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A STATUS VALUE THEORY OF POWER IN EXCHANGE RELATIONS

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A new status value theory of power is proposed that bridges two previously distinct research literatures. The theory asserts that exchangeable objects controlled by high-status actors are perceived to be more valuable when relevant to positive status characteristics. This phenomenon is predicted to confer power to high-status actors who exchange with low-status actors. The theoretical argument represents an important link between exchange theories of power and the research on status hierarchies—two areas that until now have been sharply demarcated. The theory is tested with a series of experiments in which status-differentiated subjects negotiate exchanges using a computerized bargaining system. The results indicate: (1) Positive status characteristics accentuate the perceived value of resources; (2) high-status subjects are most often chosen as the preferred exchange partner; and (3) high-status subjects obtain the greatest share of resources indicating power use. The implications for sociological theories of power and status are discussed.

It is generally understood that social status can affect the perceived value of objects with which people are associated. For example, a rather mundane set of golf clubs once owned by former President John F. Kennedy recently sold for many thousands of dollars at a closed auction. An original Mark McGwire rookie card is now valued at upwards of \$150; the same card was worth less than a dollar when it was first issued—when McGwire was less famous. Even the most prosaic sculpture becomes a national treasure if discovered to be a Rodin, but once again worthless if shown to be coun-

terfeit. These anecdotes suggest that a person's social status can affect the perceived value of objects to which they are related, and consequently alter the distribution of resources in economic and social encounters.¹ At issue are fundamental connections between social status and interpersonal power processes.

Power is a concept with a long history in sociological inquiry. At least since Marx and Engels ([1848] 1888) sociologists have theorized the cause and effect of power in social relations. Some early theorists created typologies distinguishing various forms of power (Blau 1964; French and Raven 1968; Weber [1918] 1968). More recent treatments view power as a structural capability that promotes unequal resource distributions favoring some actors at the expense of others (Emerson 1972a, 1972b, 1981; Willer and Anderson 1981). Such theories assert that structural power gives rise to actual levels of power use observable in behavior (Lawler 1992; Molm 1990). The understanding of

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¹ The theory presented here concerns recurrent social exchange. However, these anecdotes suggest that similar processes apply to one-shot auctions or spot markets of a less enduring nature.

power as a structural phenomenon stimulated theoretical development and opened doors to various new phenomena. Today various theories predict the development of power and related effects.²

Although the terms are sometimes conflated, *status* is theoretically and empirically distinct from power (Willer, Lovaglia, and Markovsky 1997; Zelditch 1992). Weber ([1916] 1946) used status to reflect the social honor attached to a group of people. Veblen's (1899) meaning is similar, but he added that status is expressed through the conspicuous consumption of material wealth (also see Yoon and Seok 1996). In contemporary usage, the term status refers to one's standing in a social hierarchy as determined by respect, deference, or social influence (Ridgeway and Walker 1995). Status marks valued positions in a structural arrangement. The theory of status characteristics and expectation states offers a well-tested account of the conditions under which status hierarchies emerge in groups. The theory describes a process of status generalization whereby valued status distinctions in the general culture shape expectations of competence and social interaction in task-oriented groups (Berger et al. 1977; Berger, Rosenholtz, and Zelditch 1980; Wagner and Berger 1993).

While theoretical research has produced deeper insight into these phenomena, our knowledge concerning the *association* between power and status is surprisingly thin. How are power and status related? Aristotle

may have been the first to see implicit connections. In *Nicomachean Ethics* (Book V) he relates status to the fair distribution of resources. He writes,

[A]ll men agree that what is just in distribution must be according to merit in some sense. [D]emocrats identify it [merit] with the status of freemen, supporters of oligarchy with wealth (or noble birth), and supporters of aristocracy with excellence. (Aristotle 1984:1785)

In a formulation parallel to the status value theory of power given below, Aristotle asserts that the exchange of goods should be in accord with status—those of high status gain more than those of lower status (also see Ross 1959:204).

That power and status are related has long been asserted in sociology (Bendix and Lipset 1953). At issue is the exact nature of the relationship. Conflict theorists generally view power as leading to status and prestige (Dahrendorf 1959; Marx and Engels [1848] 1888). This point is the centerpiece of Lenski's (1966) theory of inequality, which claims that power governs the distribution of surplus, and surplus is the main determinant of prestige. Tönnies (1953) blends power and status into the concept of a *ruling estate*. Ruling estates are powerful collections of people who lead and command through economic, political, or intellectual means. Members of the ruling estate also acquire status honor, "a connotation of dignity as a result of the preeminent position" (Tönnies 1953: 51). In comparison, Weber ([1916] 1946) sees a reciprocal relationship between power and status. He posits that the status attached to class will confer power, but also acknowledges that power can accentuate status. Although these theorists clearly view power and status as related, they do not necessarily view them as related in the same way.

The line of demarcation between power and status is more pronounced in the small-groups literature of today.³ Kemper and

² For theoretical work on power development, see Bienenstock and Bonacich (1992, 1993); Bonacich and Bienenstock (1993); Bonacich and Friedkin (1998); Borgatti and Everett (1992); Burke (1997); Cook and Emerson (1978); Cook et al. (1983); Cook and Yamagishi (1992); Emerson (1972a, 1972b); Friedkin (1992, 1993); Lawler and Yoon (1993, 1996, 1998); Leik (1992); Lovaglia, Skvoretz, Markovsky, and Willer (1995); Lovaglia, Skvoretz, Willer, and Markovsky (1995); Markovsky et al. (1993); Markovsky, Willer, and Patton (1988); Molm (1985, 1987, 1990); Skvoretz and Fararo (1992); Skvoretz and Willer (1991, 1993); Skvoretz and Zhang (1997); Stolte (1988); Stolte and Emerson (1977); Thye (1999); Thye, Lovaglia, and Markovsky (1997); Willer (1981, 1999); Willer and Anderson (1981); Willer and Markovsky (1993); Yamagishi, Gillmore, and Cook (1988); Yamaguchi (1996).

³ In many respects, power and status fall under the general category of social influence. Both processes involve behavior change, yet there are important differences. Zelditch (1992) notes that power relations are defined by the use of external sanctions. Status relations generally differ in that influence is allocated to high-status members voluntarily. For example, dictators retain power

Collins (1990) view power and status as two central dimensions of microinteraction. A similar distinction is found in affect control theory, which treats power and status as two of three dimensions along which meaning is constructed (Heise 1987; Smith-Lovin 1990). Several recent authors note that theories of power and theories of status have divergent scope conditions (Balkwell 1994; Willer et al. 1997). Exchange theories of power apply to mixed-motive situations in which actors balance the motive to exchange against the motive to accrue profit. In contrast, status theory targets groups whose members work collectively on a common task. These issues suggest that power and status are distinct, perhaps independent.

Yet new research indicates that structural power can heighten status in groups (Lovaglia 1994, 1995, 1997). When structural power is exercised, actors in high-power locations accrue greater resources than actors in low-power locations. In turn, these resource accumulations tend to produce higher expectations of competence for those in powerful locations (Berger et al. 1985). Expectations of competence then give rise to observable status differences among actors in collective task situations. This research shows that power differences can produce consistent status differences in task-oriented groups. The issue I address here is whether status differences will produce power.

In this article I introduce and test a new status value theory of power. The theory asserts that status characteristics provide a basis for the exercise of power in exchange relations. I employ the concept of *status value*—a type of worth, esteem, or honor attached to individual characteristics or exchangeable resources—to explain how status-driven bargaining advantages emerge in the context of recurrent social exchange. More broadly, the status value theory of power links contemporary theories of power (Emerson 1981; Markovsky et al. 1988; Willer and Anderson 1981) to the theory of status characteristics and expectation states

through economic or military sanctions. A committee head retains status because other members expect that he or she is competent and voluntarily accept his or her suggestions.

(Berger et al. 1977; Wagner and Berger 1993) through the concept of status value (Berger, Zelditch, Anderson, and Cohen 1972; Veblen 1899).

Specific predictions from the theory will be tested. First, the theory predicts that for networks in which all positions are structurally isomorphic (i.e., dyads and triangles), status differences produce power events.⁴ In keeping with a long tradition of network exchange research, power events are indicated by unequal exchange ratios between actors (Bienstock and Bonacich 1993; Cook and Emerson 1978; Lawler 1992; Molm 1985; Willer and Anderson 1981). Second, the theory predicts that status characteristics will attenuate the effect of “weak” structural power differences. Here, low-status actors are placed in high-power network positions, while high-status actors are placed in low-power network positions. That is, structural power is opposed by status. Compared to a baseline condition where both high- and low-power actors are equal status, the theory predicts that relatively low-status actors in high-power positions exercise less power.

BACKGROUND

In this section I examine relevant theories of power and the theory of status characteristics and expectation states. It is important to note that all these theories employ some conception of *value*—in particular, the value of exchangeable resources or the value of status characteristics. In explicating the role of value I rely on insights from Emerson's (1972a, 1972b) power-dependence theory, Willer's (1981) elementary theory, and Berger, Zelditch, et al.'s (1972) status value theory of distributive justice.

