

Foundations of Scholarly Consulting:
The Developmental Structure/Process Tool (DSPT™)

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Abstract

Argyris' notion of *theory-in-use* is deepened, by showing empirically that it regards levels of mental growth. *Scholarly consulting* is redefined as pertaining to the design of interventions that take the level of mental growth of organization members into account. Level of mental growth is considered the most important marker of differences between individuals within the age group of 25 to 100. Theory-in-use is spelled out as a cognitive-science notion that comprises both a structural aspect, referred to as individuals' *level of evolving self*, and a procedural aspect, represented by individuals' *process profile*. The *Developmental Structure/Process Tool* (DSPT™) is introduced as an instrument for empirically determining theory-in-use. An in-depth discussion of the assessment outcomes the DSPT™ generates, and their relevance for gauging the creativity (not just effectiveness) of individual executives and top management teams is presented. The article outlines how the DSPT™ is administered, scored, and interpreted, and elucidates its *discriminative validity* in relation to behavioral assessment tools.

Introduction

Argyris (1992) has distinguished *scholarly* from traditional consulting, contending that in contrast to the latter, scholarly consulting penetrates to the level of organization members' master program, or *theory-in-use*. According to Argyris, any consulting that does not persevere beyond the purely behavioral level, pre-occupied as it is with theories of action that are merely *espoused* (e.g., self-reports), is unable to address what is truly causative of organizational actions (1992, p. 302). Since the distinction between in-use and espoused is traditionally not made, organization members and consultants alike have been unable to explain why, and how, intended actions frequently produce unintended and counter-productive outcomes. Traditional assessments have been unable to demystify theory-in-use. This occurs since consultants have been unable to understand that erroneous outcomes are not simply errors, *but designed errors*, viz., errors that logically derive from hidden *master programs* that fail to be distinguished from espoused theories (Argyris, 1992, p. 303). Up to the present time, practitioners of scholarly consulting have had access only to observation and verbal inquiry as tools for penetrating to practitioners' master programs. In their effort to produce theories that are *actionable*, i.e., specify action sequences for achieving intended consequences (Argyris, 1992, p. 331), practitioners have been lacking instruments by which organization members' master programs can be succinctly and collaboratively assessed, and made the basis of helping. In this paper, I introduce the *Developmental Structure/Process Tool* (DSPT™). This tool is designed to empirically assess theory-in-use, i.e., the master program that underlies the professional agenda of organizational actors (Laske, 1999a). My exposition is geared to consultants as agents who can penetrate to the level of actors' master programs.

In Laske (1999b), I introduced the notion of *developmental coaching* as based on know-how in the area of adult development, especially constructive-developmental theory (see Basseches, 1984; Kegan, 1994; Loevinger, 1976). The *integrative model of developmental coaching* proposed was subsequently tested in an empirical study on the transformative effects of coaching on executives' professional agendas (Laske, 1999a). The empirical outcome of the study was discussed from a perspective of coaching as *applied adult development* (Laske, in press), and of mental growth as a precondition of organizational growth (Laske, 2000a). In this paper, I continue to argue for the relevance of cognitive-science methods in practicing consultation, by showing that and in what way the DSPT™ penetrates to

individuals’ master programs or theories-in-use. More specifically, I demonstrate that individuals’ theories of action are adult-developmental achievements, in that they depend on the level of mental growth individuals have attained.

While the DSPT™ is not on principle restricted to uses in the organizational domain (Laske, 2000c), it is especially salient for work with client systems that are organizations. Before entering into the details of the instrument, it is relevant to distinguish between the DSPT™ itself and the *philosophy* of executive and organizational development encoded in it. While the former is a technology, the latter regards the question of how to conceive of an organization. There are two options. One can either consider an organization as something “out there” into which individuals enter; or one can locate the organization in the minds of the individuals that enter the organization. Being a cognitive-science tool, the DSPT™ adopts the latter option. Accordingly, an organization is seen as something “in here” (in the mind), whose physical and social manifestation is a construction of the individuals that partake in it (Sims, H.P. Jr., Gioia, D.A. & Associates, 1986). In short, the DSPT™ is based on the assumption that organizations are a construction of the mind, and that their “culture” is based on the coalescence of organization members’ collective theories-in-use. Therefore, assessments of individuals’ theory-in-use are interventions into an organization’ culture, and the culture has to be ready, or readied, for such interventions.

In terms of the DSPT™, the notion of “organization” is a construct needed for making sense of individual experiences in the workplace (rather than something *per se*). The master program used by individuals for taking organizational action is construed by the DSPT™ as being composed of two main aspects: (1) *level of evolving self*, (2) and *process profile*. The first accounts for the level of *mental growth* reached by an adult at a particular time, while the second accounts for the characteristic mental processing the individual engages in when residing at that level. In other words, level of evolving self determines the WHAT, process profile determines the HOW, of the individual’s organizational functioning. Table 1 highlights the importance of taking into account the level of *evolving self* of organization members when practicing scholarly consulting (Cook-Greuter, 1999, p. 35):

Table 1
Four tiers of evolving self
across the life span

<u>Transcendent tier</u> Beyond DSPT	<1%
<u>Post-conventional tier</u> a. “Post-autonomous stage” : beyond DSPT b. Evolving-self level 5: <i>self-aware theory-in-use</i>	≈1.9% 8%
<u>Conventional tier</u> Evolving-self level 4: <i>self-authored theory-in-use</i> Evolving-self level 3: <i>other-dependent theory-in-use</i>	80%
<u>Pre-conventional tier</u> Evolving-self level 2: <i>instrumental theory-in-use</i>	10%

As shown, level of evolving self coincides with executives' theory-in-use. This is so since the evolving-self level explicates an individual's *center of gravity* in the domains of thinking, being, as well as doing, i.e., the way the individual most commonly responds to the world at a particular level of mental growth. Theory-in-use, in turn, can be shown to follow this "master program" (Argyris, 1992, p. 81) according to which individuals design organizational action, thus defining their peculiar *professional agenda* (Laske, 1999a). By "tier" in [Table 1](#) is meant the level of stratification in terms of evolving self that adults typically reach, at least in Western culture. As shown, about 80% of all adults remain within the confines of the conventional tier, in the DSPT™ assessed in terms of transitions between "evolving-self level 3" and "4," while approximately 8% of individuals accede to the post-conventional tier, represented by "evolving-self level 5" (Kegan, 1982; 1994). Less than 1.9% of adults make a transition to a *post-autonomous* level of mental growth (Cook-Greuter, 1999), and less than 1% reach the transcendent tier. (Both of the latter levels are beyond the scope of the DSPT™).

What are the implications of [Table 1](#) for scholarly consulting? According to Argyris (1992), a distinction must be made between thought and action, i.e., between what executives espouse (espoused theory), and what they actually do (theory-in-use). This entails in terms of assessment, and consultation generally, that stopping short at espoused theories of action, whether in coaching or other executive-development efforts, diminishes consultants' effectiveness. What is required in scholarly consulting is to get at what is the underlying master program, or theory-in-use, that determines a particular executive's or team's action design (Argyris, 1992, p. 81):

The focus is on understanding the master programs in individuals' heads so that we can predict the kind of meanings and behavioral strategies they will or will not produce.

