

**3****Achieving Styles  
in Men and Women:  
A Model, an Instrument,  
and Some Findings****Jean Lipman-Blumen***University of Maryland***Alice Handley-Isaksen****Harold J. Leavitt***Stanford University*

## EDITOR'S OVERVIEW

In previous chapters, the authors have focused on psychological models that describe the nature and intensity of individuals' achievement-related motives and the expectations and values they bring to particular types of tasks and that relate these psychological characteristics to such behaviors as task persistence, task choice, and quality of task performance. The authors of this chapter, Jean Lipman-Blumen, Alice Handley-Isaksen, and Harold J. Leavitt, note that these and other well-known psychological approaches fail to specify the means that individuals prefer to use in their attempts to realize their achievement goals, or, as they have labeled these characteristic strategies, individuals' *achieving styles*. They present a conceptual model in which achieving styles are divided into three domains: direct, instrumental, and relational—each with three substyles.

Individuals using a *direct* achievement style are described as confronting tasks directly and achieving through their own efforts. Within the direct domain is the *intrinsic* substyle, in which the individual pits himself or herself against an impersonal standard of performance excellence; the *competitive* substyle, in which the individual's goal is to best others; and the *power* substyle, in which the individual assumes leadership and controls others as a means to accomplish achievement goals.

The *instrumental* style refers to the use of the self or others as the means to goals. Within the instrumental domain, individuals who trade on their status, influence, reputation, and other social and personal characteristics to reach their goals are described as employing a *personal* substyle. Those who use relationships with other individuals (such as cultivating friendships and developing networks of associates) to accomplish their goals are described as employing a *social* substyle. Individuals who lack faith in their own efficacy and depend on others for direction and help are described as using a *reliant* substyle.

The third, *relational* style stands in contrast to the direct style, referring to the individual's preference for achieving through

contributing actively or passively to the accomplishment of another. Thus, individuals employing the *collaborative* substyle prefer group efforts to individual ones, but contribute actively to the achievement of group goals and expect to accept their share of both responsibility and credit for the group's accomplishments. Those using a *contributory* substyle prefer a more secondary role, meeting their achievement needs by facilitating and helping other achievers. And, finally, the *vicarious* substyle is employed by those who are content to identify with achieving others and to satisfy their own needs by sharing in their success.

The nine substyles have varying degrees of compatibility or correlation with each other, the authors proposing that a circular conceptual representation best describes the relationships among them. Although the authors suggest that most individuals primarily employ one or two adjacent substyles, they also propose that individuals differ both in the range of the nine substyles they are comfortable in using and in the flexibility of their stylistic behavior, i.e., their capacity to vary their behavior according to situational demands.

As the flexibility notion implies, the characteristics of the setting in which individuals manifest or attempt to realize their achievement goals—that is, the particular role or position they occupy—can be expected to be related to the achieving styles that individuals exhibit. Role requirements differ, tolerating or encouraging and rewarding some of the achieving styles described by the authors and discouraging others. The conceptual model proposed by the authors, considered in conjunction with the approach they have taken to the validation of their model and their operational measures, thus appears to have elements of both a personality theory and a role theory, particularly of occupational roles, though closer to the former. They suggest that achieving styles are behavioral tendencies acquired relatively early in life; as such, they could be expected to be coordinated with or consequences of achievement-related traits. Indeed, as the authors

imply in their literature review, there are several correspondences between their achieving styles and achievement-related motives proposed by personality theorists. This is most conspicuous in the case of the instrumental domain, the intrinsic and competitive orientations having obvious parallels with the mastery and competitive motives of Spence and Helmreich (Chapter 1, this volume) and the power orientation having parallels with such notions as dominance and the power motive. To the extent that temporally stable dispositions are involved, individuals' preferred styles could be expected to be related to their role choices (e.g., occupation) and their successes within these roles. At the same time, individuals can be expected to mold their behaviors to the requirements of their role and to become adept at new styles as opportunities present themselves. Changes in achieving styles are most obvious in instances in which individuals climb within an occupational hierarchy, e.g., rise from junior executive (with low status, limited responsibility, and few subordinates) to company president. Individuals' preferred styles at any given time may thus represent an amalgam of stable behavior dispositions and the particular strategies they have found to be effective in their current role. Useful insights may be provided by examining the profiles of styles employed by successful individuals in various occupations or occupational strata.

The bulk of this chapter is devoted to describing the psychometric properties of the self-report instrument the authors currently use to measure achieving styles and their initial attempts to validate their instrument and the conceptual model on which it is based. Although the results of their analyses suggest to the authors that further work is needed to perfect several of their scales, the data confirm the overall outlines of their conceptual model and its implications for the achievement-related strategies of various groups.

**T**he long tradition of achievement research has emphasized the motive to achieve. In contrast, the focus of the research reported in this chapter is on the achieving process—on the characteristic ways people go about reaching whatever goals they seek to achieve. This orientation toward implementation, toward action, seems to us both a neglected and an extremely important issue in human affairs. The styles that people use in their efforts to achieve whatever they want, we propose, are reasonably stable descriptors of those individuals. In addition, such achieving styles represent important aspects of both their roles and the socialization that they have undergone. These styles are probably significant contributors to success in human striving.

Such achieving behavior (as distinct from achievement *per se*) has been largely ignored for understandable reasons. This is not the first time in the history of social science that an ingenious conceptualization of a phenomenon has determined the direction of scientific investigation for a very long time. Such a formulation is like a spotlight illuminating a conceptual space previously unnoticed. Two general consequences commonly ensue: (1) the newly defined conceptual space is intensely explored, spawning many efforts to support or refute the concept's formulation; and (2) at least for a time, other possible formulations are almost totally neglected.

In the field of achievement research, the important work of McClelland, Atkinson, and their colleagues (1953, 1955) had such an effect for several decades. Their conceptualization of achievement motivation and its projective measurement by Murray's Thematic Apperception Test (TAT) sparked countless research efforts, providing important insights into one critical dimension of the achievement puzzle (Atkinson, 1958a, 1958b, 1960; Atkinson and Feather, 1966; French, 1955, 1958; Jones, 1961; Veroff, Atkinson, Feld, and Gurin,

---

Much of the work reported in this paper was conducted while Jean Lipman-Blumen was a Fellow at the Center for Advanced Study in the Behavioral Sciences, Palo Alto, California, and was partially funded under a grant from the National Endowment for the Humanities and the Spencer Foundation. The contribution of Alice Handley-Isaksen was supported by a National Research Service Award (NIMH Grant 5T32 MH15149). This research program has been helped enormously by our ongoing research group at the Graduate School of Business, Stanford University, whose members have included Roger Awad, Robert Bies, Inez Brunner, Jeffrey Feinberg, Joan Kofodimos, Ellen Mandinach, Kerry Patterson, Edward Reynolds, Nancy Roberts, Nancy Sherman, and by Kathy Bostick's administrative assistance.

1960; Weiner, 1966). In the process, however, the boundaries of achievement research were rather narrowly delineated.

This constriction now appears to have been dysfunctional in at least four ways:

1. As Veroff, McClelland, and Ruhland (1975) have noted, achievement motivation per se is a significantly more differentiated phenomenon than the original conceptualization suggested. The part has been taken for the whole.

2. The conceptualization and measurement of achievement motivation in the McClelland–Atkinson tradition never accounted satisfactorily for the behavior of more than half of the general population: the female half. Its failure to explain female data (McClelland, Atkinson, Clark, and Lowell, 1953) first led to various efforts to specify conditions under which it might do so (Alper and Greenberger, 1967; Angelini, 1955; Crandall, 1969; French and Lesser, 1964; Heilbrun, 1963; Lesser, 1973; Lesser, Krawitz, and Packard, 1963). Failing any widely confirmed results, Horner's work, following in the McClelland tradition, then stimulated nearly a decade of research on women's "fear of success" (Alper, 1973, 1974; Fleming, 1977; Frieze, 1975; Hoffman, 1974; Levine and Crumrine, 1975; Lockheed, 1975; Mednick and Puryear, 1976; Tresemer, 1974, 1976). This "motive to avoid success," popularized as the "fear of success," dominated much of the achievement research in the 1970s, leading to diverse and inconclusive findings (Levine and Crumrine, 1975; Tresemer, 1974, 1976).

3. The McClelland–Atkinson tradition of achievement research focused almost exclusively on motives, and, hence, on *what* individuals wanted or felt a need to achieve—power (*n Pow*), affiliation (*n Aff*), or excellence of achievement (*n Ach*)—rather than on *how* they went about achieving whatever objectives they valued or sought. Thus, the strength and correlates of an individual's need for power, affiliation, or achievement were the primary foci of concern, while the strategies by which individuals sought to achieve any of these or other goals were largely ignored. In the process, distinctions among goals, motives, behaviors, and traits were seriously blurred.

4. The TAT method, yielding a host of coding and other technical problems, persisted as the major methodological approach (Bellak, 1942, 1944; Cattell, 1949; Coleman, 1947; Combs, 1946a, 1946b, 1973; MacFarlane, 1941; Sargent, 1945). The emphasis on this projective technique, promoted in subsequent research by the quest for comparability, obscured (even discouraged) necessary efforts to develop more direct and useful measures to tap achievement phenomena.

As illustrated by several chapters in this volume, the past decade has witnessed several significant departures from the McClelland–Atkinson tradition. A number of investigators have essentially abandoned the concept of achievement motivation, conceived as a stable disposition to achieve performance excellence, in favor of expectancy or attributional theories (see, e.g., Vroom, 1964; Weiner, 1972, 1980; also Chapter 2, this volume). Other investigators have retained the sense of the concept of achievement motivation, but have sought more objective measures than the TAT or have conceptualized achievement motivation as multidimensional rather than unidimensional (see, e.g., Chapter 1, this volume). Current research and theory have also been designed to apply to both sexes or to illuminate observed differences between males and females in achievement behaviors.

The research reported here departs from past achievement research by investigating achieving styles rather than achievement motivation. It focuses on means rather than ends. In this chapter, we first present a three-factor model of achieving styles—characteristic ways in which individuals approach achievement goals (regardless of the substantive nature of those goals). The three factors are called *direct*, *instrumental*, and *relational* achieving styles. Each factor or domain subsumes three styles, resulting in nine individual achieving styles.

Next we describe the origins and major characteristics of an instrument for measuring achieving styles, the L-BLA Achieving Styles Inventory. This Likert-scale instrument, the result of extensive testing and revising, has been used to collect data from a diverse set of populations. And, third, data from several samples are presented and discussed in the final section of this chapter.

## **RELATED RESEARCH TRADITIONS**

This research on achieving styles draws on a wide and diverse set of research traditions, some of which are detailed in other chapters of this volume. Only the most directly related work is reviewed in this chapter. Besides the voluminous research on achievement motivation, the achieving-styles concept is also linked to need theory, social-learning theory, small-group research, sex-role stereotypes, and women's achievement, as well as to research on leadership and personal styles.

### **Need Theories**

Murray's (1938) complex taxonomy of needs explicated the concept of an underlying set of human needs and presented the Thematic Apperception Test (TAT) as a projective means of tapping them. Using

Murray's methodology, McClelland, Atkinson, Clark, and Lowell (1953) offered an "affective arousal" model of motivation, specifically achievement motivation. Achievement motivation was characterized by learned standards of excellence, "competition" with or "attempts to meet" these standards, and positive or negative affect, depending on success or failure of such efforts.

Personal responsibility, uncertainty about actual outcomes, but anticipation of clearly defined success or failure were all key concepts in the early work on need for achievement. Thus, a learned need for achievement was treated as a drive triggered by environmental cues, leading to need-fulfilling (or drive-reducing) behavior. Later efforts sought to relate need for achievement to entrepreneurial behavior (McClelland, 1961), as well as to delineate its cross-cultural variations. But the strategies characteristically used for achieving were not emphasized in the McClelland et al. paradigm. If they were acknowledged at all, they were viewed as indicators of needs rather than as styles. Thus, for example, competitive behavior in TAT stories is treated as one of several indicators of the presence of *n Ach*.

Other variations of need theory also claimed their intellectual inheritance from Murray's central formulation. Maslow's (1954) hierarchy of needs, culminating in self-actualization, evoked its own research tradition. The need for personal efficacy, a concept delineated by White (1959), stemmed from the same general orientation. The need for personal control, studied by deCharms (1968), is still another research initiative falling within the need-theory perspective.

### **Cognitive Approaches**

Reevaluations of traditional need theory (e.g., Salancik and Pfeffer, 1977) have questioned the utility of need theory and emphasized the contributions of more cognitive approaches. Numerous cognitive theorists have focused on the role of expectations in achievement behavior. The importance of expected outcomes learned from prior experience (Atkinson and Raynor, 1974; Vroom, 1964) or from social comparisons (Abramson, Seligman, and Teasdale, 1978; Bandura, 1977) has been emphasized in these cognitive formulations. Expectations concerning one's ability to behave in a given way or to achieve a vital goal are seen as critical determinants of the level of achievement behavior.

Attribution theorists (Kelley, 1967, 1971; Ross, 1977; Weiner, 1972, 1974, 1979; Weiner and Kukla, 1970) have studied the impact of attributions of success and failure on achievement performance, while learned-helplessness investigators (Dweck, 1975a, 1975b; Dweck and Reppucci, 1973; Seligman, 1975) have documented the process by



which individuals come to relinquish expectations of influencing their own destinies. Within the attribution tradition, studies of intrinsic/extrinsic motivation (Deci, 1975) describe how behavior varies with source of motivation, as well as with intensity.

Other theorists have begun to criticize the concepts of motive and need and their link to traits or enduring personality dispositions. In 1968, Mischel argued that the conceptualization of traits as broad response dispositions (Allport, 1937, 1965; Murray, 1938) had not been substantiated and that social-learning paradigms more accurately modeled how individuals learn, aspire, and achieve. More recently, Mischel (1977) has acknowledged the value of examining "person variables" as well as environmental variables. While his person variables are by no means equivalent to traits, they do include such properties of the individual as "construction competencies," methods of "categorization," and "expectancy" patterns. While classical need theory, then, appears to be less widely accepted than previously, the underlying question of what the person brings to the situation remains a focus of active debate.

### **Small-Group Research**

Small-group research has brought increased attention to the influence of group processes. It has focused largely on role-embedded behavior emanating from the natural evolution of groups. Bales and Slater (1955), in their laboratory observations of undergraduate groups, have reported that natural group processes produce two kinds of leadership roles, without regard to the specific personality traits of group participants: (1) an instrumental or task leader, whose function is to enable the group to achieve a given goal; and (2) an expressive or socioemotional leader, whose function is to sustain group cohesion by binding the social/emotional wounds inflicted in the course of group task accomplishment.