POWER

For the last several decades exchange theories of power have occupied a central posi-

⁴ Structurally isomorphic positions have the same pattern of direct and indirect ties with other positions. As Borgatti and Everett (1992) explain, “structurally isomorphic nodes are absolutely indistinguishable except by name” (p. 291). In a network where all positions are structurally isomorphic, there is no power advantage originating from network shape.

tion in micro-sociology (Bacharach and Lawler 1980, 1981; Coleman 1973; Emerson 1981; Willer and Anderson 1981). By conceptualizing social relations as recurrent exchange relations, new insights were gained into social phenomena as varied as social influence, coercion, bargaining, justice, and power. Recently, several theories have emerged to explain the development of power in social exchange networks. Although these theories diverge in their assumptions and predictions, they converge on the view that power is a structurally induced phenomenon that results in differential exchange outcomes (Emerson 1972a, 1972b; Lawler 1992). Three contemporary research programs deserve mention.

POWER-DEPENDENCE THEORY. Emerson's (1962, 1964, 1972a, 1972b) power-dependence theory emphasizes the pivotal role of value in power relations. The main theoretical assumption sets the power of actor A over actor B equal to the dependence of B on A ($P_{AB} = D_{BA}$). In turn, B's dependence is a positive function of the extent to which she or he values A's commodities, and a negative function of the availability of alternative exchange relations for B. In short, actors who have multiple exchange partners and control highly valued goods are predicted to be powerful.

Power-dependence theory asserts that all power relations are either balanced or imbalanced. Power is balanced when $P_{AB} = P_{BA}$ and imbalanced otherwise. Power-imbalanced relations are predicted to evolve toward a balanced state by activating one or several power-balancing operations. Emerson (1964) termed one balancing mechanism *status giving*.⁵ Status giving occurs when a low-power actor gives status to a higher-power actor as a way to increase that person's motivational investment. For example,

⁵ The other balancing operations are withdrawal, network extension, and coalition formation. *Withdrawal* occurs when the low-power actor devalues the resources possessed by the high-power actor. *Network extension* occurs when a low-power actor attempts to balance power by seeking alternative sources of gratification outside the focal relation. *Coalition formation* occurs when a high-power actor is denied access to alternative sources of gratification because low-power actors coalesce.

status giving occurs when a low-power secretary shows high deference to a more powerful boss. If the boss becomes more dependent on the secretary as a source of gratitude or self-esteem, the secretary has effectively "given status" to increase her relative power in the relationship.

To summarize, power-dependence theory locates power at the interdependencies among actors embedded in social relations. Power is rooted in the number of alternative exchange partners, and notably, the possession of valued commodities. Empirical tests of status giving suggest that status processes may attenuate the exercise of power under certain conditions (Emerson 1964).

ELEMENTARY THEORY. An alternative approach is found in elementary theory (Willer and Anderson 1981; Willer and Markovsky 1993). This formulation was developed to model conflict, coercion, and exchange in social relations. Elementary theory employs a set of abstract concepts to represent exchange: *Points* represent actors with beliefs and preferences; *sanctions* are acts wherein quantity (x) of resource (r) with value (v) flows from one actor to another. Social interaction is conceptualized as the flow of positive and negative sanctions. The theory's first law states that the payoff for actor A (PA), who receives a resource (r), is equal to A's valuation of that resource (v_r) times its quantity (x_r). This relationship is given by the equation $PA = v_r x_r$.

Elementary theory proposes that power emerges when actors in exchange relations have alternative exclusive payoffs that differ. All else being equal, those with a larger alternative payoff at confrontation have a power advantage. By connecting an actor's power to payoffs at agreement and confrontation, which in turn vary with the quantity and value of resources, elementary theory forges an explicit link between power and the control of valued objects.

NETWORK EXCHANGE THEORY. A related branch of elementary theory is network exchange theory, or NET (Lovaglia, Skvoretz, Markovsky, and Willer 1995; Lovaglia, Skvoretz, Willer, and Markovsky 1995; Markovsky et al. 1988, 1993). NET applies to settings in which individual or corporate actors occupy positions connected by relations which form networks. Each relation

represents an opportunity to divide a pool of profit points with a partner. Social exchange is simulated when two connected individuals jointly agree on how to divide the profit on their relation. Over a series of exchange opportunities, actors try to maximize their profit by negotiating with each potential partner. NET was developed to explain relative levels of power use and to predict resource distributions in exchange networks. It predicts that actors who occupy relatively more powerful positions will secure a greater proportion of the resources than those occupying less powerful positions. These predictions rely on a mathematical model that takes into account the structure of network connections (Lovaglia, Skvoretz, Willer, and Markovsky 1995; Markovsky et al. 1988, 1993). These calculations produce a numerical index of power called the Graph-theoretic Power Index, or GPI.

Thus far, NET has identified three types of network structures that fall within its scope.⁶ *Equal power* structures are those in which all positions are structurally identical. *Strong power* structures contain high-power positions that have more alternative partners than exchanges they may complete. In these networks, the high-power positions are never excluded from exchange, but some of their low-power partners are always excluded. The simplest strong power structure is the three-actor line ($A_1—B—A_2$) in which each actor can make one deal per round. This invariably creates a condition where the low-power A's offer increasingly more resources to the high-power B to avoid being excluded (Thye et al. 1997). When negotiating over a pool of 24 profit points, the resource division approaches 23 to 1 in favor of B, indicating maximal power use. In contrast, *weak power* structures are those in which no posi-

tion is necessarily excluded, such as in the four-actor line ($A_1—B_1—B_2—A_2$). Studies show that weak-power differences are more subtle than those under strong-power regimes (Markovsky et al. 1993; Skvoretz and Lovaglia 1995).

STATUS

Whereas power refers to the relative potential for one actor to extract resources from another, status refers to an actor's *relative standing* in a group based on prestige, honor, and deference (Berger, Cohen, and Zelditch 1972). Developments in the expectation states research program have yielded critical insights into the traits and behaviors that confer status in groups (Berger, Conner, and Fisek 1974; Berger et al. 1980). Expectation states theory argues that in groups composed of individuals who are collectively oriented toward accomplishing a shared goal, actors develop *performance expectations* for themselves and other group members. A performance expectation is a generalized anticipation of one's own or another's capacity to make useful contributions to the task (Ridgeway and Berger 1986:604). When performance expectations are differentially associated with group members, then some individuals are assumed to be more competent than others (Berger, Cohen, and Zelditch 1972; Berger, Wagner, and Zelditch 1985). Expectation states theory asserts that differences in performance expectations result in observable inequalities that pattern cognition and group interaction (Wagner and Berger 1993).

STATUS CHARACTERISTICS THEORY.

Status characteristics theory is a branch of the expectation states program that connects cultural beliefs to performance expectations. The theory describes a process of status generalization through which actors develop performance expectations on the basis of observable traits termed "status characteristics" (Berger et al. 1977). The theory predicts which traits generate performance expectations and how wide-ranging the effects of these expectations will be.

Briefly, status characteristics are interpersonal traits that influence the beliefs individuals develop about each others' capabilities. Different *states* of a status characteris-

⁶ Scope conditions define the domain to which a theory applies (Walker and Cohen 1985). The scope of network exchange theory is restricted to exchange networks in which (1) each position is related to and seeks exchange with at least one other, (2) equal pools of positively valued resources are available in each relation, (3) two positions receive resources if and only if they exchange, (4) each position can make only one exchange per round. For a full statement of the theory's scope conditions see Markovsky et al. (1988).

tic have differential value, esteem, and honor. Status characteristics that influence behavior may be *diffuse* (e.g., gender, age, education, occupation, and race). Diffuse characteristics activate generalized expectations for performance at a wide range of tasks. Status characteristics may also be *specific* (e.g., associated with specific capabilities such as mathematical ability or reading skill). Status characteristics theory proposes that in collectively oriented task groups, members develop performance expectations for themselves and others on the basis of such traits. A graph-theoretic model is used to calculate aggregated performance expectations from the distribution of salient status characteristics (Berger et al. 1977; Fisek, Norman, and Nelson-Kilger 1992).

A substantial body of evidence indicates that status characteristics have potent effects on social interaction (Berger et al. 1974, 1977; Cohen 1993; Wagner and Berger 1993). High-status individuals typically (1) receive more opportunities to perform, (2) perform more often, (3) are evaluated more positively for their performance, (4) have more influence over the group decisions, and (5) are elected to leadership positions. Given the robustness of status effects in task groups, I suggest that status characteristics also impact exchange processes by affecting the perceived value of exchangeable resources.

VALUE IN EXCHANGE AND STATUS RELATIONS

Because the concept of *value* appears in theories of power and theories of status, it provides a natural bridge between these two research programs. Both Emerson (1972a, 1972b) and Willer (1981) explicitly link power to the possession of valued goods. A similar position can be found in Coleman (1973) and Homans (1974). In the status realm, Berger, Zelditch, and colleagues (1972) utilized the term *status value* in a theory of distributive justice. Status value refers to the worth, self-esteem, or honor associated with possessing an object or characteristic. It is important to note that status value and *monetary value* are distinct concepts (Simmel [1901] 1978). For example, a championship trophy may have little mon-

etary value—its plastic components give only the superficial impression of gold. Nevertheless, the trophy can bestow tremendous status value on its owner. Status value may attach to status characteristics, like race or gender, or it may attach to goal objects, like trophies or exchangeable resources. If control over valued resources confers power, and status value is a dimension along which resources can vary, then control over status-valued resources should provide a basis for power in exchange relations.

