

The Four Elementary Forms of Sociality: Framework for a Unified Theory of Social Relations

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The motivation, planning, production, comprehension, coordination, and evaluation of human social life may be based largely on combinations of 4 psychological models. In *communal sharing*, people treat all members of a category as equivalent. In *authority ranking*, people attend to their positions in a linear ordering. In *equality matching*, people keep track of the imbalances among them. In *market pricing*, people orient to ratio values. Cultures use different rules to implement the 4 models. In addition to an array of inductive evidence from many cultures and approaches, the theory has been supported by ethnographic field work and 19 experimental studies using 7 different methods testing 6 different cognitive predictions on a wide range of subjects from 5 cultures.

From Freud to contemporary sociobiologists, from Skinner to social cognitionists, from Goffman to game theorists, the prevailing assumption in Western psychology has been that humans are by nature asocial individualists. Psychologists (and most other social scientists) usually explain social relationships as instrumental means to extrinsic, nonsocial ends, or as constraints on the satisfaction of individual desires. Consequently, the individual and the situation have long been the principal units of analysis in social psychology. So researchers studying the various facets of social interaction in diverse domains have offered explanations of each particular kind of interaction in terms of the particular situational constraints and unique fea-

tures of each domain, together with the dynamics of individual personality. As a result, social psychologists have developed a myriad of independent, unconnected trait and situation theories for each distinct kind of social phenomenon. The modern paradigms that seek a unified theory of social psychology focus principally on general cognitive and affective processes, assuming that people think about each other in much the same way that they think about inanimate objects and animals (see S. T. Fiske & Taylor, 1991).

In this article I present an alternative paradigm, supported by classical social theory and contemporary evidence. It argues that people are fundamentally sociable—that they generally organize their social life in terms of their relations with other people. The theory postulates that people in all cultures use just four relational models to generate most kinds of social interaction, evaluation, and affect. People construct complex and varied social forms using combinations of these models implemented according to diverse cultural rules. People's chief social conceptions, concerns, and coordinating criteria, their primary purposes and their principles, are usually derived from the four models; they are the schemata people use to construct and construe relationships. This means that people's intentions with regard to other people are essentially sociable, and their social goals inherently relational: People interact with others in order to construct and participate in one or another of the four basic types of social relationships.

The relational models theory explains social life as a process of seeking, making, sustaining, repairing, adjusting, judging, construing, and sanctioning relationships. It postulates that people are oriented to relationships as such, that people generally want to relate to each other, feel committed to the basic types of relationships, regard themselves as obligated to abide by them, and impose them on other people (including third parties).

In this article I reconsider the assumption that each separate domain of social life is governed by different principles. Do people use distinct social schemata for exchanging things and for making collective decisions? Are the scripts people use for making moral judgments unconnected to the scripts that they

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use to structure conflict and aggression? Is the "grammar" of sexual relations related in any way to the organization of work or the cognitive foundations of religion? What is the connection between the basic forms of social influence and the structures of social groups? Do social norms and motives have disparate sources and functions, or are they typically congruent? I argue that all of these domains and aspects of social relations may be organized by combinations of just four elementary models (schemata, rules, or grammars): communal sharing, authority ranking, equality matching, and market pricing.

These models can be described as a set of related central modules or faculties, in Jackendoff's (1991) terms: They each involve a specialized capacity, linked to a distinct form of representation, used for integrating and interpreting experience and guiding action in a specific sphere—in this case, social relations. However, the theory also gives culture a crucial role, as it asserts that cultural implementation rules are essential for the realization of any model in practice. My formulation of these models grew out of my fieldwork in a traditional West African village, where the same four patterns of interaction appeared again and again, in every phase of social life. The ethnographic data from this fieldwork among the Moose (pronounced **MOH**-say) of Burkina Faso suggest that these four models together encompass most of what is significant in most Moose social interactions (A. P. Fiske, 1991a). But Moose implement the models differently, in different domains, and in different relative degrees, than Americans.

Researchers and theorists in diverse social science fields have repeatedly—and independently—discovered one or more of these four fundamental forms of social relations. But even the few scientists who have discovered all four basic modes of interaction in one particular domain of social life have been unaware of the parallel discoveries of researchers in other fields. Hence they have explained the social forms they have observed as consequences of the features of the specific social domain. The present relational models theory posits that the socially significant features in most social situations can usually be described in terms of just four fundamental structures. Whatever the context and content, whatever the substance and surface form of the interaction, people's primary frames of reference in social life are the same four elementary relational models.