This binary orientation, tasks versus people, or the instrumental/expressive dichotomy, has been applied, not always correctly, to a wide range of leadership and achievement phenomena. Task orientation, particularly, has become synonymous with achievement. Perhaps the most problematic application of the instrumental/expressive dichotomy has been to family gender roles (Parsons and Bales, 1955). Reevaluations of that dichotomy have seriously questioned this application (e.g., Lipman-Blumen and Tickamyer, 1975).

### **Gender Stereotypes**

The instrumental/expressive role dichotomy finds a parallel in stereotypes about gender differences in personality (Broverman, Vogel,

Broverman, Clarkson, and Rosenkrantz, 1972). Not only are females seen as warmer, more expressive, and people-oriented, and males as more competent, assertive, rational, and task-oriented, but these male "instrumental" characteristics are perceived as more socially desirable than those ascribed to women (Broverman et al., 1972). More recent work has confirmed the existence of such gender differences (Spence and Helmreich, 1978). Moreover, male-associated characteristics of competence, task orientation, and rationality serve as cornerstones of Western achievement. These gender stereotypes, probably learned in early childhood (Hartley, 1960; Hartley and Hardesty, 1964; Kohlberg, 1966; Maccoby and Jacklin, 1974), affect the differential assessment of female and male competence (Goldberg, 1968) and appropriateness in various occupational roles (Schein, 1973, 1975).

Other research has related women's self-concept and sex-role ideology to their achievement aspirations. In a study of female college graduates, "mode of achievement satisfaction" emerged as the critical link between gender-role ideology and educational aspirations (Blumen, 1970; Lipman-Blumen, 1972). Mode of achievement satisfaction was measured by an active to passive continuum, whose polar positions were "vicarious" and "direct" achievement (Lipman-Blumen, 1973). Individuals relying primarily on vicarious achievement derive their achievement satisfaction through the accomplishments of other individuals with whom they identify. Direct achievers look to themselves for such achievement satisfaction.

Still other research has investigated "two-person careers" (Papanek, 1973) and "greedy institutions" (Cosser and Rokoff, 1971)—two related phenomena in which wives are expected to contribute their achievement efforts to their husbands' careers without explicit reward or acknowledgment. The dynamics of individual female achievement, except in gender-appropriate roles, remained an elusive phenomenon.

Female achievement motivation was not a major concern for McClelland et al. (1953), who briefly reported and then ignored the failure of standard male cues to arouse achievement motivation in women. By the 1960s, a small cadre of researchers, puzzled by women's unexplored achievement behavior, sought to specify the conditions generating *n Ach* in female subjects (Alper and Greenberger, 1967; Baruch, 1967; Crandall, 1969; French and Lesser, 1964; Horner, 1968; Lesser, Krawitz, and Packard, 1963). Differential expectations of success, social rather than cognitive cues, occupational interest and choice, and subject or task relevance were just a few of the many variables investigated as correlates or conditions of women's achievement motivation. More recently, Spence and Helmreich (1978) have

addressed achievement motivation within the context of masculinity and femininity.

Horner's (1968) efforts to explicate a "motive to avoid success" in women caught the imagination of researchers and lay public alike. The questions Horner's work raised about women's "fear of success" were addressed by a host of researchers, with conflicting results (Alper, 1973, 1974; Breedlove and Cicerelli, 1974; Fleming, 1977; Frieze, 1975; Hoffman, 1974; Horner, 1972; Lockheed, 1975; Mednick and Puryear, 1975; Puryear and Mednick, 1974; Watson, 1970; Weston and Mednick, 1970). Subsequent critiques of the fear-of-success paradigm (Levine and Crumrine, 1975; Tresemer, 1974, 1976) and persisting replication difficulties have called into question the efficacy of this theoretical thrust. In addition, the emphasis on the dichotomous acceptance or rejection of success obscured the importance of investigating differentiated types of achievement (Veroff, McClelland, and Ruhland, 1975), including competence motivation (Smith, 1968) and group achievement orientation (Zander, 1971).

### **Leadership Styles**

A differentiated model of achievement should take into account differing styles—personal styles, leadership styles, and achieving styles. The literature on personal styles has dealt with such issues as authoritarianism (Adorno, Frankel-Brunswick, Levinson, and Sanford, 1950) and Machiavellianism (Christie and Geis, 1970). The work on authoritarian personality has investigated both acquiescence to and use of authority. The more recent Machiavellian behavior research has focused on manipulative interpersonal strategies, enhanced by competition and power, as avenues to achievement.

Much leadership research has attended to styles of leadership, beginning with the early work of Lewin, Lippit, and White (1939), who explored the relationship between leadership styles and group dynamics. In their leadership studies, Lewin et al. found that neither the authoritarian nor the laissez-faire leadership style is as likely as democratic leadership to encourage group members' satisfaction and productivity. A consistent demand of later leadership research has called for some balance between task and people orientation on the part of the leader (Bass and Duntzman, 1963; Blake and Mouton, 1969; Fiedler, 1978; Fleishman, 1971; Likert, 1961; Stogdill and Coons, 1957; Vroom and Yetton, 1973), although the exact nature of the balance has remained a matter of serious controversy.

People orientation (or affiliative styles) also became the subject of intense scrutiny (Atkinson, Heyns, and Veroff, 1954; Atkinson and

Walker, 1956; Schachter, 1959). Affiliation's relationship to group productivity and organizational structure aroused additional debate (deCharms, 1957; French, 1955; Harris, 1969; Weiner and Rubin, 1969). Boyatzis' (1972, 1974) distinction between "affiliative interest" and "affiliative assurance" represented an effort to clarify the ambiguities regarding the effectiveness of people-oriented leaders or managers.

Despite such enormous research attention, the distinction between people orientation or affiliation and the use of relationships as the medium for achieving has not been elucidated in the leadership literature. The model of achieving styles presented here draws such a distinction, recognizing that liking or needing people—as people orientation and affiliation needs usually imply—is not necessarily isometric with perceiving and using relationships as the means to achievements. This model contrasts (1) achieving styles that actively or passively contribute to achievement through relationships, with (2) achieving styles that are more directly task-oriented, and with (3) achieving styles that approach achievement instrumentally, using relationships or aspects of the self to accomplish goals.

## **A MODEL OF ACHIEVING STYLES**

The present research makes several assumptions about the etiology of achieving styles, those characteristic modes of achieving that are the focus of this chapter. First, we assume that there are three major types of needs: (1) physical needs, (2) social needs, and (3) egoistic needs. Whereas physical needs are mostly innate, both social and egoistic needs are learned.

Social and egoistic needs, we assume, are learned initially from differentially successful and unsuccessful outcomes of attempts to satisfy physical needs. Dependency on parents and others in the child's early environment is presumed to be the primary mechanism through which both social and egoistic needs are acquired.

Satisfactory experiences in meeting needs through other individuals reinforce a relational achieving orientation. Failures, delays, and other negative experiences of the dependent child push toward one of two related predilections: (1) an orientation to eschew relationships as the avenues for meeting one's own needs and to look instead toward the self's direct confrontation with the environment to get what one wants (a direct achieving orientation); or (2) an orientation toward manipulating relationships, aspects of the self, or situational factors to get what one wants (an instrumental achieving orientation).

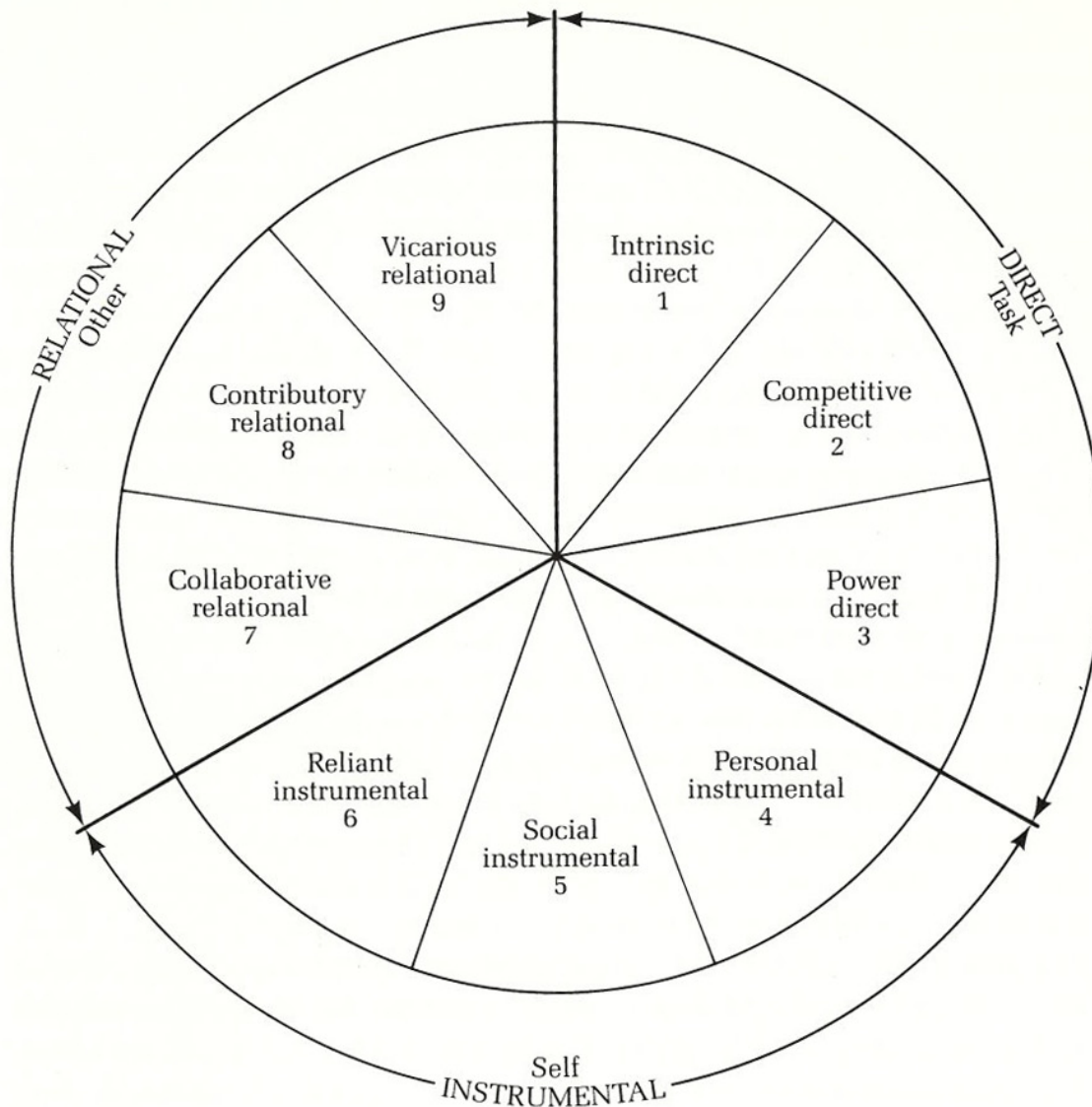
Achieving styles, then, refer to characteristic ways individuals learn to use in approaching achievement goals or tasks. Achieving styles are the preferred strategies or means individuals employ to accomplish tasks, to achieve, to implement their plans, to “get things done.” Our achieving-styles model identifies the three major orientations toward achievement mentioned above: direct, instrumental, and relational orientations (Leavitt and Lipman-Blumen, 1980; Leavitt, Lipman-Blumen, Schaefer, and Harris, 1977; Lipman-Blumen and Leavitt, 1976, 1978, 1979; Lipman-Blumen, Leavitt, and Handley-Isaksen, 1980; Lipman-Blumen, Leavitt, Patterson, Bies, and Handley-Isaksen, 1980). The model emanates from earlier work on “mode of achievement satisfaction” (Blumen, 1970; Lipman-Blumen, 1972) and “vicarious achievement” (Lipman-Blumen, 1973).

The current achieving-styles model, as well as the L-BLA Achieving Styles Inventory (ASI) (Form 10), which is described in the following section of this chapter, represents refinements in conceptualization and instrumentation that have occurred over an eight-year period (1974–1982). The original model was conceived as a linear continuum (Lipman-Blumen and Leavitt, 1976) that described “vicarious” and “direct” achieving styles. Working interactively between theory and empirical data, we have refined the model into three major domains—direct, instrumental, and relational—each subsuming three substyles of achieving. Evidence from earlier versions of the L-BLA Achieving Styles Inventory suggested that a circular, rather than a linear, conceptualization provided a better representation of the achieving-styles phenomenon. A graphic representation of this conceptualization is shown Figure 3-1.

### **Direct Achieving Styles**

The direct achieving styles are characterized by direct confrontation of the achievement task or challenge through an individual’s personal efforts. Using direct styles, individuals act to accomplish the task by addressing the challenge in toto individually or by overtly delegating and controlling subordinate components of task performance by others, while retaining overall responsibility. Three subcategories of the direct achieving style have been defined: (1) intrinsic-direct, (2) competitive-direct, and (3) power-direct.

Individuals who exhibit a strong *intrinsic-direct* style prefer to approach the task individually and directly, taking satisfaction from performing the task well and measuring their performance against an internalized standard of excellence. They derive satisfaction from the intrinsic demands and challenge of the task and their own indi-



**Figure 3-1**

A model of achieving styles.

vidual ability to meet that challenge. Pitting oneself directly against a task, or one's own previous performance, rather than against another individual, distinguishes the intrinsic-direct style from the competitive-direct style.

The *competitive-direct* style is characterized by a tendency to compare oneself to another or to another's accomplishments. For the individual who uses the competitive-direct style, doing well at the task is not quite enough. Doing better than anyone else—doing the best—is what counts. The satisfaction of achieving comes from besting all challengers. Competition, for users of this style, adds a necessary, even zesty, ingredient to the achieving process.

The *power-direct* style's hallmark is the use of power and control over other individuals, resources, and situations as a means of accom-

plishing tasks. A power-direct achieving style involves actively and overtly controlling and organizing individuals, situations, and resources—in effect, taking charge and directing. Users of the power-direct achieving style, without relinquishing control, often assign or delegate part of the task to others. Individuals who favor a power-direct style tend to perceive leadership roles as their natural milieu.