But how do resources acquire status value in social exchange relations? Although this question has never been explicitly addressed, there are clues in the published record. Berger, Zelditch, and colleagues (1972) suggest that the value of an object or characteristic can spread to other related objects or characteristics:

Assumption 1: (Spread of Status Value) Let e_i be a non-status valued element of a status situation S, and let $e_j, e_k \dots$, be status-valued elements of S. If e_i is related to $e_j, e_k \dots$, or e_j, e_k, \dots to e_i , then (1) e_i acquires the status value of e_j, e_k, \dots , if e_j, e_k, \dots , have the same status value; (2) e_i acquires no status value if e_j, e_k, \dots , have different status values. (P. 130)

This implies status value will spread from people to exchangeable goods when (1) the actors who exchange are consistently differentiated on multiple status characteristics that carry value, and (2) these characteristics are exclusively related to exchangeable resources having no status value. If correct, then status value should spread from actors to their resources when these conditions are established in exchange relations. The result is that objects held by high-status actors will be more valuable than they would otherwise have been. Objects possessed by low-status actors will have less status value.

Recent work in status construction theory further elucidates the spread of status value (Ridgeway and Balkwell 1997; Ridgeway et al. 1998; Ridgeway and Glasgow 1996; Webster and Hysom 1998). This work assumes that levels of a nominal trait initially are correlated with differences in valued resources. This configuration leads to a certain proportion of *doubly dissimilar* encounters—encounters in which actors differ on the nominal trait and resource level they

possess. Recent tests demonstrate that doubly dissimilar interactions play a central role in the development of status beliefs (Ridgeway et al. 1998; Ridgeway and Glasgow 1996). Ridgeway et al. (1998) find that following doubly dissimilar social interactions, actors who are resource rich are expected to be more competent than actors who are resource poor. Diffusion models then show how expectations of competence can migrate through a population (Blau 1977; Skvoretz 1983). Overall, this research indicates that doubly dissimilar encounters spark a chain reaction through which status beliefs emerge and spread to others.

The status value theory of power I offer below builds on the preceding theoretic foundations. The theory predicts that in status-differentiated exchange relations, status value will spread from actors' valued characteristics to the nominally distinct goods they possess. This phenomenon is then linked to exchange processes and outcomes. The theory predicts that actors with positive status characteristics have power advantages in social exchange relations.

A STATUS VALUE THEORY OF POWER

The following theory comprises axioms and scope conditions that form a bridge between theories of power and status.⁷ I conclude with testable hypotheses that guide the research reported thereafter.

THEORETICAL SCOPE

In addition to the bargaining conditions outlined by Markovsky et al. (1988), the status value theory of power applies to exchange relations wherein actors: (1) are differentiated by more than one status characteristic, and (2) have knowledge regarding the status characteristics of each potential partner. Further, (3) the actors must possess nominally distinct resources (R_i and R_j) that are initially

equal in total value, and (4) explicitly relevant to the actors' status characteristics. Conditions 1 and 2 ensure that multiple status characteristics are salient and known to all parties. Conditions 1 and 3 imply that both resources and status characteristics are distinct. Many naturally occurring exchanges fall within these guidelines.

ASSUMPTIONS

The following assumptions apply to actors i and j who negotiate the terms of exchange. *Power* (P) is defined as a structural potential that can be exercised to extract resources. The structure of interest here can be given by either the pattern of exchange relations, or the distribution of status characteristics. It follows that when actors i and j possess the same status characteristics and occupy structurally identical positions, neither has a power advantage. The first assumption connects the status value of characteristics (S) to the perceived *total value* (V) of resources held by actors i and j . The term total value refers to the sum of monetary value (i.e., the amount of money something is worth) and status value (i.e., the honor or esteem something confers). The remaining assumptions connect the possession of valued resources to power and observable outcomes. Formally, the theory can be expresses as a series of logically-related assumptions:

Assumption 1: If $S_i > S_j$, then $(V_i R_i > V_i R_j) \wedge (V_j R_i > V_j R_j)$.

Assumption 2: If $(V_i R_i > V_i R_j) \wedge (V_j R_i > V_j R_j)$, then $P_i > P_j$.

Assumption 3: If $P_i > P_j$, then i is more likely than j to acquire a greater share of the resources from exchange.

Assumption 1 states that, given relevance between levels of status characteristics and nominal resources, if actor i is higher in status than actor j ($S_i > S_j$), then the total valuation i places on his/her own resources ($V_i R_i$ —read as “the total valuation i places on the resources controlled by i ”) is greater than the total value i places on the resources controlled by j ($V_i R_j$). The total value of resources held by the higher status actor i will increase because those resources take on

⁷ I do not attempt to integrate all components of the status characteristics program with network exchange theory (Wagner 1984a). My purpose is to develop what Markovsky (1997) calls a *theory unit*—a set of concepts, scope conditions, and assumptions that can bridge formal theories.

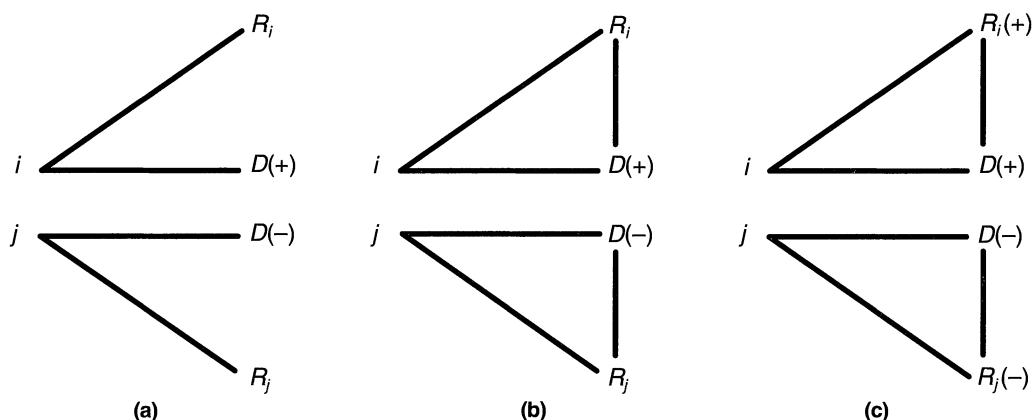


Figure 1. The Spread of Status Value from Characteristics to Goods

added status value. Assumption 1 also applies to the perceptions of the lower status actor. Specifically, it states that the lower status actor *j* accentuates the total value attached to the resources controlled by the higher status *i* relative to his or her own ($V_j R_i > V_j R_j$). The combined effect is that both actors place greater value on the resources held by the higher status actor, and both devalue the resources held by the lower status actor. This is the *spread of status value* assumption.

Figure 1 illustrates the spread of status value using the graph-theoretical language of status characteristics theory (Berger et al. 1977). Figure 1a presents two actors (*i* and *j*) who possess different states of a culturally valued diffuse status characteristic (*D+* and *D-*) and nominally distinct resources (*R_i* and *R_j*) that initially are equal in monetary value and have no status value. In Ridgeway's (1991) terms, the actors are "doubly dissimilar," a condition known to be propitious for the development and spread of status beliefs (Ridgeway et al. 1998; Webster and Hysom 1998).

A critical point is the moment at which status-valued elements become explicitly *relevant* to elements with no status value. According to Freese and Cohen (1973) "an element e_i is relevant to an element e_j if and only if: if x_i possesses e_i , then x_i is expected to possess e_j " (p. 182, *italics added*). Note that this definition implies that relevance bonds are symmetrical, such that if e_i is relevant to e_j , then e_j is relevant to e_i . Figure 1b shows a relevance bond connecting levels of the valued characteristic (*D+* and *D-*) to the

nominal resources (*R_i* and *R_j*). The status value theory of power does not explain how relevance bonds emerge. Rather, the theoretical point of departure occurs only after relevance is established. Because it seems natural to wonder how these bonds emerge, I offer three possibilities from the literature on status (Berger et al. 1977) and legitimacy (Walker and Zelditch 1993).⁸

In status characteristics theory, relevance bonds arise through a "burden-of-proof" process. The theory claims that status characteristics activate associated expectation states, which then become relevant to similarly evaluated states of an instrumental task characteristic (Berger et al. 1977). Wagner (1984b) characterizes this as an "automatic" process wherein actors develop performance expectations for themselves and others given the characteristics they possess. In empirical settings, the burden of proof is on showing that status characteristics are *not relevant* to task outcomes, and even then, status distinctions can have powerful effects (Cohen 1993; Pugh and Wahrman 1983). Interestingly, there are reasons to believe that a similar burden-of-proof process does not automatically establish relevance and induce the spread of status value in the exchange conditions used here.⁹

⁸ This discussion is not necessarily comprehensive. Psychologists have long studied how the similarity, redundancy, or propinquity of stimuli can lead to perceived relevance.