These models are identifiable by the aspects of interactions that people attend to and the attributes of persons that are meaningful. Certain relational features are meaningful (and others are irrelevant) for the participants' conception of any given interaction, for their intentions, plans, and expectations about it, for their social motivations and emotions, and for their evaluative judgments about it. Regardless of the domain of social action or cognition, it is possible to characterize the relations and operation, that are socially intelligible, significant, and important, as opposed to those that are undefined or irrelevant. Analysis of these meaningful operations and relations suggests that these four structures operate when people transfer things (bilateral exchange, contribution, and distribution), and they are the terms defining the primary standards of social justice. These structures are manifest in group decisions and social influence. They are the basic schemata for constituting and structuring groups, and for the formation of social identity and the relational self. People use the same four structures to organize labor and to endow objects, land, and time with social

significance. People make moral judgments and take ideological positions with reference to these structures. People also respond to misfortune and suffering by interpreting them in terms of one or more of these four sets of relations and operations. These diverse domains and phases of social life all exhibit the same four structures because people are actively imposing the same four models on them. In various combinations, the same four structures appear at all levels of social intercourse in diverse types of societies around the world.

If these structures invariably emerge in diverse cultures in a great many kinds of social action, thought, or evaluation, then the inference is that the structures cannot be products of the particular conditions of each disparate domain or of individual experience, as researchers have generally assumed. These modes of organizing social life must be endogenous products of the human mind, generated by universally shared models of and for social relations: The four fundamental social structures are manifestations of elementary mental models.

The four basic structures that define the relational models are relatively simple and familiar to most psychologists, because they correspond closely to the four classic scale types defined by Stevens (1946, 1951, 1958). Communal sharing is like a category or set, all of whose elements are equivalent (not differentiable with respect to a given property). The socially meaningful relations resemble those that are defined for categorical (nominal) scales of measurement. Authority ranking is a linear ordering in which everyone's rank can be compared with everyone else's: In such a relationship you can always determine whether one person has a rank at least as high as any other given person. Thus, the relations that are socially significant in an authority ranking relationship are similar to those that are specified by an ordinal scale. Equality matching is a relational structure in which people can compare quantities and use the operations of addition and subtraction to assess imbalance (e.g., I did two favors for you and you did me one favor in return, so you owe me one). In such a relationship, the socially intelligible relations and operations correspond to those that are meaningful under interval measurement. Social relationships organized with reference to market pricing are structured like the rational numbers, involving proportions, multiplication and division, and the distributive law. The socially significant relations and operations of market pricing parallel those that are meaningful for a ratio scale (whose origin corresponds, for example, to a price of zero).

This means that relations and operations that are socially significant in one relational structure are not meaningful in certain others. For example, communal groups are equivalence classes, for which rank is undefined; when people are operating within a communal sharing framework, each group is different but the distinctions among them are symmetrical, not linearly ordered. In equality matching, differences in shares or reciprocal benefits are well defined and people pay close attention to them; contrastingly, in a system of rank, although precedence is crucial, distances between ranks are not quantifiable. The following are some more precise definitions:

Communal sharing (CS) relationships are based on a conception of some bounded group of people as **equivalent and undifferentiated**. In this kind of relationship, the **members of a group** or dyad treat each other as all the same, focusing on commonalities and disregarding distinct individual identities. People in a

CS relationship often think of themselves as sharing some common substance (e.g., "blood"), and hence think that it is natural to be relatively kind and altruistic to people of their own kind. Close kinship ties usually involve a major CS component, as does intense love; ethnic and national identities and even minimal groups are more attenuated forms of CS. Rituals involving stereotyped repetitive actions are often important in constituting and sustaining group membership: Examples include initiation rituals and other rites of passage, religious worship, and ceremonial meals.