At this point, the DSPT™ enters scholarly consulting. The DSPT™ is an instrument for detecting the theory-in-use that underlies executive action designs. The instrument explicates the *causality* that creates the universe executives create through their actions (Argyris, 1992, p. 315). Viewed through a developmental lens, executive master programs instantiate levels of evolving self; they determine the *design causality* of executive actions. As a consequence, only organizational theories that take such levels into account are truly *actionable* since they can postulate or describe action sequences that can actually be produced in the world of practice (Argyris, 1992, p. 314). As shown in [Table 1](#), one can distinguish four types of theory of action: (1) instrumental, (2) other-dependent, (3) self-authored, and (4) self-aware theories. *Instrumental* theories-in-use are rare (10%). Such theories entail a total disregard for societal conventions of respecting others' needs, integrity, and rights, and are thus "asocial." Most frequently, organizational actions are designed according to other-dependent and self-authored theories-in-use (80%). *Other-dependent* theories-in-use flow from evolving-self level 3, at which an individual acts so as to satisfy the internalized voices of others on whose satisfaction his or her integrity depends. By contrast, *self-authored* theories-in-use derive from evolving-self level 4, thus an integrated ideology, and system of values that guides individuals who follow their own set of governing variables. As shown in [Table 1](#), it is rare that individuals manage to act according to a self-aware theory-in-use, addressed by Argyris as "model-II" learning (8%). This is the case since in order to forego competitive, defensive, and secretive ("self-sealing") strategies of organizational action, an individual has to have acquired a view of self and world that permits him or her to *dis-embed* from their own ideological position, embrace self-critique, and manifest a generativity focused on empowering others' potential, including "other" parts of the self that may have been suppressed by earlier master programs. Since transcending a self-authoring stance is an *adult-developmental achievement* less than 10% of individuals ever accomplish, catholicity and generativity is not the norm in organizational acting and learning, nor can it be expected to be (despite lofty notions of "learning organizations"). Clearly, it is of

relevance to know where along the life-span trajectory of **evolving theories-in-use** an executive presently resides, just as it is relevant to determine in which of the three Houses an executive is mainly “at home.” Both determinations together determine an executive’s mental *center of gravity*. In terms of assessment for purposes of scholarly consulting, then, level of evolving self is a powerful marker of difference between individuals (and teams). Therefore, it would seem to be worth a consultant’s while to abandon (or at least complement) the ubiquitous assessment of static *embedded personal traits* (Bartlett & Ghoshal, 1998, pp. 85-89), and embrace an assessment of the moving target of evolving-self assessed by instruments such as the DSPT™. Below, I outline five aspects of using this instrument: (a) nature and relevance of the score, (b) structure of the two interviews involved, (c) analysis of interview materials from two complementary perspectives, (d) formulation of a total score, and (e) interpretation of the score in the organizational context.

Nature and relevance of the DSPT™ score

The logistics of using the DSPT™ are best approached from the nature of the score the instrument yields. Insight into the nature of the score can guide an exploration of how the interviews involved are structured, how interview materials are analyzed, and how a total DSPT™ score is formulated and interpreted. The mode of interviewing and analysis are linked. To arrive at a DSPT™ score, one performs a structural analysis of espoused interview material of two kinds. The first interview/analysis regards executives’ *level of evolving self* (level of mental growth), while the second interview/analysis regards the *process profile*, or peculiar developmental pathway an individual has chosen for reaching his/her present evolving-self level. In order to arrive at a comprehensive score, the DSPT™ user administers both Lahey, Souvaine, Kegan, Goodman, & Felix’s subject-object (SO) interview (1988) and M. Basseches’ dialectical-schema (DS) interview (1984). The scoring of these interviews yields a single adult-developmental score, of the form:

$$X \{p : c\} [m, f, r, t (\%)].$$

Here, ‘X {p : c}’ states the results of the SO interview, while ‘[m, f, r, t]’ states the result of the DS interview. It is the task of the DSPT™ user, to interpret this score in terms of the concrete organizational task environment of the executive interviewed. In order to infer the full implications of the score, the DSPT™ user can also employ behavioral data (such as 360-feedback data) and information about the company’s culture and strategic objectives, thereby mapping the score more fully into the organizational domain. In contrast to behavioral scores, the DSPT™ score does not regard static “traits,” but the *developmental dynamics* an individual is presently engaged in. Since traits lose their developmental saliency beyond evolving-self level 4 (N. Adams, 1998), the DSPT™ score is pertinent in all circumstances where what organizationally matters are the developmental opportunities that lie waiting to be realized in an individual.

The DSPT™ score is composed of two parts, a structural and a procedural one (Laske, 1999a; Laske, 2000b). The *structural* part—X {p : c}—explicates the level of evolving self of the individual in question, while the *procedural* part—[m, f, r, t (%)]—is a compact symbolic description of the individual’s *process profile*. The profile explicates the mental processes commonly used by the individual, and thus speaks to the manner in which the individual implements his/her theory-in-use. (This entails that not only are there more than one theory-in-use; there are also developmentally distinct implementations of the theory.) Both parts of the score together account for what Argyris (1992) has called *design causality*, viz., “what was in the heads of the actors that caused them to create the actions that were observed” (p. 315). The score answers the structural question of *what way of making meaning of experiences?* along with the procedural question of *based on what mental processes?* In terms of Argyris’ (1992) research on organizational learning, the structural part of the score answers the

question of *what theory of action?*, while the procedural part of the score answers the question of *how is the theory of action actually implemented in the organizational context?*

More specifically, the structural assessment provided by the DSPT™ relies on two notions; first, that of an evolving-self level, X, and second, a *potential: clarity index* associated with that level, {p : c}. For uses in the workplace, the instrument differentiates approximately 12 evolving-self levels, and any number of p : c indices. The levels have to do with what an individual, as self, is *embedded in* (subject to), and therefore cannot *take as object* (have a relationship with). The index reveals the *potential* (p) and the *clarity* (c) with which the evolving-self level is manifest in the interview. Clarity refers to the extent to which the individual is embedded in his/her own subjectivity. For example, the index {2:9} conveys that the individual's potential for transcending his/her present level of mental growth is slight (p=2) in comparison with the force of gravity with which the individual is ensconced in the present level (c=9). Depending on the individual's process profile [m, f, r, t (%)], this assessment points to a risk for developmental arrest at level X, or to the fact that the individual is presently gathering forces for moving on to the next level, withstanding arrest or regression. In other words, the interpretation of the p:c index co-dependes on the individual's process profile.

Regarding the process profile '[m, f, r, t (%)]', the notion is that individuals choose different developmental pathways when establishing a particular evolving-self level. These pathways differ in terms of the balance achieved among four classes of mental processes, in Basseches' DS-framework referred to as *motion, form, relationship, and transformation* (m, f, r, t). These dimensions together describe an individual's mental center of gravity, just as does the evolving-self level, but from a dynamic (rather than a static) point of view. They are represented in the DSPT™ by four corresponding *classes of schemata* (thought-forms) in terms of which to gauge an individual's meaning-making capacity. This capacity is best measured in terms of how, and to what extent, individuals are capable of assimilating and accommodating to unceasing change, both in themselves and in their environment. In order to indicate the relative predominance (weight) of the mental processes compactly described by the process profile, the total use index of each of the four DS schemata classes is indicated in terms of percent (where 100% hypothetically stands for an optimal balance). Since the complexity of things changing can only be grasped by synthesizing thought forms from all four schemata classes, isolating m, f, r, & t from each other is a form of distortion of reality.

For instance, "organizational change," when viewed from a *motionist* perspective ([M, f, r, t]), captures only the dynamic aspect of change, but misses the form (systems aspect) of what is changing, which remains stable on across the change. By contrast, a *formalist* (purely logical) perspective of organizational change ([m, F, r, t]) overstates the equilibrium the system undergoing change represents, to the detriment of the dynamics in which the system is engaged. Both of these perspectives, whether employed independently or together, share a misapprehension of the interactive and constitutive relationships that characterize organizational change ([m, f, R, t]). An individual focusing on relationship to the exclusion of form and motion has a "relativistic" picture of reality according to which everything is related but remains separate one from the other, since forms are not integrated into the relationships seen. In contrast to Asian ways of thinking, conceptualizing change in all of its complexity, by way of a synthesis of motion, form, and relationship, has been shown to be a challenge for members of Western culture (Peng & Nisbett, 1999). In terms of the DSPT™, the capacity to synthesize motion, form, and relationship (Basseches, 1984), scored under the transformational index of the process profile ([m, f, r, T]), is a *meta-formal* or *dialectical* one, which transcends purely logical (formal) thinking. Under its meta-formal aspect, the process profile thus describes the ability of an individual, to grasp the limits of stability, the resolution of disequilibria in a "developmental" direction (rather than only in a direction of "change"), and the transformation of one

form or system into another. Concretely, meta-formal capacity empowers an individual to grasp system transformations in their full complexity, regardless of whether the system is his/her own person, an organizational sub-unit, or the organization and its environment as a whole. Such an individual is least likely to distort reality in either a motionist, formalist, or relativist manner.

