CRESCENDO MODEL OF CAREER MOTIVATION

AND COMMITMENT

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This study defines and measures a progression model of career motivation in a large aerospace engineering and manufacturing firm. The utility of the progressive phases is demonstrated by their capability for discriminating with 23 variables the propensity to career motivation and commitment and to distinguish regular variation on a continuum of 16 variables widely used to evaluate the quality of work organization. The analysis supports the notion of a graduated stepwise movement from identity to insight, to resilience in strengthening motivational attraction to career commitment, and demonstrates concurrent validity of progressive phases associated with perceived quality of work organization. Although the levels and phases are progressively prepotent and valenced in predicting employee attraction to career commitment, different patterns and paths through the phases for individuals are indicated. At a structural level, results shed insight into motivation patterns formation and affective career commitment.

Motivation and commitment to career has attracted much rekindled attention for intriguing, compelling reasons (Schein, 1991; Tracy, 1993). Psychological forces of self-identity, self-insight, and resilience in pursuing career goals represent core components for career motivation and commitment; and for building cooperation, cohesiveness, and consensus in organization. Personnel pull together for the common purpose in a strong career oriented organization where the unique attractiveness of its rich motivation bonds members tightly and commits them individually and organizationally to identify with its rules, rewards, and values (Katz and Kahn, 1978).

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This paper reports findings of a study designed to test a hypothesized linkage between generalized motivational domains of identity, insight, and resilience with affective career commitment. Based on the notion that an individual''s behavior is determined primarily by past experiences and extending the analogy of individual development to that of organizational development, this paper discusses a series of developmental stages through which employees tend to pass in becoming "career" committed. First, an overview and perspective on career motivation and the advantages of commitment at the level of the organization is provided.

Motivation and Commitment: Benefits of Cooperation

The important source of commitment appears to be from within the intrinsically shared identities, insights, and values of the organization itself—where members are encouraged to turn inward and take initiatives from the imperatives of the organization's own vision. Instead of gazing outward to copy what other organizations are doing, members of the strong career—oriented organization receive their impetus for action, not from admiring comparable organizations, but from emulating their own discoveries in fulfilling particular internal needs (Mintzberg, 1989).

As a resource, career motivation and commitment forms a centripetal force inward, protecting the organization from outside influence, drawing human resources toward countless acts of cooperation with each other. In this sense-by socially indoctrinating individuals into its norms and values--commitment may best be regarded as the central ethos of an organization, indeed the life-giving force or spirit that informs the formal framework of its fundamental function (Miller, 1978).

An important application appears to be that internalization of career values renders any particular organization more effective (Meyer, 1989). The concept continues to be of enduring interest to managers and organizations because of its connection to increased performance and motivation, lowered absence and turnover, along with heightened stability, satisfaction, and involvement (Porter, et al., 1974, 1976; Weiner and Vardi, 1990). Personnel get "juiced-up" to pursue the focus, structure, style, controls, or rewards or whatever else drives and determines the direction of the organization. The infusion of an organizational career ideology can alter even the most bureaucratic structure's nature. It is the nature of the human commitment to customer responsiveness and sensitivity to employee and stakeholder needs that really counts (Peters and Waterman, 1982; Tracy, 1989).

Another important implementation arises from using career ideology to resolve contradictory competing claims between people and departmental units, and to reconcile discrepant conflicts arising within individuals themselves (Reichers, 1986). At the organizational level, institutionalized career commitment helps forces and functions that diametrically dominate or oppose each other to pull together, work through differences, and facilitate adaptation and change. Strong career-conscious organizations solidify when threatened and when they have to because they are deeply seated in strong systems of beliefs (Kahn et al., 1964; Meyer, 1987). Such organizations readily reconcile conflicting interests and suspend debilitating rivalries since what matters is the organization itself, not any of its "special" parts. When career committed people believe in the organization over and above any of its specialized parts, the organization is powerfully empowered to adapt.

This dynamic is not construed to imply that the zero-sum rule is supported and the "more-less" hypothesis holds—that if an organization favors one particular function, others may fail; or if the organization is favored above all else, then individuals suffer. This may happen in a weak career ideology organization where functions and outcomes are managed merely as aggregations of different parts; and people are treated as means to an end, rather than an end in itself. But when the strong force of career ideology and commitment genuinely infuses an organization structure in a bone-deep belief in doing the right things for people authentically prevails, an organization takes on an institutional life and logical dynamic of its own and conflicts are reconciled.

That is what the concept of strong motivation leading to organizational and career commitment really conveys. Regardless of what function an individual or unit performs, each is treated as an embodiment of the total system and each is empowered to make decisions and take actions for the good of the whole. It is not just the salesforce that is responsible for revenue, nor the production members for controlling costs and efficiency. A "hands on, value driven" or all hands approach compels everyone to internalize many forces in carrying out his or her own duties. Reiterating a metaphorical epigram— "It is easy to change hats when all are emblazoned with the same insignia" (Mintzberg, 1989). Thus far, organization aspects of commitment have been subordinated to analysis of individual propensities (Hrebiniak and Alluto, 1972; Brown, 1969; Dubin, Champois and Porter, 1975; Kidron, 1978), but that emphasis is being shifted. Consider three studies of an emerging agenda. Thus, Buchanan (1974) and Jamal (1974) conceptualized level of integration in organization development in terms of positive association with

organizational career commitment. Moreover, O'Reilly and Chapman, and Allen and Meyer (1990) used an organization setting to illustrate how congruency of individual career and organization values leads to mutually rewarding relationships reducing the possibility of conflict. Finally, London (1983, 1990) specified an interactive model of career motivation components comprised of individual and situational characteristics coupled with decisions and behaviors that has important implications for designing new motivational strategies and exploring career commitment.

TOWARD A CRESCENDO MODEL OF CAREER MOTIVATION AND COMMITMENT

The model of career formation extends historical work (March and Simon, 1958; McGregor, 1967; Hall, 1970; Porter et al., 1974, 1976; Morris and Koch, 1979). Empirical studies (Weiner, 1982; O'Reilly and Chatman, 1986; Meyer and Allen, 1987; Allen and Meyer, 1990; Mowday, Steers and Porter, 1979; London, 1990) separately tested for relationships of each of the three motivation domains with a wide range of individual and organizational outcomes. This study makes an additional use of the essential factors. It attributes differential motivation prepotency and the propensity to career commitment, uses norms from the employee population to distinguish high versus low propensity on each motivation domain, and then defines stages of organizational career motivation and commitment formation in terms of possible high versus. low combinations of scores on the three domains.

