



TACTICS AS UNITS OF ANALYSIS IN PERSONALITY PSYCHOLOGY: AN ILLUSTRATION USING TACTICS OF HIERARCHY NEGOTIATION

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Summary—Two important recent trends in personality psychology have been a resurgence of traditional trait research (e.g. five factor model) and the emergence of personal goal-based approaches (e.g. life tasks, personal projects, and personal strivings). We propose that *tactics* are useful units of analysis that can provide a bridge between these two research movements. To illustrate this approach, we examined the tactics of hierarchy negotiation—the means by which individuals maintain or improve their relative position or status. Studies 1 ($N = 84$) and 2 ($N = 212$) identify 26 tactics of hierarchy negotiation that were represented by five major factors: Manipulation, Industriousness, Social Networking, Autonomy, and Aid Accrual. These factors show coherent links with personality characteristics represented by the five-factor model, with interpersonal dispositions, and with self-esteem. Moderate support was found for the predictive power and differential effectiveness of specific tactics of hierarchy negotiation. Industriousness tactics such as Working Hard and Prioritizing Tasks significantly predicted outcome measures such as salary, academic degrees, and promotions. Five sex differences in tactic use emerged—Aid Accrual and Appearance Enhancement (used by women more) and Boasting, Aggressing, and Displaying Athleticism (used by men more)—suggesting that women and men may select different tactics from their strategic arsenal. A longitudinal follow-up (Study 3, $N = 130$) found that tactics of hierarchy negotiation at time 1 predicted salary, academic degrees, and promotions 4 years later. Discussion focuses on limitations of the current research, on the importance of hierarchy negotiation as a goal, and on the utility of tactics as units of analysis in personality psychology. Copyright © 1996 Elsevier Science Ltd.

INTRODUCTION

A major trend in the field of personality psychology in the past decade has been the emergence of personal goal-based approaches (Pervin, 1989). This research has examined people's personal projects (Little, 1983), life tasks (Cantor & Kihlstrom, 1987), and personal strivings (Emmons, 1986; in press). Although these approaches differ in a number of important respects, they share the conception of humans as active, intentional, and goal-directed (Cantor, Norem, Niedenthal, Langston & Bower, 1987; Little, 1989; Norem, 1989).

This personal goal-based movement may be contrasted with a more traditional agenda within personality psychology, which has experienced a resurgence in the past decade—the seeking of major trait dimensions of personality (e.g. Goldberg, 1992; McCrae & Costa, 1987; John, 1990; Wiggins, in press). This movement has converged on a five-factor model of personality that identifies Surgency or Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness (Intellect) as important and replicable ways in which individuals differ (e.g. Botwin & Buss, 1989; Digman & Inouye, 1986; Goldberg, 1981; 1982; McCrae & Costa, 1985; 1987; Norman, 1963; Tupes & Christal, 1961). Furthermore, the first two of these orthogonal dimensions, Dominance and Agreeableness, display a circular structure around which interpersonal dispositions can be arrayed, thus moving the model beyond a mere list to a more structured trait system (Wiggins, 1979).

These two movements have proceeded in relative isolation from one another. One approach attempts to describe what people are trying to accomplish in their daily lives. The other attempts to identify at a more abstract level the most important dispositional dimensions along which individuals differ. A central goal of this article is to begin to bridge these two approaches to personality. The essence of this bridge is contained in four propositions: (1) some personal goals are sufficiently common and ubiquitous that they can be regarded as candidates for universal human goals;

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(2) individuals differ in the *tactics* they use to accomplish their life tasks, personal projects, and personal strivings; (3) the tactics people use will be linked with, and hence predictable from, the major personality traits; and (4) tactics therefore provide a unit of analysis that links traditional trait research with new goal-based units of analysis.

This paper presents the details of a tactic approach to personality, linking traditional trait approaches with recent personal goal-based approaches. This approach will be illustrated by examining tactics of hierarchy negotiation—the behaviors that people perform to maintain or improve their position, relative to others.

TACTICS AS UNITS OF ANALYSIS

Many of the new personal goal-based approaches contain, explicitly or implicitly, a tactical component. In Little's (1983) analysis of personal projects, for example, the acts or micro-behaviors that surround a project can be interpreted in part as the means of accomplishing the project. In Cantor's (1990) approach, the 'cognitive strategies' that individuals flexibly deploy to manage problems are central to the analysis of life tasks. Emmons's (in press) analysis of personal strivings implicitly entails the study of acts that, while not accomplishing a particular end state, recur as different forms of behavior directed towards some personal goal.

Tactics are the psychological and behavioral means through which personal goals, personal projects, and personal strivings are accomplished. They are psychological in the sense that their enactment typically requires complex cognitive calculations. For example, the tactic 'Derogate Others' requires at least (1) the ability to model the relevant dimensions along which oneself and others will be evaluated; (2) the ability to evaluate the relevant members of the hierarchy to target for an audience; (3) knowledge of the specific tactical ingredients of derogation that map onto the relevant dimensions; and (4) a belief that one will benefit by comparison as a result of the derogation. Tactics are behavioral in that, for the relevant impact to occur, the psychological mechanisms must be translated into tangible actions that have an impact on the evaluations of others.

Tactics are manifested behaviorally as different sorts of acts performed on different occasions to achieve a common goal. Consider the animal analogy of a dog attempting to escape from the fenced confines of a back-yard. A small dog may attempt to squeeze between the fence posts or burrow beneath the fence. A large dog may attempt to jump over the fence or force its way through at a weak point. A socially adept dog may attempt to persuade its owner to open the gate, and an opportunistic dog may seize the moment when a visitor opens the gate to dart to freedom. All of these different sorts of actions are conceptually united because they all qualify as means to achieve the goal of escape from the back-yard.

In the same way, different people are expected to manifest different patterns of tactic use, in part based on the enduring proclivities and abilities of the individual. Some of these proclivities and abilities may be captured by the basic trait dimensions of personality. For example, the extraverted individual may be more skilled at tactics of social influence. The conscientious individual may be able to harness a talent for hard work. The agreeable person may be skilled at eliciting co-operation from others to achieve personal goals. In short, the basic traits captured by models such as the five-factor and circumplex models may represent, in part, proclivities and abilities that can be exploited to achieve personal goals.

The program of research for exploring tactical units in the context of goal-based and trait-based programs contains five essential steps:

1. Identify the important and recurrent major life goals that emerge from goal-based programs of research.
2. Identify the range and diversity of tactics that people use to achieve each of these goals.
3. Identify the links between the major trait dimensions of personality and use of tactics.
4. Gauge the relative effectiveness of each tactic for achieving the goal.
5. Identify personal characteristics (such as age and sex) and situational factors that affect tactic use.

THE IMPORTANCE OF HIERARCHY NEGOTIATION AS A GOAL DOMAIN

To illustrate the tactic approach to personality, we selected a goal-based domain that would simultaneously be central to traditional trait taxonomies, central to personal goal-based research programs, and a clear example of a major life goal. The goal domain we selected was hierarchy negotiation—maintaining or enhancing one's position relative to others in dominance or status hierarchies.

Hierarchy negotiation and personality traits

Hierarchy negotiation is central to trait taxonomies in several ways. First Surgency (or Dominance or Power) emerges consistently and strongly in all current trait taxonomies (e.g. Goldberg, 1981; 1982; McCrae & Costa, 1985; 1987; Norman, 1963; Tupes & Christal, 1961; Wiggins, 1979), and is often the largest factor in accounting for variance. It should be noted that some authors prefer the label of Extraversion for this factor, and those that do typically operationalize the construct using fewer items connoting dominance and more items connoting gregariousness (e.g. McCrae & Costa, 1987). Nonetheless, in most factor analytic lexical studies, terms such as dominant, submissive, active, passive, bold, and timid often define this factor (e.g. Goldberg, 1983).

Wiggins (1979), for example, describes the trait of Dominance on his circumplex model as being defined by the granting of status to the self while denying it to others (high dominance), or conversely, denying status to the self while granting it to others (submissiveness). Buss (1991; 1992) found empirical support for Wiggins' conception by finding that people high on Surgency tend to be somewhat condescending to others, treating them as inferior to themselves. Those low on Surgency tend to abase and denigrate themselves to others, particularly to their spouses.

Hierarchy negotiation, however, is not linked only with Surgency or Extraversion. Conscientiousness contains a large component of achievement striving, causing Digman (1990) to label this factor 'Will to Achieve'. Persons high on this trait act in ways that are industrious and diligent—behaviors known to be linked with upward mobility (Willerman, 1979).

Intellect–Openness also may be linked with hierarchy negotiation. It is known, for example, that intelligence is one of the strongest empirical predictors of income in America, one route of which is through educational achievement (Jencks, 1979). To the degree that this trait is correlated with intelligence, or reflects a kind of actualized daily intelligence, then we would also expect that it would be linked with certain tactics of hierarchy negotiation such as mobility through educational attainment. Thus, hierarchical behavior is central to modern trait taxonomies.