⁹ A single experimental condition ($N = 11$) tested for this possibility. In this condition, a

Second, relevance between valued and nonvalued elements can be established by a legitimate *authority* (Walker and Zelditch 1993). Examples include an experimenter in a laboratory context or a formal mandate within an organization. To illustrate, Berger, Zelditch et al. (1972:131) describe an organization in which managers have access to an executive washroom from which blue-collar workers are prohibited. This policy creates relevance between a status-valued element (i.e., occupational prestige) and a non-status-valued object (i.e., the key to the washroom). Consistent with the spread of status value assumption given above, Berger and associates predict the washroom key will acquire positive status value under these conditions.

Third, relevance may be induced by activating *referential structures* that exist as part of a larger normative and social context. Referential structures contain information concerning the distribution of social roles, the status of individuals in those roles, and their possessions or abilities. For instance, categorical referential structures link categories of people to levels of rewards (Berger et al. 1985; Ridgeway 1991). These structures indicate that people who possess trait x generally can be expected to possess reward level y . If referential information of this type is activated in a local setting that contains trait x and reward level y , then actors may apply this belief to the local task situation (Berger et al. 1998). Whether this actually occurs will depend on the strength of activation and its congruence with the task at hand.¹⁰

high-status subject and a low-status subject were randomly assigned nominally distinct resources with no explanation whatsoever (i.e., with no explicit relevance established). The data reveal no differences in the perceived status value of goods held by high- versus low-status partners. This suggests relevance may be a sufficient condition for the spread of status value.

¹⁰ My experiments establish relevance between valued status characteristics and nominal resources through the authority of experimental instructions. Tests of status construction theory also use procedures that would establish relevance between nominal traits and valued goods (Ridgeway et al. 1998:336). In that research, an authority figure assigns high or low payment lev-

With relevance established between nominal resources (R_i and R_j) and levels of a valued status characteristic ($D+$ and $D-$) the resources themselves become status markers by association. Thus, relevance is a necessary condition for the spread of status value.¹¹ More formally: If and only if a non-status-valued element (e_i) is made relevant to a status-valued element (e_j+ or e_j-), then (e_i) will acquire consistent valuation. To the degree that relevance bonds are symmetrical, status value will spread from valued characteristics to nominal resources or from valued resources to nominal characteristics (Ridgeway et al. 1998). The result is shown in Figure 1c. The resources controlled by i and j now have acquired status value consistent with their relevant characteristics.

The second theoretical assumption connects the possession of valued resources to power. It states that if actor i and actor j perceive the resources controlled by i to be more valued than those controlled by j , then i has power over j . Exchange theories agree on this principle (Cook and Yamagishi 1992; Emerson 1981; Homans 1974;

els to the subjects "in light of the information the laboratory has about them" concerning a nominal trait. Each subject also receives consistent referential information connecting levels of the nominal trait to levels of valued payment. The data indicate that under these conditions, nominal traits acquire status value consistent with the value of relevant resources. I therefore suggest that relevance by authority and relevance by referential information are two important mechanisms that elicit the spread of status value.

¹¹ That symmetrical relevance is necessary (and perhaps sufficient) for the spread of status value does not imply the two processes are the same. Consider actor A and resource R and let neither be status valued. Now let A be connected to R through a relevance bond. The result is (A—R) and no spread of status value occurs. Now assume A has positive status value (A+) and is relevant to some R of no status value. The result is that R acquires status value such that (A+—R+). Alternatively, assume R has positive status value (R+) and is relevant to some A of no status value. The result is that A acquires status value so that (A+—R+). Thus, to be precise, there are actually two necessary conditions for the spread of status value: (1) a relevance bond must exist connecting (2) elements of different status value.

Thibaut and Kelley 1959; Willer 1981). Yet, exchange theorists have not investigated how things become differentially valued in the first place. Instead researchers "fix" the monetary value of resources as initial conditions, holding constant the money each resource unit is worth.¹² Here I also fix the monetary payoff associated with each resource unit. However, the perceived *total value* of a resource (i.e., its monetary value and its status value) can vary. This is because resources with equal monetary value can have high or low status value, depending on their relevance to culturally valued status characteristics.

The status value theory of power is not intended to provide a general theory of value (Emerson 1987). It is mute on the determinants of value other than status value. It seems reasonable to assert that objects can be valued in multiple ways depending on the social context. For example, a hungry individual may value caviar for food potential (consummatory value); a poor individual may value caviar when market prices are high (monetary value); a low-status individual may value the impression caviar makes upon dinner guests (status value). When testing for the spread of status value, the monetary and consummatory value of resources are set. Only then does the theory link changes in status value to levels of salient status characteristics.

The final assumption links power to exchange outcomes. In keeping with exchange theory, power is conceived as a structural potential that enables some actors to earn favorable resource distributions at the expense of others. The third assumption connects power potential to observable power exercise. When status value fluctuates but other types of value, such as monetary and consummatory value, are held constant, observed differences in exchange outcomes can be used to gauge the magnitude of status value effects.

¹² Cook and Emerson (1978) varied the amount of money associated with network ties, but again, the monetary value of each resource unit was held constant. What varied in their experiments was the *number* of equally valued resources available from network relations, not the total value of each resource unit.

DERIVATIONS

A number of implications follow from this theory. First, all else being equal, goods associated with high-status individuals should be more highly valued than goods associated with low-status individuals. When actors seek valued goods, exchange with higher status partners should be preferred over exchange with lower status partners. Other small-group theories predict the same effect but for different reasons. For example, self-enhancement theory (Baumeister and Jones 1978; Shrauger 1975) stipulates that actors are motivated to bolster their self-esteem or improve their feelings of self worth.¹³ The status value theory developed here suggests this may occur by establishing explicit relevance bonds to higher status others. The graduate student who publishes with a prestigious scientist will acquire "status value by relevance" not attainable from graduate student collaborations. This is modeled as the interpersonal spread of status value (Thye 1999).

A second derivation is that high-status actors will have a power advantage over low-status actors. Exchange theorists including Emerson (1964, 1972b) and Homans (1974) have observed links between status and power. Emerson tended to frame the issue in terms of "power balancing," asserting that status giving could move power-imbalanced relations toward a more balanced state. Homans (1974) ostensibly agreed; his portrayal of *noblesse oblige* implies that high-status actors incur costs or contribute re-

¹³ The experiments I conduct are carefully tailored to eliminate such motives. All subjects anonymously negotiate for poker chips that may be redeemed for cash, and all know their pay is solely determined by the number of chips they earn. As such, it seems reasonable to claim the primary indicator of self-esteem is success or failure at the task—subjects who earn more chips should feel better than subjects who earn fewer chips (Lawler and Yoon 1996, 1998; Lovaglia 1997). These conditions imply that subjects wanting to enhance self-esteem will choose to negotiate with *lower status opponents*, especially if such partners are perceived to be less competent. The status value theory of power predicts the opposite effect.

sources beyond low-status actors. Homans (1974) cautions, "To act otherwise is to cast conspicuous doubt on [one's] status as a member of the nobility" (p. 252). Despite these early treatments, neither Emerson nor Homans explicitly connected the possession of valued status characteristics to power in exchange relations.

Finally, the status value theory of power has implications for exchange frequencies in status-differentiated networks wherein all positions are identical. Recent theories predicting frequency focus on positional advantages given by network shape (Lovaglia, Skvoretz, Willer, and Markovsky 1995; Markovsky et al. 1993; Skvoretz and Lovaglia 1995). However, in the absence of positional effects, the only factor affecting exchange frequencies should be actors' subjective payoffs. In turn, these payoffs are given by (1) the number of resources available or offered in each relation, and (2) their relative valuation (Emerson 1981; Willer 1981). *Ceteris paribus*, the status value theory of power predicts that resources relevant to high-status actors will be more valued than resources relevant to low-status actors. Therefore, cognitive preference measured *before* each exchange opportunity should indicate that higher status partners are more often preferred.

In terms of exchange outcomes, this preference translates into several different behaviors. Consider a focal actor connected to a higher status partner and a lower status partner. If the resource distributions are constrained—so that each partner offers the focal actor the same number of resources on every round—the focal actor will prefer to exchange with the higher status partner because of status value effects. In turn, this should result in the focal actor exchanging more frequently with the higher status partner, relative to the lower status partner. In the experiments reported below, however, the resource distributions are not constrained, so power exercises can emerge. The result is that over time, the two relations should equilibrate toward equal exchange frequency. As the higher status partner exchanges with the focal actor, the lower status partner must offer the focal actor more (of a less valued) resource, or risk exclusion from exchange. As offers to the focal actor

from the lower status partner increase, a point is reached at which the focal actor is indifferent between exchanges with the higher status partner versus the lower status partner. At the point of indifference, the exchange frequencies in each relation will be equal, yet the higher status partner is predicted to earn more resources on each exchange. The status value theory of power predicts that at equilibrium, high-status actors receive a greater number of resources and they are included with equal frequency.