Stated simply, the model seeks to show an underlying pattern between identity, insight, and resilience in establishing the stronger construct of career ideology and commitment. In terms of prepotency, identity precedes insight which precedes resilience in the formation of career commitment. Stronger combinations of these three dimensions, in turn co-respond to successively higher states (or stages) of attraction to career ideology.

PSYCHOSOCIAL STAGES OF CAREER MOTIVATION LEADING TO COMMITMENT

The current study adds to structural aspects on the psychology of commitment, setting forth the usefulness of a crescendo or stage model. In a preliminary study, these phases varied systematically with commonly used measures of the quality of work organization (Bateman, 1984; Allen, 1990). Results indicate that career ideology formations can be measured in large populations--easily and reliably. This compact analysis augments the anecdotal and judgmental focus of much of the available literature, and permits rigorous tests of it (Mowday, Porter and Steers, 1982; London, 1990).

The present study included over 1,800 respondents and involved employees of a large aerospace engineering firm focusing on a cross section of lower organizational levels and narrow range of jobs (logistics, production, maintenance, and service) at dispersed locations nationwide. In several ways, the study was designed to test the stability of the pattern of correspondence of career ideological forces with organizational variables. Attention was directed toward: (1) identifying characteristics of the workforce, (2) analyzing three motivation dimensions regarded as sequential linkages to career formation, (3) defining successive stages of career commitment, and (4) testing staged combinations of the dimensions with factors often used to evaluate the quality of work organization.

BACKGROUND OF STUDY

Employee respondents for the study came from several functional areas and include four job classifications in a large (20,000 employees) Fortune 500 aerospace firm with ten locations nationwide. The corporation provides eighty percent of its products and services to government, commercial, and industrial customers under dynamic market conditions that can be competitively challenging and rewarding. The four job classes included:

Production workers (equally skilled, semiskilled, and unskilled) constituting 50 percent of the total responding population.
A cadre of logistics employees from one of the established position specializations (raw materials handling, supply and storage, transportation and shipment, distribution scheduling, and tools maintenance), constituting 25 percent.

Maintenance personnel (generally at equipment repairs, tools, supplies, and materials tasks) constituting 13 percent of the population.

Service employees in contact with suppliers, customers, contract agencies, production, maintenance, and operative personnel comprising 12 percent of the respondents.

With corporate human resources and plant management support, the organizational workforce of the design and assembly division of the firm provided voluntary responses to separate parallel survey instruments covering varying aspects of employee worklife. These aspects, identified as "covariants of motivation and commitment" included a set of sixteen variables to evaluate worksite quality. While these were intended to focus on the organization as a whole, analysis from the 23-item questionnaire at the end of this article was used to demonstrate that the sample was representative of a crescendo phase model.

The total population was 4,200, located at 20 sites nationwide, with plant manufacturing and assembly units having similar (not identical) production, scheduling, and cost containment roles. Although total N varied somewhat for different purposes due to item-wise adjustments made for missing data, N was never less than 1,800 for any analysis. The response rate averaged 50 percent, and comparisons of conventional demographics—age, sex, race, and so on—revealed that the responding workforce sample made up a reasonable analog of the total population. For example, women were only slightly (and nonsignificantly) under-represented in the responding sample containing 30.5% women and 69.5% men corresponding to total organizational percentages of 31.4 and 68.6, respectively. In all other demographics, the respondent to total population comparisons reflected similar closeness of fit.

MOTIVATION DIMENSIONS OF CAREER COMMITMENT

To assess employees' attachment to career goals and values and the formation of commitment within the overall organization context, the instrument included 23 items, which tap three motivation domains represented as subscales:

1. Identity, high scores on which distinguish individuals who tend to identify and define themselves in terms of their work. Individuals high in career identity are involved in their jobs and careers, seek upperward mobility, and do not wish to delay gratification in their development. Career identity reflects the direction of career goals--whether the individual wants to obtain a position of leadership, advance in the company, seek higher status, or, perhaps make more pay. This generalized value resulting from an internalized normative pressure is how central one's career is to one's identity. Individuals who are high on career identity are likely to find career satisfaction to be more important than satisfaction from other areas of life (primacy of work) (London and Mone, 1987).

2. Insight, high scores on which indicate respondents who are realistic about themselves and their careers as well as how well they relate these perceptions to their career goals. They see their own needs and capabilities and the organization career requirements as sufficiently related or similar that the possibility exists for a mutually rewarding employment relationship and providing path-goal clarity (Weiner, 1982; Allen and Meyer, 1990). In this case, because of path-goal clarity, self-objectivity, and goal flexibility, the individual finds it natural to deepen identity and sharpen understanding of and commitment to career. They look for feedback about how well they are doing, use this information to set specific career goals, and formulate plans to achieve their goals. Their sensory perception or career insight affects the degree to which they pursue their career goals.

3. Resilience, high scores on which are attitudinally related to the highest form of affective career commitment and come from individuals who are strongly attached to their career goals and values and to the organization and their career for its own sake, apart from purely instrumental work (Buchanan, 1974; Weiner, 1982). This is represented by an inherent willingness of individuals who have insightfully identified with their careers to make personal sacrifice, perform beyond normal expectations, work selflessly, and continue career contribution,

to endure difficult times, and not desire to leave the organization or their careers for self interest or personal noncareer gain. Resilience is the magnitude or extent to which the individual resists career barriers or disruptions affecting their work. People high in resilience have high self-efficacy, seeing themselves as competent people taking risks and responsibilities for their careers with low need for dependency and able to control what happens to them. Resilience, as a motivational domain, influences a person's persistence in pursuing career goals (London and Bassman, 1989).