Because there are known links between Surgency, Conscientiousness, and Intellect–Openness and various aspects of ascendance and achievement, we expected that these three factors would show especially strong links with different subsets of tactics of hierarchy negotiation. We expected Surgent individuals to ascend by exploiting their social skills; Conscientious individuals to ascend by exploiting their tremendous capacity for diligence and hard work; and those high on Intellect–Openness to exploit educational routes to the hierarchy.

Furthermore, we expected the Wiggins (1979) circumplex model of interpersonal behavior to be especially relevant to tactics of hierarchy negotiation. This model attempts to capture only those personality traits that fall within the interpersonal domain. It consists of eight bipolar dimensions arrayed in a circular fashion around two orthogonal axes—the Power axis (dominant–submissive) and the Love axis (agreeable–quarrelsome). We expected that dimensions on or closely adjacent to the Power axis would have the strongest links with tactics of hierarchy negotiation. Those scoring high on the Arrogant–Calculating scale, for example, would be expected to use interpersonally exploitative or Machiavellian tactics of hierarchy negotiation. Because the Gregarious–Extraverted dimension falls closer to the Love axis, those scoring high would be expected to use tactics that are less Machiavellian, and perhaps more pro-social to get ahead.

A final personality dimension that provides a good candidate for being linked with tactics of hierarchy negotiation is self-esteem. Barkow (1989), for example, has proposed that self-esteem functions as an internal monitoring device that tracks external status. It presumably rises when we get a promotion or a large salary increase, for example, because it is tracking a rise in our external status. It presumably falls when we get fired or suffer social humiliation because it is tracking decreases in our external status. If Barkow's hypothesis is correct (see also Nesse, 1990, for a similar

hypothesis about mood fluctuation), then self-esteem should be positively correlated with those tactics of hierarchy negotiation that are especially effective, and negatively with tactics that are found to be ineffective.

Hierarchy negotiation and personal goal-based research

The construct of hierarchy negotiation is also central to personal goal-based research programs. Upward striving frequently emerges in answers to open-ended questions as a prevalent life task, personal project, or personal striving. Themes of achievement and power emerge often in these responses—for example, striving to dominate people, doing well in school, being productive at work, gaining a promotion, getting ahead by bettering oneself, managing one's time better, belittling people who make mistakes, and advancing up the social ladder (Cantor *et al.*, 1987; Emmons, in press; Little 1983; 1989). Cantor *et al.* (1987) and Little (1983; 1989) cite achievement as one of the two most prevalent domains of subject-generated life tasks and personal projects, and upward striving represents a dominant theme in Emmons' (in press) analysis of personal strivings.

Hierarchy negotiation as a major life goal

Individuals differ in their personal goals. Personal goals differ in their significance and scope. Some goals are relatively trivial (e.g. 'putting the cat out' Little, 1989), whereas other goals are central to the human experience (e.g. forming an intimate relationship). The prevalence of a goal across individuals, across the lifespan, across cultures, and across time provides one set of criteria for gauging the importance or centrality of a goal for human functioning. Major life goals may also be deduced from significant lexical impact on languages (i.e. if a goal is important to the human experience, many words describing this goal should be in our vocabulary). The prevalence of lexical terms that connote relative position and hierarchy (e.g. honor, prestige, rank, status, dominant, domineering, submissive, sycophantic, toadying, etc.) signals the importance that people attach to relative position (Goldberg, 1981).

Hierarchies and hierarchy negotiation are important, ubiquitous human phenomena. Humans are an unusually social species, with group living being a hallmark of our mode of survival and reproduction. Hierarchies are apparently found in every human society (Brown, 1991; Murdock, 1949). Even in small hunter-gatherer groups with no formally recognized leaders, members wield differential influence, based on attributes such as hunting skill, aggressiveness, wisdom, knowledge about health practices, or oratory prowess. Moreover, individuals accrue differential privilege, including more numerous and more desirable mates, better health care, and superior housing because of their relative status (Betzig, 1986; Buss, 1994; Hill & Hurtado, 1989; Lee, 1979). Within cultures, hierarchies are found in formal and informal social gatherings, occupational settings, political organizations, governments, sports leagues, and academic settings—a host of contexts in which people interact.

The theme of 'getting ahead' has been central in theories of social behavior (Bakan, 1966), power (French & Raven, 1959; Mechanic, 1962; Mintzberg, 1973), personality (Hogan, 1983; Hogan & Hogan, 1988; Wiggins, 1979), human motivation (Maslow, 1937; McClelland, 1961), and evolutionary psychology (Barkow, 1989; Betzig, 1986; Buss, 1991). Hogan's (1983) socioanalytic theory, for example, postulates that 'getting ahead' and 'getting along' are the two central motives of humans. Hogan further posits that low self-esteem, failures at adjustment, and personal unhappiness are caused by failures to get along or to get ahead. More recently, hierarchies have proven to be central to evolutionary personality theory in that reproductively relevant resources are often closely linked with hierarchical position—currently, historically, and cross-culturally (Buss, 1991). Those closer to the top typically have preferential access to more and better food, mates, territory, health care, child care, and solicitude from others (Betzig, 1986; Buss, 1991; Hill & Hurtado, 1989). On conceptual and empirical grounds, it appears that status striving is a good candidate for being a species-typical goal of humans (Symons, 1987).

Despite its apparent importance, little empirical research has been conducted on hierarchy negotiation. Related research has been conducted on leadership (Hollander, 1985), social influence (e.g. Kipnis, 1984), manipulation (e.g. Buss, Gomes, Higgins, & Lauterbach, 1987), and power (e.g. Falbo & Peplau, 1980). However, this research has focused on 'getting one's way', whereas hierarchy negotiation is more a matter of 'getting ahead'. Hierarchy negotiation may include tactics that

involve 'getting one's way', but these are *only a subset* of hierarchy negotiation tactics. Although some articles have examined what successful people do (e.g. Kotter 1977; Porter, Allen & Angle, 1983), they simply chronicle the author's speculations and anecdotal evidence, rather than empirically testing what it is that people actually do to get ahead, which is the focus here.

In summary, we selected hierarchy negotiation to illustrate our tactic approach to personality research because of its relevance to both traditional trait research and personal goal-based research, as well as its importance as a major life goal.

GAUGING THE EFFECTIVENESS OF TACTICS OF HIERARCHY NEGOTIATION

A potentially important source of variance in status attainment pertains to the effectiveness of different tactics of hierarchy negotiation tactics from the array of those that can be used. The effectiveness of a particular tactic will be at least somewhat dependent on context. Tactics that are effective in negotiating a Hell's Angels motorcycle gang hierarchy will be different from those that are effective in ascending an academic hierarchy. Tactics effective in business settings will be different from tactics effective on construction sites.

Despite the domain-specificity of tactical effectiveness, some tactics might be generally more effective than others in ways that transcend particular contexts. Just as there is a 'g' or general ability in the intelligence domain, in addition to specific cognitive abilities (Spearman, 1904), and there is a 'g' in athleticism, in addition to specific athletic abilities, there may be a 'g' in the domain of hierarchy negotiation.

A variety of means can be used to gauge the relative effectiveness of tactics of hierarchy negotiation. One method would be to have a group of subjects evaluate a series of tactics on their perceived effectiveness. A second method would be to correlate the use of particular tactics with various outcome measures indicative of position, such as salary, job promotions, or educational attainment. A third method would involve designing a longitudinal study where tactics of hierarchy negotiation at time 1 are correlated with outcome measures at time 2.

GOALS OF THE CURRENT RESEARCH

To accomplish the agenda outlined above, we sought to identify a variety of tactics of hierarchy negotiation, and to examine their properties, their links with traditional personality traits, and their links with relevant outcome measures. Two research principles guided our empirical studies. First, because a literature search revealed no attempts to delineate the tactics that people use to negotiate hierarchies, we used a method that we believed would cast a wide net to identify tactics beyond those of the investigators' personal 'arm chair' observations, experience, and theorizing. This method entailed asking a large number of subjects to provide us with examples of tactics of hierarchy negotiation that they had observed—a method designed to capitalize on the wealth of collective experience of members of our culture (Buss & Craik, 1983).

The second research principle involved the use of multiple data sources so that the results obtained transcend the limitations inherent in any single source. Although personality research often is carried out using a single data source, most typically self-report, we sought to increase the generality of our findings by using multiple data sources. In addition to obtaining self-reported ratings, we asked people who were intimately familiar with the subjects (i.e. their spouses) to provide information about subjects' tactic use and personality. Interviewer ratings of personality characteristics provided a third data source. Thus, we used two data sources to assess use of tactics of hierarchy negotiation (self-report and spouse-report) and three data sources to assess the five major dimensions of personality (self-report, spouse-report, and interviewer's reports).