METHOD

A series of experiments test the status value theory of power. In general, each session involved subjects who (1) were assigned to be higher, lower, or equal status relative to one or more partners, and (2) subsequently bargained with one another from different rooms via networked personal computers. Numerous features make this type of test well-suited to examine the connection between status and power. First, network power effects can be examined by altering the shape of the bargaining structure and modifying the rules of negotiation. Second, by physically isolating the subjects, it is possible to "create" a status hierarchy among homogeneous individuals, thereby eliminating any history associated with preexisting status groups. The isolation also ensured that subjects did not influence one another through verbal or nonverbal status cues (Berger et al. 1986).

SUBJECTS AND PROCEDURES

All experiments were conducted at a large midwestern university. The subjects were first- or second-year college students who signed up in classes. Only same-gender subjects (all male or all female) were included in any given session. Upon their arrival, subjects were randomly assigned to separate rooms—each of which represented a single network location—where they remained for the entire session. At no time did they learn the true identity of those in other positions. Except for a few words from a project assistant, all instructions were standardized and given to subjects via their computers. Each experiment had several phases.

First, subjects provided to the experimenter their age, gender, education, and high school grade-point average. All were told they would be working with others over a computer network. A dry-erase board located next to each subject's terminal graphically displayed the subject's own network position and each partner to whom the focal subject was directly connected. More distal network connections (i.e., those more than one-step away from the focal subject) were not shown. Each subject was led to believe they were connected to a higher, equal, or lower status partner. The experimenter provided predetermined information about each connected partner by posting printed summary reports next to each computer. When a (relatively) lower status subject was connected to a higher status partner, the summary report described the partner as a 27-year-old engineering graduate student with a high school GPA between 3.5 and 4.0. When a (relatively) higher status subject was connected to a lower status partner, she or he was informed that the partner was a 16-year-old high school student with a high school GPA between 1.0 and 1.99. In addition, several undifferentiated tests were conducted in which the summary report described an equal-status partner comparable to the subject—equal in terms of age, high school GPA, year in school, and academic major. Polaroid photographs of the subject and each ostensive partner added realism to the manipulation. Comparable status manipulations have been used successfully in past research (Lovaglia and Houser 1996; Markovsky, Smith, and Berger 1984).

Next, each subject completed a bogus meaning-insight test (Berger, Fisek, and Freese 1976). The meaning-insight test is a word-matching task consisting of 20 items. On each trial, the subject is asked to match a single target word, supposedly from an ancient language, to one of two English words that has the same meaning. All subjects were told that, compared to a national standard, they received an average score (12 of 20 correct). Additionally, subjects connected to a higher status partner were told that their partner scored better (18 correct), while those connected to a lower status partner were told that their partner scored worse (4 correct).

This provided specific status information on a task unrelated to the focal exchange.¹⁴

Each subject then was assigned nominally distinct resources to exchange. Each subject was told she or he "would control blue poker chips in light of an average meaning-insight score." These instructions were designed to activate relevance between the subject's resources (blue chips) and their status information (meaning-insight score) in the context of the experiment. Subjects also were told that higher status partners would possess purple chips and/or lower status partners would possess orange chips.¹⁵ However, the exact meaning of the chip colors assigned to *each partner* was kept somewhat ambiguous. To avoid over-emphasizing the relevance between chip color and meaning-insight scores, subjects were told that different colored poker chips would also "help the experimenter keep track" of the interactions. Overall, these procedures were designed to produce relevance between nominal resources and valued characteristics (and therefore establish status value for the colored chips), while keeping the exact nature of the chip color plausible yet somewhat ambiguous (see Ridgeway et al. 1988 for similar procedures).

Following the poker chip allocation, subjects began the negotiation and exchange phase. All were told that the shape of the full network would not be revealed and that their partners may or may not have partners of their own. An interactive tutorial guided subjects through the mechanics of negotiating via the computer. Following the tutorial,

¹⁴ The total status manipulation consists of two diffuse characteristics (age and educational attainment) and one specific status characteristic (meaning-insight ability). Note that any single status characteristic may be sufficient to produce power, and some may have stronger effects than others. For instance, economic theorists may argue that specific performance outputs are more potent than honorable status traits. The current research cannot shed light on this issue. This initial test is designed to determine if status differences can affect exchange. If so, then more subtle status differences can be explored.

¹⁵ Some sessions assigned the high-status partners "orange" instead of "purple" poker chips, thus reversing the color/status configuration. This had no effect on the outcomes. The results are available from the author on request.

subjects completed 60 rounds of negotiation, making at most one exchange per round. All subjects were encouraged to gain as many chips as they could. Importantly, each subject was told their pay for the study would be determined "by the *number* of poker chips earned through exchange." That is, each subject was explicitly told that their monetary payoff was determined only by the number of poker chips they earned, regardless of color. At the end of the experiment, the assistant explained the purpose of the research and manipulations, answered all questions, and paid the subjects using a standard formula that converted the number of chips to cash.

BARGAINING PROTOCOL

All negotiations occurred in a restricted information setting specifically tailored to capture exchange processes (Lovaglia, Skvoretz, Willer, and Markovsky 1995; Thye et al. 1997). Each subject bargained with three bits of information: (1) the number of poker chips they requested from each connected partner, (2) whether and with whom an exchange occurred, and (3) the number and color of poker chips earned on each round. These conditions were communicated via a computerized exchange system. The initial set-up—including the network configuration and chip color assignments—was menu-driven through a master control station in a nearby control room.

Subjects in separate rooms negotiated how to divide 30 poker chips associated with each network relation. From each subject's perspective, however, the interaction appeared as an exchange of different colored chips. The subject's own blue poker chips were always exchanged for those associated with a higher, lower, or equal status partner. At the onset of each round, subjects requested the minimum number of chips they would accept from each connected partner. When the requests from two connected subjects were less than or equal to 30, a successful exchange occurred and the computer reported the subject's profit in terms of the chip color associated with the partner. In this way, exchange with a higher status partner would net the subject "purple" chips; exchange with a lower status partner would

yield "orange" chips. No profit was possible unless an exchange was completed.

Prior to the first round, the central computer initialized all requests so that each person requested 15 poker chips (half of the profit pool) from each connected partner. On each round, subjects could increase or decrease their request by one poker chip, or leave their previous request unchanged for each relation. Following each round, subjects learned the number and color of the poker chips they earned, and the supply of 30 poker chips on each relation was replenished for the next round. Over time, subjects could increase or decrease the number of chips they acquire through exchange. An expression of power is marked by deviations from the point of equal exchange (15-15).

DEPENDENT MEASURES

Separate tests were used for the profit distribution and exchange-frequency data. Over the course of an experimental session there were 60 potential exchanges (rounds) among different subjects in each network relation. Allow the elements of this series to be represented as $m \in \{1, 2, \dots, M\}$. Let i and j indicate different subjects such that $i, j \in \{1, 2, \dots, N\}$, where N is the number of subjects (and also the number of positions in the network). For an $i-j$ exchange, either i 's or j 's profit may serve as the datum as long as it is always the one used. Let P_{ijm} equal i 's observed profit from the m^{th} exchange with j , and π_{ij} equal a theoretical construct representing i 's stable equilibrium profit in exchange with j . The relationship between the observed and equilibrium profit is given as

$$\lim_{m \rightarrow \infty} (P_{ijm}) = \pi_{ij}.$$

To estimate π_{ij} for each relation, P_{ij} was averaged over the last 10 exchanges for each $i-j$ pair. A t -test was used to determine if the differences between equilibrium profits and equality (which equaled 15) were significant. This method provided a conservative test of the theory in that each experimental session represents one observation in the analysis.

Frequency data were analyzed by comparing the probability of one exchange pattern versus another (Skvoretz and Lovaglia 1995). For example, under a one-exchange

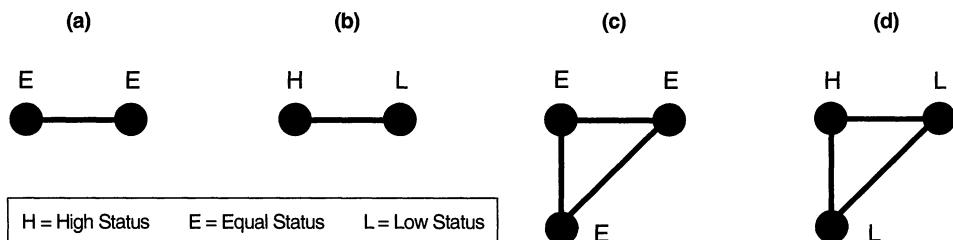


Figure 2. Structures and Status Assignments for Experiment 1

rule, three distinct exchange patterns could occur in a triangle, and these patterns could vary independently across groups. For each experimental session, the observed probability of each exchange pattern was calculated. These values were then averaged, and a between-groups *t*-test was used to test for unequal exchange frequencies.