More formally, CS is an equivalence relation, with the properties of reflexivity, symmetry, and transitivity. Any specific implementation of the relationship divides people into categories that are equivalence classes. People in the same equivalence class are socially equivalent for the particular purpose or issue at hand (e.g., use or consumption of resources, retaliation). However, the same people may be differentiated in some other context or with respect to some other issue: These equivalence classes are not fixed. They may be subdivided into finer classes for other purposes (e.g., sharing cooked food vs. sharing water) or even into completely different classes defined with respect to some other feature of the people. Nevertheless, often many different socially significant properties are defined by the same equivalence relation, so that their properties are all congruent. For example, often the set of people who are equivalent in terms of their access to family living space are also equivalent in terms of their consumption of family food or use of the family car.¹ The relational models theory makes the additional prediction that when people are thinking in terms of equivalence relations, they tend to regard the equivalence class to which they themselves belong as better than others, and to favor it.

Authority ranking (AR) relationships are based on a model of asymmetry among people who are linearly ordered along some hierarchical social dimension. The salient social fact in an AR relationship is whether a person is above or below each other person. People higher in rank have prestige, prerogatives, and privileges that their inferiors lack, but subordinates are often entitled to protection and pastoral care. Authorities often control some aspects of their subordinates' actions. People in an authority ranking relationship typically use spatial order and magnitude order metaphors to differentiate themselves: They think of "higher-ups" and speak of "belittling," classify people into leaders in the forefront and followers behind, speak of superiors as "greater," use plural nouns to address them, or accord them a larger personal space. Relationships between people of different ranks in the military are predominantly governed by this model, as are relations across generations and between genders in many traditional societies.

More precisely, authority ranking is a linear ordering. That is, the relationship (as conceived and implemented in any specific facet of a particular relationship) is reflexive, transitive, and antisymmetric. AR respects the identity relation (two different people cannot outrank each other: if P has a rank at least as high as O and, in the same relational system, O has a rank at least as high as P, then P and O are the same person). The AR relation is also connected—relative rank is defined for any two people who are in a specific AR structure. This means that there are no loops or branches within a single AR relationship—the ordering is perfectly linear. Although, in principle, in any society or situation, people could be ranked in different hierarchies ac-

cording to innumerable different status-relevant features, in practice, people tend to reduce all these factors to a single linear ordering (see Deutsch, 1973, pp. 80–81, for references on this principle of *status-equilibration*). The relational models theory posits that when people are thinking in terms of such linearly ordered structures, they treat higher rank as better.

Equality matching (EM) relationships are based on a model of even balance and one-for-one correspondence, as in turn taking, egalitarian distributive justice, in-kind reciprocity, tit-for-tat retaliation, eye-for-an-eye revenge, or compensation by equal replacement. People are primarily concerned about whether an EM relationship is balanced, and keep track of how far out of balance it is. People in an EM relationship often mark their relationship with very concrete operations of balancing, comparing, or counting-out items in one-for-one correspondence. The idea is that each person is entitled to the same amount as each other person in the relationship, and that the direction and magnitude of an imbalance are meaningful. Common examples are people in a car pool or a baby-sitting cooperative, or the matching rules for competitive sports that require turn taking, equal time, and equal team size. Acquaintances and colleagues who are not intimate often interact on this basis: They know how far from equality they are, and what they would need to do to even things up. People can combine things—at least entities of the same kind—to make up the difference. Equality matching is like using a pan balance: People know how to assemble actions on one side to equal any given weight on the other side.

Technically, an EM relationship has the properties of an ordered Abelian group. That is, the structure of EM relations exhibits all the properties of a linear ordering, and also entails the idea of an additive identity (0) and an additive inverse (subtraction of the same number). The relation also obeys the associative law, so that it does not matter how the relevant entities are grouped to add them up. It obeys the commutative law specifying that the result of addition is unaffected by the order in which elements are added: You owe me the same number of car pool trips regardless of whether I drive you three times and then twice more, or two times followed by three more. Finally, addition under EM is order preserving. That is, suppose we belong to a car pool and you owe me one ride; if each of us drives the other twice, you still owe me one ride. It is often noted of interval scales (which have this structure) that the measurement origin is unspecified. In the same sense, the number of dinner party invitations that you owe me reveals nothing about when the reciprocal invitations began: You may owe me an invitation because we have recently met and I have invited you once, or because I am one ahead in a sequence of alternating invitations that began 30 years ago. The relational models theory posits that people value equality and strongly prefer having at least as much as their partners in an EM relationship.