To grasp the concept of resilience within the context of career commitment more clearly, an understanding of its opposite or, career vulnerability is useful. This is the extent of psychological fragility (e.g., becoming disaffected and finding it difficult to function) when confronted with adversity (barriers to goals, uncertainties, poor relations with supervisors and co-workers). Being high on career resilience and commitment does not mean that the person is insensitive to adverse conditions, but rather that he or she will be able to cope more effectively with a negative work situation. Individuals will be more resilient the higher they are on self-efficacy, risk-taking, and competitiveness dimensions and the lower they are on the dependency dimensions. Those low on career resilience and commitment (high on career vulnerability) are likely to be motivated to avoid risks, be dependent on others, seek structure, and avoid situations in which outcomes depend on their behavior. Those high on career resilience and commitment are likely to do the reverse--take risks, be independent of others, create their own structure, and seek responsibilities for outcomes contingent on their behavior.

Because of the focal firm's unique interests, data gathering was based on an exploratory study that generates its own items and the survey instrument was adapted from Weiner (1982) for identity, Allen and Meyer (1990) for career insight, and from Buchanan (1974) and London (1990) regarding career resilience.

Survey respondents received simple instructions: "Write one number in the blank to the left of each statement indicating the extent you agree or disagree with each statement."

Very Much Disagree   1   2   3   4   5   6   7   Very Much Agree

Low numbers describe statements with which you disagree.

High numbers describe statements with which you agree.

Factor analysis of the 23 items is shown in Table I, along with item numbers on the survey to reflect how subscale items are interspersed on the instrument. Table II shows item, subscale, and total alpha reliabilities. Information in these two tables suggest the usefulness of three factors--identity, insight, and career resilience--with acceptable reliabilities accounting for total intercorrelation in the data. The variable correlations of items with subscale scores (right column of Table II) suggest a major collective contribution of the three batches of items to the subscales.

Factor I (resilience) is loaded by four items from other subscales, but the other two factors (insight and identity) get loaded $\geq$ .30 only by items classified apriori within their respective subscale classification. The communalities, H^2, in Table I reflect the amount of each item's variance included in the factor analysis.

As the factor analysis suggests, the three subscales have moderate correlations, thus:

	Identity	Insight	Resilience
Identity	1.00	.31	.52
Insight		1.00	.29
Resilience			1.00

This pattern of correlations suggest that the three subscales make relatively independent contributions to defining the content of the psychology of attraction to affective career commitment.

Table I
Factor Structure For Career Motivation
(N = 1,839; Items = 23)

Subscale Items	Rotated Factor*				
	I	II	III	IV	H²
A Resilience					
1. Not Difficult to Function	.75			.60	.63
2. Persistence in Career	.82			.51	.61
3. Positive Self-Image	.84			.58	.61
9. Responsibility for Work Performance	.61			.48	.71
14. Outcomes Depend on Behavior	.59			.55	.46
15. Responsibility for Own Career Plan	.47			.36	.25
21. No Need for Approval	.66			.40	.46
B Insight					
5. Projects Affect Career		.41		.47	.22
8. Unwilling to Modify Career Goals		.52		.43	.27
10. Realistic Perceptions		.43		.41	.23
13. Using Information		.51		.38	.44
18. Awareness of Alternatives	.41	.48		.31	.40
19. Seek Information		.53		.41	.36
20. Accurate View of Strengths		.51		.38	.45
22. Decisive in Career Decision Making		.51		.37	.31
C Identity					
4. Career Satisfaction			.47	.37	.24
6. Identifying and Defining			.55	.40	.39
7. Involved in Work	.36		.44	.31	.30
11. Seeking to be Acknowledged	.45		.55	.35	.43
12. Need for Advancement	.53		.37	.32	.36
16. Identify With Specialization			.35	.31	.46
17. Unwilling to Wait			.36	.32	.20
23. Sacrifice Activities and Responsibilities			.34	.30	.23
Eigen Value	6.1	3.4	2.4	7.7	
% Common Variance	26.5	14.8	10.4	33.5	
% Cumulative Variance	26.5	41.3	51.7	33.5	

*Show only leading > .30

Table II
Reliabilities of Subscales and Total Scores

Career Motivation and Commitment Formation Subscale Items	Subscale Alpha Coefficient	Item Alpha Coefficient	Item/Subscale Correlation Corrected
A. Career Resilience	.84		
1. Not Difficult to Function		86	.70
2. Persistence in Career		.83	.67
3. Positive Self-Image		.83	.60
9. Responsibility for Work Performance		.80	.77
14. Outcomes Depend on Behavior		.80	.65
15. Responsibility for Own Career Plan		.85	.61
21. No Need for Approval		.82	.68
B. Career Insight	.74		
5. Projects Affect Career		.73	.32
8. Unwilling to Modify Career Goals		.68	.47
10. Realistic Perceptions		.71	.35
13. Using Information		.68	.48
18. Awareness of Alternatives		.67	.41
19. Seeking Information		.71	.43
20. Accurate View of Strengths		.70	.44
22. Decisiveness in Career Decision Making		.69	.37
C. Career Identity	.71		
4. Career Satisfaction		.70	.33
6. Identifying and Defining		.68	.46
7. Involved in Work		.66	.44
11. Seeking to be Acknowledged		.65	.48
12. Need for Advancement		.72	.54
16. Identify with Specialization		.70	.49
17. Unwilling to Wait		.67	.29
23. Sacrifice Activities and Responsibilities		.68	.28
D. TOTAL			
Career Ideology Score	.82		

Moreover, the model asserts a theoretical imperative that higher states of attraction to career motivation—which some observers, e.g., Mintzberg (1989), label "missionary" — derive from and transcend the dimensions of identity, insight, and resistence. A critical hypothesis is that the three dimensions or domains of motivation are indeed dimensions of a greater construct. To test this hypothesis, scores for respondents on all three dimensions were totaled and correlated with overall items. Results of factor analyzing all 23 items (forced) on only one scale "career commitment" on overall attraction to career ideology revealed an assuring pattern:

Career Commitment:	Loyalty	Value Congruence	Affective Commitment
Overall Ideology Attraction	.34	.38	.43

To support the notion that this pattern is not measuring three different constructs, column four of Table I shows that all of the 23 items load fairly well on only one factor— "career commitment"--and so are really part of the same construct.