### **Instrumental Achieving Styles**

The second major achieving style domain is instrumental achieving, which also subsumes three subcategories: (1) personal-instrumental, (2) social-instrumental, and (3) reliant-instrumental. These instrumental achieving styles reflect a two-stage process in which the instrumental achiever usually, but not necessarily covertly, uses achievement-related aspects of self and others as means to goal accomplishment. Such behavior is often quite conscious and explicit on the part of the instrumental achiever, so that even others in the situation may be aware of the instrumentality. For some instrumental achievers, however, the instrumental style is so much a *modus vivendi* that they may be essentially unaware of it. For individuals using instrumental achieving styles, various dimensions of relationships and of self are evaluated in terms of their potential benefit to the individual achiever in promoting still other achievements.

The *personal-instrumental* achieving style characteristically involves using one's earlier or present achievements or attributes—personal accomplishments, status, financial resources, political clout, family position, personal charisma, educational or occupational background—as instrumental means to new achievements. The individual who uses this style usually explicitly recognizes the process, which itself is generally covert. Prior accomplishments, present achievement efforts, or characteristics of self are valued to the degree that they serve as gateways to future achievements. This style is commonly used by individuals who highly value external approval. The Secretary of State who regretted leaving office because he perceived official status as the “greatest aphrodisiac,” as evidenced by a coterie of romantic admirers, is an illustration of the *personal-instrumental* style.

The *social-instrumental* achieving style's hallmark is the use of (versus the contribution to) relationships and other individuals as means to further achievements. Relationships, even acquaintanceships, are cathected and evaluated primarily in terms of their utility as avenues to accomplishment. The lobbyist who cultivates connections with congressional staff to ensure passage of favorite legislation is employing this style. The *social-instrumental* style is exemplified

in salespersons' dictum to establish warm relationships with their customers before trying to sell their products. Social-instrumental achievers<sup>1</sup> have faith in their own efficacy. A substantial core of this faith is based on the knowledge that they have and know how to use a wide network of relationships to accomplish their goals. Again, a social-instrumental style usually, but not invariably, implies conscious use of an indirect or covert process. On occasion, however, the process may be used overtly in a reciprocal manner by two or more individuals who engage in symbiotic interactions. Informal networks in formal organizations often operate according to social-instrumental principles.

The *reliant-instrumental* achieving style finds its essence in the expectation that others will take responsibility for fulfilling one's achievement goals. The individual who characteristically uses the *reliant-instrumental* style looks to others—sometimes even rather openly—to implement plans or perform tasks for the *reliant-instrumental* achiever. Individuals who consistently turn to others for help and direction, who cannot or will not act directly in their own behalf, who seek others to carry the ball, are employing the *reliant-instrumental* style. It is important to note that *reliant-instrumental* achievers not only seek help from others, but also relinquish responsibility for selecting the means to be used.

The distinction between the *social-instrumental* and the *reliant-instrumental* styles is subtle. *Social-instrumental* achievers believe in their own capacities to accomplish things. They simply see other people as the best, most natural, and perhaps the easiest means of accomplishing their ends. The "well-connected" father who approaches influential friends to facilitate his child's admission to a good university is using a *social-instrumental* style. Deliberately targeting a specific individual as the means to a certain accomplishment or set of accomplishments is characteristic of the *social-instrumental* style. By contrast, the *reliant-instrumental* achiever perceives virtually everyone in his or her environment in a more diffuse way as a possible avenue for accomplishment, as long as they are willing to serve an instrumental purpose.

*Reliant-instrumental* achievers have relatively little faith in their own efficacy. Such individuals feel a clear and present need for others to "do it for them." *Reliant-instrumental* achievers tend to define their own goals, but depend on others to accomplish those goals. The stu-

---

<sup>1</sup>Technically, while there are distinguishable achieving styles, individuals rarely are characterized by only one style. Rather, individuals tend to use some subset of achieving styles, showing primary predilection for one or two. Thus, our use of terms such as "social-instrumental achievers" is merely for expositional ease.



dent who has not learned to type and expects a friend or spouse to type his or her paper is practicing a reliant-instrumental style. So is the child who expects Dad to get him or her into college.

It may be worth noting that, in American culture, reliant-instrumental behavior so contradicts the basic value of individualism as to be virtually socially undesirable. Thus, despite the fact that the paradigm itself implies no normative valuation of the various achieving styles, most people raised in this culture probably would prefer not to perceive themselves as depending on others through reliant-instrumental behavior. In other cultures this may not be so.

### **Relational Achieving Styles**

The third major achieving style domain is relational achieving. Relational achievers contribute actively or passively to relationships as part of their own accomplishments. Again, three subcategories are delineated: (1) collaborative-relational, (2) contributory-relational, and (3) vicarious-relational.

The *collaborative-relational* achieving style is archetypically exemplified by the team player, the individual who prefers to approach tasks through group effort. The synergism generated through group endeavors is both the special fuel and the reward on which the collaborative-relational achiever thrives. The individual who repeatedly uses this style expects a proportionate share of credit, as well as responsibility. The collaborative-relational's contribution is to the group goal, which the collaborative-relational achiever accepts as his or her own objective.

The *contributory-relational* achievers meet their achievement needs primarily by contributing actively to the success of another achiever(s), who define(s) both the means and the goal. Assisting, helping, or encouraging the other achiever in his or her task, while playing essentially a secondary role, typifies the contributory-relational style. People whose primary achievement satisfaction comes from helping others succeed fall within the definition of the *contributory-relational* achieving style. A political candidate's spouse who campaigns actively, writes speeches, and helps develop policy positions for the political aspirant exemplifies a contributory-relational style.

Individuals who prefer a *vicarious-relational* style identify with another achiever and perceive the other's accomplishments as their own. The vicarious-relational achiever does not participate in the other's task performance. Identifying with and/or being in a relationship with certain other achievers is the passive role the vicarious-relational achiever most typically plays. This indirect or vicarious

approach meets the achieving needs of the vicarious-relational achiever, who takes pleasure from others' accomplishments as if they were his or her own. "My son the doctor" are words commonly spoken by vicarious-relational achievers.

### **Range, Flexibility, and Intensity**

The foregoing discussion has described heuristically the nine sub-categories of achieving styles as if they were discrete phenomena. Indeed, we do distinguish conceptually and operationally between and among the styles. Nonetheless, their deliberately ordered placement on the circular achieving-styles diagram (in Figure 3-1) is an effort to represent the theoretical and empirically-demonstrated closeness of contiguous styles.

Many individuals operate at the interface of one or more pairs of styles. It is the very combination of achieving styles that individuals or groups use that adds to both the complexity and the interest of the model. The ability to access or use multiple styles is what we have described elsewhere as *range* (Lipman-Blumen, Leavitt, and Handley-Isaksen, 1980; Lipman-Blumen, Leavitt, Patterson, Bies, and Handley-Isaksen, 1980). A related concept, *flexibility*, refers to the ease with which the individual can move from one achieving style to another in response to situational cues. *Intensity*, the strength of preference for a particular achievement style relative to other styles, may vary within any individual's range and across individuals with access to the same style.

As Figure 3-1 suggests, we conceive of degrees of self-, other-, and task-orientation varying as we move around the diagram (cf. Bass and Duntzman, 1963). Generally, the styles in the upper portion of the diagram share a lower self-orientation, focusing more on performing tasks or contributing to and identifying with others. The styles in the lower portion tend to focus more on the self and what may be gained for the self from relationships.

Given this conceptual model, we next describe the development and testing of an instrument for measuring these achieving styles.

### **DESCRIPTION OF L-BLA ACHIEVING STYLES INVENTORY**

We have described elsewhere the stages in the development of the L-BLA Achieving Styles Inventory (Lipman-Blumen, Leavitt, and Handley-Isaksen, 1980; Lipman-Blumen, Leavitt, Patterson, Bies, and Handley-Isaksen, 1980). The Achieving Styles Inventory (Form 10), after several revisions and iterations, constitutes a 45-item Likert-

scale instrument, requiring approximately 10 minutes to complete.<sup>2</sup> Most items are descriptive statements of behaviors used in accomplishing or implementing goals. In a few cases, the statements describe feelings about particular ways of accomplishing goals.<sup>3</sup> Nine scales of five items each are logically and empirically keyed to each of the achieving styles described in our model (Figure 3-1). Subjects are asked to respond along a seven-point Likert-type continuum ranging from “never” (1) to “always” (7).

The instrument is scored by summing the subject’s responses over the five items of each scale and dividing by the number of items answered. Three *domain* scores are also calculated by averaging the scores of the three individual scales subsumed under each domain. Thus, the average of the three direct scales (1, 2, 3) constitutes the *direct* domain score; the average of the three instrumental scales (4, 5, 6) is the *instrumental* domain score; and the average of the three relational scales (7, 8, 9) becomes the *relational* domain score. The test-item mean is calculated by averaging over all 45 items.

We report below on (1) the reliability and factorial validity of the L-BLA Achieving Styles Inventory (Form 10), (2) the fit of empirical data to our circular conceptualization of the achieving-styles model, and (3) the instrument’s effectiveness in correctly classifying gender, age, and occupational groups.

## Samples

In our study, 3294 participants from 18 individual exploratory samples were pooled to examine the test characteristics of the L-BLA Achieving Styles Inventory (Form 10). Table 3-1 presents demographic data for the entire pool, by sample.

Samples 1–4 in Table 3-1 are high school students from eight San Francisco Bay Area high schools: 1029 of the students are male, 1200 female, and 23 did not indicate gender. The total of 2252 high schoolers (ninth through twelfth grades) represents 68.4% of the total sub-

---

<sup>2</sup>After this chapter was completed, the L-BLA Achieving Styles Inventory underwent four additional revisions in an effort to overcome deficiencies reported here. The final form (13), which eliminates numerous problems reported here, is now available, along with a user’s manual.

<sup>3</sup>The following are five examples of the 45 items on the ASI:

1. For me, the most gratifying thing is to have solved a tough problem.
2. I want to be the leader.
3. The more competitive the situation, the better I like it.
4. Real team effort is the best way for me to get a job done.
5. I achieve my goals through contributing to the success of others.

**Table 3-1**  
Demographics of sample pool for L-BLA Achieving Styles Inventory (Form 10)

Sample	N	Identification	Male N <sup>a</sup>	Female N <sup>a</sup>	Mean age	S.D. (age)	Mean educational level	S.D. (educational level)
1	1651	S.F. Bay Area high school	805	827	15.75	2.16	10.58	1.12
2	490	S.F. Bay Area high school	185	302	16.64	1.05	11.45	.50
3	54	S.F. Bay Area high school	20	34	16.30	.59	11.05	.19
4	57	S.F. Bay Area high school	19	37	17.28	.49	11.95	.40
5	26	Graduate students in education	11	11	33.37	9.04	16+	N.A.
6	52	Graduate students in business	33	19	25.62	3.64	17.01	1.12
7	48	Graduate students in business	35	13	24.41	6.59	16.53	.54
8	111	Graduate and undergraduate students in engineering course	92	19	22.61	5.49	16.05	2.46
9	220	Senior executives/spouses (1979)	130	90	44.88	5.80	15.81	2.43
10	189	Senior executives/spouses (1980)	112	73	42.23	5.22	15.96	2.22
11	61	Middle-level executives/spouses	34	27	36.36	5.39	16.36	1.58
12	34	Upper-level executives	34	—	37.12	5.79	16.26	1.36
13	31	Technical supervisors	29	2	39.48	7.12	18.26	1.93
14	48	Credit managers	35	13	43.67	10.72	14.81	2.12
15	15	University administrators	7	8	43.53	6.64	16.80	1.08
16	69	Adult social-club members	33	36	59.41	10.25	13.36	2.09
17	56	Family therapists	18	38	39.89	9.97	18.41	1.77
18	82	Clients of women's resource center	—	82	38.10	9.14	16.52	1.45
Total	3294		1632	1631	23.67	12.75	12.55	2.91

Note: Samples 9 and 11 were administered L-BLA Achieving Styles Inventory (Form 8), consisting of 54 items, 41 of which were identical to Form 10. In this chapter, data from these two samples were limited to those 41 items. Scale scores between senior executives in 1979 (41 items) and senior executives in 1980 (45 items) were compared. No significant differences on scale-score means were found between the groups. About half the participants (N = 26) in sample 17 received Form 11A, which had some slightly different items for scale 6. Means for this scale were higher than scale means for subjects receiving Form 10. Means on the other scales of the instrument were not different. The group mean of subjects taking Form 10 on scale 6 was assigned to subjects taking Form 11A, so that error from this measurement was regressed to the mean.

<sup>a</sup>Male and female N's do not sum to sample total because some subjects failed to indicate gender.

ject pool. Most of the high schools are located in mid- to high socioeconomic communities.

The next four groups (samples 5–8) are university graduate and undergraduate students in business, education, engineering, and the social sciences: 171 are males; 62 are females (4 did not report gender). The total of 237 students represents 7.1% of the subject pool.

The next three samples (9–11) were drawn from 1979 and 1980 classes of a senior-executive program at a western university and one 12-month middle-level-executive education program. The samples include executives in these programs, as well as their spouses. Combined, these groups include 276 males and 190 females (plus 4 not reporting gender), for a total of 470, representing 14.3% of the total sample pool. Of the females in this group, 154 reported being full-time homemakers, while 36 reported careers outside the home. Approximately 24% of this group were not U.S. citizens.

The next four samples (12–15) are also managerial groups. Sample 12 is from an upper-level executive program at an eastern university. Sample 13 is composed of first-level supervisors from a single, large research and development organization in the private sector. Sample 14 was collected at a credit managers' conference, and sample 15 from a year-long managerial training program for administrative employees of a western university. The total number of subjects in these four samples is 128. These 105 males and 23 females represent 3.9% of the sample pool.

Sample 16 is comprised of 69 older citizens of the San Francisco Bay Area, including 33 husband-and-wife pairs, plus 3 additional females. They represent 2.1% of the subject pool. Both males and females from this sample reported a variety of occupations. A few were retired.

Sample 17 was collected at a professional symposium of family therapists: 18 are males, 38 are females, for a total of 56, representing 1.7% of the subject pool. Most of these participants were mental-health practitioners, although 3 had full-time academic appointments, 5 were students in training, and 10 reported administrative posts.

The final sample (sample 18) of 82 women was drawn from the client population of a community resource center for women. Of these women, 60% reported seeking job advancement, and the remaining 40% planned to reenter the job market. A variety of occupations was reported. This sample represents 2.5% of the subject pool.

For the most part, the total sample pool is composed of well-educated individuals of high socioeconomic status. Occupations of male subjects were concentrated in business management and administration. Samples 16 and 17, however, do represent other careers.

Occupations of women respondents covered a wider range, but fell mostly within teaching, medical-health occupations, management, sales, and homemaking. Thus, the sample pool is by no means representative of the general population.