A questionnaire was administered to (1) check whether the status manipulation led to consistent expectations of competence, and (2) measure the status value attached to resources. First, to determine if the status manipulation produced consistent expectations of competence, each subject was asked to rate each potential exchange partner's work ability, general business ability, and also to indicate how likely she or he would be to select the partner for an important class project. Status value was assessed by asking subjects to determine which chips they thought were more important and which chips they tried harder to acquire for themselves during the negotiations. A single forced-choice item was also included that read: "Suppose the research assistant entered the room and told you: We have decided to take away all of the chips you have earned in this study and replace them with either 100 orange or 100 purple chips. Which would you choose?"

EXPERIMENT 1

DESIGN

The first experiment tested the theory in a dyad and a triangle, two networks in which all positions are structurally identical. There were two conditions for each network—status differentiated and status undifferentiated—resulting in four conditions of a com-

pletely randomized design. These conditions are illustrated in Figure 2. Each position in Figure 2 is labeled (H)igh-, (E)qual-, or (L)ow-status to indicate the perceived status of the person in that location. For example, the position marked H in Figure 2d is perceived by two college students (each designated L) to be higher status than themselves. The occupant of position H is reported to be a 27-year-old graduate student with a superior GPA. The college student in position H is ostensibly connected to a pair of lower status partners (i.e., two high school students each with an inferior GPA). Thus, the occupant of position H believes she or he is higher status than each partner, and each partner believes that H is higher status than themselves. Each person marked L in the Figure 2d triangle is told she or he has a higher and a lower status partner. By comparing the status-differentiated conditions (Figures 2b and 2d) with the status-equal conditions (Figures 2a and 2c), Experiment 1 establishes the baseline effect of status differentiation on exchange outcomes for networks with no positional advantages.

HYPOTHESES

Several hypotheses were tested in Experiment 1:

Hypothesis 1: High-status subjects will earn more resources than equal- or low-status subjects.

Hypothesis 2: The goods held by high-status partners will have greater *status value* than those held by low-status partners.

Hypothesis 3: High-status partners will be chosen more frequently than low-status partners as the *preferred exchange partner*.

Table 1. Means and Standard Deviations for Responses to Status Questions in the Dyad Structure

Measure	Number of Observations	Status	Rating of Self	Rating of Partner	δ^a
Ability to solve work-related problems	25	High	6.96 (.79)	5.28 (1.62)	1.68***
	25	Low	6.24 (1.42)	6.96 (1.31)	-.72**
General business ability	25	High	6.60 (1.15)	4.44 (1.53)	2.16***
	25	Low	6.04 (1.49)	6.44 (1.19)	-.40

Note: All items were Likert-scale items that could range from 1 to 9. Numbers in parentheses are standard deviations. Degrees of freedom for each repeated-measures *t*-test equal N-1, where N is the number of observations.

^a The smaller δ values for low-status subjects may reflect a self-serving bias. The pattern of differences shown here suggests that low-status subjects rated themselves as only *slightly* less competent than their high-status partner, whereas high-status subjects tended to place greater distance between themselves and lower status partners.

* $p < .05$ ** $p < .01$ *** $p < .001$ (one-tailed tests)

Hypothesis 4: In the status-differentiated triangle, high-status subjects exchange with the same frequency as low-status subjects.

RESULTS

I report data from 75 networks in the first experiment: 25 status-differentiated dyads, 20 status-equal dyads, and 15 groups each of the status-differentiated and status-equal triangles. In addition to the 75 networks reported, data from 2 sessions were lost due to computer malfunctions. An additional 5 sessions were excluded from the analysis because one or more subjects were suspicious or misunderstood the status manipulation.¹⁶ These sessions notwithstanding, the experimental protocol and manipulation check ensure that Experiment 1 satisfies the scope conditions of network exchange theory (Markovsky et al. 1988, 1993) and the status value theory of power.

MANIPULATION CHECK

Data from multiple questionnaire items indicate that the status manipulation produced

consistent performance expectations for status-differentiated partners.¹⁷ The cleanest manipulation check occurs in the status-differentiated dyad, in which each actor has only a single partner of relatively higher or lower status and the inclusion/exclusion rates are constant for both actors in a given experimental session. Subjects connected to a higher status partner indicated that they would be more likely to work with that person on an important class project ($\bar{x} = 6.84$, S.D. = 1.18) than were those connected to a lower status partner ($\bar{x} = 3.64$, S.D. = 1.68), and this difference was statistically significant ($t_{46} = -7.79$, $p < .001$, one-tailed test). Further, subjects connected to lower status partners perceived them to have less problem-solving potential and less business ability. Those connected to higher status partners indicated that their partner had more ability to solve work problems, but saw no difference between their own business abil-

the exclusion rate is slightly more than 6 percent.

¹⁷ The link between culturally valued status characteristics and performance expectations is the *sine qua non* of the expectation states tradition (Berger et al. 1974, 1977). Although the manipulation check does not directly measure the perceived status of each partner (i.e., their value, honor, or esteem), these qualities may reasonably be inferred from expectations of competence.

¹⁶ There are clear guidelines for excluding subjects from this type of research (Berger, Norman, Balkwell, and Smith 1992). In the present study,

Table 2. Mean Number of Resources Earned in the Dyad and Triangle Structures

Network/Status	Number of Observations	Relation	Focal Actor	Mean Number of Resources ^a	Standard Deviation
Dyad/(H, L)	25	H-L	H	19.05**	7.66
Dyad/(E ₁ , E ₂)	20	E ₁ -E ₂	E ₁	15.37	7.62
Triangle/(H, L ₁ , L ₂)	15	H-L	H	17.03***	2.95
	15	L ₁ -L ₂	L ₁	15.65	3.31
Triangle/(E ₁ , E ₂ , E ₃)	15	E ₁ -E ₂	E ₁	14.67	1.78
	15	E ₂ -E ₃	E ₂	14.22	1.78
	15	E ₁ -E ₃	E ₃	15.31	2.35

Note: Significance was determined by one-tailed *t*-tests with N - 1 degrees of freedom, where N is the number of distinct experimental observations times the number of structural relations in the network (2 for the H-L relation in the triangle network; 1 otherwise).

^a Significance indicates deviation from equal exchange rates (15-15). The mean number of resources earned by the nonfocal actor in each relation is given by 30 minus the mean number for the focal actor.

p* < .05 *p* < .01 ****p* < .001 (one-tailed tests)

ity and that of their partner. Table 1 shows the means, standard deviations, and differences between self ratings and partner ratings (δ) for these items.

RESOURCE DISTRIBUTIONS

Hypothesis 1 is supported in the dyad network. Table 2 shows the average exchange ratio and the standard deviations. The data indicate that the high-status actor averaged 19.05 of the 30 available points in exchanges over the last 10 rounds. A one-tailed *t*-test indicates this is a significant departure from the 15-15 equal power division ($t_{24} = 2.65$, $p = .007$, one-tailed test). Importantly, the exchange ratio in the equal-status dyads (15.37 vs. 14.63) does not differ from equality ($t_{19} = -.22$, $p = .415$, two-tailed test), yet the variability of these responses is nearly identical to that for the status-differentiated groups (S.D. = 7.62 vs. 7.66).

The first hypothesis is also supported in the triangle network. To increase statistical power, the sample size was doubled by combining the profit data for each identical H-L relation. As in the dyad, the high-status member of the triangle exercised power over the lower status members. Moreover, there were no profit differences in the L-L relation of the triangle or for any position in the equal-status triangle. Again the theory is supported.

STATUS VALUE

The data from multiple questionnaire items support Hypothesis 2. The most rigorous test of this hypothesis occurs in the Figure 2d triangle.¹⁸ Both positions marked L believed they were connected to a higher status partner (who controlled purple chips) and a lower status partner (who controlled orange chips). Again, to boost statistical power, the responses from the two identical L positions were combined. A within-subjects comparison was then used to assess how subjects perceived the goods controlled by higher and lower status partners.

A matched sample *t*-test indicated that subjects felt it was more important to acquire chips held by the high-status partner ($\bar{x} = 7.1$, S.D. = 2.71) than those held by the low-status partner ($\bar{x} = 6.1$, S.D. = 2.92); and this difference proved to be statistically significant ($t_{29} = 2.42$, $p = .01$, one-tailed test). When asked which commodity

¹⁸ The relative status value of poker chips is more difficult to measure in the dyad, where relative status is confounded with a self versus other distinction. For example, low-status subjects may prefer their own chips because of a self-serving bias. However, each L position in the triangle can negotiate with a higher and a lower status partner. By measuring the status value attached to the two partners' chips, the confound is eliminated.