Differential Prepotency and Valence

The contributors to phases of motivation to career commitment can be described as ranging in prepotency from identity to insight to career resilience; and increasing in valence (need strength) from low to high involvement which correspond to an increasing career commitment. Increases in identity represent the most commonly prepotent and least valenced initiators of the process. Indeed, some degree of identity--as in "willing to put forth effort beyond what is normally expected" or "sacrificing activities and responsibilities . . . by working overtime" seems useful for effective performance in many occupations. Beyond a point, however, indigenous identity, as a generalized sense of motivational definition and obligation, augments the possibility of a mutually rewarding understanding of self-objectivity and path-goal clarity (insight) and feelings of intense inspiration and persistence (resilience). Of substantial interest is the proposition that early identity coupled with social perceptiveness of sufficiently related insights becomes magnified by processes of socialization, and so facilitate even stronger identification, which in combination with a future time orientation, lead to resilience and career commitment.

Perhaps the classic case involves the skilled craftsperson assigned to a challenging position in a job class appropriate to previous trades training and requiring high participation. In episodic, regularly recurring contacts with similarly trained co-workers and supervisors, certain attitudes and beliefs appear increasingly common--an awareness of values that are embracing and enduring, involvement in a wide variety of tasks, distinct identity of members, significant purposes, familiarity with work outcomes, and so on (identity). With continued traditions and precedents, an increasing concern and satisfaction about shared goals and the ability to be a part of something highly important occurs. With repeated enactments of reinforcing meaningfulness, responsibility and knowledge of job results, social perceptiveness of path-goal clarity, self-objectivity, and realism of expectations build a momenta for future time orientation and value consensus (insight). As identity and insight mount, beyond a point, so can initiatives (self-esteem, adaptability, internal control) result in a cathexis surpassing an individual's normal inner work standards and development orientation limits and generate the inducement surplus implied by the bone deep belief of persistence (resilience) in pursuing career goals.

It is not intended to indicate there is one pathway to career commitment, but rather to suggest why differences in valence (increased need strength toward commitment) occur. While ordering the phases in terms of increased valence, the proposed model does not require that all individuals go through exactly the same phases. The phases represent progressively valenced effects, with a variety of specific pathways (for individuals), leading to career ideology orientation and commitment (of organizations).

Percentile rankings derived from the three sets of subscale scores from the employee population of over 1,800 provided an empirically based estimate of high vs. low. The distribution of raw scores by percentiles yielded three cutting-points for high scores, or those greater than the median: 24 for identity, 32 for insight, and 28 for resilience. The use of the median percentile rankings was not taken simply to establish convenient cut-off points. Identification and development of these cut-offs were adopted from the examination for construct validity taken from Vaserhelyi (1977). Using these cut-offs, an 8-phase model of progressive career organization ideology was generated. High scores on career resilience are considered most highly valenced; high scores on career insight are more valenced than high scores on career identity. Basically, these cut-offs provide a ready interpretation for why employees can easily become indoctrinated and often become dedicated to a degree approaching complete commitment. Low to moderate identity will lead only to indifferent compliance, without strong need for recognition or advancement. Heightened identity, however, will result in increased sense of work involvement, identification with organization goals and path-goal congruence leading in turn to higher degrees of commitment implying surpluses beyond those associated with mere dependable role compliance. The focus on phases derives from the high vs. low

distinctions on three propensities to career commitment subscales. That is, eight combinations logically emerge from three subscales, each distinguished as two (high versus low) categories. Table III defines the phases in terms of this analysis and shows the distribution of assignments in the current study employee population.

COVARIANTS OF ORGANIZATION IDEOLOGY AND COMMITMENT PHASES

Judging from the literature on ideological organization, its covariants include a broad and enriched range of characteristics (Mintzberg, 1989). To illustrate, Schein (1991) associated formation of ideology and "strong culture" with a substantial catalog of effects which favorably compliment improvements in the quality of work life or commitment by those experiencing strong attraction to organization ideology: Higher productivity and performance, increased motivation and morale, reduced absenteeism and turnover, along with various self-reported indices of cooperation, including security, initiative, unambivalence, involvement, proaction, and affection. This central characterization suggests a convenient test of the progressive valence of the phases. Consequently, the quality of work life should co-vary regularly with the phases of valence (career motivation), if those phases represent conditions of increasingly ideological career commitment. To assess such concurrent validity, a three-stage effort was made to: (1) identify a set of variables commonly used to evaluate worksite quality, (2) extrapolate predictions concerning the expected relationships of these variables with phases of commitment, and (3) test these likely covariants to see if the phases of commitment "map" on them in expected ways.

Covariants were comprised of assorted measures, of which six should increase as ideological organization and career commitment progresses through the several phases:

Trust in supervision (Roberts and O''Reilly, 1974).

Trust in employment practices (constructed for present study).

Job involvement (White and Ruh, 1973).

Participation in decisions regarding work (White and Ruh, 1973).

Willingness to disagree with supervisor (Patchen, 1965).

Job tension, an additional scale which should decrease with advancing phases (Kahn, et al., 1965).

Table III
High versus Low Career Motivation to Define Phases of Commitment

Ideology Subscales	Phases of Commitment							
Prepotency	I	II	III	IV	V	VI	VII	VIII
Identity	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi
Insight	Lo	Lo	Hi	Hi	Lo	Lo	Hi	Hi
Resilience	Lo	Lo	Lo	Lo	Hi	Hi	Hi	Hi

	Low			Valence			High	
Assignments (N = 1,839)	390	145	231	162	145	214	147	405

Interpretation

Prepotency ranges from Identity to Insight to Resilience in the formation of career commitment.

Valence ascends from Phase I (Low) to Phase VIII (High) for stages provisionally defined as:

CAREER		OVERLAPPING MOTIVATION RANGE		
Phase	Meaning	Identity	Insight	Resilience
I	Awareness			
II	Concern			
III	Experimentation			
IV	Options/Alternatives			
V	Partial Acceptance			
VI	Momenta			
VII	Convergence/Congruence			
VIII	Affective Reinforcement			

Job Diagnostic Survey (JDS), which measures satisfaction with ten facets of work (Hackman and Oldham, 1980) all of which should increase as ideological organization and career commitment increases. Facets of satisfaction include:

1.	Meaningfulness of work	6.	Growth satisfaction
2.	Responsibility for work	7.	Job security
3.	Knowledge of results	8.	Compensation
4.	General satisfaction	9.	Co-workers
5.	Work motivation	10.	Supervision

Table IV shows analysis of these results with an average alpha approximating .80 with reliability coefficients for only two of the 16 variables falling below .70 (responsibility for work and work motivation). The conceptual frameworks underlying the assorted scales are general and substantiated by considerably convincing justification (Hackman and Oldham, 1980). Consider, for example, job tension, which taps several important classes of alienation or dissatisfaction—e.g., those related to role conflict and ambiguity—that impact on career commitment phases, more or less directly.