### Data Collection

Data from the following samples were collected from intact groups on site in a single sitting: 1–7, 12–14, and 17. Data from sample 8 were collected by having subjects respond to a computer command at a computer terminal. Data from samples 9–11 and 16 were collected by mail. Data from sample 15 were collected by handout in a training session and returned by mail, and data from sample 18 were collected by having subjects pick up research materials from a booth at the resource center, to be returned by mail. All subjects, except those in sample 16, received feedback about the global characteristics of their own sample and an individual profile of their own scores.

Younger subjects are both overrepresented in our study populations and present a relatively distinctive factor structure. For purposes of analysis, therefore, we have split the respondent pool into two subsamples: those 30 years old or more, and those under 30 years old. Table 3-2 specifies some demographic characteristics of these age-split pooled samples.

For some of the occupational analyses, a sample pool of female managers ( $N = 61$ ) was created. All women who reported they were managers or administrators were pooled and removed from their original samples to eliminate duplication of data.

**Table 3-2**

Demographics of age-split subpool samples used to evaluate test characteristics of the L-BLA Achieving Styles Inventory (Form 10)

Age group	Sample N	Male N <sup>a</sup>	Female N <sup>a</sup>	Age range	Mean age	S.D. (age)	Mean educational level	S.D. (educational level)
30+	783	437	343	30–77	43.67	8.76	16.08	2.28
< 30	2511	1195	1288	13–29	16.81	2.87	11.22	1.71
Total	3294	1632	1631	13–77	23.19	12.75	12.55	2.91

<sup>a</sup>Male and female  $N$ 's do not sum to sample total because some subjects failed to indicate gender.

### **Test Characteristics**

*Reliability* of the L-BLA Achieving Styles Inventory was estimated by Cronbach alpha procedures and by Pearson  $r$ 's between test and retest scores. *Validity* of the instrument was demonstrated by SPSS PA1 Factor Analysis, with oblique rotation, of both items and scales. Scale validities were further estimated by reliability of difference scores.

*Predictive ability* of the instrument was demonstrated by cross-validation using gender as a criterion in discriminant function analysis. Age and occupational groups were also subjected to discriminant function analysis. The  $F$ -tests for scale means, provided by the one-way analysis of variance of these analyses, were used to examine gender, age, and occupational differences among groups. All analyses were conducted using raw scores, with a significance criterion of  $p = .05$ .

## **RESULTS WITH L-BLA ACHIEVING STYLES INVENTORY: RELIABILITY AND VALIDITY**

### **Consistency and Stability of Scales**

For the 30+ age group, the lowest Cronbach alpha (.75) is on the reliant-instrumental scale, while the highest is on power-direct (.89) (Table 3-3). Cronbach alphas for the nine scales in the < 30 age group range from .72 on reliant-instrumental to .84 on collaborative-relational. The domain-stratified alphas exceed .80 for both samples, and the test-item mean alpha exceeds .90.

A 15-week test/retest of 90 high school students (Table 3-3) shows internal consistency estimates for both test and retest very similar to estimates from the larger samples. Across time, alphas range from .66 to .90 for scales and from .79 to .95 for domains. The stability coefficients range from .58 on intrinsic-direct to .73 on both competitive-direct and social-instrumental. The domain coefficients are in the mid-.70's range.

### **Factor Analyses of Items**

Principal Component Factor Analyses, with oblique rotation, were performed on the two age-split pooled samples. Table 3-4 displays the results.

**Table 3-3**

Reliability estimates for scales of the L-BLA Achieving Styles Inventory (Form 10), Cronbach alphas and 15-week Pearson product-moment coefficients

Scale	Internal consistency Cronbach alpha		15-week test/retest		
	Age 30+ N = 783	Age < 30 N = 2511	Internal alphas		Pearson r
			Test	Retest	Test/ Retest
			Age mean = 16.0 N = 90		
1 Intrinsic direct	.79	.80	.83	.86	.58
2 Competitive direct	.87	.79	.79	.85	.73
3 Power direct	.89	.80	.86	.89	.67
4 Personal instrumental	.77	.75	.79	.75	.63
5 Social instrumental	.82	.76	.73	.83	.73
6 Reliant instrumental	.75	.72	.66	.75	.59
7 Collaborative relational	.88	.84	.86	.90	.63
8 Contributory relational	.87	.79	.78	.84	.69
9 Vicarious relational	.85	.81	.81	.86	.68
10 Direct domain	.86*	.82*	.79*	.81*	.74
11 Instrumental domain	.86*	.86*	.86*	.95*	.75
12 Relational domain	.85*	.85*	.82*	.87*	.73
13 Test-item mean	.92*	.93*	.91*	.87*	.73

\*Stratified alpha.



For the 30+ age group, nine factors, accounting for 63.7% of the total item variance, were extracted and named in order:

1. Power-direct.
2. Vicarious-relational.
3. Reliant-instrumental.
4. Collaborative-relational.
5. Competitive-direct.
6. Intrinsic-direct.
7. Personal-instrumental.
8. Social-instrumental.
9. Contributory-relational.

Most items logically keyed to a scale are loaded on by a single factor. Exceptions are the following: the power-direct factor loaded at the criterion level on power-direct scale items, but also on one intrinsic and one competitive-direct item. The social- and personal-instrumental items are not independent of each other. Although the vicarious- and contributory-relational items are loaded on separately by two factors, each of the factors also loads moderately on all the items of these two scales (most of the loadings on the nonkeyed items are in the .4 range). Also, in this age group, the competitive-direct factor loads moderately on the items keyed to the power-direct scale.

For the < 30 group, eight factors account for 58.8% of the total item variance. The factors, in order of extraction, were named:

1. Social-instrumental.
2. Contributory- and vicarious-relational.
3. Reliant-instrumental.
4. Collaborative-relational.
5. Intrinsic-direct.
6. Competitive-direct.
7. Power-direct.
8. Personal-instrumental.

For the most part, again, items logically keyed to scales were loaded on by a single factor. Close inspection of the matrix, however, shows that two items logically keyed to the personal-instrumental scale are loaded on at the criterion level (.50 or higher) by the social-instrumental factor. And the personal-instrumental factor loads on only two of the items logically keyed to that scale. Further, the items log-

**Table 3-4**

L-BLA Achieving Styles Inventory (Form 10), SPSS PA1 factor analysis, oblique rotation

Item	Factor									Scale
	1	2	3	4	5	6	7	8	9	
Age group 30 + (N = 783) <sup>a</sup>										
1	.00	.04	-.07	-.07	-.25	.76	-.13	-.11	-.16	
8	.44	-.04	-.14	-.17	-.21	.66	-.14	-.06	-.27	
17	.33	.04	-.14	-.13	-.29	.81	-.11	-.12	-.17	1
33	.54	.07	-.13	-.15	-.15	.58	.00	-.22	-.28	
43	.16	.18	-.08	-.14	-.19	.80	-.03	-.21	-.12	
4	.34	.11	.12	-.14	-.76	.19	-.24	-.27	-.12	
11	.26	.05	.07	-.15	-.85	.25	-.26	-.23	-.10	
14	.31	.09	-.04	-.21	-.83	.30	-.16	-.21	-.21	2
22	.56	.16	.14	-.12	-.69	-.21	-.23	-.29	-.02	
37	.42	.12	.00	-.27	-.80	.31	-.15	-.33	-.21	
7	.78	-.10	-.08	-.25	-.49	.35	-.22	-.22	-.25	
10	.77	-.10	-.14	-.25	-.47	.34	-.19	-.25	-.26	
21	.78	-.13	-.11	-.22	-.47	.27	-.21	-.32	-.19	3
28	.79	-.04	-.04	-.19	-.41	.26	-.17	-.33	-.15	
38	.63	.06	.11	-.16	-.53	.16	-.21	-.43	-.10	
6	.17	.00	.09	-.20	-.19	.18	-.79	-.30	-.13	
13	.07	.16	.29	-.12	-.27	.04	-.86	-.37	-.08	
27	.14	.15	.34	-.17	-.23	.04	-.77	-.55	-.07	4
30	.13	.20	.22	-.11	-.25	.18	-.34	-.57	-.10	
39	.28	.11	.15	-.21	-.20	.14	-.32	-.69	-.19	
2	.21	-.14	.24	-.16	-.33	.19	-.36	-.68	-.14	
20	.09	-.02	.42	-.15	-.20	-.03	-.30	-.67	-.10	
26	.15	-.03	.26	-.19	-.23	.13	-.40	-.80	-.14	5
35	.35	.07	.15	-.40	-.29	.18	-.16	-.67	-.27	
40	.15	.11	.33	-.23	-.19	.12	-.26	-.77	-.09	

<sup>a</sup>63.7% of the total item variance explained by the matrix.

Table 3-4 (continued)

Item	Factor									Scale
	1	2	3	4	5	6	7	8	9	
Age group 30 + (N = 783) <sup>a</sup>										
5	-.25	.02	.57	-.11	-.14	-.15	-.30	-.20	-.08	
18	.03	.04	.75	-.20	-.07	-.07	-.19	-.29	-.19	
25	.05	.08	.71	-.25	-.09	-.15	-.12	-.32	-.13	6
31	.16	.23	.62	-.13	.13	-.11	-.22	-.14	.08	
44	.12	.16	.81	-.21	-.10	-.05	-.21	-.30	-.06	
9	.10	.08	.19	-.79	-.20	.08	-.18	-.13	-.30	
15	.06	.16	.22	-.84	-.23	.10	-.16	-.15	-.37	
24	.12	.21	.19	-.84	-.16	.12	-.06	-.18	-.35	7
36	.18	.17	.07	-.78	-.10	.19	-.15	-.30	-.32	
45	.16	.22	.18	-.81	-.06	.06	-.09	-.21	-.35	
3	.11	.24	.04	-.37	-.18	.18	-.11	-.17	-.77	
16	.02	.40	.09	-.42	-.05	.15	-.15	-.07	-.83	
23	.24	.42	.16	-.40	-.12	.14	-.09	-.14	-.77	8
34	.21	.44	.08	-.41	-.17	.22	-.01	-.21	-.79	
41	.14	.35	.15	-.34	-.11	.22	-.07	-.25	-.73	
12	-.12	.70	.07	-.18	-.09	.07	-.15	.03	-.39	
19	.16	.63	.27	-.20	-.19	.10	-.15	-.10	-.22	
29	-.03	.83	.05	-.26	-.08	.10	-.08	-.08	-.41	9
32	-.16	.79	.12	-.23	-.08	.10	-.04	-.04	-.44	
42	-.05	.82	.03	-.31	-.09	.13	-.04	-.18	-.46	

(continued)

**Table 3-4** (continued)

Item	Factor									Scale
	1	2	3	4	5	6	7	8	9	
Age group < 30 (N = 2511) <sup>b</sup>										
1	.03	.17	-.12	.06	.73	.11	.15	.17		
8	.10	.23	-.20	.03	.70	.31	.33	.05		
17	.08	.25	-.04	.00	.80	.14	.24	.03		1
33	.18	.35	-.03	.06	.70	.26	.33	-.07		
43	.13	.29	-.05	.11	.75	.21	.22	.03		
4	.24	-.01	.20	.05	.07	.70	.38	.22		
11	.18	.10	.09	.19	.12	.77	.30	.20		
14	.23	.16	-.09	.12	.30	.75	.25	.09		2
22	.21	-.03	.18	.01	.15	.63	.48	.17		
37	.27	.17	-.01	.20	.33	.77	.35	.03		
7	.19	.14	-.04	.09	.30	.38	.83	.19		
10	.19	.19	-.06	.17	.28	.31	.83	.12		
21	.27	.18	-.02	.09	.28	.33	.85	.12		3
28	.29	.14	.03	.04	.28	.33	.82	.10		
38	.48	.07	.22	.04	.10	.42	.61	-.01		
6	.31	.15	.13	.14	.20	.30	.27	.73		
13	.45	.18	.24	.18	.11	.33	.29	.73		
27	.62	.11	.31	.11	.08	.36	.34	.48		4
30	.43	.20	.06	.11	.22	.24	.23	.17		
39	.76	.16	.31	.15	.09	.30	.33	.12		
2	.57	.14	.13	.10	.15	.25	.28	.24		
20	.67	.09	.45	.11	-.03	.20	.22	.12		
26	.75	.15	.21	.18	.09	.22	.19	.15		5
35	.70	.19	.34	.24	.13	.23	.31	-.01		
40	.69	.09	.21	.14	.07	.18	.20	.11		

<sup>b</sup>58.8% of the total item variance explained by the matrix.

**Table 3-4** (continued)

Item	Factor									Scale
	1	2	3	4	5	6	7	8	9	
Age group < 30 (N = 2511) <sup>b</sup>										
5	.14	.10	.62	.15	-.04	-.01	.02	.30		
18	.36	.05	.68	.12	-.11	.13	.06	-.07		
25	.22	.06	.78	.18	-.14	.04	.00	.03		6
31	.12	.17	.49	.19	-.04	.01	-.02	.20		
44	.33	.08	.75	.23	-.06	.12	-.04	.05		
9	.07	.10	.20	.75	-.05	.08	.06	.12		
15	.15	.25	.15	.79	.04	.24	.09	.13		
24	.17	.26	.20	.83	.06	.16	.11	.07		7
36	.19	.35	.05	.73	.16	.09	.11	-.03		
45	.20	.37	.17	.77	.12	.08	.08	-.02		
3	.23	.49	.08	.18	.29	.06	.20	.15		
16	.08	.69	.03	.34	.27	-.03	.10	.03		
23	.17	.64	.12	.28	.24	.18	.24	-.01		8
34	.25	.75	.09	.30	.36	.15	.17	-.04		
41	.33	.68	.13	.30	.22	.06	.15	-.13		
12	-.10	.63	-.03	.20	.18	.00	.06	.27		
19	.19	.59	.23	.12	.19	.12	.19	.19		
29	.12	.75	-.01	.21	.27	.09	.21	.11		9
32	.07	.76	.02	.27	.23	.07	-.01	.03		
42	.14	.80	.04	.29	.29	.05	.09	.02		

ically keyed to the vicarious- and contributory-relational scales are loaded on by only one factor. Although three items do not have criterion-level (.50) loadings on any factor, they are close (.49, .43, and .49, respectively).

### Factor Analyses of Scales

The results of Principal Component Factor Analyses on the nine scale scores for each age-split sample are presented in Table 3-5.

In the 30+ age group, three factors, accounting for 68.1% of the total variance, were extracted and named:

1. Instrumental domain.
2. Direct domain.
3. Relational domain.

In this sample pool, the domain factors exhibit qualities of independence.