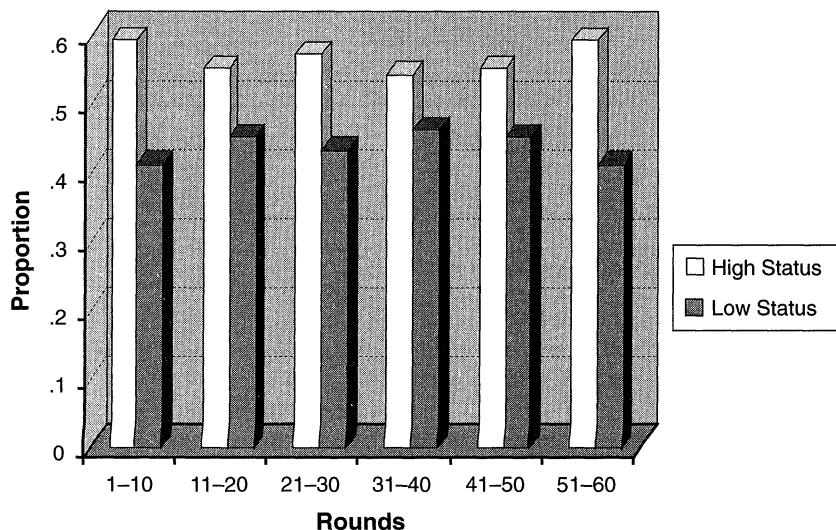


Figure 3. Preferred Exchange Partners for Position L in the Triangle Network

Note: Within each 10-round block the difference is significant at $p < .05$ (one-tailed z -tests).

they tried harder to earn during the negotiation, 22 of 28 respondents (79 percent) indicated that they attempted to acquire the high-status purple chips. If the null hypothesis is considered to represent equal preference for chips held by high- and low-status partners, the observed preference for the high-status partner's chips is significant ($z = 3.07, p < .001$, one-tailed test). When given the option to earn 100 purple chips or 100 orange chips at the end of the study, 21 of 30 subjects (70 percent) chose the purple chips—the color associated with the high-status partner. Again, this preference was significant ($z = 2.19, p = .007$, one-tailed test). Finally, when the subjects in the high-status position of the triangle (who believed they possessed blue chips) were given the same choice to be awarded 100 purple chips (which did not exist from their perspective) or 100 orange chips (the color of chips available from both lower status partners), 13 of 15 subjects selected the purple chips, despite the fact that they had no prior knowledge of "purple" chips until that exact moment! It seems the negative status value created by making orange chips relevant to low status was sufficient to reduce their desirability compared to an unknown color.¹⁹ These in-

dicators provide strong and consistent support for the theory.

PARTNER PREFERENCES

Hypothesis 3 predicts that high-status partners will be preferred over low-status partners. To measure partner preference, a fifth condition ($N = 15$) was incorporated into Experiment 1. This condition was identical to the status-differentiated triangle in all but one important respect. In this case, prior to each negotiation round, subjects could indicate to the central computer a single "preferred exchange partner" from the set of all potential exchange partners to whom they were connected. Further, each subject was correctly told that selecting a preferred exchange partner would make it more likely that they would exchange with that person. If two subjects select one another as their preferred exchange partner, then an exchange would transpire even if more poker chips were available in other relations. This experimental condition adds three benefits. First, it provides yet another test of Hypothesis 1 to determine if high status leads to the exercise of power. Second, it allows an objective measure of psychological preferences *prior to* each round of exchange. Third, it frees some of the dependencies between exchange frequencies and resource

¹⁹ Open-ended questionnaire responses support this observation.

Table 3. Mean Probabilities of Exchange for the Triangle Structure: Observed and Predicted

Network/Status	Number of Observations	Outcome	Probability from Random Model	Observed Probability	Observed minus Random Probability
Triangle/(H, L ₁ , L ₂)	15	H-L	.66	.68 (.14)	.02
	15	L ₁ -L ₂	.33	.32 (.14)	-.01

Note: Numbers in parentheses are standard deviations.

distributions, thus providing a more independent test of Hypothesis 4. I address each point in turn.

Once again, positive status characteristics resulted in the exercise of power. The average number of resources acquired over the last 10 rounds for the two H-L relations combined was 16.06–13.94 (S.D. = 2.70, N = 30), and this deviation was significant ($t_{29} = 2.15$, $p = .02$, one-tailed test). Again, there was no power use in the L-L relation (14.97–15.03, $t_{14} = -.03$, $p = .978$, two-tailed test). These results provide further evidence in corroboration of Hypothesis 1.

To test Hypothesis 3, the data from each L position were aggregated, and the probability of selecting the high-status partner versus the low-status partner was then calculated for each 10 rounds of exchange. The observed proportions were then compared to the null model (50/50) to check for a significant partner preference. The results are shown in Figure 3.

Again, the data support the theoretical prediction. The most striking feature of Figure 3 is that the high-status partner was chosen as the preferred exchange partner across all 60 rounds of exchange. For example, the high-status partner was selected on 59 percent of the exchange opportunities during the first 10 rounds, while the low-status partner was preferred only 41 percent of the time. This finding illuminates one mechanism by which high-status individuals acquire power—through the strong and persistent willingness (even in the face of profit exploitation) of relatively low-status individuals to seek them for exchange. That high-status subjects tended to exchange for higher profit and *were still* most often chosen as the preferred exchange partner demonstrates just how robust status value effects can be.

EXCHANGE FREQUENCY

The status value theory of power predicts that high-status actors, who offered less of a more valued resource, were included in exchange as frequently as low-status actors, who offered more of a less valued resource. Again, the data from each H-L relation in the triangle network were combined, and the probability of each distinct exchange pattern was calculated. The observed probability of exchange was then compared with a model of equal exchange frequencies. The results, shown in Table 3, reveal no difference between the observed probability of exchange and that predicted by the theory. Again the theory is supported.

SUMMARY

Overall, Experiment 1 provides clear and consistent support for the status value theory of power. In two- and three-person fully connected networks, nominal resources relevant to positive states of status characteristics were perceived as more valuable than were resources relevant to negative states of status characteristics. This spread of status value enabled high-status members to exercise power and earn greater profits. The first experiment also demonstrates that status effects are sensitive to the overall network context in which they occur. On average, the surplus profit earned by the high-status member was twice as large in the dyad (4.05) than in the triangle (2.03). Profit-taking might be reduced in the triangle simply because the high-status actor can sometimes be excluded from exchange, while the relative rates of exclusion are identical for both members of the dyad. A second experiment was designed to investigate status-driven power in more complex exchange networks.

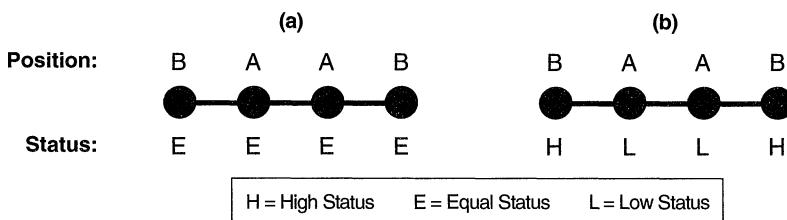


Figure 4. Structures and Status Assignments for Experiment 2

EXPERIMENT 2

DESIGN

Experiment 2 investigates whether status characteristics can eliminate power advantages in the simplest weak-power structure, the “4-line” (Figure 4). Again, subjects were randomly assigned to positions and could exchange once per round. Prior theory and research find weak-power advantages for the more central A’s who, unlike the peripheral B’s, always have a guaranteed available exchange partner. In this experiment, the A–B status differences are *opposed* to the weak power differences governed by network shape (Figure 4b). There are two experimental conditions—the standard protocol and the preferred-exchange-partner setting described earlier. Unpublished 4-line experiments with status-undifferentiated actors constitute the control group against which status effects are measured (data are available from the author on request). Figure 4 illustrates the networks and status assignments used in Experiment 2.

HYPOTHESES

Hypotheses 1, 2, and 3 were tested in Experiment 2.²⁰ If status characteristics lead to profit advantages in this network, as predicted by Hypothesis 1, then A’s profit in the

status-inconsistent structure should be lower than A’s profit in the status-equal structure. The status-equal condition provides a measure of A’s structural power in the experimental setting, and thus a baseline by which to gauge status effects. Hypothesis 2 predicts that the As will attribute greater value to the poker chips held by the Bs than to those held by the other A. Hypothesis 3 predicts that each A will select the high-status B as the preferred exchange partner more often than the low-status A.

RESULTS

Data were gathered from 24 experimental sessions in which actors’ relative status characteristics contradict their positional power (12 standard and 12 preferred-exchange-partner protocol). One group from each protocol condition was excluded from the analysis because one or more members were skeptical of the status manipulation and said their suspicion altered their behavior. Thus, data from 22 status-differentiated sessions are reported. The responses from these two experimental conditions are compared to nine status-undifferentiated sessions in which there was no status manipulation. In these sessions, participants were simply told they would be working with others like themselves and they should earn as much as possible.

RESOURCE DISTRIBUTIONS

The data were combined for the two B–A relations to test Hypothesis 1. As predicted, the average number of resources earned over the last 10 rounds was larger when position A was an equal-status group member ($\bar{x} =$

²⁰ Hypothesis 4 (frequency) could not be tested here. No theory currently predicts how network structures (given by positional differences) combine with status structures (given by status differences) to impact on exchange frequency. Network exchange theory models of frequency (Markovsky et al. 1993; Skvoretz and Lovaglia 1995) are directed at understanding positional differences; the status value theory of power is directed at understanding status differences.

19.78, S.D. = 3.88) than when A was a low-status group member ($\bar{x} = 17.44$, S.D. = 4.97). An independent groups *t*-test indicates that this difference is significant ($t_{38} = 1.66$, $p = .05$, one-tailed test). Negative status characteristics significantly reduced power advantages given by network shape.

