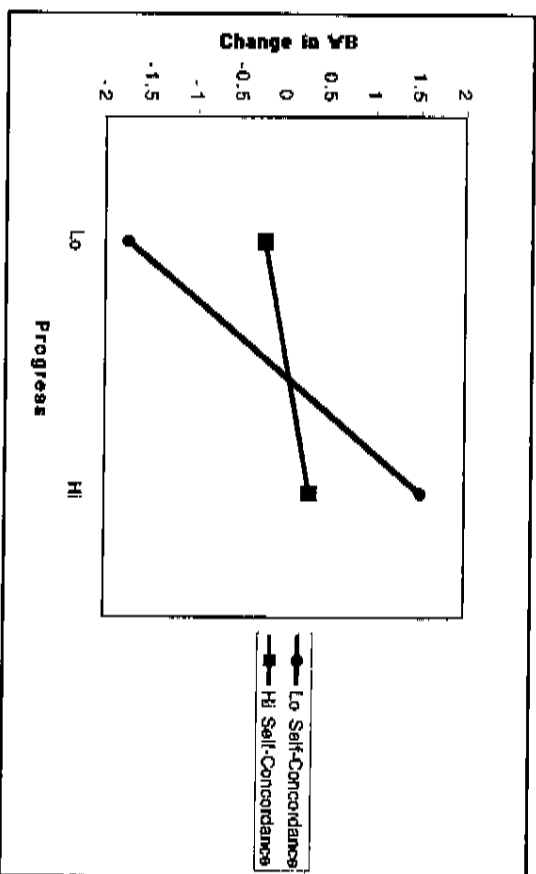


Figure 3.2 Change in Well-Being for Four Hypothetical Participants Who Made Low or High Amounts of Progress in Goals Low or High in Self-Concordance.

Conceptualizing and Measuring Need Satisfaction

As noted above, Sheldon and Kasser (1998) assumed that concordant goal-attainment influences well-being because people better satisfy their needs as they pursue self-concordant goals. However, in their research they did not attempt to measure or model need-satisfaction. In fact, there is substantial confusion in the field regarding how to conceptualize and measure psychological needs. Are needs acquired motive dispositions or "pushes," to be measured by thematic methods as are the needs for intimacy, power, and achievement (Smith, 1994)? Or are they instead universal requirements or "inputs," to be measured with reference to phenomenological experience (Deci & Ryan, 1991) and tested as predictors of thriving? I briefly diverge from goal-related research and the self-concordance issue in order to address this question. Its relevance for the final self-concordance model will become apparent afterwards.

I and many of my colleagues have conditionally accepted self-determination theory's assumption that humans have three basic types of needs or motives, for autonomy, competence, and relatedness (Deci & Ryan, 1991). That is, humans are happiest and healthiest when environments, and their own inner processes, permit them to feel effective, choiceful, and connected in their ongoing experience. Where did these three needs come from? One can easily argue that they are evolved—that, on the behavioral output side, they were selected for because of the unique adaptive benefits associated with the behaviors that provide each type of experience and that, on the experiential input side, they were selected for because the rewarding aspect of these three feelings reinforces much adaptive learning. Unfortunately, space does not permit further development of these ideas here.

Sheldon, Ryan, and Reis (1996) and Reis, Sheldon, Roscoe, Gable, and Ryan (2000) found new support for the proposition that humans "need" these three types of experiences by showing that the activity-based feelings of autonomy, competence, and relatedness occurring during a given day each predicted well-being on that day. Specifically, these investigators pioneered a daily diary method by which the need-fulfilling quality of an individual's time-consuming activities on a given day could be assessed. They found that each of these qualities of daily activities (i.e., experiential autonomy, competence, and relatedness) had its own independent effect on positive mood, negative mood, vitality, and symptomatology during that day, and they also found that the effect persisted when trait levels of need-satisfaction were controlled (Sheldon et al., 1996). Sheldon and Elliot extended these findings to the longitudinal realm (1999, Study 2 and Study 3), using a daily diary method to show that need-satisfying experiences accumulating over a period of time predict changes in global well-being at the end of that time. In short, the above findings are consistent with SDT's proposal that need-satisfaction is essential, so we have recently integrated need-satisfaction constructs

into our goal research. Before discussing this integration, however, I first return to the topic of self-concordant goal pursuit and its relations with sustained effort.