STUDY 1: CONSTRUCTION OF A TAXONOMY OF HIERARCHY NEGOTIATION TACTICS

Subjects

Eighty-four (41 male and 43 female) undergraduates from the University of California, Berkeley, and the University of Michigan were asked to describe ways in which people get ahead in dominance

and status hierarchies. These undergraduates were students in introductory psychology classes.

Procedure

Subjects received the following instructions: “In this study, we are interested in the things people do to *get ahead*: How do people climb, elevate, jockey or defend positions in the status or dominance hierarchy? Please be specific: We are interested in specific acts or behaviors. One should be able to answer the following questions about each of your act nominations: Have you ever performed this act? If so, how often have you performed it? Please think of specific people you know (including yourself) of your own sex, and write down five acts that they have performed to get ahead in status or dominance hierarchies. Now think of people you know of the opposite sex and write down five acts or behaviors that they have performed to get ahead in status or dominance hierarchies.”

Categorization of acts into tactics

The nominated acts were grouped into 30 tactics of hierarchy negotiation by the authors based on their content similarity. This initial grouping was submitted to verification by four psychologists who had no prior knowledge of the study. They were given these instructions:

“Here are two stacks of index cards. The larger stack consists of 109 index cards, on each of which is typed an act of hierarchy negotiation. The smaller, highlighted stack consists of 30 index cards on each of which is the title of a tactic or category. Your task is to flip through the stack of act index cards, and think very carefully about which highlighted tactic each act belongs in. The idea here is to assign each act to either a tactic category or to the ‘leftover’ category. Each act may be placed in only one highlighted tactic (or leftover) category. When you are satisfied with your partitioning of acts into tactic categories, please record the *numbers corresponding to those acts* on the line beside that tactic, on the accompanying list of tactics.”

Acts that were considered to be representative of each tactic by at least 75% of the raters were accepted as being members of that tactic category. For example, the tactic entitled Socialize Selectively was found to be composed of the following four acts—associating with important, popular or successful people; not being friends with someone unimportant; knowing the ‘right’ people; and attending certain social events where certain ‘key’ people will be. Acts with insufficient agreement (i.e. less than 75%) were not accepted as members of a tactic. In the course of this procedure, three of the putative tactics—Be competent, Use Deception (referent and purpose unspecified), and Display Material Wealth—failed to achieve sufficient agreement of the membership of more than one act. These three tactics were omitted from further analyses. In addition, the tactics ‘Obtain a Formal Education’ or ‘Acquire Knowledge’ did not show sufficient agreement to reach the 75% criterion by themselves. They did so, however, when the ratings for acts belonging to either tactic were combined. Accordingly, these two tactics were combined into one tactic, labeled Obtain Education/Knowledge, composed of the following acts: get a good education, go to a good school, ask questions about things, and get a college degree. This tactic, in addition to the 25 of the original 30 tactics of hierarchy negotiation that were verified by the agreement of the judges, were carried forward in subsequent studies. These 26 tactics, with sample acts representative of each, are shown in Table 1.

STUDY 2: LIKELIHOOD OF PERFORMANCE ASSESSMENTS

Subjects

The sample consisted of 212 individuals comprising 106 married couples, who had been wed in a large, heterogeneous, midwestern county no more than 12 months prior to testing. No subject had been married previously. Subjects ranged in age from 17 to 41 years (mean age = 26.1 years, $SD = 3.91$). This sample was composed of married couples so that for every individual subject we could secure not only self-report data, but also observer-report data from a close, significant other, who was assumed to be well informed about the focal individual. Subjects were compensated for their participation with a monetary payment and subsequent feedback regarding the results of the study.

Table 1. Sample acts of hierarchy negotiation tactics

1. Work hard She put in extra time and effort. He became a workaholic.	14. Derogate others He put down others. She exaggerated someone's faults when talking with others.
2. Organize/strategize She prioritized her goals. He managed his time efficiently.	15. Exclude others He excluded others from some activity. She prevented others from joining the group.
3. Socialize selectively She associated with important, popular or successful people. He attended certain social events where certain 'key' people would be.	16. Assume leadership He made decisions for the group. She settled the disputes of others.
4. Social participation She threw a great party. He joined a social group, club, team or political organization.	17. Impress others He worked hard to impress someone. She used impressive language.
5. Cultivate friendships She maintained good, close friendships. He consistently contacted others.	18. Boast He boasted about himself. She boasted about her intelligence.
6. Display positive social characteristics She was caring. He was courteous and polite.	19. Use deceptive self-promotion He tampered with someone else's work to make his look better. She exaggerated her present status.
7. Help others She helped out whenever asked. He did things for people without being asked.	20. Ingratiate self with superiors He flattered his superiors. She did anything the boss wanted.
8. Enlist aid She acted helpless. He asked for help or support.	21. Conform He went along with the group, not being singled out. She conformed to the beliefs of others.
9. Attract opposite sex. She tried to be more attractive to the opposite sex. He tried to be more attractive to the opposite sex.	22. Hold one's own He stuck up for what he believed was right, despite opposition. She was indifferent to peer pressure.
10. Use sex She flirted with someone to get something. He slept with his boss or co-worker.	23. Advance professionally He obtained a particular job. She quit a job to take one that paid more.
11. Enhance appearance She tried to look her best, physically. He changed his hairstyle or style of dress.	24. Obtain education or knowledge He got a good education. She asked questions about things.
12. Display athleticism She displayed her athletic ability. He performed well at sports.	25. Display knowledge He acted knowledgeable or smart. She used a large vocabulary.
13. Aggress She threatened a competitor. He instigated a fight.	26. Use relatives He got his relatives to help. She spent her family's money.

Self-reported assessments of tactic use

An act-report was constructed in which subjects were asked to rate the likelihood of their performing each of the 109 acts of hierarchy negotiation derived from the act nomination procedure. The acts were scrambled and not identified by the tactics they represented. This questionnaire was mailed to each of the subjects, to be completed at home. The instructional set was as follows: "Instructions. We all do things to get ahead. Below is a list of things people sometimes do to get ahead. Please read each item carefully and decide how likely you are to perform this behavior to get ahead. Please be as honest as possible—your answers are totally confidential. Place a number between 1 and 7 on the line beside each behavior to indicate how likely you are to perform that behavior. Writing a '7' beside a behavior means that you are extremely likely to perform that behavior. A '1' means that you are very unlikely to perform that behavior. A '4' means that you are somewhat likely to perform that behavior. Writing a '2, 3, 5' or '6' indicates intermediate likelihood of performing a behavior."

Spouse-observer assessment of tactic use

A parallel act report was constructed from the same items for use as an observer report. Specifically, the observer-reports were constructed to survey the spouses of the sample. The subjects were asked to rate the likelihood of their spouse performing the same list of behaviors to get ahead in dominance and status hierarchies on a seven-point scale. To preserve independence, spouses of the subjects completed this act report when they were physically separated from their spouse during a supervised testing session.

Assessment of personality traits

Traits from the five-factor model. The instrument used to assess the 'Big Five' dimensions of personality (Norman, 1963) was composed of 40 bipolar adjective pairs representing five eight-item scales developed by Goldberg (1983). Subjects were each presented with a list of adjective pairs with the numbers 1 to 7 printed between the members of each pair. For example, one pair was as follows:

Passive 1 2 3 4 5 6 7 Active

Subjects were asked to read each pair and to circle the number that best described them generally. Subjects completed these questionnaires at home. The complete list of rating scales used is as follows: passive-active, cold-warm, undependable-reliable, emotionally unstable-emotionally stable, uncultured-cultured, unenergetic-energetic, disagreeable-agreeable, negligent-conscientious, insecure-secure, ignorant-knowledgeable, submissive-dominant, critical-lenient, careless-careful, nervous-at ease, stupid-intelligent, timid-bold, stubborn-flexible, disorganized-well-organized, highly-strung-relaxed, imperceptive-perceptive, conforming-independent, suspicious-trusting, lazy-hardworking, temperamental-even-tempered, uncreative-creative, humble-proud, unfair-fair, untraditional-traditional, emotional-unemotional, simple-complex, quiet-talkative, selfish-selfless, liberal-conservative, envious/jealous-not envious/not jealous, uncurious-curious, retiring-social, stingy-generous, impractical-practical, subjective-objective, unanalytical-analytical.

The subjects' spouses were each given a parallel form, in which they were asked to circle the number that best described their spouse. Spouses completed this instrument during a testing session in which they were physically separated from their partners.

Toward the end of the testing session, couples were interviewed by a mixed-sex pair of trained interviewers who were drawn from a rotating team. Interviews lasted approximately 40 min, and focused on the origins and current status of their relationship. Immediately following the interviews, the interviewers independently completed a parallel version of the bipolar adjective scales for each subject. These ratings from the two interviewers were subsequently summed, with unit weighting, to form one set of interviewer-based scores for each subject.