The (“meta-formal”) capacity of dialectical thinking has been empirically shown to be marker of mental growth (Basseches, 1984, Laske, 1999a). When tracking how individuals construe reality in the medium of language, dialectical formulations are read as a manifestation not only of individuals’ thinking, but also of their being and doing (Cook-Greuter, 1999). DSPT™ outcomes are based on the analysis of *espoused theory* for the sake of detecting the underlying *theory-in-use* (evolving-self level). A short explanation of these important notions of scholarly consulting is in order (Argyris, 1992, p. 302):

Argyris and Schoen (1974, 1996) claim that human beings have theories of action in their mind about how to behave effectively when dealing with others. There are two types of theories of action. The first comprises the theories that individuals espouse (e.g., values, attitudes, and beliefs). The second comprises theories that they actually use (their theories-in-use). It is the latter theories that causally explain the action observed. These are the designs that they (i.e., the authors) claim are in human beings’ mind/brains, designs learned during acculturation.

In assessing theories of action in terms of process profile, the DSPT™ user probes individuals’ capability for *model-II (or double-loop) learning*, a kind of learning that takes its own governing variables (basic assumptions) as object of reflection (Argyris, 1992, p. 128):

But effective double-loop learning ... is a reflection of how they (i.e., people) think, that is, the cognitive rules or reasoning they use to design and implement their actions. Think of the rules as a kind of “master program” stored in the brain, governing behavior.

From the vantage point of the DSPT™, Argyris & Schoen’s (1974) claim can be amplified by the hypothesis that acculturation is an insufficient, since *a-developmental*, way of describing how theories-in-use arise in “mind/brains.” Acculturation is a developmental process. It is based on the most precious human resource beyond adolescence, mental growth. Consequently, there is not just one theory-in-use. There are *as many theories-in-use as there are evolving-self levels*. Each of these theories is associated with a different set of governing variables. For instance, the governing variables of a motionist theory-in-use differ from those of a formalist or relativist theory-in-use in the way they determine an individual’s meaning-making in the organizational context. A level-4 theory-in-use implemented from a motionist perspective differs from one implemented from a formalist or relativist perspective.)

In short, the DSPT™ process profile [m, f, r, t (%)] describes different developmental pathways along which to implement a particular theory-in-use (such as level-4). What Argyris calls “double-loop (model-II) learning” is a meta-formal capacity transcending purely logical thinking. Such learning is based on the capacity, to synthesize the four dimensions of ceaseless change kept apart by non-dialectical thought in the form of an equilibrium of motion, form, relationship, and transformation (Basseches, 1984, p. 214). This notion implies that model-II learning is based on a conceptualization of organizational reality in a transformational or *developmental* direction, something that can be made clear by investigating Argyris’ definition of model-II governing variables of theories-in-use (Argyris, 1992, p. 244):

1. participation of everyone in defining purposes;
2. everyone wins, no one loses;
3. express feelings; and

4. suppress the cognitive intellectual aspects of action.

For instance, the notion of participatory winning as an overriding purpose of organizational functioning presupposes the capability to conceptualize interactive and constitutive relationships [r] that make the partners to the winning what they are, and thus logically precede them. Equally, only in the context of a theory-in-use in which motion [m] is present as mental interaction and the source of shared action, can vulnerability be designed (Argyris, 1992, p. 70), and can feelings thus be shared, rather than being suppressed in favor of “cognitive intellectual aspects of action.” As a consequence, attention can be paid to the workings of a group of “others” in functional and equilibrational terms (as a form [f]), and persons or systems can be coordinated [r] and viewed from multiple perspectives [t]. In short, the use of model-II governing variables presupposes not only an advanced evolving-self level (minimally 4), but also a balanced process profile in which motion, form, and relationship are synthesized on account of an individual’s meta-formal capacity. For this reason, it appears as counter-intuitive, if not destructive, to an individual of meta-formal capacity (double-loop learner), to follow the governing variables of a model-I implementation of theories-in-use (Argyris, 1992, p. 81):

1. strive to be in unilateral control;
2. minimize losing and maximize winning;
3. minimize the expression of negative feelings; and
4. be rational.

Both “striving to be in unilateral control” and “minimizing losing” imply a relationship of self to world in which the self is seen as an isolated form (system) that holds itself stable regardless of others. “Be rational” is an overriding strategy is a defensive stance that implies partitioning the self into two non-communicating universes (viz., rational thought and emotion), to the detriment the ability to use positive as well as negative emotions as a resource for acting on one’s own behalf. The reference to “expressing feelings” and “suppressing the cognitive intellectual aspect of action” in model-II implementations of theories-in-use shows that meta-formal capacity is not a purely cognitive affair (as Lewin (1935) would be the first to agree). Since feelings, or better, emotions, are constructed (mediated by thought), they depend on an individual’s way of meaning-making, thus on his/her level of mental growth. For instance, anger at evolving-self level X=3 is different from anger at level X=4. The former is caused by the experience that one is not living up to the values and principles of internalized others on whose guidance one’s integrity depends on, while the latter is caused by the experience of not living up to one’s self-authored value system. “Level-3 anger” is other-dependent, while “level-4 anger” is self-authored, and both are designed. They are as different as is the meaning-making in which they are grounded.

In summary, in the DSPT™, level of evolving self (X{p : c}) determines theory-in-use, while the associated process profile articulates different developmental pathways toward acquiring *meta-formal capacity* as is required in model-II learning. Theory-in-use is based on *inference from developmental structure* articulated by language, not on observation, and *actionable* knowledge is specified in terms of processes of meaning-making, not of behavior. Theory-in-use has a structural aspect, X {p : c}, explicating developmental level, and a procedural aspect, [m ,r, f, t (%)] indicating attainment, or lack thereof, of meta-formal balance ($t > m \vee f \vee r$). The relationship of these two aspects can be visualized as follows:

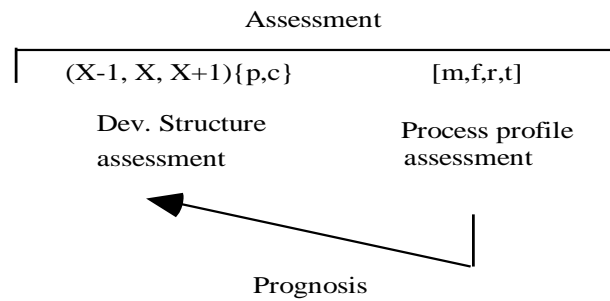


Fig. 1 DSPT prognosis of evolving-self level

The process profile, on the right, has two conceptually distinct meanings. First, the profile is prognostic of an individual's stance of residing at evolving-self level X, on the left. In this regard, the profile articulates the individual's risk of regression to a lower level (X-1), experiencing arrest at the present level (XX), and the potential for transcending the present level (X+1). In addition, the process profile indicates the degree of meta-formal capacity an individual has achieved ([m, f, r, T]), and thus, in combination with the evolving-self level, his/her capacity for model-II learning. By way of a longitudinal assessment (e.g., a year later), one can empirically determine whether an individual (or team) is making developmental progress in the direction of a more advanced evolving-self level and/or meta-formal balance. Depending on the outcome of DSPT™ repeat-interviews, appropriate coaching and mentoring initiatives, as well as other catalytic executive-development efforts, can be put in place. These efforts primarily target *meaning-making processes underlying behavior*, not behavior itself. To describe the implementation of specific developmental interventions is beyond the scope of this theoretical paper.

Structure of the DSPT™ interviews

DSPT™ interviewing is based on the notion of the interviewer as a *participant observer* introduced by H. S. Sullivan (Sullivan, 1970; Havens, 1987). As holds for action-science interventions, it engages a *third-order use of self* (Laske, 1997, p. 19) that entails *constructing meaning together with the client*. DSPT™ scores are based on two one-hour long interviews regarding how a client makes meaning of organizational reality. The first interview is a *subject-object* (SO) interview (Lahey, Souvaine, Kegan, & Goodman, 1988). This interview elicits and probes the degree of subjectivity (embeddedness in self) and objectivity (dis-embeddedness from self), thus the level of evolving self, of an individual. The second interview is a *dialectical-schemata* (DS) interview (Basseches, 1984). The interview elicits and probes an individual's use of twenty-four dialectical schemata (thought-forms) that form a coordinated whole, thus representing dialectical thinking. While the topic of the SO- interview is pre-defined by the method of analysis followed to ascertain evolving-self level, the topic of the DS-interview may be any issue that pertains to an executive's professional agenda or team functioning. This is so since what matters in scoring the dialectical-schemata interview is not the content but the schemata structure of the interviewee's argument that defines the particular *equilibrium* of his/her process profile. The distinction between structure and content is also crucial for the SO- interview, but in a different way. A description of the SO- and then the DS-interview follows.