Self-Concordance and Goal Attainment

Sheldon and Elliot (1998) studied the process by which personal goals are or are not attained over time. Specifically, they conducted a month-long study of personal projects, focusing their analyses on single rather than aggregated goals. To measure goal attainment by the most objective means possible, they used the goal attainment scaling procedure (Kiresuk, Smith, & Cartillo, 1994), in which participants pre-specify and scale the concrete outcomes by which later success (or lack of it) is finally determined. In their study Sheldon and Elliot divided the self-concordance variable into autonomous (intrinsic and identified) and controlled (external and introjected) facets, examining each separately as predictors of initial intended effort, actual later effort, and final attainment.

As expected, Sheldon and Elliot (1998) found that the degree of autonomous or concordant motivation associated with a goal predicted initial effort intentions regarding that goal. Interestingly, strong *controlled* motivation was also associated with strong effort intentions. Nevertheless, assessments revealed that controlled motivation did not predict *actual* effort, two and four weeks later, although autonomous motivation did. Sheldon and Elliot argued that this pattern of findings occurred because "not all personal goals are personal," that is, goals that do not contact people's enduring values and deeper interests may fail to contact enduring sources of energy, instead falling by the wayside in the manner of many New Year's resolutions. Because such non-self-representative goals do not have the person's full emotional backing and volitional support, such goals are not likely to be well-energized, protected, and attained.

Putting the Self-Concordance Model Together

Sheldon and Elliot (1999) assembled all of these findings (re: goal-attainment, need-satisfaction processes, and well-being changes) into a single path model. Figure 3-3 presents their integrated ISREL model, with the parameter estimates that were generated in a successful semester-long test of the model. In this research, all earlier results were simultaneously replicated: that is, the degree of self-concordance of participants' goals predicted concurrent well-being (Sheldon & Kasser, 1995) and also predicted sustained effort in those goals, which

in turn predicted goal-attainment (Sheldon & Elliot, 1998); goal attainment in turn led to increased well-being, and self-concordance again moderated the effects of attainment upon increased well-being (Sheldon & Kasser, 1998). In addition, need-satisfaction constructs (i.e., accumulated activity-based experiences of autonomy, competence, and relatedness) were shown to be integratable into the model: goal-attainment, especially concordant attainment, predicted cumulative need-satisfaction, which in turn predicted changes in rated global well-being at the end of the semester. Sheldon and Elliot argued that their model and method provides a useful framework for testing many personality-development issues and outcomes.