**Table 3-5**

Scales of L-BLA Achieving Styles Inventory (Form 10), SPSS PA1 factor analyses, oblique rotation, factor structure

Age group 30+ (N = 783) <sup>a</sup>				Age group < 30 (N = 2511) <sup>b</sup>			
	Factor				Factor		
Scale	1	2	3	Scale	1	2	3
1	-.05	-.73	.25	1	.54	.50	-.42
2	.36	-.77	.22	2	.79	.17	.04
3	.31	-.85	.12	3	.81	.24	-.08
4	.79	-.34	.22	4	.75	.29	.48
5	.82	-.39	.20	5	.65	.27	.58
6	.75	.26	.29	6	.15	.20	.83
7	.37	-.21	.67	7	.18	.59	.43
8	.19	-.25	.87	8	.29	.89	.08
9	.11	-.05	.83	9	.19	.87	.02

<sup>a</sup>68.1% of the total item variance explained by the matrix.

<sup>b</sup>68.4% of the total item variance explained by the matrix.

In the < 30 age group, three factors, accounting for 68.4% of the total variance, were named in order:

1. Direct domain.
2. Relational domain.
3. Instrumental domain.

The direct factor loads at the criterion level on the first five scales of the achieving-styles model. The relational factor loads on the three relational scales of the model and on the intrinsic-direct scale. The instrumental factor loads on the social- and reliant-instrumental scales. The personal- and social-instrumental scales have moderate or criterion-level loadings on both the direct and the instrumental factors. The intrinsic-direct scale is also loaded on at the criterion level by the direct and the relational factors. Thus, unlike the 30+ group, independence of domain scores is not demonstrated in this pool of subjects.

### **Reliability of Difference Scores**

When subscale scores are used as a profile, they should show reliable differences from each other if predictions from the separate scores are to be made (Gulliksen, 1950). Our results are shown in Table 3-6.

For the 30+ age group, the lowest coefficient among the reliability of difference scores was between the personal- and the social-instrumental scales (.46). For this group, six other coefficients ranged between .64 and .69. Most of these also occurred between adjacent scales. For this age sample, 80% of the reliability of difference score coefficients were equal to or exceeded .70 (36% exceeded .80).

For the < 30 age group, the reliability of difference scores ranged from a low of .28, again between personal- and social-instrumental, to .80 between competitive-direct and reliant-instrumental, competitive-direct and vicarious-relational, and power-direct and reliant-instrumental. Only 6 of the coefficients had values below .65. Only 16, however, were .70 or above. The highly "unreliable" coefficients were between the personal- and social-instrumental scales (.28) and the vicarious- and contributory-relational scales (.35). These are the same two pairs of scales that exhibited lack of independence in the factor analyses. Both of them are pairs of adjacent scales in the model.

The circular conceptualization of the model assumes moderate correlations between adjacent scales. Thus, the lower than usual reliabilities of differences between adjacent scales are not surprising.

**Table 3-6**

L-BLA Achieving Styles Inventory (Form 10), reliability of difference scores among scales

Scale	Factor									
	1	2	3	4	5	6	7	8	9	
Age group 30+ (N = 783)										
1 Intrinsic direct	(.79)									
2 Competitive direct	.73	(.87)								
3 Power direct	.72	.68	(.89)							
4 Personal instrumental	.80	.82	.74	(.77)						
5 Social instrumental	.79	.82	.71	.46	(.82)					
6 Reliant instrumental	.80	.88	.83	.67	.64	(.75)				
7 Collaborative relational	.80	.84	.78	.74	.69	.69	(.88)			
8 Contributory relational	.78	.84	.78	.74	.72	.78	.76	(.87)		
9 Vicarious relational	.80	.86	.83	.75	.76	.78	.82	.67	(.85)	
Age group < 30 (N = 2511)										
1 Intrinsic direct	(.80)									
2 Competitive direct	.69	(.79)								
3 Power direct	.67	.64	(.80)							
4 Personal instrumental	.74	.67	.65	(.75)						
5 Social instrumental	.76	.73	.69	.28	(.76)					
6 Reliant instrumental	.77	.80	.80	.62	.57	(.72)				
7 Collaborative relational	.78	.78	.77	.68	.65	.63	(.84)			
8 Contributory relational	.67	.79	.74	.66	.63	.74	.69	(.79)		
9 Vicarious relational	.69	.80	.77	.69	.68	.75	.72	.35	(.81)	

Note: Parentheses indicate Cronbach alpha of scale.



The correlation matrices of the nine scales for the age-split pooled samples (Table 3-7) show general congruence with these assumptions of stronger relationships between scales closer together in our model. In the older sample, however, the relationship between intrinsic-direct and vicarious-relational is much weaker than desired. In both age groups, the collaborative-relational scale correlates less with the reliant-instrumental scale than one would ideally wish.

As a further check on validity, the factor analyses of scale scores were examined. As discussed earlier, three dimensions emerged from the analysis of each age sample. In the 30+ sample, scales theoretically belonging to one domain are clearly loaded on by a single factor. In the younger sample, the factor loadings on the sets of scales defined as separate domains were not entirely independent. Nevertheless, the more highly correlated scales are adjacent to one another, consistent with the circular model. It is clear, however, that the very low reliability of differences between the social- and personal-instrumental scales in both age groups (.46 for 30+, .28 for < 30) indicates that more work is needed on those two scales. In contrast, the reliability of difference between the vicarious- and contributory-relational scales, while very low (.35) in the < 30 group, is considerably higher (.67) in the 30+ group. It is possible that these styles become more differentiated as people age.

The reliant-instrumental scale shows lower internal consistency (.72, .75) than do other scales and is currently being revised; and the overly high correlations between it and the social-instrumental scale contributes to the low reliability of difference scores (.57 for < 30, .64 for 30+). Further, mean scores on reliant-instrumental are low across all samples, suggesting a negative response bias. (More recent samples, using a revised reliant-instrumental scale, show higher mean scores.)

### **Summary Comment**

These findings concerning reliability and validity of the L-BLA Achieving Styles Inventory (Form 10) can be summarized as follows: First, the instrument exhibited good to excellent internal scale consistency and adequate stability over a 15-week interval in a sample of high school students. Second, the test exhibited strong factorial validity for seven of the nine scales in both age-split samples. Results from both pooled subsamples, however, indicate that the instrumental scales need more work, which has since been completed. Items of the personal-instrumental scale are loaded on by the social-instrumental scale, and the reliant-instrumental scale (because of its very low endorsement and lack of any significant differences between

**Table 3-7**

Correlation matrix of L-BLA Achieving Styles Inventory (Form 10), scale scores

Scale	Factor									
	1	2	3	4	5	6	7	8	9	
Age group 30+ (N = 783)										
1 Intrinsic direct	1.00									
2 Competitive direct	.38	1.00								
3 Power direct	.40	.63	1.00							
4 Personal instrumental	.16	.38	.34	1.00						
5 Social instrumental	.19	.37	.42	.62	1.00					
6 Reliant instrumental	-.17	.06	-.06	.37	.41	1.00				
7 Collaborative relational	.14	.23	.24	.22	.31	.28	1.00			
8 Contributory relational	.24	.22	.23	.21	.22	.18	.48	1.00		
9 Vicarious relational	.14	.17	-.01	.19	.09	.18	.31	.58	1.00	
Age group < 30 (N = 2511)										
1 Intrinsic direct	1.00									
2 Competitive direct	.33	1.00								
3 Power direct	.38	.52	1.00							
4 Personal instrumental	.22	.47	.45	1.00						
5 Social instrumental	.15	.35	.38	.66	1.00					
6 Reliant instrumental	-.10	.11	.02	.35	.40	1.00				
7 Collaborative relational	.09	.20	.14	.24	.26	.28	1.00			
8 Contributory relational	.38	.17	.25	.27	.28	.16	.39	1.00		
9 Vicarious relational	.35	.12	.17	.22	.16	.12	.33	.69	1.00	

groups) shows strong indications of negative response bias. Third, the reliability of difference between most scale scores on this version of the Achieving Styles Inventory is in the good range for research purposes, but falls short of meeting the criterion for use as a clinical tool. Further, in the younger age group, there is no reliable difference between the vicarious- and contributory-relational scales and, for both samples, no reliable difference between the personal- and social-instrumental scales. These problems have been overcome on a subsequent revision of the instrument. Fourth, factorial validity of the domain scores are more accurate for older persons than for younger ones.

## **RESULTS WITH L-BLA ACHIEVING STYLES INVENTORY: PREDICTABILITY**

### **Discriminant Analyses to Predict Gender and Age**

Discriminant function analyses were used to examine the predictive ability of the scale scores on the Achieving Styles Inventory. Using the nine scale scores as independent predictors, we first attempted to predict gender as a dependent variable.

We chose gender as the dependent variable for several reasons. Studies of early gender-role socialization have shown both differences and similarities in achievement orientations taught to males and females (Crandall, 1963; Crandall and Battle, 1970; Hoffman, 1972; Stein, 1971; Stein and Bailey, 1973). Put simply, males are socialized toward competitive and leadership behaviors (direct achieving styles), while females are encouraged to be helpers, placing others before themselves (relational achieving styles). They are also socialized to vicarious achievement and status emanating from their relationships with others. But, for both genders, American culture has strongly reinforced and valued the intrinsic-direct style—jobs well done and the dignity of work.

For such reasons, we hypothesized (1) that men would score higher on direct than on relational scales, (2) that women would show higher relational than direct scores, and (3) that both groups would score relatively high on the intrinsic-direct style. Further, because women traditionally have occupied more dependent roles, we believed they would show higher reliant-instrumental scores than would men. On the other hand, we were less certain about the social- and personal-instrumental scales. We felt that perhaps women, consistent with their derivative achievement socialization, would score higher on the social-instrumental, tending more to use relationships as mecha-

nisms for other achievements; while men might be more personal-instrumental, parlaying direct achievements to other ends.

Each of the age-split pooled samples was randomly stratified by gender into two groups. In each case, group 1 was used to compute a single significant canonical discriminant function, which then was used to predict gender in group 2 (Table 3-8).

In the older group, about three out of four people were correctly classified; while in the younger sample, approximately two out of three people were correctly classified. These rates are, of course, significantly higher than the 50% chance level. The shrinkage of  $R^2$  is negligible, as indicated by the small differences in the overall percentage of cases correctly classified between the computational and cross-validated groups.

The distributions of discriminant scores for men and women in both age-split pooled samples were normal, although the women's distributions were flatter in both age groups. Further, the overlap between the genders was considerably greater in the younger group than in the older group. Since these data are entirely cross-sectional, we are uncertain about whether these age-group differences are attributable to cohort differences, aging, or other factors.

**Table 3-8**

Cross-validation of predictive validity of the L-BLA Achieving Styles Inventory (Form 10), percentage of cases correctly classified by gender, prior probability = 50%

Group 1 (computational)				Group 2 (cross-validated)			
	N	Males	Females		N	Males	Females
Age group 30+ (N = 780)							
Males	224	74.1%	25.9%	Males	213	78.9%	21.1%
Females	167	24.0%	76.0%	Females	176	24.4%	75.6%
Overall percentage of cases correctly classified: 74.94%							
Age group < 30 (N = 2483)							
Males	583	68.4%	31.6%	Males	612	71.9%	28.1%
Females	650	32.9%	67.1%	Females	638	39.2%	60.8%
Overall percentage of cases correctly classified: 67.72%							

Table 3-9 shows *F*-test results of one-way analyses of variance for the discriminant function analyses of the two age groups. In the older age group, men scored significantly higher than women on all scales except the reliant-instrumental and vicarious-relational scales. These two scales failed to show significant differences between women and men. While the generally higher scores given by men are consistent with similar patterns reported in the psychometric literature, sampling error may be partially responsible. Of the men in this older subsample, 88% were business executives. Their high endorsement of most styles may represent a special attribute, perhaps self-confidence, of occupants of such roles. Indeed, in a recent study (Awad, 1980), male and female M.B.A. students showed no significant differences from one another on any scale, while both scored significantly higher across the board than the several sets of other college majors tested.

In our older age group, the intrinsic-direct style was given the highest scores by both genders. Older males' next most preferred style was power-direct. For females in the 30+ group, the cluster of relational styles were next most preferred after intrinsic-direct. These data generally support our expectations about distributions of scores within gender groups, but the two higher absolute relational scores of men were something of a surprise.

In the <30 group, statistically significant differences were found between men and women for all except the reliant-instrumental and collaborative-relational scales. These differences between young men and women also tend to support our general hypotheses. Women showed significantly higher contributory- and vicarious-relational scores and a near-significantly higher score on collaborative-relational. Also as predicted, males showed significantly higher means on all the direct scales. Further in accordance with our predictions, both genders scored high on the intrinsic-direct scale. This scale, again, was given the highest mean of all scales by both men and women. Our expectation, however, that females would give a higher reliant-instrumental mean than males was not borne out. As noted earlier, this scale received very low endorsement from all samples, so its failure to discriminate may be due to other characteristics. Finally, on both the personal- and the social-instrumental scales, men scored significantly higher than women.

Table 3-10 presents the significant standardized canonical discriminant function coefficients explaining 100% of the variance for the two age-split samples by gender. By applying the function coefficients to the mean scores shown in Table 3-9, we see that, in the 30+ age group, the dominant discriminating variable for separating

**Table 3-9**

Results of analyses of variance from discriminant function analyses, age-split subsamples

Scale	Male		Female		F	P
	Mean	S.D.	Mean	S.D.		
Age group 30+ (N = 780)						
1 Intrinsic direct	5.19	.89	4.92	1.22	20.96	.000
2 Competitive direct	4.69	1.01	3.44	1.17	249.00	.000
3 Power direct	5.08	1.03	4.01	1.37	183.90	.000
4 Personal instrumental	3.95	1.16	3.48	1.19	24.07	.000
5 Social instrumental	3.52	1.07	2.99	1.17	51.50	.000
6 Reliant instrumental	2.85	1.07	2.91	1.03	.24	.624
7 Collaborative relational	4.68	1.11	4.31	1.22	49.61	.000
8 Contributory relational	4.59	1.02	4.21	1.17	41.96	.000
9 Vicarious relational	4.70	1.06	4.52	1.39	43.28	.038
Age group < 30 (N = 2483)						
1 Intrinsic direct	4.63	1.03	4.54	1.05	8.16	.004
2 Competitive direct	4.39	1.17	3.84	1.17	155.50	.000
3 Power direct	4.23	1.24	3.76	1.33	71.42	.000
4 Personal instrumental	4.05	1.08	3.59	1.09	777.40	.000
5 Social instrumental	3.41	1.14	2.91	1.08	104.20	.000
6 Reliant instrumental	2.79	.97	2.72	.94	.96	.328
7 Collaborative relational	4.09	1.20	4.21	1.21	3.69	.055
8 Contributory relational	3.88	1.04	4.06	1.05	14.54	.000
9 Vicarious relational	4.02	1.12	4.48	1.12	86.63	.000

**Table 3-10**

Significant standardized canonical discriminant function coefficients for separate analyses of two age-split samples by gender

Scale	Analysis 1	Analysis 2
	Age group 30+ Function 1	Age group < 30 Function 1
1 Intrinsic direct	.29	.08
2 Competitive direct	-.82	.39
3 Power direct	-.29	.15
4 Personal instrumental	.08	.26
5 Social instrumental	-.14	.46
6 Reliant instrumental	.20	-.10
7 Collaborative relational	-.10	-.20
8 Contributory relational	-.21	-.04
9 Vicarious relational	.05	-.68

males from females is the high competitive-direct scale score for males. Younger men are also separated from younger women by their higher competitive-direct scores and by higher social-instrumental and lower vicarious-relational scores.