Interpersonal traits. To assess subjects' personality characteristics within the interpersonal domain, the 64-item version of the Interpersonal Adjective Scales (IAS-R) (Wiggins, Trapnell & Phillips, 1988) was administered to the subjects. This instrument is based on Wiggins' (1979) circumplex model of the interpersonal domain of personality. The IAS-R yields eight composite scores, each based on responses to eight items. Subjects' spouses were each asked to rate the subjects on a parallel form of the IAS-R. Spouses completed these assessments when they were physically separated from the subjects during a supervised testing session.

Self-esteem. The California Self-Evaluation Scales (CSES) (Phinney & Gough, 1984) was administered to the subjects to assess their self-esteem. The responses to the CSES items were composited to form four scales: general, physical, interpersonal, and achievement/abilities self-esteem (Phinney, Gough & Chiodo, in preparation).

Assessments of demographic variables. On a confidential biographical questionnaire, the subjects were each asked about their age and the socio-economic status in which they were raised, their annual salary, salary expected in 10 years, job promotions within the past 5 years, job promotions expected in the next 5 years, total number of years of education, high school grade point average (GPA), and college GPA.

RESULTS

Construction of hierarchy negotiation tactic composites

Twenty-six self-reported tactics of hierarchy negotiation were constructed by summing the scores for the self-reported acts in each tactic, divided by the number of acts in that tactic. Twenty-six

Table 2. Means and standard deviations of self- and spouse-reported hierarchy negotiation tactics

Hierarchy negotiation tactic	Mean		Standard deviation	
	Self-report	Spouse-report	Self-report	Spouse-report
1. Work hard	5.2	5.2	0.9	1.0
2. Organize/strategize	5.4	5.2	1.1	1.2
3. Socialize selectively	3.4	3.0	1.2	1.3
4. Social participation	3.5	3.5	1.4	1.4
5. Cultivate friendships	4.4	4.3	1.4	1.3
6. Display positive social characteristics	5.9	5.7	1.1	1.1
7. Help others	5.5	5.3	1.0	1.1
8. Enlist aid	3.2	3.1	0.9	0.9
9. Attract opposite sex	3.5	3.2	1.7	1.7
10. Use sex	1.4	1.3	0.5	0.5
11. Enhance appearance	4.1	3.9	1.4	1.3
12. Display athleticism	3.3	3.2	1.8	1.8
13. Aggress	2.5	2.4	0.8	0.9
14. Derogate others	2.1	1.9	1.0	1.0
15. Exclude others	1.9	1.7	1.0	0.8
16. Assume leadership	4.0	3.9	1.4	1.4
17. Impress others	4.8	4.7	1.3	1.2
18. Boast	2.4	2.5	1.2	1.4
19. Use deceptive self-promotion	2.0	1.8	0.8	0.8
20. Ingratiate self with superiors	3.7	3.7	1.3	1.5
21. Conform	3.0	2.8	1.2	1.4
22. Hold one's own	4.6	4.3	1.0	1.2
23. Advance professionally	4.7	4.8	1.3	1.4
24. Obtain education or knowledge	5.6	5.4	1.2	1.3
25. Display knowledge	4.4	4.3	1.3	1.5
26. Use relatives	2.6	2.6	1.1	1.2

N = 207.

analogous spouse-reported tactics of hierarchy negotiation were constructed by averaging the scores for the spouse-reported acts in each tactic. An individual's score for a tactic was excluded if any responses for any acts were missing for that tactic. The means and standard deviations of self- and spouse-reported hierarchy negotiation tactics are presented in Table 2.

An overall total score was computed by summing all tactics, averaged across data sources. This composite was used as an indicator of overall hierarchy negotiation effort. To diminish the error variance and for economy of presentation of analyses, cross data-source composites of hierarchy negotiation tactics were created by averaging the self- and observer-reported likelihoods of use of hierarchy negotiation tactics.*

Factor analysis of hierarchy negotiation tactics

Principal components analyses followed by varimax rotation were performed using the standard (*z*) scores of the cross-data source hierarchy negotiation tactic composites. Five factors emerged with eigenvalues greater than one. This suggested that a five factor solution was appropriate. This was confirmed by examination of the scree plots (Cattell, 1966) of the factor analyses.

This five factor solution accounted for 64.5% of the variance in the data. The five factors were labeled on the basis of the tactic that loaded most highly on each factor. The first factor, Deception/Manipulation accounted for 36.8% of the variance. The second factor, Industriousness/Knowledge, accounted for 11.5% of the variance. The third factor, Social Display/Networking, accounted for 7.5% of the variance. the two remaining factors, Aid Accrual, and Autonomy, were smaller and accounted 5.3 and 3.4% of the variance, respectively.

Table 3 shows the factor loadings of all tactics in each factor. The hierarchy negotiation tactics have been re-ordered to present, in the upper half of the table, those that loaded highly on only one factor, and in the lower half of the table, those hierarchy negotiation tactics that loaded highly on two or more factors. For subsequent analyses, factor composites were constructed from the sum of the tactics with high loadings on each factor. The Autonomy factor was composed of the Hold One's Own tactic and the Conform tactic (reversed). Five tactics of hierarchy negotiation—Advance

* Separate analyses were conducted for each data source separately. These analyses yielded patterns of results similar to those that emerged from the cross data-source composites. These may be obtained by writing to either author.

Table 3. Factor loadings for combined data source composite hierarchy negotiation tactics

Hierarchy negotiation tactic	Factors				
	Deception/ Manipulation	Industriousness/ Knowledge	Social Display/ Networking	Aid Accrual	Autonomy
Use deceptive self-promotion	85	14	02	−02	−09
Derogate others	83	01	08	10	−08
Boast	76	32	10	03	−04
Exclude others	75	00	23	00	00
Agress	65	36	18	04	26
Use sex	61	00	38	12	05
Use relatives	53	08	37	33	−08
Work hard	18	76	00	18	05
Impress others	34	74	24	−08	−15
Organize/strategize	−12	71	−05	19	24
Display knowledge	27	70	26	−18	13
Obtain education or knowledge	02	69	19	03	01
Assume leadership	33	59	23	−02	10
Enhance appearance	08	15	80	21	−07
Attract opposite sex	29	−03	76	10	−01
Cultivate friendships	17	34	69	25	03
Social participation	30	34	65	−02	00
Display athleticism	30	13	60	−31	17
Enlist aid	23	12	24	78	05
Hold one's own	16	35	10	00	75
Conform	44	12	14	−03	−62
Advance professionally	13	49	47	11	−02
Display positive social characteristics	−04	46	52	44	−01
Help others	−13	58	50	28	−06
Ingratiate self with superiors	41	46	41	−05	−32
Socialize selectively	48	41	49	−02	−16

Note: The act composites within each factor are ordered by the magnitude of the factor loadings. Decimal omitted.
N = 207.

Professionally, Display Positive Social Characteristics, Help Others, Ingratiate Self with Superiors, and Socialize Selectively—loaded highly on two or more factors. For example, the Socialize Selectively tactic loaded highly on each of the Deception/Manipulation, Industriousness/Knowledge, and Social Display/Networking factors. Accordingly, these five tactics were each analyzed separately from the analyses of the factor composites. Since only the Enlist Aid tactic loaded highly on the fourth factor, this tactic was analyzed separately from the factor composites.

Hierarchy negotiation tactics and personality traits

Five factor traits. To develop reliable and data-source generalizable indices of each of the five factors of personality, scores from each of the three data sources (self-reported, spouse-reported, and interviewer-reported) were standardized and summed. These composites were then correlated with the combined data-source hierarchy negotiation tactics and with the combined factor composites. These correlations are shown in Table 4.

Support was found for our predictions regarding the connections between hierarchy negotiation tactics and Surgency, Conscientiousness, and Intellect–Openness. Surgency showed the strongest correlations with Industriousness/Knowledge and Social Display/Networking, but it was also significantly linked with reported likelihood of performing tactics in the Autonomy and Deceptive/Manipulation factors. Intellect–Openness showed highly significant correlations with the Industriousness/Knowledge and Autonomy factor composites. Conscientiousness was weakly correlated with the factor composites of Industriousness/Knowledge (positively) and Deception/Manipulation (negatively).