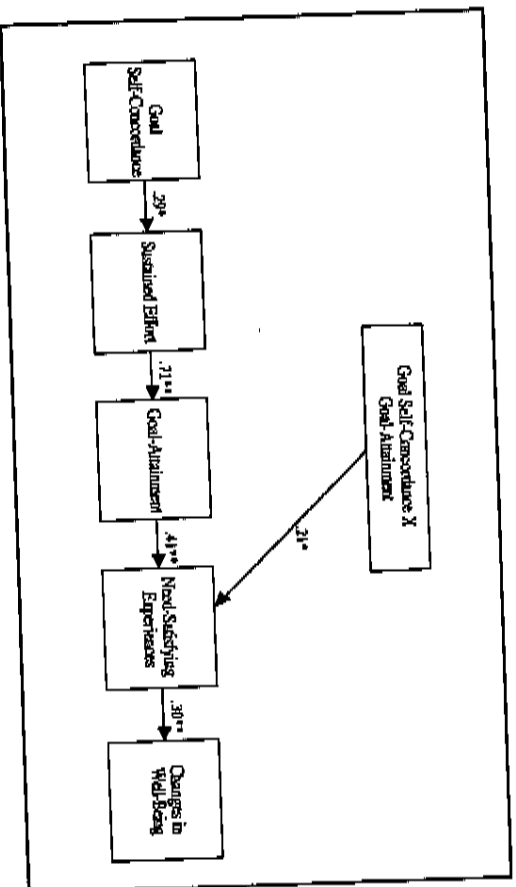


Figure 3.3. The Self-Concordance Model: LISREL Parameter Estimates

To summarize, the self-concordance of a person's personal goals has thus far been shown to be associated with three positive outcomes. First, self-concordance is correlated with positive concurrent well-being, indicating that positive mood states may enhance individuals' ability to select goals that well-represent their deeper values and interests, or vice versa. Second, self-concordance enables individuals to put sustained effort into their goals over time, enhancing the likelihood that those goals will be attained. Third, self-concordance makes goals more satisfying as they are attained, leading to enhanced well-being via the cumulation of need-satisfying experiences that occur during the period of striving. Notably, Sheldon and Elliot (1999) showed that these positive effects of self-concordance were not reducible to the effects of strong life-skills, efficacy-expectations, implementation intentions, or approach orientation; that is, self-concordance provides not only *important* but also *unique* motivational resources.

Bottom-up versus Top-down Routes to Enhanced Well-being

The results presented so far are consistent with bottom-up models of well-being (Diener, 1984), which say that happiness results from the accumulation of many small positive events. In other words, from this perspective, well-being is no more than the sum effect of the many daily events that make up an individual's life. Diener, Sandvik, and Pavot (1990) advanced a memory-based explanation of this process, assuming that when people make global well-being judgments they do it by recalling salient positive and negative experiences that occurred in the recent past, then basing their judgments on the proportion of each type which come to mind. Sheldon and Elliot (1999) suggested that accumulated daily experiences of autonomy, competence, and relatedness are exactly the kinds of salient emotional events that should contribute to this memory-based appraisal process, and their data, based on eight samplings of daily activity occurring during the study, supported that claim.

However, I now suggest another explanation for the bottom-up effects of need-satisfaction on well-being, namely, that people who have many such experiences literally experience greater "organismic thriving and health" as a result, that is, they may experience higher immune and neurocognitive as well as enhanced psychological functioning (Ryan, Kuhl, & Deci 1997; Ryff & Singer, 1998). Thus, a recently satisfied person's reports of greater well-being may be based on accurate perceptions of his or her current psychophysical state, in addition to being influenced by the retrospective memorial and self-perceptive processes outlined by the Diener et al. (1990) Model. Ryan's (1995) plant metaphor is apt in this context: those who regularly experience autonomy, competence, and relatedness may thrive to a greater extent than those who do not, in the same way that a plant thrives given regular sunlight and watering, compared to plants that do not get such nutrients.

In contrast, top-down models of well-being say that happiness is more a function of global attitudes or life-circumstances, rather than being the mere sum of small positive (or negative) events that occur to one (Diener, 1984). From this perspective, new levels of happiness may result when radical changes occur within one's life-situation, evaluative attitudes, or self-concept. Notably, Sheldon and Elliot (1999) found a *direct* path from goal-attainment to increased well-being, a path that by-passed cumulative need-satisfaction. They suggested that this indicates that attaining goals can have top-down influences in addition to bottom-up influences on global well-being. For example, personal goal-attainment may help people alter their basic attitudes or evaluative baselines which can bring about relatively sudden changes in global well-being. The idea that more self-concordant individuals are more poised for top-down transformations in their levels or stages of happiness, self-development, and personality integration will be discussed in greater detail below.

The above results suggest that the ability to select concordant goals is an important skill, one that is not necessarily to be taken for granted. What kinds of more specific abilities enable individuals to select the best goals for themselves? This interesting question is now considered.

Skills Required for Self-Concordant Goal-Selection

I suggest that generating concordant or health-producing goals requires at least three component skills or abilities. First, one must be able to distinguish lasting and broadly-representative impulses from more transient or superficial impulses; that is, one must be able to recognize what one's enduring values and interests are, in contrast to more momentary whims. By so doing, one is able to resist squandering motivational energy upon dead-ends or blind alleys and to avoid the volitional confusions that may result (Kuhl, 2000). Second, one must also be able to distinguish accurately between "me" and "not-me," that is, between goals that represent one's *own* interests and values, and goals that instead represent *others'* interests and values. By so doing, one is able to resist others' or the culture's attempts to implant goals in one, goals that may not be in one's own best interest (Kuhl & Kazen, 1994). Of course, while many good ideas for action can be identified by observing or listening to others (i.e., actions consistent with one's own needs and growth trends), it is also the case that many conformist and even harmful impulses are taken in from the environment. Thus, it is important to learn to tell the difference.