A discriminant analysis was also performed to determine whether the Achieving Styles Inventory could correctly predict membership in the 30+ and < 30 age groups without regard to gender. We believed that relational styles, particularly the vicarious-relational style, would tend to be used more by older people, as the variety of their relational experiences grew. While direct styles of achieving should increase as people enter and advance through their careers, older people, having achieved some of their primary occupational goals, may be expected to move away from competitive- and power-direct styles toward more relational styles. Older individuals, regardless of gender, are also "socialized" as they grow even older, away from task-oriented directness toward more vicarious- and contributory-relational styles. Further, we expected younger persons to use more personal- and social-instrumental styles than would older persons, since they are in the process of actively searching for a place in the world, often through the aid of and connections with more powerful others.

As Table 3-11 shows, 68.2% of the sample was correctly classified into the 30+ and < 30 age groups. Examination of the single significant discriminant function explaining 100% of the variance shows

**Table 3-11**

Predictive ability of the L-BLA Achieving Styles Inventory (Form 10), percentage of cases correctly classified by age, prior probability = 50%

Age group	N	< 30	30 +
30 +	783	31.4	68.6
< 30	2511	68.0	32.0
Overall percentage of cases correctly classified: 68.2%			

that age groups are distinguished from each other by a pattern of negative coefficients for the intrinsic-direct, power-direct, and reliant-instrumental scales, and positive coefficients for the personal-instrumental and competitive-direct scales. These differences were, of course, presaged (Table 3-9) by younger people's lower intrinsic-direct, power-direct, and reliant-instrumental scores and higher personal-instrumental scores. The higher competitive-direct score for younger women relative to older women also contributed to the discrimination between age groups. This difference is not particularly difficult to explain, given the more assertive orientation endorsed by the women's movement, whose influence is felt most strongly by younger women.

Our expectations about age differences are only partially supported, however. Older persons do show, as expected, higher mean scores on the relational scales, with the difference greater for males than for females. And younger persons do show slightly higher personal-instrumental scores. But social-instrumental scores are fairly constant across groups, and the competitive-direct mean is lower with age among women, but higher among men.

In summary, the predictive ability of the instrument was shown to be considerably better than chance in classifying subjects by gender and age, and the discriminating variables and direction of results tend grossly to fit our a priori predictions. The predictions about gender were more accurate for persons 30 + than < 30. The clearer differences within older age groups may be due to developmental processes, cohort effects, sampling, role differences, or some combination of these, or indeed, to other causes. Our cross-sectional data inevitably shed little light on that question.

Intercorrelations among scales are generally consistent with our circular model of achieving styles. Factor analyses of the scale scores also pick up three dimensions consistent with the model's three



domains. While there are several instances of multiple loadings in the < 30 subjects, the domains are highly differentiated in the 30+ group.

### **Data from Occupational Groups of Men and Women**

In order to explore further the relationship among ASI scores, salient characteristics of various occupational groups, and gender, we selected eight homogeneous subpopulations from the larger sets described in the previous section. We were particularly interested in (1) differences across levels and types of management (e.g., how senior managers compared on, say, power-direct styles with junior managers) and (2) differences, if any, between the genders when both are engaged in similar occupations (e.g., whether male middle managers show significantly different profiles from female middle managers).

To take a first cut at these questions, we isolated five sets of men and three sets of women as follows:

1. Senior managers ( $N = 242$ ) drawn from the 1979 and 1980 senior-executive programs of a western university. These men averaged 44.8 years of age and 16.7 years of education. Typically, they held titles such as Vice President or General Manager in large corporations. Estimated mean annual income: \$90,000 to \$100,000. They are the males from groups 9 and 10 in Table 3-1.

2. Upper male managers ( $N = 34$ ) from a 1979 executive program at an eastern university. They are younger (mean age = 37.1), from slightly lower organizational levels than group 1 above, and typically from smaller companies. Average education for this group was 16.3 years. Estimated mean annual salary: \$60,000. They are the males from group 12 in Table 3-1.

3. Middle male managers ( $N = 34$ ) who were Fellows in a one-year degree program at a western university in 1980. They are younger (mean age = 37.0) and generally of lower organizational rank than group 1 or 2. Average education was 16.9 years. Estimated mean annual salary: \$40,000. They are the males from group 11 in Table 3-1.

4. Technical managers ( $N = 29$ ) who were all technical supervisors in a large, private research and development organization in 1980. Their average age was 40.3; average education, 18.3 years. Estimated average salary: \$40,000. They are the males from group 13 in Table 3-1.

5. Staff managers ( $N = 35$ ) who were credit managers and loan officers from banks and other business organizations in a 1980 sam-

ple. Their average age was 34.8; average education, 15.1 years. Salaries unknown. They are the males from group 14 in Table 3-1.

We also selected three female groups, as follows:

6. *Homemakers* ( $N = 154$ ), most of whom were the wives of the men in groups 9, 10, 11, and 18 in Table 3-1. Their average age was 43.5; their average education covered 14.3 years. These women identified themselves as full-time homemakers.

7. *Career women* ( $N = 146$ ) who were nonmanagerial working women drawn from groups 9, 10, 11, and 18 of Table 3-1. Their average age was 40.7 years, and average education was 16.2 years. Incomes were not recorded.

8. *Managers* ( $N = 61$ ) who were drawn from groups 9, 10, 11, 13, 14, and 18 of Table 3-1. These women coded their occupations as managers or administrators. Their average age was 39.5; their average education, 15.9 years. Their incomes are not known.

Table 3-12 shows mean scores, standard deviations, and  $F$  ratios from one-way analyses of variance for those eight groups on the nine scales of the Achieving Styles Inventory.

***Analysis of Male Scores*** The salient findings from groups 1–5 are these:

1. The intrinsic-direct and reliant-instrumental scales showed little variation and uniformly high and low means, respectively. These scales have been modified in a subsequent revision of the L-BLA Achievement Styles Inventory (Form 13).

2. An analysis of variance over the means of all scales showed significant differences among groups on competitive-direct, power-direct, personal-instrumental, collaborative-relational, and vicarious-relational scales, and near-significance ( $p = 0.07$ ) on the social-instrumental and contributory-relational scales.

3. The technical managers ranked fifth of the five groups on each of the three direct scales and each of the three instrumental scales, while the middle managers ranked fifth on each of the three relational scales. Moreover, senior managers and upper managers gave higher raw mean scores on every scale than did the technical managers. That the technical supervisors showed the lowest scores almost across the board may indicate either less “intensity” of style, less self-confidence, or, perhaps stereotypically, greater caution than other groups about giving extreme responses. That the technical managers were the least direct and instrumental of the male groups may also suggest a less macho, more balanced set of styles than exhibited by the other male managerial groups.

4. These uniformly high scores for some groups and low scores for others warrant separate consideration of the *pattern* of any group's scale scores relative only to itself. We, therefore, examined raw rank orders across scales for each group. Since all groups gave very consistent low ranks to the three instrumental scales, we considered differences among the groups on only the direct and the relational scales.

The within-group patterns now emerge more clearly. The middle managers gave their three highest ranks to the three direct styles, with low ranks given to contributory-, collaborative-, and vicarious-relational scales. The technical managers, in contrast, showed a pattern of preference for the intrinsic-direct style (rank 1), followed by all three relational scales, with their lowest (of these six) ranks going to the competitive- and power-direct scales. The senior managers gave their highest ranks to the power- and intrinsic-direct styles, and then spread their third rank over three scales: competitive-direct, and collaborative- and vicarious-relational.

5. Overall, the results with male managers are at least consistent both with our own experience and with commonly held stereotypes. The senior general managers showed the highest power-direct orientation, but they were also moderately high on the relational styles (highest of all male groups in their collaborative and vicarious scores). They were the only group to show a lower intrinsic- than power-direct orientation. This picture seems consistent with the senior-management role, which involves several components: organization and control of others with relatively little directly targeted individual work, and significant elements of coaching and peer collaboration.

The slightly younger and slightly lower-level upper managers came through as more direct on all three direct scales than did the senior managers, and also less relational on two of the three relational scales. They fit more closely the aggressive, competitive executive stereotype, while the older senior managers reflected something closer to a strong, benevolent fatherly image.

The still younger and even lower-level middle managers put forward a clear "young tiger" pattern. They scored high on the direct styles: intrinsic, competitive, and power. The difference between their average direct-domain and average relational-domain scores was .86, almost twice as large as that displayed by any other group. But these subjects were fairly recent entrants into the managerial world, so perhaps such a "muscular" set of orientations is to be expected.

The technical managers also fulfilled stereotypic expectations. They gave cautiously low scores across all nine scales; but, within their own group, their highest ranks were reserved for the task-centered intrinsic-direct style and the contiguous altruistic vicarious-

**Table 3-12**

Results of one-way analysis of variance including raw scale means and standard deviations, eight occupational groups (5 male, 3 female), L-BLA Achieving Styles Inventory (Form 10)

Group	N	Gender	Direct						Instrumental							
			Intrinsic		Competitive		Power		Personal		Social		Reliant			
			1	2	3	4	5	6	1	2	3	4	5	6		
			$\bar{X}$	S.D.	$\bar{X}$	S.D.	$\bar{X}$	S.D.	$\bar{X}$	S.D.	$\bar{X}$	S.D.	$\bar{X}$	S.D.	$\bar{X}$	S.D.
1. Seniors	242	M	5.27	.86	4.96	.93	5.38	.81	3.78	1.25	3.44	1.06	2.85	1.00		
2. Uppers	34	M	5.44	.94	5.25	.80	5.46	.78	4.49	.82	3.87	.90	2.92	1.09		
3. Middles	34	M	5.49	.85	4.71	.99	5.29	.86	3.77	1.23	3.69	.92	2.82	1.00		
4. Techs	29	M	5.22	.90	4.26	1.03	4.47	1.14	3.73	.92	3.21	1.06	2.60	.84		
5. Staffs	35	M	5.52	.67	4.73	.83	5.02	.87	4.35	.98	3.67	1.30	2.69	1.05		
			F	1.30	5.57	8.73	4.30	2.22	.63							
			P	.27	.00	.00	.00	.07	.64							
6. Homemakers	154	F	4.70	1.19	3.30	1.20	3.46	1.39	3.35	1.27	2.60	1.14	2.96	1.06		
7. Careers	146	F	5.04	1.10	3.48	1.05	4.22	1.23	3.51	1.18	3.04	1.16	2.94	1.10		
8. Managers	61	F	5.56	.89	3.84	1.55	4.83	.91	3.77	1.18	3.64	.99	2.75	1.01		
			F	13.99	4.99	30.18	2.67	19.35	.96							
			P	.00	.01	.00	.07	.00	.38							

Group	N	Gender	Relational						Domain							
			Collabo- rative			Contrib- utory			Direct		Instru- mental		Relational		Total test	
			7	8	9	7	8	9	$\bar{X}$	S.D.	$\bar{X}$	S.D.	$\bar{X}$	S.D.	$\bar{X}$	S.D.
1. Seniors	242	M	4.97	1.02	4.78	.97	4.95	.97	5.20	.68	3.36	.92	4.90	.84	4.49	.60
2. Uppers	34	M	4.87	1.23	5.07	.97	4.86	1.14	5.39	.69	3.76	.77	4.94	.96	4.69	.52
3. Middles	34	M	4.17	1.10	4.39	1.19	4.33	1.32	5.16	.66	3.43	.75	4.30	.98	4.29	.44
4. Techs	29	M	4.68	.72	4.67	.85	4.79	.95	4.65	.76	3.18	.78	4.71	.59	4.18	.54
5. Staffs	35	M	4.45	1.15	4.85	1.05	4.81	1.08	5.09	.63	3.57	.90	4.70	.87	4.46	.56
			F 6.05		2.21		2.70		$\bar{X}(1-5)$ 5.16	.69	3.41	.89	4.82	.87	4.46	.58
			P .00		.07		.03									
6. Homemakers	154	F	4.06	1.31	4.20	1.19	4.98	1.36	3.82	.94	2.97	.94	4.41	1.01	3.73	.68
7. Careers	146	F	4.21	1.21	4.09	1.16	4.18	1.31	4.25	.87	3.16	.93	4.16	.91	3.86	.61
8. Managers	61	F	4.65	1.06	4.60	.94	4.53	1.08	4.74	.74	3.83	.79	4.60	.74	4.24	.49
			F 5.22		4.46		14.13		$\bar{X}(6-8)$ 4.15	.94	3.12	.92	4.34	.94	3.87	.65
			P .01		.01		.00									

relational style. While they showed lower overall mean scores than did any other group in both the direct and the instrumental domains, they were considerably higher in the total relational domain and in each of its three substyles. The technical managers came through, then, as reasonable purists, targeted toward task, supportiveness, and group effort, rather than toward power, competition, and political ploys.

The staff managers, a group of credit and loan officers, had the widest age spread. They showed a mixed achieving styles pattern. Like the middle managers, their highest scores were in the intrinsic- and power-direct areas, with lower scores on the competitive-direct scale. Compared to other groups, they were also among the higher scorers on the personal- and social-instrumental scales, suggesting a tendency to get things done by indirection—a phenomenon frequently associated with staff positions in organizations.

The data on these five male groups, while far from definitive, do seem grossly to match expectations about the behaviors associated with their respective organizational roles.

***Analysis of Female Scores***<sup>4</sup> In the three occupational groups of women (groups 6, 7, and 8 described earlier), the prominent results (Table 3-12) are these:

1. Again, we found low means and low group-to-group variations on the three instrumental scales, contrary to manipulative and dependent stereotypes of women.