Market pricing (MP) relationships are based on a model of

¹ For more detail on the axiomatic properties and relations of the four structures, see the second part of chapter 9 of A. P. Fiske (1991). Scott Weinstein generously worked out with me the formalization of the relations and properties of the four structures, although he is not fully responsible for the social interpretations that I have made of them.

proportionality in social relationships; people attend to ratios and rates. People in an MP relationship usually reduce all the relevant features and components under consideration to a single value or utility metric that allows the comparison of many qualitatively and quantitatively diverse factors.² People organize their interactions with reference to ratios of this metric, so that what matters is how a person stands in proportion to others—for example, your percentage share in a business venture or the ratio of what you pay to what the other person gives you in return. Proportions (like intervals in EM) are continuous, and can take on any value. In an MP relationship, social value is defined by such ratios. The most prominent examples of interactions governed by market pricing are thus those that are oriented toward prices, wages, commissions, rents, interest rates, tithes and taxes, and all other relationships organized in terms of cost-benefit ratios and *rational* calculations of efficiency or expected utility. Money is the prototypical medium of MP relations, but there are also many MP relationships that do not involve money. In this kind of relationship, people tend to discuss (and probably cognize) value-relevant features of things propositionally, analyzing inputs and outputs using arbitrary symbols. For example, the use of numbers in equations is common, and people use abstract, conceptually formulated analysis in MP more readily than in other relationships: "If we buy this car and make payments of \$620 per month, then with the salary left over, we won't be able to go to Cancun this summer unless air fares go down 50%."

Market pricing relationships have all the properties of an ordered Abelian group (EM) and some other crucial ones as well. Specifically, an MP relationship corresponds to the structure called an Archimedean ordered field. Under MP, multiplication is defined along with the associative and commutative properties; there is a multiplicative inverse, $1/n$, and a multiplicative identity, 1; multiplication by a positive number is order preserving. Also, the operations of addition and multiplication are combined according to the distributive principle. Finally, the Archimedean property says that any two socially significant entities encompassed in the same MP relational structure can be compared. For example, for two commodities within any given market system, there is always some number of units of the first commodity whose value is at least as great as the value of the second commodity.

Illustrating some of this concretely, note the axioms underlying the idea that four packets each containing six 10-franc kola nuts have a value equal to six packets each containing four 10-franc kolas (associative property). Further, if kola nuts cost more than mangoes, 40 kola nuts cost more than 40 mangoes (multiplication by a positive number is also order preserving). And there is some number of kolas whose value is greater than the value of any horse (Archimedean property). These principles apply in all MP relationships, but are undefined and thus inoperative in CS, AR, and EM relationships.

According to the relational models theory, when people's socially significant concerns correspond to those that are defined in an Archimedean ordered field, people are often concerned with achieving ratios that are equal to the ratios of others in their reference group or market (Adams, 1965; Deutsch, 1975; Mikula, 1980; Tindale & Davis, 1985; Walster, Walster, & Berscheid, 1978). But they may also attempt to obtain high ratios—an achievement orientation focused on efficiency or efficacy.

These four relational structures correspond closely to the structures of four basic measurement scales that have been found to have unusual properties shared by very few other mathematical structures (Alper, 1985; Luce, Krantz, Suppes, & Tversky, 1990; Luce & Narens, 1987; Narens, 1981a, 1981b; Narens & Luce, 1986; Stine, 1989). These properties have to do with the structures' degree of *homogeneity* (the extent to which all elements have the same properties) and their degree of *uniqueness* (redundancy of the structure under relevant transformations). It may be that people use these fundamental models to organize social relationships just because of these felicitous properties that permit flexible application while maintaining informational specificity.

One prediction that derives directly from the recognition of the nature of these structures is that people should quickly learn and long remember the relational properties defined in each structure, while finding it more difficult to learn or recall relational properties that have no social meaning within the specific model. De Soto (1958; De Soto & Albrecht, 1968a, 1968b; De Soto & Bosley, 1962; De Soto & Keuthe, 1958, 1959; De Soto, London, & Handel, 1965) studied the learning of transitivity, symmetry, and other relations in hypothetical social groups. His results are consistent with the relational models theory, but many more specific and differentiated predictions could also be tested using similar methods on real people as well as artificial stimuli.