A third important skill that enhances self-concordance is that of selecting goals whose *contents* are consistent with basic needs and motives within the human personality (Ryan, 1995). To understand this, it is necessary to distinguish between the "what" or explicit object of goals, and the "why" or motives behind goals (Ryan, Sheldon, Kasser, & Deci, 1996). The self-concordance model focuses primarily on the "why" of goals, specifically, the sense of ownership that the person does or does not feel concerning goals. However, the content of goals is also important; for example, extrinsic goals, which concern money, appearance, or popularity, tend to be less salubrious than intrinsic goals, which concern intimacy, community, and personal growth (Kasser & Ryan, 1993, 1996; Sheldon & Kasser, 1998).

Notably, the what and why dimensions are conceptually distinct. Thus, a person might conceivably pursue goals with strongly extrinsic content, yet feel quite self-concordant in doing so. For example, a thief might feel strong intrinsic motivation for stealing (if he enjoys the challenge) and strong identification with that process (if he believes that the rich have acquired their wealth by illegitimate means). Conversely, a person might pursue goals with intrinsic content, for non-

concordant reasons. For example, a philanthropist might pursue the goal of supporting social causes out of a sense of guilt (if he believes his wealth is illegitimate) or coercion (if he believes his friends will not like him if he does not give to charity). Despite their conceptual separability, the data show that goals with intrinsic content are usually pursued for self-concordant reasons (Sheldon & Kasser, 1995, 1998). Thus, the ability to focus in healthy content areas can also be viewed as a skill that conduces to self-concordant goal-selection.

Enhancing Self-Concordance

Below I describe a program of research in which an intervention was tested to help individuals become more self-concordant in their personal goals (Sheldon, Kasser, Smith, & Share, 2002). Specifically, a randomly-assigned experimental group of participants attended two sessions run by graduate counseling students, in which they were taught strategies for regulating their goal-related experience during the upcoming semester (control participants also generated personal goals but then took part in other studies rather than attending the training sessions). The primary aim of the program was to enhance participants' goal-attainment, which was hypothesized to offer a *pragmatic* route to personal growth or personality development (notably, most extant theories of personal growth focus on individuals' reactions to trauma or stress). Of the four self-regulatory strategies taught, two correspond to the positive motivational forces specified by the self-concordance model (i.e., identified and intrinsic motivation). Specifically, participants were encouraged to try to "own the goal" and "make it fun" at times when goal pursuit felt onerous or when they were tempted to abandon the goal.

As expected, goal-attainment predicted positive longitudinal increases in psychosocial well-being, vitality, and self-actualization and also predicted positive increases in self-concordance (to test this PLOC was assessed a second time near the end of the semester). Thus, it appears that being successful in one's goals is one way to enhance one's sense of self-concordance regarding those goals. Surprisingly, the goal-training program had no main effects on attainment (compared with the control group). However, *some* participants benefited—namely, those who were already quite self-concordant at the beginning of the study! This was manifested in a significant interaction between self-concordance and intervention-participation in predicting goal-progress, such that the concordant individuals receiving the intervention manifested the most goal-progress in the study (which in turn led to more growth). These results suggest that the "strong get stronger"—that is, those who are already self-concordant are best poised (Holt, 1998) to profit from learning opportunities (such as our intervention), thus better attaining their goals and becoming even *more* self-concordant in the process.