2. An analysis of variance across scales showed significant differences among groups on seven scales, near-significance ( $p = .07$ ) on the personal-instrumental scale, and nonsignificance only on the reliant-instrumental scale.

3. A comparison of ranks across scales for female occupational groups provides a crude picture of patterns of response within these three groups. The top three ranks for homemakers were the vicarious-relational, intrinsic-direct, and contributory-relational scales. For both groups of working women, the top three ranks went to the intrinsic-direct, power-direct, and collaborative-relational scales, respectively.

---

<sup>4</sup>For an analysis of differences in achieving styles among four female groups (teenage students, full-time homemakers, women in traditional “feminine” occupations, and female managers) and several male groups, see Lipman-Blumen, Leavitt, and Handley-Isaksen, 1980.

4. The managerial women scored highest of the three groups on seven of the nine scales and lowest only on the reliant-instrumental scale. Thus, these managers also had the highest overall test mean of the female groups. The homemakers, by contrast, were the lowest scorers on six scales, including the three direct scales, two instrumental scales, and one relational scale. They were highest on the vicarious-relational and reliant-instrumental scales. Likewise, their overall test mean was the lowest of the three female groups. The managerial women differed from the homemakers in their much higher power-direct and social-instrumental scores and in their relatively lower vicarious-relational scores. The career women who occupy mostly traditional female work roles gave the lowest vicarious-relational score of any group. The career women scored between the homemakers and managers on seven of the nine scales and on the total test mean. The two scales on which the career women did not have a position midway between the homemakers and managers were the contributory- and vicarious-relational scales; in fact, they scored lowest on both.

5. The patterns within women's groups conform to some, but not all, stereotypical expectations. As we expected, homemakers gave their four highest ranks to all three relational styles, as well as to the intrinsic-direct style. Contrary to stereotypes, they gave lowest ranks to social- and reliant-instrumental scales. Nonetheless, they showed somewhat stronger reliant patterns than did their female counterparts in the paid labor force, although the differences were not quite significant. Homemakers' reliant-instrumental scores were only slightly higher than those of careerists, but noticeably higher than the managerial women's reliant-instrumental scores. Compared to their managerial and careerist sisters, the homemakers gave particularly lower scores to the power-direct and social-instrumental scales, but the greatest differences among the female groups, as one might expect, were those between the managerial women and the homemakers. On all but one scale—the vicarious-relational—the differences between the homemakers and the managerial women were greater than between the homemakers and the career women employed in traditional feminine jobs.

Both groups of women in paid employment gave first rank, as well as higher absolute scores than did homemakers, to the intrinsic-direct scale. They also ranked and scored the power-direct scale higher than did homemakers. And although managerial women are more competitive than their homemaking and careerist sisters in both rank order and scores, they gave the competitive-direct scale a much

lower rank (6) and consistently lower scores than did their male counterparts.

These findings, with exceptions, are mostly consistent with expectations about role demands on managers and homemakers, suggesting a possible selection mechanism moving persons with appropriate styles toward consonant roles, and perhaps also some further honing of achieving styles appropriate to one's role. Moreover, some of these roles may provide few opportunities and little encouragement for experimenting with other styles outside of that subset. For example, one might argue that the homemakers' environment, other things being equal, provides a narrower range of situations and a smaller number of opportunities to practice alternative styles than some other occupational environments. The homemakers' consequent lower overall scale scores may result from more tentative and conservative answers to scale items than those given by groups that operate in wider experiential and/or self-confidence-evoking contexts. Further, any given role within an environment may provide structured opportunities for developing a particular subset of achieving styles.

***Comparison of Males and Females*** A joint consideration of the five groups of men and three groups of women provides the following comparisons:

1. The total raw test-item means (Table 3-12) were considerably higher for the men (4.46) than for the women (3.87). The men also scored higher on each of the three domains and on all but the reliant-instrumental scale.

2. Separate examination of the data from all eight groups indicates that the lower test scores for women were generated primarily by the homemaker group. They scored lowest of all eight groups on six of the nine scales and seventh on one more. But they scored highest (by a very small margin) on the reliant-instrumental and vicarious-relational scales—the two scales probably most closely associated with traditional “feminine” behavior.

On the other hand, the women managers, themselves a diverse group, are not easily distinguishable from male groups 1 (seniors), 2 (uppers), or 3 (middles), except on the competitive- and power-direct scales. There are considerable differences on the competitive-direct scale, with female managers giving much lower scores than did male managers. The differences in power between male and female managers are weaker, but discernible. All but one male group scored higher on power-direct than did the female managers. The female managers'



raw scores ranked highest among all eight groups on the intrinsic-direct scale and higher than at least one of the male groups on six other scales.

3. Considering patterns of ranks within groups, the total set of women gave intrinsic-direct their highest rank, vicarious-relational second, with the other two relational scales (contributory and collaborative) tied for third. The men also gave the number 1 slot to intrinsic-direct, but second rank went to power-direct. Third place was a tie between the competitive-direct and vicarious-relational styles.

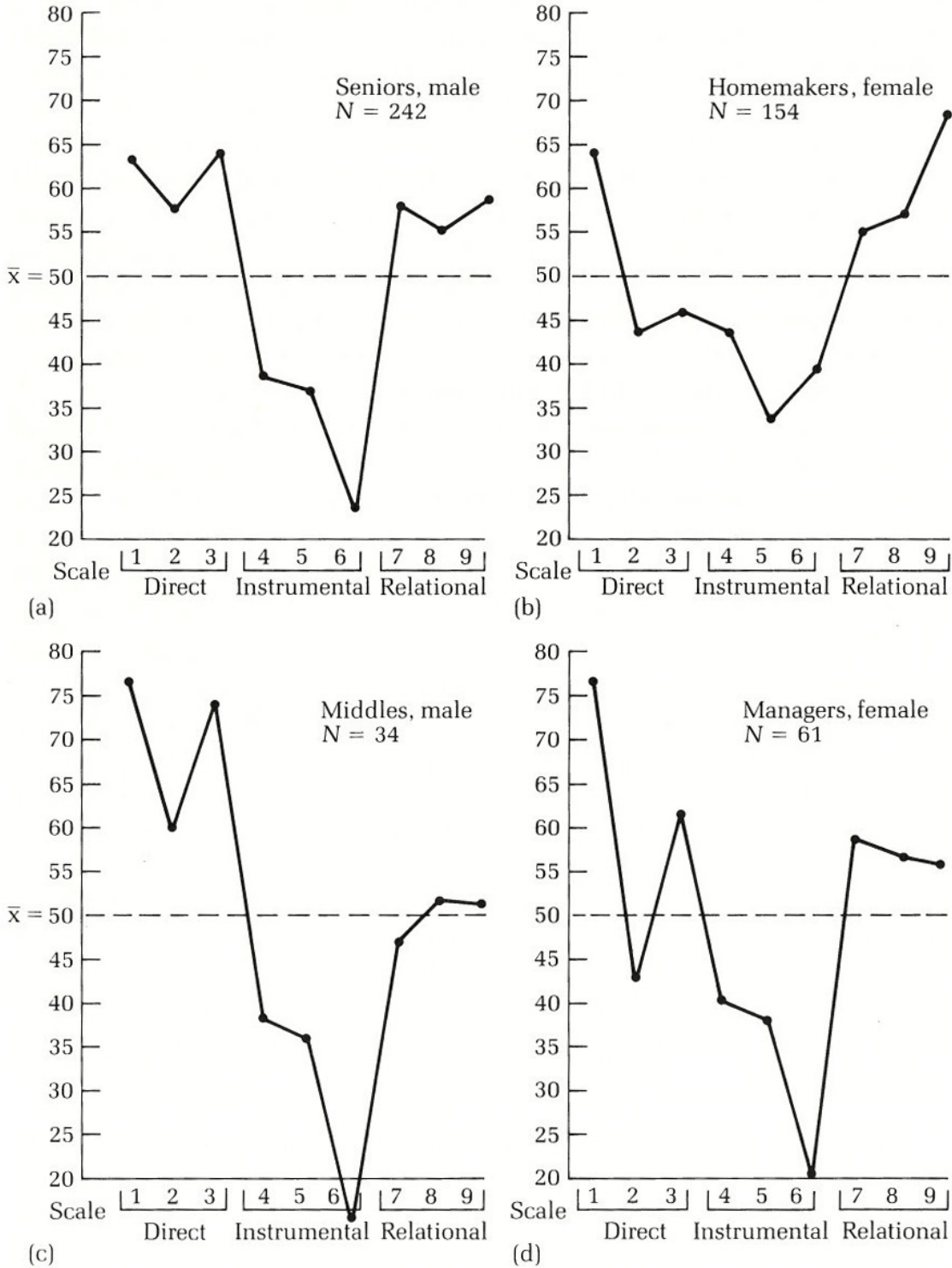
Only the *overall* men's and women's patterns, then, generally fit prevailing stereotypes: the "warm, supportive" women were vicarious-, contributory-, and collaborative-relational; they rejected the power- and competitive-direct styles. The "cold, hard" men were power-oriented and competitive-direct. Nonetheless, both genders (perhaps primarily in the highly task-oriented American tradition) showed high intrinsic-direct achievement orientations.

Two apparent contradictions of traditional gender-role stereotypes appear: the relatively high vicarious-relational status of the men's groups, especially the older, male managers of higher rank; and, as noted above, the relatively low social-instrumental scores of women in traditional roles, who stereotypically are seen as achieving through manipulating relationships.

4. Finally, if we plot (Figure 3-2) standard (*T*) scores for four special groups, intragroup patterns show up more clearly. The homemakers showed an essentially U-shaped pattern: high on intrinsic-direct, lower in the remaining direct scales and the three instrumental scales, then peaking again on the relational scales. The male senior managers were high on the direct scales, dipped sharply in the instrumental scales, then came back partway on all the relational scales. The male middle managers' pattern, in contrast, was very high on the direct scales and low on the relational styles. The managerial women looked most like the male senior managers, ranking intrinsic- and power-direct high and vicarious-relational low, but showing a much sharper drop from intrinsic- to competitive-direct than either male group.

We draw no definitive conclusions from these exploratory occupational data. The findings do point up problems with several scales, which, as we have indicated, have since undergone four revisions. They raise the painful question of high and low response biases (tentatively associated here both with line management and gender). Beyond those methodological questions, the data are consistent with contemporary expectations about male managers and female home-

makers. But the scoring patterns of both female labor-force groups and male technical supervisors make it clear that gender alone cannot account for our findings.



**Figure 3-2**  
 T scores, Achieving Styles Inventory (Form 10), four occupational groups  
 ( $\bar{x} = 50$ ; S.D. = 10).

## SUMMARY AND DISCUSSION

In summary, we have developed and presented a three-factor model of achieving styles, built on the assumption that individuals learn more or less preferred methods for trying to achieve—to implement, to get things done. These preferred styles, we believe, are learned fairly early in life as a consequence of differential reinforcement of the individual's search for solutions. Adult roles may be selected that are perceived as consonant with an individual's preferred achieving-style profile. Often, the role further hones the individual's pattern. Moreover, people may become so well attuned to and skilled in the use of particular styles that other possible styles may no longer even be perceived or may be considered infeasible. As a consequence, styles familiar to the person may be used, even when deemed inappropriate by observers. Style, once formed, may then drive the definition or selection of achieving situations. Individuals then perceptually may redefine situations, enacting a world compatible with their preferred styles, thereby constructing more comfortable perceived realities. Indeed, analogous phenomena often take place at organizational and societal levels.

We have also developed a nine-scale self-report instrument, the L-BLA Achieving Styles Inventory, designed to measure the nine achieving styles identified in the model. Preliminary findings on the validity and reliability of the instrument are reassuring. We are currently in the process of relating the L-BLA Achieving Styles Inventory to other conceptually proximate psychometric instruments and to more direct behavioral measures. The achieving-styles paradigm may provide a useful lens for viewing gender roles, organizational behavior, and cross-cultural differences. We have already undertaken preliminary work in each of these areas (Leavitt and Lipman-Blumen, 1980; Lipman-Blumen and Leavitt, 1978, 1979). For example, we are comparing ASI performance at several levels of management and in several specialized functions. We have collected data on occupation, age, and gender groups in Singapore and Taiwan, and we expect soon to have data from comparable groups in Brazil, Scandinavia, South Africa, Italy, and Israel. In addition, several doctoral dissertations on various aspects and applications of achieving styles are in progress at present.

The genesis of this research emanated from a concern about gender differences in achieving styles. That interest continues with planned or ongoing studies of age, gender, and cohort differences. The interactions among age, gender, and occupation seem particularly intriguing as women increasingly move into traditionally male occupational roles. Further inquiry is also under way both into the life-style cor-

relates of individual patterns of achieving styles and possible programs for helping individuals expand their style repertoires. Such tailor-made programs might encourage individuals to become more sensitive to situational cues and more flexible in their responses. Other applications in the areas of group dynamics, including team building and conflict resolution, as well as family therapy and occupational counseling, offer possible additional avenues of exploration.