The SO-interview

When assessing evolving-self level, the interviewer is doing two things simultaneously. First, he/she is formulating and testing an initial hypothesis as to the level, (X), the interviewee may occupy, based on information available prior to, or becoming available during the initial phase of, the interview. Second, the interviewer is revising that hypothesis throughout the interview, by probing for information that is conducive to substantiating or altering the formulated hypothesis. To carry out his/her task, the SO-interviewer must be thoroughly familiar with the range of scores that can be assigned to an interviewee, and the differential meanings of scores (of which below). The focal question the interviewer is to answer is as follows (Lahey et al., 1988, p. 10):

From where in the evolution of subject-object relations does the person seem to be constructing his or her reality?

By *subject-object relations* is meant how a person relates self to other, regardless of whether “other” is a part of the self, or the environment in which the person functions. *Other* is anything the interviewee can “take as object,” thus anything he/she is not embedded in (subject to). In this sense, the more wide-scoped an individual’s OBJECT, the higher the evolving-self or theory-in-use level. In an organizational context, *object* refers to anything an executive is dis-embedded from, such as his/her professional agenda. While an executive who “is” (i.e., is embedded in) her agenda may be a good performer or manager, she would not qualify as a leader, who is supposed to “have” an agenda, something she can relate to as other-than-me. In short, the SO-interviewer is looking for what an individual can “take as object,” and thus can differentiate from, have boundaries with, have a relationship to, and take responsibility for, whether it is his/her agenda, team, task, organizational sub-unit, or the entire organization:

What we are looking for is the clear demonstration "subject-objectness" at work, irrespective of which subject-object structure it is. (In truth, almost simultaneously in doing so, we begin a next step of asking which particular stage [evolving-self level, O.L.] is being demonstrated.)

In terms of Table 1, there are four relevant evolving-self (theory-in-use) levels, ranging from 2 (pre-conventional) to 5 (post-conventional). Between each of these levels, four transitional levels can be discerned and scored. In abstract form, these four levels are indicated as follows:

	X	X(Y)	X/Y	Y/X	Y,
e.g.,	3	3(4)	3/4	4/3	4(3).

Consequently, DSPT™ scoring regards altogether 16 levels, 5 in the pre-conventional, 10 in the conventional, and 1 (viz., level 5) in the post-conventional domain. In the sequence above, X is the lower, and Y the higher, evolving-self level (Laske, vol. 2, 180-181, 1999a). In general terms, the meaning of transitional evolving-self levels is as follows:

Table 2. Range of transitional evolving-self levels

Evolving-self level	Generic interpretation
X	Fully articulated lower level (e.g., 3)
X(Y)	Incipient, but typically not sustainable, use of higher evolving-self level (e.g. 3(4))

X/Y	Conflictual position #1: use of higher evolving-self level for the purpose of strengthening the low level, with resulting regression and dis-equilibrium (e.g., 3 / 4)
Y/X	Conflictual position #2: transcending the lower level, but reverting to that level under duress (e.g., 4/3)
Y(X)	Fully operating higher evolving-self level, still tenuous, but without risk of slippage (e.g. 4(3))
Y	Fully articulated higher level (e.g., 4)

With regard to professional agendas likely to be encountered by consultants, a generic interpretation of evolving-self levels 2 to 5 is as follows:

Theory-in-use level 2: The executive's master program is an *instrumental* one since it is oblivious of any Other. The executive knows others only from the perspective of whether and how they can be used to satisfy his/her own wishes and needs, and can be "instrumental" in realizing his own goals and plans. The executive's own set of interests form the ground from which others' perspectives are attended to. In short, the executive is incapable of "bringing inside" another's point of view, and is thus embedded in a single perspective, that of self-interest. Integrity and self-interest coincide (Lahey et al., 1988, pp. 98 f.).

Theory-in-use level 3: The executive's master program is *other-dependent*, in that it rests on the internalization of the perspectives and values of others, and is oriented toward satisfying internalized voices and values of important others, in order to safeguard integrity of self. Consequently, the governing variables involved in action design regard "saving face" in relation to physically present or internalized others who determine standards of appropriate behavior, regardless of whether such standards are rational. In this sense, the master-program is other-dependent. Model-I learning is the rule, the rationality adhered to being the institutionalized rationality of internalized others (conventions).

Theory-in-use level 4: The executive's master program is *self-authored* in the sense that its governing variables coincide with a cohesive self-system that withstands internal scrutiny. The self IS the master program in terms of which it organizes itself, but which it cannot transcend (take as object). Rather than being limited by being subject to others' validation, the self-system is now invested in its own "unassailable" governing variables. These variables guarantee its integrity. They also define the master program's limitation. Since there is no way to get beyond the master program, "defenses" are required to guarantee its integrity. Consequently, model-II learning is possible only exceptionally and impermanently. In terms of the Professional House, the self-authoring executive can be said to *be*, rather than to *have*, a professional agenda.

Theory-in-use level 5: The executive's master program is *self-aware* in the sense that he/she is aware of the nature and limits of her self-system, and is dis-embedded from it. As a consequence, he/she is able to disengage from her self-authoring process and make herself the context of others' transformation. Process outweighs product and outcome. The executive is an inter-individual system that is immersed in the process of transacting her life, fearless of losing her identity to competing others, and is ceaselessly transforming her professional agenda. Since the self's vulnerability is designed, not simply suffered, model-II learning is the rule. In terms of the Professional House, the self-aware executive *has*, rather than *is*, a professional agenda.

In order to elicit experiences articulating one of these theory-in-use levels, or transitional levels between them, the SO-interviewer uses ten index cards. Each of the cards has written on it a particular topic that serves as a verbal prompt for having the client relate recent personal experiences in the workplace. The range of topics is as follows: (1) angry, (2) anxious, (3)

success/accomplishment, (4) strong stand/conviction, (5) sad, (6) torn/conflicted, (7) moved/touched, (8) control, (9) change, and (10) important to me. After a brief explanation of the meaning of each of the stimuli, the interviewer lets the interviewee take 5 minutes to think about, and write down on the cards, memories of experiences in the workplace that lend themselves to a more elaborate conversation. Following that, the interview proper and its tape recording begin. The interviewee takes the lead, choosing the most salient topic (index card). A conversation ensues in which both partners co-construct the meaning of the experience chosen by the interviewee, until the latter "runs out of steam," or the interviewer has successfully tested an initial hypothesis as to what is the interviewee's evolving-self level. The pair then proceeds to conversing about another salient topic. There is no need to go through all of the cards, as long as 2-4 cards are employed in depth. The assumption underlying the interview is that content is secondary to the subject-object structure that generates it, and that any content, when probed at sufficient depth, will eventually reveal an interlocutor's theory-in-use level. Throughout, emphasis lies on the way the interviewee makes meaning of her experiences in the workplace.

The DS-interview

While in the SO-interview, theory-in-use issues are approached indirectly, and issues of professional agenda are treated as mere content (i.e., as anecdotal), these issues get more of a direct airing when interviewing for process profile. DS-interview content is thought to *embody*, rather than merely *articulate*, the structure of particular dialectical schemata. It is the task of the DS-interviewer, to elicit statements that focus on how the executive interacts with his/her client system, the organization. This is ascertained by co-constructing with the executive how he/she "resides" in each of three Houses, viz., the Professional and two Company Houses. As a consequence, DS-interviews are a rich source of information about the functioning and the environment of an individual, comprising both procedural (m, f, r, t) and behavioral information.