Sheldon et al. (2002) conceptualized the "strong get stronger" effect in terms of dynamic systems models of personal functioning (Vallacher & Nowak, 1994; Read & Miller, 1998). Specifically, they postulated that self-concordant individuals are in a state of dynamic equilibrium in which they readily move to new phases or levels of organization, in part via their own process of goal-pursuit. In contrast, non-concordant individuals are in a more static form of equilibrium, resisting change and clinging to the status quo. Thus, they may be less able to actualize their own potential. In other words, self-concordant individuals are growing to already, are receiving ample "psychological nutrition," and are thus poised to take advantage of an opportunity to grow even further. Non-concordant individuals may be "stalled," afraid of losing what little nutrition they do receive, and thus may be unprepared to take advantage of new growth opportunities.

Notably, participating in the intervention did not enhance participants' sense of self-concordance directly; that is, there was no main effect of program-participation on program-participants' later self-concordance ratings, compared to control group participants. Although this was contrary to our expectations it can be viewed as a desirable outcome, one that in a way, supports the validity of the self-concordance model. That is, it is perhaps comforting that people cannot be simply "talked into" greater self-concordance. Indeed, if the self-concordance model is correct in assuming that a person's goals can really fail to represent his or her values and interests, then such facile re-framings should have limited effectiveness. Instead, these results suggest that people must *work* for greater self-concordance or self-integration, achieving it in part via their goal-attainments. Again, those who were already more concordant showed the greatest ability to use the self-regulatory tools that we supplied in the goal-training program. This can be viewed as yet a fourth positive benefit of self-concordance.

Does the strong-get-stronger finding mean that self-concordant individuals spiral up indefinitely, on a happy trail to ultimate virtue and self-actualization? No, of course not. Although more concordant individuals are better poised to make further gains, there are many factors that can dis-entrain them from the upward path. That is, perpetual growth is a single (probably rare) outcome among many possible outcomes, and I would expect that few manage to fit themselves into the perpetual growth track. Furthermore, *nonconcordant* goal-selection doubtless has an important role in growth—as the saying goes, we learn from our mistakes. More specifically, the process of pursuing unsatisfying goals can supply information that can help a person identify better goals the next time. Notably, the self-concordance model does not yet have a means of incorporating such dialectical processes. However we are currently conducting studies to track multiple cycles of goal pursuit, hoping to open a window into the dynamic waxing and waning of personal goal-functioning.

Self-Concordance: Measurement Issues and Current Research

One important future issue for the self-concordance model concerns measurement. Again, the aim is to capture the extent to which a person's chosen goals correctly represent his or her underlying or "true" interests, values, and commitments. In effect, we are relying on PLOC ratings to tell us when a person's chosen goals, in aggregate, do not match the person's developmental core, that is, his or her enduring values and evolving interests (Gruber & Wallace, 1999). Obviously, however, these kinds of ratings are susceptible to a number of influences that might bias the assessment of the fit between self and goals.

For example, it is likely that some self-concordant individuals are not so concordant after all. Rather, they may suffer from "illusory mental health" (Shedler, Mayman, & Mann, 1993), in which their self-reported well-being is much more positive than their clinical and physiological profiles actually suggest. Similar illusions might come into play when people make PLOC ratings regarding important personal initiatives. To the extent that "false positive" strivers are intermixed with true positives, self-report measures of self-concordance may have reduced explanatory power. Relatedly, some individuals may have "closed identifications" in which their claimed values are not open for reflective consideration but, instead, are rigorously defended. In such foreclosed cases (Marcia, 1994), goals that are rated as highly identified might actually be highly introjected, again limiting the validity of the self-report measure. Finally, another problem concerns the referent. Whose interests and values are being modeled via participants' PLOC ratings—the self-concepts' or those of the underlying organism? To the extent that the individual's self-concept is out of touch with the organism, these ratings may actually reverse their meaning.

The fact that research thus far has supported the predictions of the self-concordance model indicates that these potential measurement problems are not serious. Nevertheless, the considerations outlined above suggest that non-self-report measures of self-concordance would be very desirable. Are there any indirect but reliable means of revealing a person's "disattainment" from his or her underlying organismic condition? Several research projects, pertinent to these questions, are discussed below.