Different patterns of tactic correlates were found for the remaining two of the Big Five personality traits. Agreeable was significantly, but weakly, negative correlated with the Deception/Manipulation factor. Emotional Stability was weakly positively correlated with Industriousness/Knowledge and

Table 4. Correlations among combined data source composite negotiation tactics and composite personality scores

Hierarchy negotiation tactic	Surgent	Agreeable	Conscientious	Emotionally stable	Open
<i>I. Deception/manipulation</i>	0.26***	-0.19**	-0.14*	-0.11	0.03
Use deceptive self-promotion	0.17**	-0.20**	-0.19**	-0.07	0.02
Derogate others	0.13	-0.29***	-0.10	-0.20**	-0.03
Boast	0.24***	-0.16*	-0.09	-0.08	0.12
Exclude others	0.14*	-0.12	-0.08	-0.08	-0.02
Agress	0.38***	-0.14*	-0.09	-0.01	0.06
Use sex	0.20**	-0.14*	-0.25***	-0.11	0.02
Use relatives	0.12	0.03	0.08	-0.03	-0.02
<i>II. Industriousness/knowledge</i>	0.35***	0.04	0.17*	0.18**	0.44***
Work hard	0.33***	-0.06	0.16*	0.09	0.31***
Impress others	0.25***	-0.02	0.01	-0.01	0.28***
Organize/strategize	0.26***	0.10	0.43***	0.27***	0.31***
Display knowledge	0.25***	-0.04	0.04	0.14*	0.39***
Obtain education or knowledge	0.20**	-0.15*	0.15*	0.15*	0.38***
Assume leadership	0.34***	0.08	-0.01	0.18**	0.27***
<i>III. Social display/networking</i>	0.33***	0.09	0.07	0.05	0.00
Enhance appearance	0.17*	0.08	0.13	-0.09	-0.05
Attract opposite sex	0.12	0.06	0.04	-0.04	-0.09
Cultivate friendships	0.33***	0.14*	0.05	0.06	0.01
Social participation	0.45***	0.08	0.00	0.08	0.16*
Display athleticism	0.17**	0.01	0.07	0.17**	-0.03
<i>IV. Autonomy</i>	0.28***	-0.01	-0.02	0.16*	0.26***
Hold one's own	0.26***	-0.07	0.02	0.15*	0.25***
Conform	-0.17*	-0.04	0.05	-0.10	-0.15*
Advance professionally	0.24***	-0.05	0.05	0.08	-0.01
Display positive social characteristics	0.16*	0.22**	0.19**	0.16*	0.01
Enlist aid	0.09	0.05	-0.01	-0.10	0.02
Help others	0.19**	0.26***	0.25***	0.12	0.03
Ingratiate self with superiors	0.25***	-0.10	0.03	-0.06	-0.03
Socialize selectively	0.30***	-0.09	0.03	0.06	0.06
All-tactic total	0.36***	0.00	0.08	0.07	0.15*

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.
 $N = 210$.

Autonomy. These results suggest that personality dispositions may represent, in part, an orientation to utilize particular classes of tactics in the service of hierarchy negotiation.

Interpersonal traits. Correlations among composite hierarchy negotiation tactics and the eight IAS-R scales are presented in Table 5. The Assured-Dominant scale showed the strongest links with the Industriousness/Knowledge factor composite, but was also positively correlated with Deceptive/Manipulation and Social Display/Networking. The Gregarious-Extraverted IAS-R scale rivaled the Assured-Dominant scale in the number and magnitude of its links with tactics of hierarchy negotiation. Especially powerful are the positive links with Social Display/Networking and Industriousness/Knowledge. IAS-R Arrogant-Calculating showed the strongest link with Deception/Manipulation.

The Unassuming-Ingenuous scale shows nearly a mirror image of the Arrogant-Calculating scale in its correlations with tactics of hierarchy negotiation. Those who scored low in this scale tended not to use Deception/Manipulation or Industriousness/Knowledge to maintain or improve their position relative to others. The Aloof-Introverted scale showed the most powerful negative correlation with the factor Social Display/Networking, but was also negatively correlated with the factor Industriousness/Knowledge. The Unassured-Submissive IAS-R scale showed strongest negative correlations with Industriousness/Knowledge and Social Display/Networking, but was also negatively correlated with the factor composites of Autonomy and Deception/Manipulation.

In general, the correlations between the IAS-R scales and the hierarchy negotiation tactics yielded evidence for the links between interpersonal dispositions and tactics of getting ahead in hierarchies. As predicted, the strongest positive correlations were found between hierarchy negotiation tactics and the Gregarious-Extraverted, Assured-Dominant, and Arrogant-Calculating IAS-R scales. The

Table 5. Correlations among combined data sources composite hierarchy negotiation tactics and Interpersonal Adjective Scales

Hierarchy negotiation tactic	Interpersonal Adjective Scales							
	Assured-Dominant	Arrogant-Calculating	Cold-Hearted	Alloof-Introverted	Unassured-Submissive	Unassuming-Ingenuous	Warm-Agreeable	Gregarious-Extraverted
<i>I. Deception/manipulation</i>								
Use deceptive self-promotion	0.24***	0.31***	0.19**	-0.15*	-0.19**	-0.26***	-0.13	0.23***
Derogate others	0.20**	0.30***	0.23***	-0.05	-0.07	-0.26***	-0.12	0.12
Boast	0.15*	0.18**	0.15*	-0.03	-0.05	-0.17*	-0.12	0.12
Exclude others	0.10	0.27***	0.14*	-0.14*	-0.23***	-0.21**	-0.17*	0.15*
Aggress	0.39***	0.26***	0.22**	-0.01	-0.08	-0.23***	-0.15*	0.10
Use sex	0.09	0.35***	0.15*	-0.20**	-0.38***	-0.34***	-0.07	0.29***
Use relatives	0.07	0.18**	0.08	-0.16*	-0.11	-0.12	-0.07	0.19**
		0.07	0.03	-0.19**	0.08	-0.05	0.01	0.23***
<i>II. Industriousness/knowledge</i>								
Work hard	0.45***	0.22**	-0.10	-0.23***	-0.35***	-0.21**	0.07	0.38***
Impress others	0.42***	0.27***	0.00	-0.15*	-0.30***	-0.22***	0.05	0.28***
Organize/strategize	0.28***	0.21**	-0.02	-0.15*	-0.24***	-0.19**	0.02	0.28***
Display knowledge	0.37***	0.11	-0.19**	-0.19**	-0.23***	-0.07	0.12	0.27***
Obtain education or knowledge	0.34***	0.22***	-0.10	-0.15*	-0.25***	-0.23***	-0.02	0.24***
Assume leadership	0.24***	0.06	-0.14*	-0.14*	-0.20**	-0.04	0.13	0.30***
	0.39***	0.23***	0.03	-0.22***	-0.34***	-0.24***	0.00	0.32***
<i>III. Social display/networking</i>								
Enhance appearance	0.21**	0.10	-0.05	-0.37***	-0.29***	-0.03	0.13	0.45***
Attract opposite sex	0.07	-0.04	-0.14*	-0.30***	-0.20**	0.09	0.22**	0.35***
Cultivate friendships	-0.01	0.01	-0.07	-0.22**	-0.06	0.09	0.18**	0.29***
Social participation	0.23***	0.09	-0.04	-0.36***	-0.29***	-0.09	0.11	0.42***
Display athleticism	0.27***	0.10	-0.02	-0.39***	-0.36***	-0.10	0.05	0.46***
	0.23***	0.24***	0.07	-0.19**	-0.22**	-0.12	-0.06	0.23***
<i>IV. Autonomy</i>								
Hold one's own	0.23***	0.08	-0.11	-0.08	-0.23***	-0.01	-0.02	0.05
Conform	0.32***	0.16*	-0.06	-0.12	-0.22***	-0.04	0.01	0.15*
	-0.03	0.05	0.11	0.01	0.13	-0.03	0.04	0.07
<i>Advance professionally</i>								
Display positive social characteristics	0.24***	0.23***	0.01	-0.17*	-0.21**	-0.22***	0.01	0.30***
Enlist aid	0.16*	0.03	-0.20**	-0.25***	-0.13	-0.03	0.21**	0.34***
Help others	0.16*	-0.07	-0.13	-0.10	-0.10	0.05	0.26***	0.37***
Ingratiate self with superiors	0.26***	0.07	-0.18**	-0.26***	-0.17*	-0.06	0.23***	0.30***
Socialize selectively	0.31***	0.27***	0.05	-0.22**	-0.24***	-0.23***	-0.01	0.30***
	0.36***	0.28***	0.14*	-0.24***	-0.30***	-0.31***	-0.04	0.34***
All-tactic total	0.36***	0.25***	-0.01	-0.31***	-0.33***	-0.20**	0.05	0.45***

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.
 N = 205.