In Laske (1999b), I distinguished two mental domains, or *Houses*, in which executives interact with their host organization. I suggested that executive coaching is based on an alliance in which interactions between executive and organization are skillfully and systematically *observed* by a third party, the coach. Over and above describing how the executive makes sense of, and therefore acts in regard to, the organization, residence in the Houses also lends itself to designing and executing coaching strategies. Each of the three Houses encompasses both coach and executive, and is a mental domain with a specific emphasis. Residence in the *Professional House* regards the professional identity of both coach and client, and is focused on the status of their self- and other-awareness. By encompassing topics such as individuals' evolving-self level and professional agenda, the Professional House serves as the foundation of the working alliance uniting coach and client. Built on this foundation are two *Company Houses*. The first one comprises issues regarding the clients (and coach's) performance, and therefore is composed of "floors" representing different managerial tasks. This house is the place of *first-order coaching* which centers on the integration of self and role. The second house comprises issues of the executive's (and coach's) functioning as a leader. Therefore, its "floors" represent different perspectives on the company. This house is the place where *second-order coaching* takes place. Such coaching regards the ability of both coach and executive, to take multiple perspectives on the host company. Given that every organizational event or process has four aspects of relevance to policy making (Bolman & Deal, 1991)—structural, political, human-resource, and symbolic/cultural--the capacity to "reframe" company matters in terms of four distinct, but related, perspectives is a precondition of *integrated leadership*. While first-order coaching primarily has to do with where a

company is at the moment, second-order coaching has to do with where the executive wants to take the company in the future.

Using the metaphor of the Houses, the manner in which individuals relate to an organization can be precisely assessed. Such assessments can be used for designing coaching strategies. They can also be employed for defining an executive's *process profile*, by administering a DS-interview. For instance, an executive may be completely embedded in performing the tasks that flow from his/her status, and thus reside almost exclusively in the First Company House, thus lacking the capability of *integrated leadership*. In DSPT™ terms, this preference is seen as rooted in the individual's professional agenda, and is thus viewed as determined by his/her *evolving-self level* (theory-in-use). The organization is viewed as *something he/she constructs in harmony with his/her level of evolving self*. For this reason, interviewing for process profile focuses on the individual's interactions with his/her organization in each of the Houses, which is thought to be determined by the individual's theory-in-use. Accordingly, the DS-interview focuses on the manner in which a theory-in-use *gets implemented* in the organizational context. This focus requires an exploration of the way the executive resides in the Houses against the background of the ceaseless change of both the organizational context and the executive him- or herself. The theoretical framework for the DS- interview is as follows:

Table 3. Framework for administering the dialectical-schemata interview

Houses/ Change dimension	Professional House	First Company House	Second Company House	Schemata Referenced
Motion				# ...
Form				# ...
Relationship				# ...
Transformation				# ...
Interview focus	Self & Other Awareness	Self & Role Integration	Integrated Leadership	

Questions asked within this framework are focused on *espoused* theory of action. Answers to these questions serve as material from which to derive a process profile. The profile is **not** a behavioral one. Rather, it explicates the procedural aspect of an individual's *master program*. Consequently, it elucidates *why and how* executives manifest the "personality" they "convey," and generate the "behavior" they "display." In harmony with the middle columns of Table 3, DS-interviewing is structured in terms of three *guide questions*, each of which targets one of the *Houses*. Since interviewing for process profile regards individuals' way of conceptualizing their relationship to the organization in terms of four classes of dialectical schemata (motion, form, relationship, and transformation), each of the three guide questions is associated with four *probe questions*, one regarding each class of dialectical schemata. Guide questions are primary, since they focus on how the executive constructs his residence in the Houses. Not all probe questions have to be asked regarding each of the Houses.

Guide questions are best asked in column order, while the associated probe question need not be. When interviewing in the Professional House, the DSPT™ user probes for how the schemata classes are used to construct the *executive's self- and other-awareness*, and the behavioral correlates of that awareness. In the other two houses, the interviewer probes for ways in which an executive integrates self and role in his organizational functioning (First Company

House), and for what is his/her potential for integrated leadership in terms of multiple perspective-taking (Second Company House), respectively (Laske, 1999b, Fig. 1, p. 140). Probe questions are employed to ascertain the extent to which self-reports regarding residence in the Houses, and taking action in the Houses, reference one of twenty-four dialectical schemata (Basseches, 1984, pp. 72-155). The formulation of the (4x3=12) probe questions is specific to the executive's position in the organization, and to the professional situation in which she finds herself. Not all of the probe questions need to be asked, as long as the interview yields enough substantial information about the executive's specific process profile (developmental pathway toward model-II thinking) along with the behavioral indices through which the profile becomes manifest in her daily functioning. (The behavioral findings are worthwhile in their own right, although for purposes of scoring they are of secondary relevance.) In order to achieve a perfect fit between the interviewer's "take" on the executive and his/her organization, guide questions, too, can be customized, as long as they are potent enough to generate information required for formulating a valid process profile.

The interview guide contains appropriate suggestions for formulating guide and probe questions; Laske, 2000b). Paradigmatic examples of DS-guide questions are stated below. Probing for details in the interviewee's answers to these guide questions must be informed by knowledge of the twenty-four schemata of the DS-framework (Laske, 1999a, Basseches, 1984, pp. 72-77)).

1. Professional house (focus: self- and other-awareness, with emphasis on professional agenda)

What, would you say, is your approach to tasks (the way to set goals, conceive of your mission in this company, and feel responsible for your professional development) in this company?

2. First company house (focus: self and role integration, with focus on role functioning)

Is your role mainly an informational, interpersonal, or decisional one (Mintzberg, 1989), and how do you relate functioning in one of these roles to functioning in another?

3. Second company house (focus: integrated leadership, with emphasis on the executive's perspective-taking)

When you look at the organization as a whole, do you preferentially emphasize (a) organizational structure and division of power/labor, (b) political coalitions and conflicts, (c) human-resources needs and deficits, or (d) a cultural perspective focused on mission, shared values, or shared losses (Bolman & Deal, 1991)?

When one looks to the Houses as mental spaces in which individuals make meaning of their organizational experiences, the question *arises how organization members live in a world of multiple and open systems*. It is the function of the four probe questions associated with each guide question (Houses), to provide answers to that question. Transformations occurring in such systems are beyond the grasp of purely logical thinking, since such thinking cannot grasp more than a single closed system (Basseches, 1984, pp. 53-64). Any organizational event or process has four different aspects—motion, form, relationship, and transformation--the first three of which need to be synthesized to arrive at an understanding of change in a developmental direction (Basseches, 1984, pp. 76-77). The capacity of realizing this synthesis is a *meta-formal* one, in that it transcends purely logical thinking in the direction of developmental transformations of systems. To probe such meta-formal capacity, the interviewer needs to determine to what extent the client possesses a coordinated set of dialectical schemata required for understanding ceaseless organizational change (Laske, 1999a, pp. vol. 1, 191-192; Basseches, 1984, pp. 157-158). Considering that the four classes of dialectical schemata form an organized whole, probing for individual schemata must not lose sight of the equilibrium of all four dimensions involved in the change ([m, f, r, t]).

Specifically, probe questions must elicit espousals (self-reports) regarding some of the following issues: (Basseches, 1984, pp. 72-77):

Motion: to what extent is the interviewee’s attention directed to organizational processes of inner and outer change, whether in the form of mental movement between persons; correlativity of events and processes; or the dependency of what seems unchanging on an overarching dynamic or process?

Form: to what extent is the interviewee’s attention directed to objects forming part of a larger whole; to stability achieved through motion, not of single elements but their organization into a system; and to organized and patterned wholes and conceptual contexts?

Relationship: to what extent is the interviewee’s attention directed to interactive and constitutive relationships that organize elements into a context that makes the parties to what they are, thus logically preceding the elements they relate?

Transformation: to what extent is the interviewee’s attention is directed to the limits to stability; the developmental resolution of equilibria; the transformation of one form into another? Does he/she possess a capacity for taking multiple perspectives on company matters?

Depending on the frequency and clarity with which individual schemata are employed by the interviewee to formulate answers to the guide and probe questions, a score is assigned to every interview “bit” that articulates a particular dialectical schema. See the examples and scoring demonstrations below.

DSPT™ outcomes for S1

Once the interviews are completed, they are transcribed and partitioned into text passages called “interview bits” that demonstrate either a particular evolving-self level (SO-interview), or a particular schemata class (DS-interview) defining the interviewee’s process profile. Guidelines for partitioning the interview text are derived from evolving-self and dialectical-schemata theory, respectively. For the sake of space, I forego giving detailed interview analysis examples (see Laske, 2000b; Laske 1999a, vol. 2, pp. 190-256). Below, I state the DSPT™ outcomes for both evolving-self level and process profile of executive S1.