The discovery that four basic modes of social interaction have structures corresponding to the structures of the four classic measurement scales leads immediately to another interesting hypothesis. Narens and Luce (1986; Luce & Narens, 1987) observe that there is a fifth basic type of scale whose relational features place it in the same set with those previously discussed scales that are finitely unique homogeneous relational structures on the continuum. This structure, a *discrete interval scale*, is in some ways intermediate between interval and ratio scales. A discrete interval scale is characterized as a relational structure unique up to transformations mapping x into $k^n x + s$, where k is a fixed positive constant, n is any integer, and s is any real number. Discrete interval scales have rarely, if ever, been used in scientific measurement, but it is not known whether there are any forms of social relationships that have this relational structure. So this mathematical finding should motivate an extensive, systematic search—using both observational and experimental methods—for such a social relational structure. It would represent a fifth fundamental form of sociality.³

The residual cases not governed by any of these shared models of sociality are *asocial* interactions, in which people use other people purely as a means to some ulterior end, or *null* interactions, in which people ignore each other's conceptions, goals, and standards entirely. Sociopathy is a prototype for a uniformly asocial orientation, but extreme stress as in a concentration camp or combat can produce asocial interaction in

² They may use different MP standards of value at different times, however. Nothing in the definition of MP relations requires the consistent use of a single standard across all occasions.

³ If social structures corresponding to *discrete interval scales* do not exist, it would imply that homogeneity and uniqueness are not the only socially relevant properties of relational structures.

almost anyone. Most people on earth have a null relationship with most other humans most of the time, simply ignoring them. Even when in close proximity—or engaged in a common activity—people may still fail to take other people's social models into account.

According to the relational models theory, people use these four cognitive models to generate, understand, coordinate, and evaluate social relationships; they are the source of both motives and norms. Of course, people may value one model while actually implementing another, and occasionally there is disagreement (usually implicit) about which model to apply (e.g., in romantic couples; see Schwartz, Merten, Behan, & Rosenthal, 1980). Furthermore, people may misunderstand others' behavior (or even their own), for example, by construing authority ranking as market pricing—a form of “false consciousness.” Often, however, there is considerable congruity in people's selection and use of the four models.

People rarely use any one of these models alone; they construct personal relationships, roles, groups, institutions, and societies by putting together two or more models, using them in different phases of an interaction or at different, hierarchically nested levels. However, to a first approximation, the overall structure of the interaction can frequently be described in terms of one predominant model. So in my exposition, I temporarily ignore the fact that people construct most aspects of social life using a combination of the four models; simply for rhetorical clarity, in the following sections I write as if each model were an isolated pure type. People also use special-purpose models for *certain aspects* of special activities, although the relational models organize most of the core aspects of even these activities. For example, there are special schemata governing chess strategies and chess etiquette, asking for dances at a prom, introducing colloquium speakers, and communicating with controllers during a space shuttle mission. But unlike these innumerable, context-specific schemata, people in all cultures use the four relational models for most aspects of most interactions in most domains of social life. In the final section of this article, I describe several collectively distinctive features of the relational models that set them apart from less fundamental schemata.

The body of this article describes how each of the four models manifests itself in different domains of social life, at various levels of organization and in diverse cultures. Table 1 summarizes this presentation, indicating the manifestations of each model in each domain (type of interaction or aspect of social life), as well as some of the general features characteristic of each model. This article is divided into four main sections, corresponding to the four columns in the table.

I will not attempt to prove here that the postulated relations and operations of the respective structures actually do obtain in each case, because the relevant (and sufficiently precise) social data are virtually never available. For present purposes, a qualitative overview must suffice. However, the formal, axiomatic definitions of the structures of the four models provide one kind of rigorous standard against which it may ultimately be possible to assess the claim that all these diverse domains of social life are built out of just four elementary structures. That is, the theory offered here predicts that the same four structures (defined in terms of their relations and operations) order all kinds of social relations, whatever the medium of the interac-

tion and regardless of its content, context, or culture. Consequently, the logic of this article is largely inductive, aiming to show congruence of structure across the many domains of social life.