Table 6. Correlations between combined data source composite hierarchy negotiation tactics and California Self-Evaluation Scales

Hierarchy negotiation tactic	California Self-Evaluation Scales			
	Self-esteem general	Self-esteem physical	Self-esteem interpersonal	Self-esteem achievement abilities
<i>I. Deception/manipulation</i>				
Use deceptive self-promotion	0.04	-0.02	0.04	0.00
Derogate others	0.03	-0.07	-0.05	0.04
Boast	-0.05	-0.10	-0.04	-0.06
Exclude others	0.09	-0.02	0.05	0.06
Aggress	-0.08	-0.05	-0.02	-0.04
Use sex	0.14*	0.05	0.15*	0.10
Use relatives	-0.01	-0.01	0.00	-0.09
	0.10	0.07	0.12	0.00
<i>II. Industriousness/knowledge</i>				
Work hard	0.27***	0.07	0.27***	0.36***
Impress others	0.21**	-0.03	0.16*	0.33***
Organize/strategize	0.15*	0.01	0.17*	0.18**
Display knowledge	0.34***	0.18**	0.24***	0.37***
Obtain education or knowledge	0.22***	0.11	0.22**	0.26***
Assume leadership	0.13	0.02	0.19**	0.26***
	0.16*	-0.01	0.21**	0.17**
<i>III. Social display/networking</i>				
Enhance appearance	0.17**	0.20**	0.26***	0.02
Attract opposite sex	0.04	0.08	0.20**	-0.05
Cultivate friendships	0.00	0.08	0.08	-0.11
Social participation	0.17*	0.10	0.28***	0.05
Display athleticism	0.21**	0.11	0.23***	0.12
	0.23***	0.39***	0.19**	0.05
<i>IV. Autonomy</i>				
Hold one's own	0.16*	0.14*	0.19**	0.17**
Conform	0.19**	0.17**	0.19**	0.21**
	-0.07	-0.04	-0.09	-0.05
Advance professionally	0.11	0.08	0.12	0.08
Display positive social characteristics	0.16*	0.09	0.31***	0.09
Enlist aid	-0.04	-0.06	0.12	-0.02
Help others	0.14*	0.13	0.27***	0.13
Ingratiate self with superiors	0.08	0.02	0.08	-0.01
Socialize selectively	0.10	0.01	0.13	0.08
All-tactic total	0.21**	0.10	0.25***	0.17*

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

$N = 210$.

strongest negative correlations were found between hierarchy negotiation tactics and the Unassured-Submissive, Aloof-Introverted, and Unassuming-Ingenuous scales.

Self-esteem. Correlations between data-source composite hierarchy negotiation tactics and the self-esteem scales are shown in Table 6. General self-esteem was significantly positively correlated with the factor composites of Industriousness/Knowledge and Social Display/Networking. Physical self-esteem was strongly positively correlated with Displaying Athleticism. Interpersonal self-esteem showed the highest positive correlations with hierarchy negotiation tactics, especially those comprising Industriousness/Knowledge and Social Display/Networking. Achievements/Abilities self-esteem was positively correlated with using Industriousness/Knowledge to get ahead, but shows significant links with Autonomy as well.

Hierarchy negotiation tactics and indices of effectiveness

Table 7 shows the correlations between hierarchy negotiation tactics and education, annual salary, salary expected in 10 years, job promotion in the past 5 years, and job promotion expected in the next 5 years.

One major cluster of hierarchy negotiation tactics shows consistent links with a host of demographic variables. The Industriousness/Knowledge factor composite was positively correlated with socio-economic status of origin, number of years of education, educational attainment, current salary, expected salary in 10 years, and anticipated job promotion. At the tactic level, Working Hard and Assuming Leadership are most strongly correlated with the salary variables. Less powerful,

Table 7. Correlations among combined data source composite hierarchy negotiation tactics and criterion variables

Hierarchy negotiation tactic	Age	Socio-economic status of origin	Number of years education	Academic degree acquired	Annual salary	Salary expected in 10 years	Job promotion in past 5 years	Job promotion expected in next 5 years
<i>I. Deception/manipulation</i>								
Use deceptive self-promotion	0.03	-0.05	-0.01	0.08	0.10	0.10	-0.09	0.04
Derogate others	0.02	-0.06	0.03	0.13	0.11	0.09	-0.12	-0.04
Boast	0.09	-0.08	0.01	0.07	0.09	0.04	-0.02	0.06
Exclude others	0.11	-0.08	0.05	0.09	0.11	0.12	0.05	0.15*
Aggress	-0.01	-0.02	-0.06	0.01	0.07	0.08	-0.09	0.00
Use sex	0.00	-0.06	0.01	0.09	0.12	0.15*	-0.12	0.04
Use relatives	-0.06	0.05	-0.08	0.00	0.05	0.02	-0.08	-0.03
			0.00	0.04	-0.02	0.01	-0.11	0.01
<i>II. Industriousness/knowledge</i>								
Work hard	0.17*	0.15*	0.33***	0.43***	0.28***	0.36***	0.02	0.35***
Impress others	0.14*	0.00	0.23***	0.25***	0.27***	0.31***	0.07	0.26***
Organize/strategize	0.02	0.07	0.18***	0.31***	0.13	0.23***	-0.04	0.33***
Display knowledge	0.11	0.14*	0.24***	0.27***	0.22**	0.23***	0.07	0.19**
Obtain education or knowledge	0.09	0.13	0.20**	0.30***	0.22**	0.27***	0.04	0.21**
Assume leadership	0.11	0.18**	0.44***	0.53***	0.20**	0.31***	-0.06	0.25***
	0.20**	0.14*	0.13	0.21**	0.25***	0.27***	0.06	0.32***
<i>III. Social display/networking</i>								
Enhance appearance	-0.02	-0.02	-0.06	0.06	0.11	0.10	-0.04	0.08
Attract opposite sex	-0.10	0.01	-0.15*	-0.07	-0.01	-0.10	-0.03	0.08
Cultivate friendships	0.00	0.01	-0.14*	-0.06	0.07	-0.03	-0.01	-0.03
Social participation	-0.02	0.01	0.03	0.09	0.08	0.08	0.03	0.06
Display athleticism	-0.04	0.03	0.12	0.23***	0.18**	0.17*	-0.03	0.15*
	0.00	-0.11	-0.09	0.04	0.11	0.25***	-0.12	0.05
<i>IV. Autonomy</i>								
Hold one's own	0.00	-0.02	0.02	0.04	0.09	0.07	-0.05	-0.09
Conform	0.02	-0.03	0.11	0.12	0.12	0.11	-0.10	-0.03
	0.01	0.00	0.08	0.06	-0.02	0.00	-0.01	0.09
<i>Advance professionally</i>								
Display positive social characteristics	-0.11	-0.02	-0.03	-0.02	0.16*	0.14*	0.08	0.21**
Enlist aid	-0.15*	0.06	-0.01	0.01	0.10	0.05	0.10	0.12
Help others	0.01	0.02	-0.04	-0.02	-0.07	-0.16*	-0.13	0.00
Ingratiate self with superiors	-0.10	0.03	-0.06	0.02	0.05	0.06	0.08	0.16*
Socialize selectively	-0.06	0.00	-0.03	0.00	0.08	0.05	0.08	0.22***
	-0.01	0.05	0.05	0.06	0.22**	0.20**	0.01	0.22**
All tactic total	0.03	0.03	0.08	0.18**	0.19**	0.21**	-0.02	0.21**

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.
 $N = 200$.

Table 8. Correlations among outcome measures

	Age	SES	Educ.	Degree	Salary	Income 10	Promo.	Promo. 5
Age		0.04	0.34***	0.41***	0.41	0.34***	0.14	0.11
SES		—	0.18**	0.31***	0.11	0.08	0.03	0.08
Educ.			—	0.57***	0.24	0.32***	0.03	0.15*
Degrees				—	0.28***	0.40***	-0.09	0.10
Salary					—	0.61***	0.15*	0.06
Income 10						—	0.03	0.21***
Promo.							—	0.32***
Promo. 5								—

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

but still consistent correlations were found for the tactics of Social Participation and Selective Socialization, which were linked with current salary and salary expected.

Age was weakly positively correlated with the use of Industriousness tactics. For this sample, age had little impact on tactic use.

Table 8 shows the correlations among these outcome measures. Age, not surprisingly, is positively correlated with education, salary, income expected in 10 years, and promotions within the previous 5 years. Nonetheless, age itself is not significantly correlated with any of the tactics of hierarchy negotiation. Socio-economic status of origin is positively correlated educational attainment, but is not significantly correlated with salary, income anticipated in 10 years, past promotions, or expected future promotions. Finally, as found by previous researchers (e.g. Jencks, 1979), education is positively correlated with income.

Sex differences. Five sex differences in hierarchy negotiation emerged in *both* the self- and observer-reported data. Women were more likely than men to Enhance their Appearance ($t = 4.37$, $P < 0.001$) and Enlist Aid ($t = 2.99$, $P < 0.01$) to get ahead. Men were more likely than women to Display Athleticism ($t = 3.83$, $P < 0.001$), Boast ($t = 2.46$, $P < 0.05$), and Aggress ($t = 2.18$, $P < 0.05$) to get ahead in their hierarchies.

STUDY 3: LONGITUDINAL FOLLOW-UP OF MARRIED COUPLES

Subjects

The original sample of married couples described in Study 2 was contacted 4 years later as part of a larger follow-up study. Approximately 8% of the sample had been divorced or separated between Study 2 and the 4-year follow-up. In addition, some subjects had moved away and could not be contacted for the follow-up. And some subjects declined to participate in the follow-up study given the time commitment required (approximately 3 hours for the total follow-up session). A total of 62% or 130 individuals from the original sample participated in the follow-up study.

Confidential biographical questionnaire

Among other items, this instrument requested information about the current educational level of the subjects, the academic degrees they had attained, their current personal salary (excluding that of the spouse), the number of pay raises they had experienced within the previous 2-year period, and the number of promotions they had experienced during the previous 2-year period.