One way to test the concordance of a goal with the organism of the person who listed it might be to use galvanic skin response (GSR) or lie-detector methodologies. Although such devices are too unreliable for legal purposes, they may often provide useful research data (Iacono & Lykken, 1997). Kasser and Sheldon (2002) collected data using a design in which participants are interviewed regarding their goals as their GSR, heart rate, and breathing rate are monitored. Participants are questioned about goals that were rated as high in identification and low in introjection, relative to other goals within the subject's goal-system.

Thus, there is an opportunity to observe participants' arousal level as they are challenged about goals that they may be "falsely positive" about.

Because goals with intrinsic content are assumed to be more directly expressive of people's organismic nature, one can hypothesize that individual's low ratings on introjection for these intrinsic goals would more likely be veridical. In other words, there should be less arousal when people are challenged about the low introjection ratings on their intrinsic goals than on their extrinsic goals. Kasser and Sheldon's (2002) preliminary data are consistent with their hypothesis that extrinsic goals (concerning money, beauty, and popularity) are more likely to be false positives than are intrinsic goals (concerning self-knowledge, intimacy, and community). That is, extrinsic goals are more likely to be "introjects disguised as identifications." Conversely, participants are more likely to be correct when they rate intrinsic goals as being motivated by identified but not introjected motivation. Thus, these preliminary results support the suggestion, made above, that the ability to select goals with intrinsic content is indeed a "skill" that conduces to self-concordant goal selection.

A second planned program of research will employ Kuhl and colleagues' "self-infiltration" methodology (Kuhl & Kazen, 1994; Kazen, Baumann, & Kuhl, 1999), as a way of assessing the meaning of self-concordance ratings. In this methodology a sophisticated computer program is used in a subtle attempt to implant false memories into participants. These memories are of a particular type concerning whether an intended action was originally self-generated or other-generated. Kuhl and Kazen's (1994) program first presents a list of "office activities," whose attractiveness the participant rates, and a subset of which he or she selects for later execution. Participants are then given information regarding a so-called experts' opinions of each action. They are then presented with the original list of activities and asked to recall which ones they originally selected. The program automatically counterbalances and controls a host of within-subject variables, enabling the researcher to clearly identify which actions the participants mistakenly believe were originally their own ideas.

Results thus far indicate that some people indeed make such memory errors, particularly under alienating conditions that inhibit "self-compatibility checking." Kuhl and Kazen called this "self-infiltration," in which a person incorporates the recommendations of an authority figure while believing that they were the his or her own idea, rather than the authority's idea. Kuhl and Kazen suggested that in many such instances, the partially-internalized action is actually incompatible with the person's true emotional preferences. Kazen, Baumann, and Kuhl (2002) found evidence to support this idea, showing that falsely-remembered action-elements are often ones that the participant originally rated as unappealing. Kuhl et al. interpret these effects in terms of their Personality Systems Interaction theory which provides a fascinating neuropsychological complement to self-determination theory and the self-concordance model. Unfortunately there is not room here to sketch out the many interesting convergences between these theoretical perspectives.

Kuhl and colleagues' findings appear to have many implications for the question of how and why people might adopt goals that are incompatible with their true interests and values (Brunstein, Schultheiss, & Grassman, 1998). Specifically, they suggest that people may mistakenly come to believe that others' goal recommendations were originally their own idea, thereby uncritically adopting goals that do not correctly represent their own values and interests. In other words, such persons may lack the second "skill" discussed above, that of discriminating "me" from "not-me" in making volitional choices.

To test this idea, a modified version of Kuhl and Kazen's (1994) computer program is being constructed, to address participants' personal goals instead of trivial office activities. The revised program will first ask participants to generate a list of personal goals that they would like to pursue in the near future and will then present a list of "expert recommended" goals. Finally, both self-generated and expert-recommended goals will be intermixed and presented to participants, who will be asked to pick out the goals that they originally identified themselves. The primary measurements of interest derived from this procedure will be (a) the number of alien goals, overall, that become infiltrated into a participant's goal-system (a between-subjects variable), and (b) the within-subject distinction between self-generated and self-infiltrated goals.