Communal Sharing

In the context of a Communal Sharing relationship, people treat material objects as things that they have in common. For example, in many hunting and gathering societies, people share the meat of game animals across the whole band: the hunter who killed the animal often ends up with less than many others, and people share food, tools, and utensils with anyone who asks for them (e.g., L. Marshall, 1961). In most societies this kind of sharing of material things is common among close kin and sometimes among other associates; Fortes (1963/1970, 1983) called it *prescriptive altruism*, Polanyi (1944/1957, pp. 53–54, 1966, pp. 70–76) called it *householding*, and Sahlin (1965) called it *generalized reciprocity* (cf. Lévi-Strauss, 1961; see also M. Marshall, 1977). Kropotkin (1890–1914/1972) was one of the first to trace the history of communal *mutual aid* which, he emphasized, characterizes such relationships. As the communist or socialist maxim dictates, “From each according to his ability to work, to each according to his needs.” People simply take what they need and contribute what they can, without anyone attending to how much each person contributes or receives. A person does not need to give something in order to get something in return—simple membership in the group is sufficient to entitle one to the use of whatever resources the group controls, and long-run imbalance is not a violation of the relationship. But each person has the complementary obligation to share with other members who need or ask for things. At a party in which people are drinking from the same punch bowl, for example, there are no allotted shares and no one keeps track of who drinks how much. Similarly, a couple may keep a joint account without attending to how much each person contributes or spends. In short, people pool their resources, which they treat as belonging to a larger whole that transcends its individual members.

In general, things and places derive their meaning from the social relationships in which they are embedded or from the social uses to which people put them. This is true not only in the context of the transfer of something from one person to another but also when people endow an object with value. Certain objects can serve as the medium for a CS relationship when the objects become so closely and intimately associated with particular persons that they serve to embody the relationship with them—for example, relics, heirlooms, keepsakes, and wedding rings. A saint's bone, great-grandmother's wedding veil, or a lover's sweater are vehicles for connecting people and making them one, demonstrating a transitive principle of continuity or “contagion” (cf. Rozin & Nemeroff, 1990).

One of the most important manifestations of this principle is that under CS, land is a commons for all to use freely. Among the village Moose, no individual owns (or can sell) land, and land is never rented. Any unused land is available to anyone who asks for it. Moose even give away the valuable manured fields around the village to anyone who wishes to move into the village and build a home. When my family moved to the village where we did our fieldwork, we had our choice of where to

Table 1
Manifestations and Features of Four Elementary Relational Models

Domains and features	Communal sharing	Authority ranking	Equality matching	Market pricing
Domains Reciprocal exchange	People give what they can and freely take what they need from pooled resources. What you get does not depend on what you contribute, only on belonging to the group.	Superiors appropriate or preempt what they wish, or receive tribute from inferiors. Conversely, superiors have pastoral responsibility to provide for inferiors who are in need and to protect them.	Balanced, in-kind reciprocity. Give and get back the same thing in return, with appropriate delay.	Pay (or exchange) for commodities in proportion to what is received, as a function of market prices or utilities.
Distribution (Distributive justice)	Corporate use of resources regarded as a commons, without regard for how much any one person uses; everything belongs to all together. Individual shares and property are not marked.	The higher a person's rank, the more he or she gets, and the more choice he or she has. Subordinates receive less and get inferior items, often what is left over.	To each the same. Everyone gets identical shares (regardless of need, desire, or usefulness).	"To each in due proportion." Each person is allotted a quota proportionate with some standard (e.g., stock dividends, commissions, royalties, rationing based on a percentage of previous consumption, pro-rated strike benefits or unemployment compensation).
Contribution	Everyone gives what they have, without keeping track of what individuals contribute. "What's mine is yours."	<i>Noblesse oblige</i> : superiors give beneficently, demonstrating their nobility and largesse. Subordinate recipients of gifts are honored and beholden.	Each contributor matches each other's donations equally.	People assessed according to a fixed ratio or percentage (e.g., tithing, sales, or real estate taxes).
Work	Everyone pitches in and does what he or she can, without anyone keeping track of inputs. Tasks are treated as collective responsibility of the group without dividing the job or assigning specific individual assignments.	Superiors direct and control the work of subordinates, while often doing less of the arduous or menial labor. Superiors control product of subordinates' labor.	Each person does the same thing in each phase of the work, either by working in synchrony, by aligning allotted tasks so they match, or by taking turns.	Work for a wage calculated as a rate per unit of time or output.
Meaning of things	Heirlooms, keepsakes, sacred relics that are metonymic links to people with whom a person identifies.	Prestige items and emblems of rank. Conspicuous consumption to display superiority. Conversely, sumptuary laws that forbid inferiors to own these items.	Tokens of equal, independent status, one for each. For example, a bicycle, a car, a weapon, a trophy, a set of tools, or a house when each peer must have one to be coequal with the others.	Commodities produced or purchased to sell for profit; productive capital and inventory. Products developed and presented in terms of marketing considerations. Also, private property valued because of its cost.
Orientations to land	Motherland or homeland, defining collective ethnic identity. Natal land received from the ancestors and held in trust for posterity. Land used corporately as a commons.	Domain, sovereign realm, personal dominion, fief, or estate.	Equal plots for each family (e.g., U.S. homesteading, 1978–1979 Chinese land reform). Land-owning or territorial sovereignty as the basis of equality (e.g., when all property owners are eligible to vote, and when each state or nation gets equal representation).	Investment, treated as capital. Purchased for expected appreciation, for lease or rent, or as a means of production.