Table 4. Evolving-Self Scores, S1

Developmental range	Single overall score	Counter-Hypothesis #1: 4(3)	Counter-Hypothesis #2: 4(5)	Potential	Clarity
4(3) – 4(5)	4	power = 3	power = 2	p = 2/14	c = 9/14

As shown, S1 presently operates within a developmental range of 4(3) to 4(5), with a functional “center of gravity” at the self-authored theory-in-use level (4{2:9}). Both counter-hypotheses regarding a lower (4(3)=3) and higher level (4(5)=2) do not have sufficient power to influence the single overall score. S1 resides at evolving-self level 4 with a clarity of c=9, and a potential of p=2. Therefore, his potential for transcending evolving-self level 4 is presently small, given that he is heavily embedded in it (c>p=7). Considering his potential-to-clarity index, S1 can be said to be relatively immune to a risk for permanently regressing to a lower level (4(3) or 4/3). However, as shown, temporary regressions are not impossible.

Analysis of the DS-interview of S1 yields the following outcome:

Table 5. Process profile, S1

Index score	Total motion	Total form	Total relationship	Total Transformation	Schemata absent	Developmental pathway
19/72	6 (25%)	3 (33%)	5 (42%)	5 (19%)	11/24	Relativist
Schemata	#4-6, 8	#11	#12-14	#16,18,20,22, 24		

S1, who is part of a team of six executives (Laske, 1999a), presently reaches a total index of dialectical thinking of 19/72. (Multiplying the number of schemata in each class [m=8, f=3, r=4, t=9, total 24] by the highest weighting, of 3, yields a maximum index of 72). While absolutely speaking, this is a low outcome, considering that team outcomes lie in the range from 10 to 19 (see [Table 6](#), below), S1's implementation of theory-in-use is comparable to that of his peers. Of major interest is the distribution of schemata uses across the process profile as a whole, which speaks to the presence or lack of equilibrium (partial developmental pathway) S1's professional-agenda interview manifests.

As shown in [Table 5](#), S1 mainly employs schemata of class relationship (42%), followed by those of class form (33%), and motion (25%). These outcomes entail that while he is keenly aware of the interactive relationships inherent in his organizational environment (r), a good systems thinker who grasps stability of systems through change (f) and is sensitive to mental interactions as sources of new knowledge (m), S1 fails when it comes to pulling together these three dimensions of developmental change *meta-formally* (t=19%). In light of the fact that S1 neglects only 11 out of 24 schemata, he must be credited with a rather robust potential for model-II thinking. However, this potential is presently unrealized, due to his failure to relate, coordinate, and be aware of, the interdependence of forms and systems, including his own self-system (t=19%; -5% with regard to group average, see [Table 6](#) [group mean, column 3]). For this reason, S1 is best described as a *relativist* for whom forms and systems remain unrelated and uncoordinated, however much he is aware that their elements are interrelated (r), and that they owe their stability to the equilibrium of their elements (f).

Short DSPT™ assessment (confidential). S1's *relativistic* process profile speaks to the way in which he implements a self-authored theory-in-use, i.e., the peculiar developmental pathway toward model-II thinking he has chosen. In regard to his evolving-self level, the profile explains the fact that S1 is presently experiencing a relative arrest at level 4, where his clarity/embeddedness score outweighs potential for transcendence by $c > p = 7$. In and by itself, S1's process profile entails that he experiences a lack of balance between the analytic (m, f, r) and synthetic elements of his meaning-making and action design (t). Specifically, he encounters difficulty in tasks that require him to coordinate forms & systems, whether they regard his self-system, parts of his self, or parts of the organization, and the organization as a whole. In the organizational context, S1's unbalanced process profile and low meta-formal capacity (t=19%) becomes apparent in the fact that his leadership and mentoring activities remain stubbornly restricted to his immediate, product-centered team. Therefore, he implements his theory-in-use with a focus on winning (model-I), exhibiting competitive behavior. As a result, his professional agenda remains isolated from the agenda and mission of the executive team, and the organization at large.

Associated with low meta-formal capacity, S1's self-authored theory-in-use makes it difficult for him to design (rather simply to suffer) his vulnerability, and thereby enlarge his grasp of participatory action. His lack of model-II thinking leads to action designs that are ultimately self-sealing, rather than being open to others' participation and critique. As a result, S1's potential for displaying a generative attitude toward others outside of his team is ultimately used in a self-serving way. What is more, the likelihood that S1 will display model-II thinking in the near future is presently low. He is free of the risk of regression to a lower evolving-self level, and shows a keen awareness of the analytic aspects of change (r, f, m). Nevertheless, his inability to take his self-authoring stance as object may hinder him from making progress in his coaching alliance on more than a purely behavioral level (i.e., without experiencing developmental effects of coaching).

Scholarly consulting to organizations at large

Now that I have outlined a cognitive-science approach to scholarly consulting, and demonstrated it by reviewing the structure and process profile of a single executive, I wish to show how the DSPT™ approach applies to teams and entire organizations. I do so in two steps, first, by considering the *differences in developmental pathway* between six members of a topic management team; and second, by introducing the DSPT™ as a technology for assessing a top management team *longitudinally* for purposes of culture transformation.

1. Differences in developmental pathway

Table 6
Developmental baseline
of members of a top management team

Team member	Indexed evolving-self level X {p : c}	Process profile [m, f, r, t (%)]
S1	4 {2:9}	[25,33,42,19]
S2	4 {5:8}	[46,0,17,15]
S3	4 {0:9}	[29,22,0,0]
S4	4 {3:5}	[21,0,1,26]
S5	4(5) {7:4}	[0,0,50,44]
S6	4 {4:9}	[17,33,0,41]
Group mean	4 {3.5:7.3}	[23,15,18,24]

As is apparent from Table 6, most members of the team (which includes S1) presently construe organizational reality, and thus design action, at evolving-self level 4, practicing a *self-authored* theory-in-use. This entails that while each members of the team acts responsibly and without co-dependency, individuals find it hard to stand back from their own governing variables of action. In contrast to the team's homogeneity in terms of evolving-self level (column 2), the process profiles represented in the outer column (no. 3) show a range of different meaning-making processes by which new information is assimilated and accommodated to by team members. The process profiles also point to different developmental pathways members of the team have chosen on their path to meta-formal capacity. Wherever substantial (here numerically quantified)

differences between schemata classes (m, f, r, t) exist, a cognitive dis-equilibrium hindering model-II thinking is indicated. While this dis-equilibrium is the motor that drives developmental progress, and thus constitutes a developmental opportunity for all team members, it simultaneously signals distorted reality construction with regard to grasping transformation change. As indicated by the *mean potential/clarity index* ($\{p=3.5 : c=7.3\}$), the team's capacity for transcending its present evolving-self level is only about one-half of its measure of embeddedness in the level. Among the team members, only a single leader declares herself: S5 signals a capacity for advancing toward a *self-aware* theory-in-use (4(5)), thereby bringing model-II learning into view ([t=44%]).

The best way to interpret the differences seen on the right side of [Table 6](#) is to understand them as representing different pathways along which team members are developmentally approaching model-II (dialectical) thinking. The pathways shown are characterized by different cognitive equilibria that become manifest in the form of particular profile *patterns*. A pattern is defined by the dominant dimension(s) of the process profile (Basseches, 1984, p. 214). In terms of their master-program, S2 ([M=46%] and S3 ([M=29%] are *motionists*. Their sensitivity to inner and outer change and their engagement in mental interaction as a source of new knowledge presently outweighs any other type of mental processing. S1, procedurally a *relativist* ([R=42%] practices systems thinking [f=33%], but lacks the capacity to coordinate systems (including his own), as indicated by his weak meta-formal capacity [t=19%]. "Hollow" (espoused) meta-formalism is also a hallmark of S4's master program [T=26%]. She is better described as a *non-formalist* challenged by grasping how forms maintain systemic stability across change [f=0%], and as lacking insight into constitutive relationships [r=1%] despite a good grasp of human interaction as a source of new knowledge ([m=21%]). By contrast, the strength of S5's master program lies in her ability to enact interactive and constitutive relationships [R=50%], and the fact that she possesses a reasonably high meta-formal capacity [t=44%]. However, her master program shows significant deficits in her analytical grasp of mental interactions, as well as forms & systems [m, f=0%]. S6 is a *meta-formalist* like S5, although with different liabilities. His capacity for grasping transformational change [T=41%] is somewhat "hollow," since despite good systems thinking [f=33%], he is challenged by conceptualizing constitutive relationships [r=0%], which puts in doubt his meta-formal grasp.