Hypothesis 1 was also tested in the more flexible preferred-exchange-partner setting. Here, the bargaining advantage for the low-status member was slightly larger and more variable ($\bar{x} = 18.58$, S.D. = 6.60) compared with the standard setting. Although the exchange ratio was in the predicted direction, the difference was no longer significant because of added variability ($t_{35} = .714$, $p = .24$, one-tailed test). Thus, in one of two experimental conditions, negative status characteristics were shown to significantly reduce profit-taking by individuals with a weak-power advantage given by network shape.

STATUS VALUE

The status value prediction was again supported. Questionnaire responses from the structurally identical As were combined for both experimental conditions (standard and preferred exchange partner) yielding 44 observations in the analysis. The data indicate that subjects believed it was far more important to acquire the chips held by their high-status partner ($\bar{x} = 7.68$, S.D. = 1.20) than the chips held by their low-status partner ($\bar{x} = 5.23$, S.D. = 2.14), and again this difference was highly significant ($t_{43} = 7.12$, $p < .001$, one-tailed test). When asked which commodity they tried harder to earn during the negotiation, a significant percentage of the respondents in position A (73 percent, $z = 3.05$, $p < .001$, one-tailed test) selected the "high-status" purple chips; when given the chance to earn equal amounts of purple or orange chips, 39 of 44 selected purple chips. These findings are commensurate with those from Experiment 1 and lend credence to the spread of status value phenomenon. In both experiments the theory was supported.

PARTNER PREFERENCES

Data from the preferred-exchange-partner condition were used to measure preferences

among potential exchange partners. On each negotiation round, actor A could choose as the preferred exchange partner either actor B (high-status, low-power) or the other A (low-status, equal-power). The theory predicts that the high-status B will be the preferred exchange partner on the majority of rounds because of the increased status value attached to goods at that location. Figure 5 shows the proportion of times each partner was chosen as the preferred exchange partner across each 10 rounds of negotiation. For example, in the last 10 rounds of negotiation (rounds 51 to 60), position A selected B as the preferred exchange partner on 68 percent of the rounds. The other A position (who was lower in status and equal in power) was selected only 22 percent of the time. Overall, the results indicate position A displayed a clear tendency to seek exchange with the high-status partner (B).

Interpreting this finding within the broader context of power and status is difficult. Because relative power and status levels were purposefully opposed, there are at least two interpretations. Notice that position B has low power but high status. The authors of network exchange theory assert that actors seek exchange with the weakest power partner available (Lovaglia, Skvoretz, Willer, and Markovsky 1995; Markovsky et al. 1988, 1993). For the centrally located A, this is position B. The theory of status value predicts that actors seek exchange with their highest status partner, which is also position B for the central A. As such, one cannot determine if position A seeks B because of actor B's low power or B's high status. It is conceivable that power and status combine to jointly determine the preference outcome observed. Further research is needed to determine exactly how levels of power and status differentially affect the tendency to seek partners for exchange.

SUMMARY

The results from Experiment 2 dovetail nicely with those from Experiment 1 and provide further evidence in support of the status value theory of power. In both experiments, resources identical in monetary value were more highly prized when relevant to

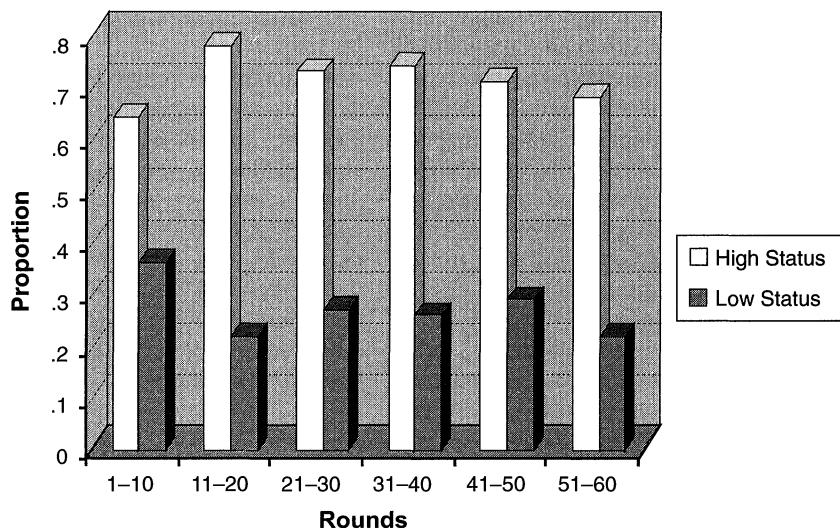


Figure 5. Preferred Exchange Partners for Position A in the 4-Line Network

Note: Within each 10-round block the difference is significant at $p < .001$ (one-tailed z -tests).

positive status characteristics. The data reveal this phenomenon has behavioral consequences for actors in exchange relations. Namely, high-status individuals were more actively sought and enjoyed favorable exchange rates in both equal-power (Experiment 1) and weak-power network structures (Experiment 2).

CONCLUSION

I have developed and tested a status value theory of power that relates status characteristics to power in exchange networks. The dyads and triads studied in Experiment 1 contain no relative power advantages given by network shape. Nevertheless, the results indicate that high-status subjects exercise power over low-status subjects. A second experiment demonstrates that status differences countervail nearly half the power normally exercised in a four-actor line. In both experiments, subjects connected to a high-status and a low-status partner indicated they (1) tried harder to acquire the goods associated with the high-status partner, (2) would prefer to be awarded those goods, and (3) attached greater value to their acquisition. These behavioral and cognitive measures provide clear support for key elements of the status value theory of power.

Overall, this research project makes several contributions to the broader literature on power and status. First, the theory and experimental results support the macro-theoretic view that status does confer power (Tönnies 1953; Weber [1916] 1946). At the same time, this research demonstrates that power and status are more closely intertwined than microtheories normally suggest (cf. Balkwell 1994; Kemper and Collins 1990; but see Lovaglia 1994, 1995, 1997 for exceptions). By specifying how status characteristics systematically alter the perceived value of goods, the status value theory of power explains where status processes interface with social exchange dynamics. Moreover, this approach identifies new testable hypotheses at the confluence of status theory (Berger et al. 1974, 1977; Ridgeway and Walker 1995) and exchange theory (Emerson 1981; Markovsky et al. 1988; Willer 1999).²¹

Second, the theory developed here poses new questions for the status characteristics

²¹ For instance, new theoretical developments in the status value theory of power suggest that certain strong-power structures will totally eliminate status-driven power. Because status effects were smaller in weak-power than equal-power networks, this hypothesis seems plausible. This hypothesis awaits further testing.

research program. More than 40 years of research demonstrate that status characteristics produce advantages in collective, task-oriented groups (Berger et al. 1974; Berger et al. 1977; Wagner and Berger 1993). The two experiments reported here show that status characteristics have important consequences for mixed-motive settings in which actors compete for scarce resources but also must cooperate to reach agreement. Although little was previously known about status effects in mixed-motive situations, my research shows that status effects can operate in such situations as well (also see Willer et al. 1997). Future efforts should be directed at relaxing the scope of status theory to systematically incorporate a broader range of empirical settings.

Third, the status value theory of power complements recent developments in status construction theory. The central finding in this literature is that doubly dissimilar encounters ignite a sequence of events through which nominal traits acquire status value when associated with levels of valued resources (Ridgeway and Balkwell 1997; Ridgeway et al. 1998; Ridgeway and Glasgow 1996; Webster and Hysom 1998). The status value theory of power developed here emphasizes a similar, yet reciprocal kind of phenomenon in doubly dissimilar exchange relations. My experiments show that the status value associated with states of status characteristics can spread to nominally distinct resources, giving these resources status value as well. Taken together, these two theories suggest that *relevance* between status-valued and nonstatus-valued elements is an important condition that activates the spread of status value. On a broader note, these two research programs highlight the interdependence between status and exchange processes. Not only do power exercises and resource inequalities in the larger social system prime the creation of salient status characteristics (Lovaglia 1994, 1995; Ridgeway et al. 1998; Webster and Hysom 1998), but once established, my research indicates that these same status characteristics give high-status actors the ability to exercise power and accumulate even greater wealth. Together, these programs of theory suggest that resource inequalities, status distinctions, and power exercises are mutually contingent

and self-reinforcing (Lenski 1966; Weber [1916] 1946).

In closing, whether the setting involves doctors negotiating with nurses, or delinquents who plea-bargain with judges, the ebb and flow of exchange frequently occurs in the context of salient status differences. Exchange theorists have long recognized that *power structures* produce power events; the present study is the first to show that *status structures* also produce power events. Although power and status previously have been viewed as distinct, this study indicates the two phenomena are intertwined. Future research should consider other ways that actors in power relations use status differences to their advantage. Contemporary exchange theory explains how actors maneuver within network constraints to seek offers, consider counteroffers, and ultimately exchange resources in bilateral encounters. By extension, the theory and evidence presented here suggest that status distinctions *are* resources that actors can use in strategic action aimed at power exercise.

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