Table 1 (*continued*)

Domains and features	Communal sharing	Authority ranking	Equality matching	Market pricing
Significance of time	Relationships are idealized as eternal (e.g., solidarity that is based on descent or common origin). Perpetuation of tradition, maintaining corporate continuity by replicating the past.	Sequential precedence marks status by serial ordering of action or attention according to rank. Temporal priority to superiors, often determined by age or seniority.	Oscillation of turns, of hosting, or other reciprocation at appropriate frequency. Synchrony of action or alignment of intervals to equate participants' efforts or opportunities.	Calculus of rates of interest, return, pay, or productivity per unit of time. Concern with efficient use of time, spending it effectively, and with the opportunity cost of wasted time.
Decision making	Group seeks consensus, unity, the sense of the group (e.g., Quaker meeting, Japanese groups).	By authoritative fiat or decree. Will of the leader is transmitted through the chain of command. Subordinates obey orders.	One-person, one-vote election. Everyone has equal say. Also rotating offices or lottery.	Market decides, governed by supply and demand or expected utilities. Also rational cost and benefit analysis.
Social influence	Conformity: desire to be similar to others, to agree, maintain unanimity, and not stand out as different. Mutual modeling and imitation.	Obedience to authority or deference to prestigious leaders. Subordinates display loyalty and strive to please superiors.	Compliance to return a favor ("log rolling"), taking turns deciding, or going along to compensate evenly or keep things balanced.	Cost and benefit incentives—contracts specifying contingent payments, bonuses, and penalties. Bargaining over terms of exchange. Market manipulation. Offering a "special deal" or a bargain: apparent scarcity and time limitations may move people to act.
Constitution of groups	Sense of unity, solidarity, shared substance (e.g., "blood," kinship). One-for-all, all-for-one. <i>Gemeinschaft</i> , <i>mechanical solidarity</i> , <i>primary group</i> .	Followers of a charismatic or other leader. Hierarchical organization (e.g., military).	Equal-status peer groups. For example, car pool, cooperative, and rotating credit association. (A pervasive form of organization in Melanesia.)	Corporations, labor unions, stock markets and commodity associations. <i>Gesellschaft</i> , <i>organic solidarity</i> . Also, bureaucracy with regulations oriented to pragmatic efficiency: <i>rational-legal organization</i> .
Social identity and the relational self	Membership in a natural kind. Self defined in terms of ancestry, race, ethnicity, common origins, and common fate. Identity derived from closest and most enduring personal relationships.	Self as revered leader or loyal follower; identity defined in terms of superior rank and prerogative, or inferiority and servitude.	Self as a separate but co-equal peer, on a par with fellows. Identity dependent on staying even, keeping up with reference group.	Self defined in terms of occupation or economic role: how one earns a living. Identity a product of entrepreneurial success or failure.
Motivation	Intimacy motivation. Murray's nurturance and succorance. In Japan, <i>amaeru</i> .	Power motivation. (Also some items from authoritarian personality F scale.)	[Desire for equality; apparently unstudied.]	Achievement motivation.
Moral judgment and ideology	Caring, kindness, altruism, selfless generosity. Protecting intimate personal relationships. "Never send to know for whom the bell tolls, it tolls for thee." <i>Traditional legitimation</i> in terms of inherent, essential nature or karma of group.	What supreme being commands is right. Obedience to will of superiors. Heteronomy, charismatic legitimation.	Fairness as strict equality, equal treatment, and balanced reciprocity.	Abstract, universal, rational principles based on the utilitarian criterion of the greatest good for the greatest number (since this calculus requires a ratio metric for assessing all costs and benefits). <i>Rational-legal legitimation</i> .