Several interesting questions will be addressed by this research, including (a) what types of individuals are most susceptible to goal self-infiltration? (b) what conditions tend to induce self-infiltration? and (c) how are self-infiltrated goals appraised on PLOC, compared to the person's other goals? The latter question has particular relevance for examining the degree of self-deception involved in participants' ratings of self-concordance. In effect, this experimental methodology will identify a clear subset of goals that are known to be "alien" within the person's system. If self-concordance ratings are reasonably accurate representations of the person's organismic condition, then infiltrated goals should be higher in external and introjected motivation and lower in intrinsic and identified motivation, compared to the person's "native" goals. However if infiltrated goals are instead rated as more self-concordant, then some prior findings of self-determination theory researchers (including myself!) would be called into question.

Yet another planned program of research will employ latency measures and priming manipulations to examine the unconscious dynamics of goal-pursuit (Chartrand & Bargh, 1996; Bargh & Barndollar, 1996). One interesting question is, how long does it take participants to correctly identify one of their own goals, flashed on a screen, as belonging to them? The theorizing outlined in this chapter suggests that goals that are less representative or less closely tied to the organism's "true" condition should be slower to be claimed, compared to more central goals. A related technique is to compare two groups of participants: those primed with the word "myself," and those primed with some other word (Fenigstein & Levine, 1984). The self-concordance model would predict that participants will be slower to claim their external or introjected goals, or goals with extrinsic content (Kasser & Ryan, 1996) after being exposed to the "myself" prime.

As can be seen, there are a number of potentially interesting developments underway in the measurement of self-concordance. Ultimately, it would be desirable to be able to objectively assess a person's degree of attainment or alignment with his or her own underlying developmental needs and processes, using indirect indicators and personal goal methodologies, in order to pinpoint areas of difficulty within a person's motivational system. One can even imagine 22nd century individuals "going in to get their selves aligned," just as we now take our automobiles in for alignment! We in my lab are excited about beginning to get answers to some of these fascinating questions.

Conclusion

As should be clear by now, research on the self-concordance model has just begun, and far more questions exist than do answers. Hopefully, however, it is also clear that this way of viewing matters has substantial promise for understanding how humans can become "disattuned" from themselves, such that their conscious goals are out of step with the deeper needs, preferences, and values of their own organism. Of course, discovering what is truly inside oneself may not necessarily correct one's problems, if what is inside is corrupt or false. However more often than not, I would argue, a person who succeeds in contacting deep and enduring sources of meaning and interest within himself or herself will also be a person who appreciates and expresses the profounder "being" values about which so many theorists have written. Folk wisdom says we should try to "be ourselves," and the self-concordance model concurs. Although the task of aligning one's goals and phenomenal self with one's underlying organism is not easy, it may hold the key to positive living.

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4: The Integrating Self and Conscious Experience

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One of the central assumptions of Self-Determination Theory (SDT) is that the core self includes intrinsic integrative tendencies that motivate individuals to assimilate ongoing experience into increasingly elaborated and integrated self-structures (Deci & Ryan, 1985b; Ryan, Deci, & Grolnick, 1995). In other words, there is a basic human tendency to proceed toward higher-order organization. The organismic integration process through which this tendency is actualized involves aspects of the self becoming more complex and interrelated with one another and with aspects of the social world.

The idea of increasingly organized self-structures is congruent with another SDT postulate, namely that there are innate psychological needs for competence, self-determination, and relatedness, and SDT proposes that the integrative tendency will function most effectively in social contexts that allow satisfaction of these needs. Hence, the process of organismic integration underlies healthy psychological development, is optimized when people are able to satisfy their basic needs, and results in a sense of self that is integrated, authentic, and congruent with intrinsic aspects of the core self (Deci & Ryan, 1991; Ryan, 1991, 1993, 1995; Ryan et al., 1995).

As individuals develop in the direction of greater autonomy, their sense of self-worth is based on organismic functioning, that is, on simply "being" what they are by nature as they act choicefully in integrated ways and fulfill potentialities (Maslow, 1968). This means, that when autonomous, people experience themselves as valuable for being who they are rather than only for doing particular activities or appearing certain ways to others or to themselves. Thus, secure self-worth based on "being" accompanies the development of self-structures that are authentic (i.e., congruent with the core self) and autonomous.