Data from the workforce population permitted testing for the covariants of progressive phases of commitment and the results appearing in Tables IV-VI support the general usefulness of the crescendo phase model. On balance, about 18 percent of the variance in commitment phases x worksite descriptors is explained. For comparative purposes, simple correlations were run between worksite descriptors and four phase model scores—the three subscale scores and phase model total. On average, these 64 correlations explain 13 percent of the variance and this result reinforces the usefulness of the phase approach, which at once derives from the three subscales and yet transcends them.

Phases I and VIII have the lowest and highest scores on the subscales, but the 6 interior phases have total scores that do not vary directly with the phases. Tables IV and V showing paired comparisons of variables x phases support the overall summary that phase by phase, analyses of all possible comparisons indicate that: (1) over 90 percent of the differences (404/448) are in the expected directions, (2) over 55 percent of the expected differences (248/448) attain statistical significance, and (3) only 2 differences of 448 are in an unexpected direction and statistically significant. The paired comparisons utilized the least difference test, modified for unequal subpopulations. A conclusion flows easily--phases of commitment reflect regular and robust co-variation with the panel of descriptive reports about the image and quality of worksites.

Additionally, the data suggest most or all the phases discretely map significant differences on target variables. Of course, the significant paired comparisons suggest this conclusion, but focusing on "distance" between phases highlights the point. Thus, Phases I vs. II, II vs. III, and so on, may be considered a distance of +1; Phases I and III, III and V, and so on, are +2; etc. Large proportions of expected and statistically significant differences shown in Table VI are evenly distributed among seven possible "distances" which support the utility of the full 8-phase model.

These data demonstrate that adjacent as well as distant phases tend to map discrete segments of the ranges of target variables. This holds most clearly for the five most distant pairs of phases, where over three-fourths of the paired differences are in the expected direction and attain statistical significance. Moreover, even distances of +2 and +1 generate 41 and 20 percent records in this regard. This suggests that even very close neighbors reflect substantial discriminatory power of the phases, given that a record of one in five statistically significant pairs conventionally signals noteworthy covariation.

In sum, data in Table VI significantly demonstrate the usefulness of all the phases. Phases I and VIII reflect the lowest and highest total scores and hence, +7 results can be interpreted as a total score effect. But phases of more proximate distance can have significantly different total scores and map on target variables in quite regular and robust ways.

Table V

Statistical Significance of Paire-Comparisons of Commitment Phases X Target Variables†

	I vs II	I vs III	I vs IV	I vs V	I vs VI	I vs VII	I vs VIII	II vs III	II vs IV	II vs V	II vs VI	II vs VII	II vs VIII	III vs IV	III vs V	III vs VI	III vs VII	III vs VIII	IV vs V	IV vs VI	IV vs VII	IV vs VIII	V vs VI	V vs VII	V vs VIII	VI vs VII	VI vs VIII	VII vs VIII
Assorted Scales																												
Participation	X	X	X	X	X	X	X			X		X	X				X	X				X		X	X	X	X	
Job Involvement		X	X	X	X	X	X	X	X	X		X	X				X	X		X		X	X	X	X	X	X	
Trust in Supervisor			X		X	X	X				X	X	X	X			X	X				X	X	X				
Trust in Employees	X	X	X	X	X	X	X			X	X	X	X	X			X	X		X	X	X		X	X	X	X	
Willingness to Disagree										X					X	X												
Job Tension	X	X	X	X	X	X	X			X	X	X	X	X	X		X	X		X	X	X		X				
Job Diagnostic Survey (JDS)																												
Meaningfulness of Work	X	X	X	X	X	X	X			X	X	X	X	X			X	X				X		X	X	X	X	
Responsibility for Results	X	X	X	X	X	X	X			X	X	X	X	X	X		X	X				X		X	X	X	X	
Knowledge of Results	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X	X				X		X	X			X
General Satisfaction	X	X	X	X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
Internal Work Motivation	X	X	X		X	X	X					X	X	X			X	X	X		X	X		X	X	X	X	
Growth Satisfaction		X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X		X	X	X		X	X	X	X	
Satisfaction with Security		X	X	X	X	X	X			X	X	X	X	X			X	X	X	X	X	X	X	X		X	X	
Satisfaction with Com-		X	X	X	X	X	X		X	X	X	X	X	X	X		X	X						X				
Satisfaction with Co-	X	X	X	X	X	X	X			X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X
Satisfaction with Super		X	X	X	X	X	X			X	X	X	X	X			X	X		X	X		X	X	X			

† X indicates a paired-comparison of differences on a variable that attains or surpasses the .05 level, based on the least significance test, as modified for unequal size of subpopulation.

Table IV
Covariation of Phases of Commitment and Target Variables Via One-Way Analysis of Variance
Progressive Phases of Commitment