RESULTS

The composite tactics scores at time 1 were correlated with the various outcome measures 4 years later. These results are shown in Table 9.

As in Study 2, the Industriousness factor exceeded all others in forecasting years of education, advanced degrees, current salary, pay raises, and promotions. Indeed, four out of five of these relationships were highly significant ($P < 0.001$). At the level of specific tactics, working hard proved to be the most strongly linked with salary, as in Study 2, followed closely by organize/strategize and obtaining an education.

The highest correlations in Table 9 are between the tactic of obtaining an education and the

Table 9. Hierarchy negotiation and 4-year longitudinal outcomes

Tactic	Education	Degrees	Salary	Raises	Promotions
<i>Decept-manip</i>	0.19*	0.17*	0.15	0.12	0.01
Dec. self prom.	0.19*	0.16	0.15	0.11	0.01
Derogate oth.	0.10	0.08	0.07	0.04	0.03
Boast	0.19*	0.20*	0.16	0.16	0.08
Exclude oth.	0.15	0.15	0.16	0.13	0.05
Aggress	0.17	0.15	0.16	0.15	0.03
Use sex	0.04	0.04	0.07	0.00	-0.02
Use relatives	0.15	0.12	0.06	0.04	-0.14
<i>Industrious</i>	0.37***	0.39***	0.29***	0.31***	0.17*
Work hard	0.21*	0.19*	0.25**	0.31***	0.14
Impress oth.	0.22*	0.24**	0.19*	0.25**	0.09
Organize	0.22*	0.25**	0.24**	0.26**	0.21*
Knowledg disp.	0.31***	0.33***	0.20*	0.15	0.13
Obtain educ.	0.47***	0.50***	0.24**	0.28**	0.15
Leadership	0.21*	0.16*	0.22*	0.20*	0.10
<i>Social display</i>	0.05	0.04	0.06	0.02	-0.01
Enhance app.	-0.10	-0.11	-0.05	0.01	0.03
Att. opp. sex	0.01	-0.04	0.11	0.02	-0.07
Cult. friends	0.03	0.03	0.04	0.04	0.01
Soc. particip.	0.11	0.13	0.08	0.03	-0.02
Displ. athletic	0.15	0.14	0.05	-0.01	0.01
<i>Autonomy</i>	-0.05	-0.06	-0.04	0.03	0.08
Hold own	0.01	0.04	0.02	0.18*	0.20*
Conform	0.07	0.11	0.08	0.14	0.07
Advance prof.	0.01	0.05	0.07	0.15	0.10
Disp. pos. char.	-0.06	-0.05	0.10	0.21*	0.22*
Enlist aid	0.14*	0.19*	0.02	-0.05	0.02
Help others	0.04	0.02	0.16	0.25**	0.22*
Ingratiate	0.07	0.11	0.00	0.05	-0.04
Social. select.	0.17*	0.18*	0.14	0.08	0.00
Total	0.20*	0.21*	0.19*	0.19*	0.08

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

outcome variables 'years of education' ($r = +0.47$, $P < 0.001$) and 'academic degrees' ($r = +0.50$, $P < 0.001$). As was the case for Study 2, these correlations most likely reflect redundancy of measurement, albeit a redundancy that occurs in testing sessions 4 years apart. That is, people who say at time 1 that one of their tactics to get ahead is to obtain an education, and whose spouses also say at time 1 that one of their tactics to get ahead is to obtain an education, in fact do secure more years of education and a larger number of advanced academic degrees 4 years later.

Aside from the tactics subsumed by the Industriousness factor, three other specific tactics are worth noting. Holding one's own at time 1 showed small but significant positive correlations with pay rises and job promotions 4 years later. Displaying positive social characteristics at time 1 showed small, but significant, correlations with pay raises and promotions 4 years later. Socializing selectively at time 1 showed small, but significant, correlations with years of education and academic degrees 4 years later. Finally, the composite of all tactics at time 1 showed small significant correlations with education, academic degrees, salary, and pay raises 4 years later. It seems clear, though, that these correlations are probably carried by the consistent correlations between the tactics subsumed by the Industriousness factor.

DISCUSSION

In this discussion we first evaluate our predictions about reported hierarchy negotiation tactic usage. Second, we explore the utility of a tactic approach in personality research. Third, we discuss limitations of the current research and highlight several directions for future research.

Assessing hierarchy negotiation tactic use

Numerous and topographically distinct tactics of hierarchy negotiation. Our first study used an act nomination procedure to identify a range of diverse acts that people use to maintain and enhance

their hierarchical positions. These acts were subsequently classified by independent judges into 26 discrete tactics that range considerably in content. Factor analyses based on performance frequencies assessed through two data sources revealed three major factors and two minor ones: Deception/Manipulation, Social Display/Networking, and Industriousness/Knowledge, as major clusters and Autonomy and Aid Accrual as minor factors. Thus, this research makes a contribution to the discovery of the major routes by which individuals negotiate hierarchies. Furthermore, the study provides a preliminary indication of which tactics are used often and which only rarely. People report Organizing/Strategizing a lot, for example, whereas they report Using Sex much less frequently to negotiate their hierarchies. Further research can profitably expand on this taxonomic contribution.

Links between tactics of hierarchy negotiation and personality traits. The strongest links between the five factor personality traits and hierarchy negotiation tactics were found with Surgency, Conscientiousness, and Intellect–Openness. Most notable were the strong links found between hierarchy negotiation tactics and Surgency, correlating positively and significantly with 21 of the 26 individual tactics. The only tactic that highly surgent individuals tend not to perform to get ahead is the Conform tactic, such as going along with the group or conforming to the beliefs of others. Those high on Surgency tend to be *especially* likely to put in extra time and effort (Work Hard), make decisions for the group (Assume Leadership), throw a party (Social Participation), and attend particular social events where ‘key’ people will be present (Socialize Selectively) in order to get ahead.

Despite the importance of Surgency for hierarchy negotiation, each of the other four personality factors showed links with at least one major hierarchy negotiation tactic, suggesting that hierarchy negotiation is not simply a matter of being highly Surgent. Agreeable persons appear to get ahead by doing things for others without being asked (Helping Others) and by showing care, courteousness, and politeness (Displaying Positive Social Characteristics). Disagreeable persons tend to exaggerate someone’s faults when talking with others (Derogate Others) and tamper with the work of others to make his or hers look better (Deceptive Self-Promotion) to get ahead. Conscientious people tend to prioritize goals and manage time effectively (Organize/Strategize), but they avoid flirting with others or sleeping with the boss or co-worker to get ahead. Those high on Intellect–Openness tend to get ahead through asking questions about many things, securing a good education, using a large vocabulary, using impressive language, and sticking up for what he or she believed was right, despite the opposition. Thus, a rich pattern of linkages exist between hierarchy negotiation tactics and the five-factor model.

Further meaningful links between tactics and traits were found in the pattern of correlations between hierarchy negotiation tactics and Wiggins’ IAS-R scales. Different traits were manifested in different correlations with tactics. Those high on the Power axis of the circumplex appear to channel the most effort into tactics of hierarchy negotiation. The tilt of a person’s power orientation, however, has a strong bearing on the particular forms these tactics take. Persons tilting in the Arrogant–Calculating direction tend to be more likely to perform the Deceptive/Manipulative tactics, such as putting others down, exaggerating their status, tampering with other’s work to make their own look better, and boasting about themselves. Persons tilting in the Gregarious–Extraverted direction of the power axis, in contrast, were more likely to use Social Display and Networking tactics, such as enhancing their physical appearance, throwing great parties, contacting others repeatedly, and joining social organizations. Thus, the interpersonal traits captured by the IAS-R scales show interesting links with the nature of the hierarchy negotiation tactics an individual is likely to deploy.

Links between tactics of hierarchy negotiation and self-esteem. Moderate support for our prediction of meaningful links between tactics and traits were found in the pattern of correlations between hierarchy negotiation tactics and self-esteem. Barkow’s (1989) hypothesis that self-esteem tracks status, implies that those who perform the more effective tactics of hierarchy negotiation should be higher in self-esteem than those who perform relatively ineffective tactics. General self-esteem was most strongly positively correlated with the Industriousness and Knowledge tactics, which were precisely the tactics that were the most effective using the criteria of salary, education, promotions, and pay raises. Those high in self-esteem, however, were not more likely to perform tactics within the Deception/Manipulation factor, and this was precisely the factor that showed the lowest predictive power in forecasting the outcome variables such as salary and promotions. Thus, Barkow’s hypothesis received moderate support from our data and should be explored further in subsequent research.

Hierarchy negotiation and indices of effectiveness. This study examined tactic effectiveness by focusing on obvious measures such as income, education, and promotions. Although the magnitudes of effect were modest, several tactics did emerge as being consistently linked with these outcome measures. Hard Work, Obtaining Education or Knowledge, Organizing/Strategizing, and Assuming Leadership were most consistently linked with salary and job promotion. Social participation and Selective socializing were also positively correlated with current and expected salary, although these links were weaker. Hard Work and Organizing/Strategizing were consistently linked with educational attainment.