How is a consultant using the DSPT™ to determine the relevance of process profile differences shown in the table for the effectiveness of the executive team? A consultant can do so only by gaining access to information about the culture and strategic objectives of the organization as a whole. With the aid of such information, the consultant can assess how the mix of relativism (S1), non-formalism (including motionism; S2, S3, and S4), and "hollow" meta-formalism (S5, S6) in the executives' process profile determines the teams's professional agenda. The consultant can draw conclusions regarding the reciprocal influence of the team's agenda on the corporate culture. The DSPT™ user who is a coach can use the findings in [Table 6](#) to reflect upon his/her coaching alliances, and derive from the findings guidelines for adjusting coaching strategy so as to diminish the disequilibria shown in individual process profiles (Laske, 1999a, vol. 1, pp. 270-282, vol. 2, pp. 277-289). What is more, with input from [Table 6](#) the Corporate Director of Coaching can assess & monitor entire coaching programs, hold coaches accountable for their outcomes in a more systematic way, and serve as a consultant in succession planning deliberations (Laske, 1999a, vol. 1, pp. 283-288). In these new opportunities for crafting a strategic human resources policy lies the *discriminative validity* of the DSPT™ as an instrument of scholarly consulting. Since the DSPT™ penetrates to the level of executives master programs (theory-in-use), it can deliver what behavioral assessment tools are incapable demonstrating. For instance, if an organization determines on account of longitudinal studies that coaching its top management team is not producing mental growth, the organization can switch from a *change/development model* to a selection or *fit model* of human-resources policy (Hall, 1999).

From a DSPT™ perspective, currently fashionable notions of how teams work may need to be revised (Laske, 2000a). Although leadership can be enhanced by team work (Allaire, 1998), teams that are well structured, even heterogeneous, in terms of *competence*, but unbalanced in terms of *master program*, cannot exert effective leadership. To be effective over the long haul, behavioral integration (Hambrick, 1998) or team heterogeneity (Eisenhardt, Kahwajy, & Bourgeois III, 1998) by themselves do not suffice. From an adult-developmental perspective, **effective teams require equilibrated process profiles associated with self-aware, thus post-conventional, theories-in-use. For implementing such theories, they need to possess meta-formal (dialectical) capacity.** Master programs are not a set of behavioral features or traits, but *epistemological* (episteme=knowledge) indicators of the level of organizational functioning, thus the type of design causality organizational actors are capable of. Master programs specify how these actors presently make meaning of their organizational and life experiences, and to what extent they are *in the know* as actors.

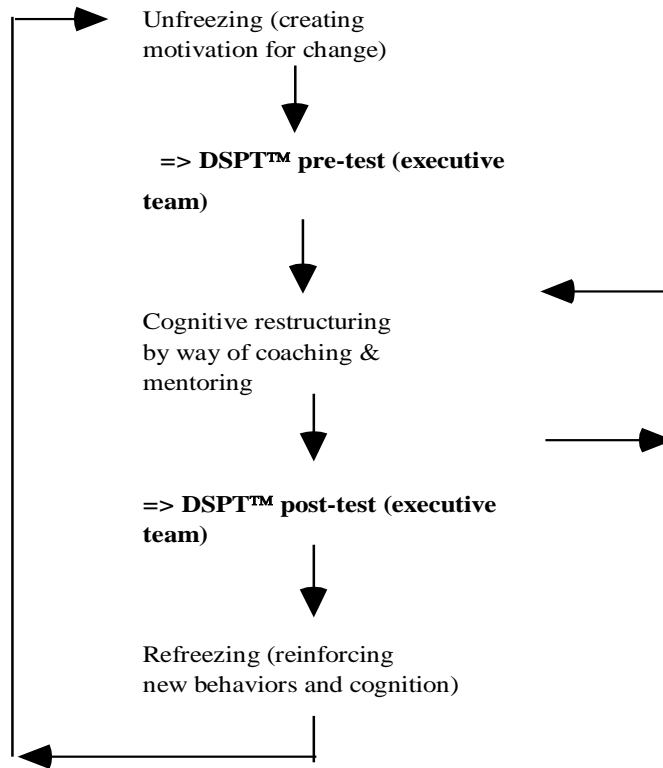
Table 6 conveys a developmental snapshot at a particular time point in time. The structural (X{p : c}) as well as procedural aspects [m ,f, r, t] of executives' master program are dynamic entities, constituting a moving target. Therefore, longitudinal thinking is required to make optimal decisions about strategically important individuals and teams. In harmony with this requirement, **the true value added of the DSPT™, its discriminative validity in scholarly consulting, lies in its ability to assess individuals' master program at successive points along their life span trajectory** (for instance, annually or bi-annually). The DSPT™ does not only assess evolving-self levels and their associated process profiles. It also tracks the development of master programs *over time*, its score being a dynamic measure. The capability of tracking the master programs of organization members longitudinally is of exquisite importance at any time. It is particularly valuable in times where the theory-in-use integration of top-level management teams is at a premium.

2. Longitudinal assessment for cognitive restructuring

When consulting to organizations that form an adhocracy of project teams (Mintzberg, 1989), the issue of how to build effective teams that together promote organizational growth is of high salience (Argyris, 1992, pp. 107 f.). In these circumstances, “one-shot consulting” without a longitudinal perspective, even if done in a scholarly manner, can be more harmful than helpful. Viewing organizational development systemically is to see it as a cyclic occurrence leading from startup to “midlife, mature, and declining” organizations (Schein, 1992, p. 313). Viewing it longitudinally entails to take advantage of the *gift of adult development* that endows human resources between 25 and death with a potential for mental growth. As far as the organization development cycle is predicated on the human resources it engages, a link needs to be forged between level of mental growth and telos of organizational growth. To be able to define such a link characterizes a truly *strategic* human resources policy (Laske, 2000a). Such a policy can be formulated based on the notion of *cognitive restructuring* (Schein (1992, pp. 301-302). According to Schein, cognitive restructuring comprises three phases: (1) unfreezing, (2) cognitive restructuring, and (3) refreezing. In the unfreezing phase, a motivation for change is created. In the cognitive restructuring phase, not only overt behavior, but basic assumptions about organizational and individual functioning (i.e., the *collective theory-in-use* underlying company culture) are scrutinized. The prevalent notion is that collective theory-in-use cannot be changed other than by changing the theory-in-use of the top management team. This entails that the team's theory-in-use needs to evolve in terms of mental growth, and changes flowing from that evolution gradually need to spread throughout the organization as a whole. If the organization is a decentralized adhocracy (Mintzberg, 1989, pp. 196-205) or matrix organization (Argyris, 1992, pp. 107-126), rather than being built on the Russian doll model (Bartlett & Ghoshal, 1998, pp. 70-97), the nerve centers for changing collective theory-in-use must be located wherever they exist across functional teams. However, the mental growth of individuals or teams cannot be “pushed ahead”

by way of human agency beyond a certain critical limit (at which “development” becomes either harmful or ineffective, or both). Therefore, the best that can be done is to instigate what one might call *tempered organizational growth* (TOG™) strategy, a growth initiative tempered by adult-developmental insight. The task of the top management team, to coordinate “multiple internally inconsistent architectures” for the sake of mastering different phases of the innovation cycle simultaneously (Tushman, Anderson, & O’Reilly, 1998, p. 329), provides a useful example of needed metaformal capacity that can be “grown” only over time, i.e., adult-developmentally. In the context of a TOG™ strategy, cognitive restructuring that encompasses executive coaching can be used to accomplish that task. In such a context, the DSPT™ functions as a longitudinal gauge of theory-in-use:

Fig. 2 Use of the DSPT™ in restructuring cognitive master programs



As shown in Fig. 2, the DSPT™ pre-test is used to define a *developmental baseline* for a group of executives whose performance is deemed decisive for cognitive restructuring efforts to succeed in an organization. After a period of coaching, and commensurate executive-development efforts, the DSPT™ is applied longitudinally as a post-test, to ascertain whether mental growth has occurred, and if so, what growth, as well as which executives and/or teams manifest such growth. In the inner loop, coaching or other catalytic human-resource efforts may then be extended or intensified, to create more broadly based mental growth in the executive team's theory-in-use. These efforts continue until a critical mass that suffices for accomplishing the intended cognitive restructuring effort company-wide is reached. At that point, coaching can be used to refreeze the executive teams' cognitive structure until new environmental and strategic requirements start the development cycle all over again. In this way, the company-wide cyclic restructuring effort can be merged with the spiral-shaped trajectory by which individuals' evolving self is established at successively higher levels (Kegan, 1982, p. 190).