WORKSITE DESCRIPTORS	Scores	I LoLoLo (390)	II HiLoLo (145)	III LoHiLo (231)	IV HiHiLo (162)	V LoLoHi (145)	VI HiLoHi (214)	VII LoHiHi (147)	VIII HiHiHi (405)	F-Ratio	F-Probability
ASSORTED SCALES											
Participation	.78	13.0	13.5	14.9	16.2	14.9	15.2	16.3	17.8	46.793	< .001
Job Involvement	.85	24.7	25.4	29.8	30.9	29.7	31.8	32.9	34.7	72.227	< .001
Trust in Supervision	.78	12.2	12.2	12.7	14.6	13.1	15.1	14.4	15.9	23.196	< .001
Trust in Employees	.78	14.7	15.0	16.1	17.4	17.0	17.6	17.8	19.6	32.726	< .001
Willingness to Disagree with Supervision	.79	14.9	15.0	15.3	16.4	14.6	13.7	15.6	14.6	2.996	< .01
Job Tension	.86	23.4	22.9	22.0	21.0	19.5	18.2	17.0	16.1	49.240	< .001
JOB DIAGNOSTIC SURVEY (JDS) SCALES											
Meaningfulness of Work	.81	16.4	17.7	19.5	20.1	19.4	20.9	21.4	23.2	64.940	< .001
Responsibility for Results	.67	29.0	30.3	31.9	33.6	32.1	33.4	34.6	36.4	51.462	< .001
Knowledge of Results	.71	18.9	20.3	19.8	21.2	20.4	21.9	21.5	23.0	32.840	< .001
General Satisfaction	.81	19.2	19.9	22.2	23.1	24.2	26.0	26.5	28.4	97.183	< .001
Internal Work Motivation	.67	29.9	31.1	32.9	34.4	31.9	33.2	33.7	35.7	37.987	< .001
Growth Satisfaction	.85	15.3	16.4	18.6	20.0	19.3	20.7	21.5	23.1	73.738	< .001
Satisfaction with Security	.77	8.6	9.1	9.3	9.7	10.3	10.7	10.9	11.5	21.085	< .001
Satisfaction with Compensation	.87	8.2	8.6	8.4	8.7	8.7	10.2	10.1	10.5	18.987	< .001
Satisfaction with Co-Workers	.76	13.9	15.5	16.0	17.6	15.9	17.9	18.0	18.8	76.314	< .001
Satisfaction with Supervision	.80	12.2	12.5	13.5	14.7	14.1	15.9	15.7	17.1	38.385	< .001

Table VI

Four Measures of Covariation of Target Variables, by "Distance" Between Pairs of Phases, Percent, and Absolute Number of Observations
(In Parentheses)

	Total in Percent	+7	+6	+5	+4	+3	+2	+1
Expected Direction	90.2	94% (15/16)	97% (31/32)	96% (46/48)	98% (63/64)	95% (76/80)	90% (86/96)	78% (87/112)
Expected Direction and Statistical Significance	55.1	94% (15/16)	94% (30/32)	92% (44/48)	78% (50/64)	58% (46/80)	41% (39/96)	20% (23/112)
Unexpected Direction	9.4	6% (1/16)	3% (1/32)	2% (1/48)	3% (2/64)	5% (4/80)	9% (9/96)	21% (23/112)
Unexpected Direction and Statistical Significance	0.5	0%	0%	2% (1/48)	0%	0%	0%	1% (1/112)

Table VII
Factors in Panel of 16 Target Variables, by Varimax Rotation
Factors Suggesting Differences in Worksite Descriptors

	I. High Energy, Positive Job Factors, Peer-Oriented	II. High Trust, upervisor-Oriented, ension-Avoiding	III. Low Energy, eer-Oriented, Restricted Upward Feedback	H^2
Assorted Scales				
Participation	.49	.48		.52
Job Involvement	.71			.63
Trust in Supervision		.79		.71
Trust in Employees	.40	.67		.62
Willingness to Disagree with Supervisor			-.36	.22
Job Tension		-.55		.43
JDS Scales				
Meaningfulness of Work	.83			.72
Responsibility for Results	.73			.60
Knowledge of Results	.42			.33
General Satisfaction	.75	.37		.72
Internal Work Motivation	.66			.48
Growth Satisfaction		.44		.76
Satisfaction with Security		.43		.27
Satisfaction with Compensation		.45		.39
Satisfaction with Co-Workers	.67		.35	.56
Satisfaction with Supervision		.82		.77
Eigen Value (unrotated)	7.5	1.5	1.1	
Percent Common Variance	46.7	9.4	6.9	
Percent Cumulative Variance	46.7	56.1	63.0	

*Shows only loadings ≥ .35

Finally, the 16 target variables do not merely measure the same domain multiple ways. Varimax rotation factor analysis in Table VII reveals three domains which are provisionally labeled. One factor accounts for over 45 percent of the common variance to which the other two factors add some 16 percent. Cross loadings in the factors exist, but the convention of reporting only loadings $\geq$ .35 highlights some differentiating tendencies. The first two factors suggest high energy and the second factor seems distinguished by its focus on supervisory versus peer level (peer orientation more common for factors I and II), as well as by lesser emphasis on job contributors to satisfaction. Moreover, the third factor seems characterized by low energy and peer defensiveness. This multidimensionality of the target variables reinforces the pattern of covariation discussed above, although not robustly.

CONCLUSION: PROGRAMMATIC RESEARCH DIRECTIONS

These results support four future initiatives. First, the data reveal a regular and robust covariation between the commitment phases and 16 common indicators of the quality of working sites. This clearly supports the usefulness of the phase approach, but the search for covariants should be extended to nonreactive and unobtrusive measures of individual and organizational behaviors.

Second, the incidence of career commitment phases among an organizational workforce requires attention for both human resource and cultural socialization reasons, the former if only because screening and selection surveys for workers' training and aptitude potential due to values orientation (before undertaking expensive staffing programs) is de rigueur. Consider data from two organizations: The present focal study firm, (A), which is generally considered a moderately favorable place to work and a voluntary nurses association health services concern, (B), that is in most respects throughly modern, considered highly missionary, and human resources-oriented. Even the "missionary" organization faces a substantial challenge, to judge from the following distribution of employees by phases of career commitment:

PHASES OF ASSIGNMENTS BY PERCENTAGES

Organization	I	II	III	IV	V	VI	VII	VIII
A	21.2	7.9	12.6	8.8	7.9	11.6	8.0	22.0
B	10.9	10.6	7.7	4.7	13.9	9.1	7.3	35.8

Third, more information is needed about the locus of motivation and its connection to career formation and organization. The evidence, far from conclusive, suggests that most of the variance in commitment is accounted for by properties of precedent, tradition, and reinforcements of the immediate work unit and not by the overall organization or original career itself (Ouchi, 1980; Meyer, 1989).

Fourth, there may well be several types of commitment, even if features of the immediate work group and its style of control prove dominant. Progressively *evoked* seems to describe the dominant type of motivation to career ideology measured by the phases, given not only the strong associations with worksite descriptors, but also taking into account the substantial persistence of phase assignments observed in the study over a year's interval. But, precipitous, or *natural* onset also no doubt exists and advanced and heightened bonding with career ideology might be induced by sudden critical identity enhancing events.