## REFERENCES

- Abramson, L. Y., M. E. D. Seligman, and J. D. Teasdale. 1978. Learned helplessness in humans: Critique reformulation. *Journal of Abnormal Psychology*, 87, 49–74.
- Adorno, T. W., E. Frankel-Brunswik, D. J. Levinson, and R. N. Sanford. 1950. *The authoritarian personality*. New York: Harper.
- Allport, G. W. 1937. *Personality: A psychological interpretation*. New York: Holt.
- Allport, G. W. 1965. Traits revisited. *American Psychologist*, 21, 1–10.
- Alper, T. G. 1973. The relationship between role-orientation and achievement motivation in college women. *Journal of Personality*, 11, 9–31.
- Alper, T. G. 1974. Achievement motivation in college women: A now-you-see-it-now-you-don't phenomenon. *American Psychologist*, 29, 194–203.
- Alper, T. G., and E. Greenberger. 1967. Relationship of picture structure to achievement motivation in college women. *Journal of Personality and Social Psychology*, 7, 362–371.
- Angelini, A. L. 1955. Un novo metodo para avaliar a motivacao humano. (A new method of evaluating human motivation.) *Boletim Faculdade de Filosefice Ciencias, Saõ Paolo*, No. 207.
- Atkinson, J. W. 1958a. Thematic apperception measurement of motives within the context of a theory of motivation. In J. W. Atkinson (ed.), *Motives in fantasy, action, and society*. Princeton, NJ: Van Nostrand.
- Atkinson, J. W. (ed.). 1958b. *Motives in fantasy, action, and society*. Princeton, NJ: Van Nostrand.
- Atkinson, J. W. 1960. Personality dynamics. *Annual Review of Psychology*, 11, 255–290.
- Atkinson, J. W., and N. T. Feather. 1966. *A theory of achievement motivation*. New York: Wiley.
- Atkinson, J. W., R. W. Heyns, and J. Veroff. 1954. The effect of experimental arousal of the affiliative motive on thematic apperception. *Journal of Abnormal and Social Psychology*, 49, 400–410.
- Atkinson, J. W., and J. O. Raynor (eds.). 1974. *Motivation and achievement*. Washington, DC: Winston.
- Atkinson, J. W., and E. L. Walker. 1956. The affiliation motive and perceptive sensitivity to faces. *Journal of Abnormal and Social Psychology*, 53,

- Awad, R. 1980. Suggested relationships between academic major and achieving styles. Unpublished manuscript, Stanford University.
- Bales, R. F., and P. Slater. 1955. Role differentiation in small decision making groups. In T. Parsons and R. F. Bales (eds.), *Family socialization and interaction process*. Glencoe, IL: Free Press.
- Bandura, A. 1977. *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Baruch, R. 1967. The achievement motive in women: Implications for career development. *Journal of Personality and Social Psychology*, 5, 260–267.
- Bass, B., and G. Dunteman. 1963. Behavior in groups as a function of self, interaction and task orientation. *Journal of Abnormal Social Psychology*, 66, 419–428.
- Bellak, L. 1942. An experimental investigation of projection. *Psychological Bulletin*, 39, 489–490.
- Bellak, L. 1944. The concept of projection. *Psychiatry*, 7, 353–370.
- Blake, R. P., and J. S. Mouton. 1969. *Building a dynamic corporation through grid organization development*. Reading, MA: Addison-Wesley.
- Blumen, J. (Lipman). 1970. Selected dimensions of self-concept and educational aspirations of married women college graduates. Unpublished doctoral dissertation, Harvard University.
- Boyatzis, R. E. 1972. A two-factor theory of affiliation motivation. Unpublished doctoral dissertation, Harvard University.
- Boyatzis, R. E. 1974. The need for close relationships and the manager's job. In D. A. Kolb, I. M. Rubin, and J. M. McIntyre (eds.), *Organizational psychology: A book of readings*. 2nd ed. Englewood Cliffs, NJ: Prentice-Hall.
- Breedlove, J. J., and V. G. Cicerelli. 1974. Women's fear of success in relation to personal characteristics and types of occupation. *Journal of Psychology*, 86 (2nd half), 181–190.
- Broverman, I. K., S. R. Vogel, D. M. Broverman, F. E. Clarkson, and P. S. Rosenkrantz. 1972. Sex-role stereotypes: A current appraisal. *Journal of Social Issues*, 28, 59–78.
- Cattell, R. B. 1949. Projection and the design of projective test of personality. *Character and Personality*, 12, 177–194.
- Christie, R., and F. R. Geis. 1970. *Studies in Machiavellianism*. New York: Academic.
- Coleman, W. 1947. The thematic apperception test: I. Effect of recent experience. II. Some qualitative observations. *Journal of Clinical Psychiatry* 3, 257–264.
- Combs, A. W. 1946a. A method of analysis for the thematic apperception test and autobiography. *Journal of Clinical Psychology*, 2, 161–174.
- Combs, A. W. 1946b. The validity and reliability of interpretations from the thematic apperception test and autobiography. *Journal of Clinical Psychology*, 2, 240–247.
- Combs, A. W. 1973. A comparative study of motivations as revealed in the thematic apperception stories and autobiography. In D. C. McClelland and R. S. Steele (eds.), *Human motivation: A book of readings*. Morristown, NJ: General Learning Press.

- Coser, R. L., and G. Rokoff. 1971. Women in the occupational world: Social disruption and conflict. *Social Problems*, 18, 535–554.
- Crandall, V. C. 1969. Sex differences in expectancy of intellectual and academic reinforcement. In C. P. Smith (ed.), *Achievement-related motives in children*. New York: Russell Sage.
- Crandall, V. C., and E. S. Battle. 1970. The antecedents and adult correlates of academic and intellectual achievement effort. In J. P. Hill (ed.), *Minnesota symposia on child psychology*. Vol. 4. Minneapolis: University of Minnesota Press.
- Crandall, V. J. 1963. Achievement. In H. W. Stevenson (ed.), *Child psychology*. National Society for the Study of Education. Yearbooks series #62, part 1. Chicago: University of Chicago Press.
- deCharms, R. 1957. Affiliation motivation and productivity in small groups. *Journal of Abnormal and Social Psychology*, 55, 222–226.
- deCharms, R. 1968. *Personal causation: The internal affective determinant of behavior*. New York: Academic.
- Deci, E. L. 1975. *Intrinsic motivation*. New York: Plenum.
- Dweck, C. S. 1975a. Children's interpretations of evaluative feedback: The effect of social cues on learned helplessness. In C. S. Dweck, K. T. Hill, W. H. Reed, W. M. Steihman, and R. G. Parke (eds.), *The impact of social cues on children's behavior*. Special issue of *Merrill–Palmer Quarterly*, 22, 83–123.
- Dweck, C. S. 1975b. The role of expectations and attributions in the alleviation of learned helplessness. *Journal of Personality and Social Psychology*, 31, 674–685.
- Dweck, C. S., and N. D. Reppucci. 1973. Learned helplessness and reinforcement responsibility in children. *Journal of Personality and Social Psychology*, 25, 109–116.
- Fiedler, F. F. 1978. The contingency model and the dynamics of the leadership process. In L. Berkowitz (ed.), *Advances in experimental social psychology*. Vol. 11. New York: Academic.
- Fleishman, E. A. 1971. Twenty years of consideration and structure. Paper presented at Southern Illinois University Leadership Conference, Carbondale.
- Fleming, J. 1977. Predictive validity of the motive to avoid success in black women. *Humanitas*, 13, 225–244.
- French, E. G. 1955. Some characteristics of achievement motivation. *Journal of Experimental Psychology*, 50, 232–236.
- French, E. G. 1958. The interaction of achievement motivation and ability in problem solving success. *Journal of Abnormal and Social Psychology*, 57, 306–309.
- French, E. G., and G. S. Lesser. 1964. Some characteristics of the achievement motive in women. *Journal of Abnormal and Social Psychology*, 68, 119–128.

- Frieze, I. H. 1975. Women's expectations for and causal attributions of success and failure. In M. T. S. Mednick, S. S. Tangri, and L. W. Hoffman (eds.) *Women and achievement: Social and motivational analyses*. Washington, DC: Hemisphere.
- Goldberg, P. 1968. Are women prejudiced against women? *Trans-action*, 5, 28-30.
- Gulliksen, H. 1950. *Theory of mental tests*. New York: Wiley.
- Harris, H. 1969. An experimental model of the effectiveness of project management offices. Unpublished master's thesis, Massachusetts Institute of Technology.
- Hartley, R. E. 1960. Children's concepts of male and female roles. *Merrill-Palmer Quarterly*, 6, 83-91.
- Hartley, R. E., and F. P. Hardesty. 1964. Children's perceptions of sex roles in childhood. *Journal of Genetic Psychology*, 104, 43-51.
- Heilbrun, A. B., Jr. 1963. Sex-role identity and achievement motivation. *Psychological Report*, 12, 483-490.
- Hoffman, L. W. 1972. Early childhood experiences and women's achievement motives. *Journal of Social Issues*, 28, 129-156.
- Hoffman, L. W. 1974. Fear of success in males and females: 1965 and 1972. *Journal of Consulting and Clinical Psychology*, 42, 353-358.
- Horner, M. S. 1968. Sex differences in achievement motivation and performance in competitive and non-competitive situations. Unpublished doctoral dissertation, University of Michigan.
- Horner, M. S. 1972. Toward an understanding of achievement-related conflicts in women. *Journal of Social Issues*, 28, 147-176.
- Jones, M. R. (ed.). 1961. *Nebraska symposium on motivation*. Vol. 9. Lincoln: University of Nebraska Press.
- Kelley, H. H. 1967. Attribution theory in social psychology. In D. Levine (ed.) *Nebraska symposium on motivation*. Vol. 15. Lincoln: University of Nebraska Press.
- Kelley, H. H. 1971. *Attribution in social interaction*. Morristown, NJ: General Learning Press.
- Kohlberg, L. 1966. A cognitive-developmental analysis of children's sex-role concepts and attitudes. In E. E. Maccoby (ed.), *The development of sex differences*. Stanford, CA: Stanford University Press.
- Leavitt, H. J., and J. Lipman-Blumen. 1980. A case for the relational manager. *Organizational Dynamics*, Summer, 27-41.
- Leavitt, H. J., J. Lipman-Blumen, S. Schaefer, and R. Harris. 1977. Vicarious achievement orientation. Paper presented at meeting of American Psychological Association, San Francisco.
- Lesser, G. S. 1973. Achievement motivation in women. In D. C. McClelland and R. S. Steele (eds.), *Human motivation: A book of readings*. Morristown, NJ: General Learning Press.

- Lesser, G. S., R. N. Krawitz, and R. Packard. 1963. Experimental arousal of achievement motive in adolescent girls. *Journal of Abnormal and Social Psychology*, 66, 59–66.
- Levine, A., and J. Crumrine. 1975. Women and the fear of success: A problem in replication. *American Journal of Sociology*, 80, 964–974.
- Lewin, K., R. Lippit, and R. K. White. 1939. Patterns of aggressive behavior in experimentally created social climates. *Journal of Social Psychology*, 10, 271–299.
- Likert, R. 1961. *New patterns of management*. New York: McGraw-Hill.
- Lipman-Blumen, J. 1972. How ideology shapes women's lives. *Scientific American*, 266, 34–42.
- Lipman-Blumen, J. 1973. The vicarious achievement ethic and non-traditional roles for women. Paper presented at meeting of Eastern Sociological Society, New York.
- Lipman-Blumen, J., and H. J. Leavitt. 1976. Vicarious and direct achievement patterns in adulthood. *Counseling Psychologist*, 6, 26–32.
- Lipman-Blumen, J., and H. J. Leavitt. 1978. Socialization and achievement patterns in cross-cultural perspective: Japanese and American family and work roles. Paper presented at International Sociological Association, 9th World Congress, Uppsala, Sweden.
- Lipman-Blumen, J., and H. J. Leavitt. 1979. Sexual behavior as an expression of achievement orientation. In H. A. Katchadourian (ed.), *Human sexuality*. Berkeley: University of California Press.
- Lipman-Blumen, J., H. J. Leavitt, and A. Handley-Isaksen. 1980. A model of achieving styles: Implications for women's occupational roles. Presented at Women and the World of Work, A NATO Symposium, Lisbon.
- Lipman-Blumen, J., H. J. Leavitt, K. J. Patterson, R. J. Bies, and A. Handley-Isaksen. 1980. A model of direct and relational achieving styles. In L. J. Fyans (ed.), *Achievement motivation*. New York: Plenum.
- Lipman-Blumen, J., and A. R. Tickamyer. 1975. Sex roles in transition: A ten-year review. in A. Inkeles (ed.), *Annual Review of Sociology*. Palo Alto, CA: Annual Reviews.
- Lockheed, M. 1975. Female motive to avoid success: A psychological barrier or a response to deviancy? *Sex Roles*, 1, 41–50.
- McClelland, D. C. 1961. *The achieving society*. New York: Van Nostrand.
- McClelland, D. C. (ed.). 1955. *Studies in motivation*. New York: Appleton-Century-Crofts.
- McClelland, D. C., J. W. Atkinson, R. A. Clark, and E. L. Lowell. 1953. *The achievement motive*. New York: Appleton-Century-Crofts.
- Maccoby, E. E., and C. N. Jacklin. 1974. *The psychology of sex differences*. Stanford, CA: Stanford University Press.
- MacFarlane, J. W. 1941. Critique of projective techniques. *Psychological Bulletin*, 38, 746.
- Maslow, A. H. 1954. *Motivation and personality*. New York: Harper.



- Mednick, M. T. S., and G. R. Puryear. 1975. Motivation and personality factors related to career goals of black college women. *Journal of Social and Behavioral Sciences*, 24, 1–30.
- Mednick, M. T. S., and G. R. Puryear. 1976. Race and fear of success in college women: 1968 and 1971. *Journal of Consulting and Clinical Psychology*, 44, 787–789.
- Mischel, W. 1968. *Personality and assessment*. New York: Wiley.
- Mischel, W. 1977. On the future of personality measurement. *American Psychology*, 32, 246–254.
- Murray, H. A. 1938. *Explorations in personality*. New York: Oxford University Press.
- Papanek, H. 1973. Men, women and work: Reflection on the two-person career. *American Journal of Sociology*, 78, 852–870.
- Parsons, T., and R. F. Bales (eds.). 1955. *Family socialization and interaction process*. Glencoe, IL: Free Press.
- Puryear, G. R., and M. T. S. Mednick. 1974. Black militancy, affective attachment, and fear of success in black college women. *Journal of Consulting and Clinical Psychology*, 2, 263–266.
- Ross, L. 1977. The intuitive psychologist and his shortcomings: Distortions in the attribution process. In L. Berkowitz (ed.), *Advances in experimental social psychology*, Vol. 10. New York: Academic.
- Salancik, G. R., and J. Pfeffer. 1977. An examination of need-satisfaction model of job attitudes. *Administrative Science Quarterly*, 22, 427–456.
- Sargent, H. 1945. Projective methods, their origins, theory, and application to personality research. *Psychological Bulletin*, 42, 257–293.
- Schachter, S. 1959. *The psychology of affiliation*. Stanford, CA: Stanford University Press.
- Schein, V. E. 1973. The relationship between sex-role stereotypes and requisite management characteristics. *Journal of Applied Psychology*, 57, 95–100.
- Schein, V. E. 1975. Relationship between sex-role stereotypes and requisite management characteristics among female managers. *Journal of Applied Psychology*, 60, 340–344.
- Seligman, M. E. P. 1975. *Helplessness: On depression, development, and death*. San Francisco: W. H. Freeman and Company.
- Smith, M. B. 1968. Competence and socialization. In J. Clausen (ed.), *Socialization and society*. Boston: Little, Brown.
- Spence, J. T., and R. L. Helmreich, 1978. *Masculinity and femininity: Their psychological dimensions, correlates and antecedents*. Austin: University of Texas Press.
- Stein, A. H. 1971. The effects of sex-role standards for achievement and sex-role preferences on three determinants of achievement motivation. *Developmental Psychology*, 4, 219–231.