How can *scholarly* (theory-in-use centered) consultation facilitate organizational growth tempered by insight into adult mental growth between 25 and 100? In answering this question it is helpful to squarely confront the fact that neither learning nor change per se are *development*. The term development has two related, but different, meanings, that of *agentic* change efforts made by humans (e.g., coaching), and that of the *ontic* growth of mental organisms over the life span (Laske, 1999a). **For purposes of any consultation, these two meanings have to be reconciled.** An agentic attempt to push individuals ahead in

terms of their evolving-self level (say, from 4(5) to 4/5 or 5/4) either is the laugh of the town or worse, harmful. However, there is a legitimate sense in which individuals' process profile is open to a *learning interpretation* and, via such an interpretation, to interventions such as developmental coaching. Especially in the case where a suitable potential-clarity index $\{p>c\}$ exists that makes regression to a lower evolving-self level, X-1, unlikely (as, e.g., in the case of S5 in [Table 6](#)), it is sensible to consider the 24 schemata of the DS-framework as a set of thought-forms making up a framework for organizational learning (Laske, 1999a). As long as one remains aware that the four classes of schemata form a coordinated set of dialectical thought forms, whose internal cohesion depends on *meta-formal* capacity (Basseches, 1984), one should be able to design coaching or experiential-learning interventions that are helpful in embedding these thought-forms in behavior. Longitudinal studies are needed to substantiate this hypothesis. In order to bring about *development* in a team's process profile, in contrast to mere behavioral *change*, one can design coaching interventions that target existing disequilibria in how a team construes organizational reality, making *designed errors* that sabotage its effectiveness (Argyris' "designed incompetence," 1992). For these *agentive* efforts to succeed, appropriate *ontic* (i.e., evolving-self) pre-conditions must, however, be fulfilled. (For a more detailed outline of conceivable process profile interventions, see Laske, 1999a, vol. 1, pp. 321-333). The interplay of evolving-self level with organizational learning in the direction of model-II thinking is a topic of scholarly consulting made possible by the DSPT™.

The future of scholarly consulting

Human-resources consultants are traditionally in the business of bringing to light others' "personality" and "behavior," rather than the master program that embodies the *design causality*, thus the causes, for what is conveyed as personality and exhibited as behavior. The fact that actions are not just based on "personality" and "behavior," but are *designed, thus developmentally grounded*, is disregarded in one-shot non-scholarly consulting. Amidst the increasing number of behavioral tools for almost every eventuality, tools for elucidating design causality are missing, leaving it shrouded in mystery. Since both the consultant and his/her client sport their own master program, depending on their evolving-self level they will or will not be able to transcend conventional theory-in-use, by abandoning their self-authoring stance and taking their design causality as *object*. According to [Table 1](#), such self-awareness is given to only about 10% of us, and those 10% of individuals may not be drawn to elucidating others' master programs. Nevertheless, the fact remains **that personality, behavior, and actions are DESIGNED**, thus derivative of master program. Knowing "where the client is developmentally" by penetrating the client's master program is of the utmost relevance for the effectiveness of the human-resources consultant.

Argyris has pointed to major problems in matrix organizations employing project teams (1992, pp. 107-126), and has searched for effective ways of consulting to them. He has explicated the requirements to be fulfilled by successful matrix organizations. According to Argyris, such organizations must be staffed with individuals who (1992, p. 108):

- Do not fear stating their complete view
- Are capable of creating groups that maximize the unique contributions of each individual
- Value and seek to integrate their contributions into a creative total, final contribution rather than needing to be individually rewarded for their contributions, and are thus
- Finding the search for valid knowledge and the development of the best possible solution intrinsically satisfying.

None of the requirements named by Argyris have anything to do with "personality" or "behavior," but with implementation of theory-in-use. (These requirements are "epistemological," not "psychological"). As [Table 6](#) suggests, after approximately age 25, the most decisive difference marker for comparing individuals' is **not** "intelligence" or

“behavior” or “personality,” but (evolving-self based) theory-in-use (Cook-Greuter, 1999, p. 22). Nevertheless, the notion of “development” used by Argyris is an entirely *a-developmental* (agentic) one (Laske, 1999a, vol. 1, pp. 1-15). Therefore, he does not discern that the requirements he states all presuppose the ability to transcend a self-authored theory-in-use (4(5) and up), thus a post-conventional master program. The abilities required according to Argyris are in scarce supply in most top management teams, not to speak of other organization members (or consultants, for that matter). Thus, one can either continue to compose high-spirited wish-lists of “embedded traits” (as authors of the business press and test designers do), or practice *cognitive realism* that derives from assessing theory-in-use. Since superficially considered, scored assessments (like those provided by the DSPT™) might appear as defensive and obstructive to an observation-and-inquiry based action-science approach, action researchers might be reluctant to consider them. There is, however, a difference between *testing* and *assessment*, in that assessment is open to collaboration (as embodied in interviewing), and to creating a *community of inquiry* (Argyris, 1985, p. 12), while testing is not. DSPT™ assessments provide exactly what Argyris requires of social-science descriptions that are *actionable* in that they provide “causal explanations of what was in the heads of the actors that caused them to create the actions that were observed by the researchers” (Argyris, 1992, p. 315). I would suggest, however, that explanations of what causes actors to act need not themselves be *causal*, but may be *teleological*. DSPT™ scores are a case in point. A score such as “X {p : c} [m, f, r, t]” or any part thereof cannot be construed as a causal factor. Rather, to do so amounts to *illegitimate reductionism of a developmental tendency* that reflects a lack of meta-formal capacity on the part of the reducing agent (Laske, in press; Laske, 1999a; Basseches, 1989). In contrast to causal explanations, the DSPT™’s evolving-self level, X, specifies a telos, or target, of development that an individual is presently in the process of realizing. Since any evolving-self level X is always embedded in a *teleological range* of higher and lower levels (X-1, X, X+1), and is associated with a potential/clarity index {p : c} pointing to a potential of transcending one’s present theory-in-use, or lack thereof, the score explicates a *tendency*, not a one-to-one, or even many-to-one, causality. This also holds for the process profile ([m, f, r, t]), which is a symbolic representation of the mental processes that keep an individual at the present evolving-self level.

As all social-science descriptions that go beyond the status quo, DSPT™ descriptions of theory-in-use levels are teleological in nature. Only in this way can they be valid in the sense of avoiding to support the status quo (Argyris, 1992, p. 351), and can they escape the limits of a “theory of control over subjects that is similar to the one used in the larger society” (Argyris, 1992, p. 335). DSPT™ assessments are a reminder “that rigorously speaking description cannot be separated from normative activities” (Argyris, 1992, p. 315), and that to arrive at effective solutions, researcher-consultants need to go beyond the status quo of what is considered effectiveness. Although the theory-in-use underlying the DSPT™ is in and by itself an espoused theory meant to explain rather than to act (Argyris, 1992, p. 316), the theory has a potential for *organically*, rather than *mechanistically*, oriented research (Argyris, 1992, p. 366). The instrument assesses to what extent organization members are able to fulfil the demands made upon them by the *mental growth curriculum* of organizations and society at large, and to what extent these members are “in over their head” when trying to fulfil such demands (Kegan, 1994). For this reason, the instrument assists consultants in practicing *a compassionate cognitive realism* when working with organizational actors. As Argyris states, management is an act of creation, and “such acts require much richer explanatory sequences than are required by straightforward (i.e., causal, O.L.) prediction” (Argyris, 1992, p. 314). Consultants have to make a choice about whether to support status quo or be engaged in creation. It is in the spirit of the DSPT™ to promote such a choice.

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Short bio

Otto E. Laske is a multilingual management consultant and writer with a background in cognitive science and developmental psychology. His background comprises work in organizational knowledge acquisition and performance enhancement, as well as clinical work. He specializes in executive coaching and executive development, employing an instrument that empirically gauges individuals' *mental growth*. Laske's consultations focus on meaning-making and adult development in the workplace, rather than on behavior per se. In a recent study, he showed that level of mental growth determines the level of executives' functioning.

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