This core notion might develop in several ways. Although available data imply that Phase I-VIII can be considered progressively valenced, for example, this does not imply that a phase-by-phase entrance to, or exit from, advanced commitment always occurs. Powerful internalization might induce an acute "natural" progression of phases: I→VI→VIII, for example. One also can envision a basic pathway for "evoked" commitment due to gradually accumulating and indoctrinating involvement at work: I→II→IV→VII→VIII.

Finally, it is pure folly to assume that career forming motivations are based simply on expected economic gains; much deeper values arc at stake:

> When the informal processes of socialization tend to function naturally; perhaps reinforced by more formal programs of indoctrination, then the ideology would seem to be strong. But when the organization is forced to rely almost exclusively on forms of calculated identification, then its ideology would appear to be weakening, if not absent to begin with (Mintzberg, 1989).

This conclusion that deeper values than money are at stake best illustrates how combinations of affecting factors of identity and shared insights among employee members echoes the same sentiment: The perceived instrumentality of participation, involvement, and commitment to career ideology truly promises that workers will understand an organization's mission, philosophy, and policy and will be able to deduce or derive for themselves the proper objective for any conceivable situation.

For Human Resources and career development strategists, employees' belief that intervention (career planning workshops, etc.) will yield positive rather than negative outcomes for them allows planners to predict, with incredibly high accuracy, the

readiness and receptivity of organizations to new initiatives in organization change. In a sense, career commitment works like the basic postulates of an axiomatic system. They are the fundamental assumptions on which reasoning and sense making are logically derived, but in themselves are not logical. The real test of their worth is not their reasoning or logic, but the usefulness of the thinking and action that ensues. In strong career oriented cultures, everyone knows the importance of shared values and compelling commitment. It is the ideological drive for accomplishment pulling the organization together; providing continuity in what would otherwise be an autochthonous field of organization dynamics.

This line of research suggests, however, that strong cultures of career commitment are not to be found in many, or even most organizations. And, while earlier studies (Ouchi, 1978) have shown they are evident in most of the superior performers, all is not rosy in the world of culture either. As one observer has exclaimed, "A corporation doesn't have a culture. A corporation is a culture. That's why they're so horribly difficult to change" (Kiechel, 1984). In established organizations, career ideologies are difficult to build and sustain, and can sometimes get in the way of organization effectiveness. Whereas strong career cultures promote change within themselves and become immutable, by forcing everyone to act within the same set of circumscribed beliefs, they themselves are not to be changed. Career commitment thus becomes an obstacle to change, and the very ideology of identity, insight, resilience, and positive affect that makes careers attractive and an organization so adaptive within its culture undermines its efforts to move to a new context.

The phase model approach to assessing processes of career formation promises to provide a useful organon or model for further understanding just how commitment serving to reconcile contradictory forces and promote change can paradoxically discourage, or even destroy it. The phase-wise analysis suggests that effective career ideologies are generated gradually and incrementally by patient leaders capable of establishing compelling career missions for their organizations, manage the paradoxes inherent in them, and are deeply committed to the people's careers who perform them.

The phase model also suggests a call for career vision in managing organization mission. Successful corporate strategies are almost invariably guided by powerful corporate visions and realistic assessments of the company's commitment and capability to attain them. Establishing this vision imposes great demands on leadership, but meeting the demands can produce a corporate renaissance. Paradoxically, the more people understand about career limits of commitment, the more they seem to expand the limits of careers. Such has certainly occurred in some organizations adopting the notion—"There is absolutely no limit to career quality"—as their credo for development. Such an expansion may provide the most effective way for a company to sustain itself and prosper in the future.

MANAGER APPLICATIONS: INTERVENTION STRATEGIES

Several active, organizational, and self-help strategies should be proposed to facilitate employee motivation to career development. If management wants to make careers more attractive to employees, it must consider making work conditions more satisfying. Management and human resources can enhance the progressive level of motivation by: (1) self-analysis and evaluation of commitment level; (2) greater participation, involvement, and commitment in selecting and achieving work goals; (3) originating and reinforcing positive work attitudes; (4) maintaining a "sense-making" morality of work and organizational culture; (5) providing realistic communications that create expectations that will be fulfilled; (6) designing jobs with variety, identity, significance, autonomy, and feedback which fully utilize and develop skills, knowledge, and abilities of employees; (7) structuring the social psychology of organization culture and work roles to satisfy employee personalities, interests, and preferences; (8) facilitating and effecting personnel actions that tell employees management's priority to operate through and with employees and that the organization is committed to treating employees with trust, open-mindedness, confidence, and respect; and (9) developing leadership, motivation, and communication encouraging Pygmalion-like practices of supervision (Hackman, 1980; Roberts, 1974).

Employees sometimes respond to low identity and lack of career insight with both upper managers and supervisors by neurotic behavior. They decide, in effect, that as long as they are going to be alienated and estranged in their disaffected work roles, they might as well withdraw and apathetically blame others for their indifference. Unfortunately, passive withdrawal does not treat motivation toward career adequately. Quite the opposite; one successful mode of intervention requires that employees selectively interact and spend more quality time with key supervisors and fellow employees to become aware of problems and cope with feelings (Rand, 1980).

Another effective strategy for heightening career attraction among employees is developing a social support system. Social support is defined as "the degree to which a person's basic social needs are gratified through unconditional acceptance by a group and belongingness with others" (Kaplan, 1987). An employee social support system serves several specific functions. These include having co-workers available to: (1) listen actively to problems; (2) provide rewarding appreciation for skills and abilities; (3) serve as a basis for continuing socialization and education; (4) provide emotional support as well as a knowledgeable referent; and (5) facilitate testing social organization reality (Guzzo, 1985; Gorlin, 1984).

Whether in solo, assembly, or group/project operations, it is relatively easy for employees to become career isolated. This can lead to the individual employee feeling alone with his or her work problems. It cannot be over-emphasized that employees must learn to extend help to each other and to be more career supportive of their fellow co-workers (Pascale, 1988).