In our longitudinal study, we found that the likelihood of performing the Industriousness cluster of tactics at time 1 showed the greatest predictive power of the outcomes 4 years later. Putting in extra time and effort, working hard to impress someone, managing one's time efficiently, prioritizing one's goals, acting knowledgeably, getting an education, asking questions about things, and settling the disputes of others all seem to be significant longitudinal predictors of future salary, promotions, and the attainment of academic degrees. The replicability of these findings over a 4-year time span provides support for the notion that these tactics are consistently more effective than the others at getting ahead, at least using these conventional criteria.

In summary, these results provide preliminary evidence about the relative effectiveness of different tactics of hierarchy negotiation, as well as evidence for the external validity of the current measures. They suggest that hierarchy negotiation tactics are linked with important resource-related outcomes in ways that are not transient, but rather span at least a 4-year time interval.

Hierarchy negotiation, age, and sex. Age is essentially unrelated to tactics of hierarchy negotiation. Sex, however, proved more highly linked with the tactics. Five major sex differences emerged across data sources in tactic use. Men were more likely than women to instigate a fight and threaten a competitor (Aggress), display athletic ability, and boast about themselves to get ahead. Women, in contrast, were more likely than men to try to be attractive to the opposite sex, act helpless, and ask for help or support in order to get ahead. These findings may be partly a product of the predominance of men in higher positions—a proposition that could be tested by examining hierarchies in which women are in superordinate positions. The vast majority of tactics of hierarchy negotiation tactics showed no differences between the sexes, suggesting that the full range of tactics is available to both sexes.

Utility of a tactic approach in conceptualizing personality

Support has been garnered for our initial propositions that individuals differ in the tactics they use to accomplish their personal goals, that the tactics people use are inherently linked with, and hence predictable from major personality traits, and that 'tactics' provide units of analysis that link traditional trait research with new goal-based units of analysis.

Traditional trait models of personality have sometimes been accused of being 'static' in at least two senses—ignoring psychological processes and being mere properties of persons in the absence of a functional context (e.g. Mischel, 1968). The results of this study provide an important step toward ameliorating the second of these two concerns. They suggest that personality characteristics are not merely isolated and abstract properties of persons, but rather carry functional consequences for goal-directed social interaction (see also Buss, 1992; 1993).

What accounts for the linkages between global personality traits and the specific tactics of hierarchy negotiation that individuals use? One explanation may involve 'the exploitation of abilities and talents'. In this account, people use tactics that exploit their individually different abilities in the service of a particular goal such as hierarchy negotiation. For example, those who are intelligent may exploit their abilities by obtaining higher educational degrees to ascend their hierarchies. Those who are highly Surgent, in contrast, may be able to exploit their interpersonal skills to get ahead by using tactics involved in social display and networking such as cultivating friendships and participating in social events.

A second possibility, not incompatible with the first, is that personality dimensions captured by the five-factor model represent short-hands or surrogates for the habitual tactics that people use and the particular tactical talents they possess. When an individual, an observer, or an interviewer assesses someone as highly Surgent on trait-descriptive adjective measures, for example, that assessment may simply reflect the assessor's view that the person possesses social skills involved in

leadership, the cultivation of friends, and networking with peers. When someone evaluates a person as high on Intellect using trait words like intelligent, perceptive, and insightful, he or she may be summarizing their view that the person possesses the sorts of cognitive talents that can be used for tactical purposes.

Tactics represent the means by which individuals deploy behaviors to reach important goals. Future research could examine a wider range of goals emerging from goal-based research programs—for example, the goal of intimacy, which may be another candidate for a universal human goal—and explore the connections between personality traits and the tactics that people use to achieve these goals.

Traditional trait research has sought to examine the most important trait dimensions along which people differ. Recent personal goal-based research has explored how people work towards their personal goals in their daily lives. Tactics represent both the manifestation of traits *and* the way in which people work towards their personal goals. A tactic approach to personality thus links two disparate research approaches. In doing this, tactics provide the essential ingredient that has eluded these two research programs. A tactic approach to personality allows a *functional* interpretation of traditional traits and an analysis of the means by which personal goals are attained.

Limitations and future directions

We stress the *preliminary* nature of the taxonomy developed in this research because it clearly requires expansion and refinement. This taxonomy should be regarded as the beginning of an exploration of the tactics that people use to ascend and maintain hierarchical position rather than as the end of that search.

Three forms of expansion are needed. First, the nature of the act nomination procedure may bias responses towards more active, overt acts and tactics of hierarchy negotiation. Covert and cognitive aspects of hierarchy negotiation also require study. Although some acts and tactics that were nominated do involve internal activities (e.g. Organizing/Strategizing), it is possible that other ways of getting ahead were missed.

A second form of expansion involves exploring in greater depth the nature of each specific tactic. Consider the tactic Derogate Others. This single tactic could subsume a variety of diverse acts, including various forms of gossip, innuendo, and insinuation, as well as direct face-to-face put downs. Furthermore, acts of derogation may involve diverse content domains, such as derogating another's moral character, intellectual abilities, athletic abilities, motivations, family background, or sexual habits. Thus, another form of taxonomic expansion requires in-depth exploration of the range and diversity of acts subsumed by each tactic.

A third taxonomic direction involves studying tactics of hierarchy negotiation tactics in other cultures and subcultures. Do Zambians or Japanese, for example, use different tactics to get ahead in their cultures? Are the Boasting and Aggressing tactics more effective in some cultures, while Helping Others and Enlisting Aid are more effective in others? Additional samples and cultures are needed to test the generality and limitations of this preliminary taxonomy. The current preliminary taxonomy provides a starting point from which these further taxonomic efforts can proceed.

The current studies assume that hierarchy negotiation represents a nomothetic goal. This assumption is not unreasonable, given the fact that hierarchies are universal properties of social groups. Nonetheless, individuals may differ in the degree to which hierarchy negotiation represents a central or peripheral goal. Future research could profitably examine individual differences of this sort, and gauge whether these differences affect the deployment of particular tactics.

The current method of self-assessing tactics of hierarchy negotiation can only secure information about the tactics that are consciously articulated as such. The addition of reports from spouses, however, may partially circumvent this limitation in that spouses are in a position to have observed their partner's tactics, even if the person being observed is not aware of having used them. Nonetheless, it is important to acknowledge the possibility that some tactics, perhaps those not consciously articulated by either the subject or their spouse, may be missed by the current method of assessment.

In the current study, subjects were asked about their likelihood of performing each act of hierarchy negotiation, rather than about their actual past performance. We believed that this method would be more conducive to gaining accurate information about the sorts of tactics that individuals use, since it would relax inhibitions against admitting to such usage. These subjective likelihood judg-

ments, however, may be only partially related to actual performance. For this initial inquiry, we felt that subjective likelihood judgments were appropriate, given the differences among subjects in their opportunities for actually performing particular acts within any delimited time-frame that might be imposed for assessing actual performance. Likelihood estimates, especially when obtained from two data sources as in the present study, partially circumvents the problem of different opportunity structures, but obviously contain limitations. Future research could profitably focus on different methods for assessing tactics of hierarchy negotiation.

One component of our tactic approach to personality that was not addressed in the current studies was a consideration of context. The present taxonomy used domain-general instructional sets and did not specify the particular hierarchical context. The next taxonomic task requires expansion and differentiation, perhaps distinguishing between social hierarchies and occupational hierarchies. Are different tactics employed in these different hierarchies? Or are the same tactics utilized, but with differing frequencies? In addition, are the same tactics differentially effective within different hierarchies?

Similarly, we expect that culture will strongly affect the tactics that people use to negotiate hierarchies and the criteria for success in those hierarchies. Among the Yanomano Indians of Brazil, for example, feats of physical courage in raiding other villages and the ability to track animals are important routes to status (Chagnon, 1968). These tactics would probably be largely irrelevant to hierarchies in corporate business culture in America. There is some evidence that tactics involving cooperation and social networking may be more important in Japanese hierarchies than in American hierarchies (Markus & Kitayama, 1991). Thus, one important direction for future research is the exploration of other important contextual determinants of tactic usage.

In this paper we have examined the utility of a tactic approach to personality through the example of hierarchy negotiation—the tactics people use to maintain or improve their position relative to those around them. The tactic approach proved useful in chronicling a diverse range of tactics that people use in working towards this goal, illustrating the link between the tactics that people use and traditional traits, and testing predictions about hierarchy negotiation performance and effectiveness. Conceptually, these results demonstrate the value in focusing on tactics as a conceptual link between goals and personality traits.

Perhaps more important than the specific results obtained with hierarchy negotiation, this research illustrates that a bridge can be built between traditional trait-based personality research programs and the more recent goal-based personality research programs. These important research traditions need not be carried out in isolation from each other. Tactics are the units that provide the foundation for this bridge.

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