One advantage should be suggested to organizations seeking to increase commitment momentum through a career support mechanism. If a number of employees are experiencing strong satisfaction and fulfillment at the same time, they may reinforce their positive attitudes and behaviors. The net effect would be to increase the intensity of attraction for those involved (Schuler, 1982). Research findings extol the virtues of employees sharing and reinforcing their collective recognition and achievement by exchanging unremitting "tales of triumph and prophecies of promise!" (Jackson, 1987).

Finally, it appears that the intensity of a "reengineering" campaign (and such campaigns are escalating in popularity) does not sway employee predispositions to identity or insight one way or the other. Since employees' motivations toward their careers, in general, are quite stable and well formed, their orientations tend not to be influenced much by campaign slogans and "quick-fix" tactics (Getman, Goldberg, and Herman, 1986). Managers may simply fail to recognize the signs and symptoms of serious identity and insight problems early enough to make the appropriate form of intervention needed (Kotlowitz, 1987; Janus, 1982). The following symptoms are considered significant: (1) disaffection; (2) powerlessness; (3) meaninglessness; (4) normlessness; (5) social isolation; (6) value isolation; (7) self and/or work group estrangement; (8) disciplinary and grievance difficulties; (9) blaming others; (10) subgoal formation; (11) lack of awareness of real common problems; (12) acting contrary to data, information, and company policies and actions; (13) displaying extreme displeasure with trifling circumstances; and (14) behaving differently outside of work organization. Organizational diagnosis and action interventions should not be confused with unfair practices of interference. Although employers may not directly ask employees what they think and feel about organization career vs. other central life interests (e.g., family or union), they can ask how satisfied they are with work and other conditions; and how much "say so" they have in confronting important problems (Kochan, 1979; Patchen, 1965).

AFFECTIVE CAREER COMMITMENT: DECISION AND NOT FEELING

On the long, difficult, and complex train of box car jobs in life, affective feeling of emotion is only the caboose, the engine is the decision of commitment. Consider the wedding vow " . . . will be your husband/wife as long as I love you" versus "will be your husband/wife until death us do part." The former affect is feeble, fickle, fragile, and unstable. The latter cognition is stable, enduring, anchored in concrete conviction of decision. Thus, commitment is a choice decision, not a feeling.

Now imagine a parent saying, "I will be your mother/father as long as I love you." Less ephemeral and more inspiring is, "I am your parent always and the only parent you will ever have." In both institutions of marriage and family, feeling is subordinate to the

Now imagine a parent saying, "I will be your mother/father as long as I love you." Less ephemeral and more inspiring is, "I am your parent always and the only parent you will ever have." In both institutions of marriage and family, feeling is subordinate to the dominance of decision and affective commitment is the unfailing action. So it is that commitment as a value involved in affective career commitment, like that of family and marriage, is a choice and not a feeling. Career commitment is a verb!

SUMMARY CONCEPT

Patterns of attraction toward career commitment are perhaps more common than generally accepted at the organizational level. Fortunately, the effects are very discernible and real. This approach has emphasized adapting a survey inventory for the employee work role to facilitate recognition of early signs of the attraction to affective career motivation profile as a special subset of the formation of strong career ideology and commitment. Utilizing this knowledge, it is hoped that individual managers in human resource programs will find it easier to develop strategies to examine and monitor this evolutionary phased and progressively patterned linkage impacting the quality of work organization.

The method presented is a tool that will permit Human Resource managers and professionals to make first order assessments of quality of work life to discover which personnel and/or jobs are most strongly bonded to career organization and which are the most likely candidates for intervention and revitalization. It is a tool that managers will find familiar in general design, for it is squarely based on individual self-analysis and intuitive processes, that ultimately are among the most critical to human resource effectiveness. It is intended that articulation and self-discovery of the subtle human ways in which employees have unconsciously become socialized into the career culture will make a mystifying situation not magic, but manageable and improvable.

SURVEY QUESTIONNAIRE

Write one number in the blank to the left of each statement indicating the extent you agree or disagree with each statement.

VERY MUCH								VERY MUCH
DISAGREE	1	2	3	4	5	6	7	AGREE

Low numbers describe statements with which you disagree.   High numbers describe statements with which you agree.

_____ 1. Confronted with unfavorable conditions, I do not become upset or find it difficult to function.

_____ 2. Persistence in pursuing career goals is more critical than resisting barriers or disruptions affecting my work.

_____ 3. In order to see myself in a positive self-image, I need to be a competent person able to control what happens to me.

_____ 4. Career satisfaction is more important to me than satisfaction from other areas of life.

_____ 5. In order to work toward future goals, I work harder on projects that will affect my career than on routine tasks.

_____ 6. Identifying and defining myself in terms of my work, I am willing to give up something of value for my career.

_____ 7. Highly involved in my work, I put forth effort beyond what is normally expected in order to further my career.

_____ 8. Comparing my current career with opportunities for new and different career experiences, I am unwilling to modify or alter my present career goals.

_____ 9. Under uncertain, unstructured situations, gaining responsibility for work performance is more important to me than secure employment.

_____ 10. I am realistic about myself and the organization and can relate these perceptions to career goals.

_____ 11. Seeking to be appreciatively acknowledged, I volunteer for important assignments and report results to higher managers.

_____ 12. I have a need for advancement and seek important rewards by striving for achievement.

_____ 13. Using information about how well I am doing, I formulate plans to achieve specific career goals.

_____ 14. Without fear of living up to mine or others' expectations, I do not avoid situations in which outcomes depend on my behavior.

_____ 15. I take responsibility for my own career plan by taking on jobs and assignments for which rewards are based on competition.

_____ 16. I identify more strongly with my area of specialization than as an employee of the organization.

_____ 17. Having met time and experience requirements for rewards, I am unwilling to wait for promotion, pay increases, and other opportunities.

_____ 18. My awareness of career alternatives has helped to clarify my career goals and means for achieving them.

_____ 19. Being sensitive to factors affecting career progress, I seek information and contacts to alter my behavior to the situation.

_____ 20. Having an accurate view of my strengths, weaknesses, and motives helps me to have realistic expectations for career outcomes.

_____ 21. I do not try to impress supervisors or co-workers by being influenced by them and have no need for supervisor or peer approval.

_____ 22. Being thorough and decisive in career decision making, I have not regretted my decisions after they were made.

_____ 23. I sacrifice activities and responsibilities, including time with family, by working overtime for my career.

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