(table continues)

Table 1 (continued)

Domains and features	Communal sharing	Authority ranking	Equality matching	Market pricing
Moral interpretations of misfortune	Stigmatization, pollution, contamination. Isolation as pariah. Feeling of being different, set apart, or not belonging. Victims seek and join support groups of fellow sufferers, among whom the misfortune is a source of solidarity.	Have I angered God? Did I disobey the ancestors? (E.g., story of Job.)	Feeling that misfortune should be equally distributed: "Things even out in the long run." Idea that misfortune balances a corresponding transgression.	Was this a reasonably expectable risk or calculable cost to pay for benefits sought? Is this too high a price to pay?
Aggression and conflict	Racism, genocide to "purify the race." Killing to maintain group honor. Riots based on deindividuation. Equivalence of all "others." Terrorists and rioters indiscriminately kill all members of opposed ethnic group.	Wars to extend political hegemony. Execution of people who fail to accept the legitimacy of political authorities or who commit lèse majesté. Also political assassination and tyrannicide.	Eye-for-an-eye feuding, tit-for-tat reprisals. Revenge, retaliation.	Mercantile wars, slaving, exploitation of workers. Killing to protect markets or profits. Robbery and extortion. War strategies based on kill ratios.
Features Some of the features that the cultural implementation rules must specify	Who is "us" and who is "other," including how people acquire and lose corporate membership. What is shared. What kinds of restraint people must exercise in taking from others and what excuses them from giving.	What are the criteria for according rank. What dimensions mark precedence. In what domains may authority be exercised.	Who and what counts as equal. What procedures people use for matching and balancing. How people initiate turn-taking. What are the appropriate delays before reciprocating.	What entities may be bought and sold (e.g., sex? drugs? votes? people?). What are the ratios of exchange and how do particular attributes affect prices (e.g., how many hours of unskilled weekend labor for one old red bantam hen?). What counts as a cost or a benefit (in either monetary or utility terms).
Characteristic mode of marking relationships	Enactive, kinesthetic, sensorimotor rituals, especially commensal meals, communion, and blood sacrifice.	Spatiotemporal ordered arrays (e.g., who is in front, who comes first). Differences in magnitude (size of dwelling, personal space); plural pronouns for respect.	Concrete operations involving physical manipulations of tokens or persons so as to balance, match, synchronize, align, or place them in one-for-one correspondence.	Abstract symbolic representation (especially propositional language and arithmetic). For example, verbal negotiations referring to value-relevant features; printed or electronic price lists; symbolically-conveyed information about current market conditions.
Corresponding measurement scale type	Categorical or nominal.	Ordinal.	Interval.	Ratio.
Relational structure	Equivalence relation.	Linear ordering.	Ordered Abelian group.	Archimedean ordered field.
Natural selection mechanism	Kin selection according to inclusive fitness.	Adaptive value of submission and dominance behaviors in a linear hierarchy.	"Tit-for-tat" in-kind reciprocity (evolutionarily stable strategy, adaptive initially, resistant to invasion).	Adaptive value of specialization and commodity exchange.
Approximate age when children first externalize the model	Infancy.	By age three.	Soon after fourth birthday.	During 9th year.

build our compound, and no payments of any kind were expected in return for the use of the land we selected. Among Moose and in other cultures, land may be so closely associated with a group of people that it acquires a semisacred status as the locus of the spirit of the group—the home farm, the land where our ancestors are buried, the natal village, the motherland (see Elias, 1956, p. 162; Marx, 1857–1858/1973, p. 492). It represents the shared, collective identity; it is space that a group of people have in common.

The equivalence structure that defines CS also emerges when people organize the production of things according to CS. They work collectively, without assessing individual inputs, and without necessarily assigning distinct responsibilities to individuals (cf. Clark, 1984; Mills & Clark, 1982). The product of the labor is a collective resource. Durkheim (1893/1933) analyzed this under the rubric of *mechanical solidarity*, focusing on the fact that everyone does the same work and produces the same things. It is often combined with certain elements of AR (cf. A. P. Fiske, 1991a), a combination that Marx (1857–1858/1964, 1857–1858/1971, 1857–1858/1973) called the *Asiatic* mode of production.⁴ Because this kind of task sharing is most common when close kin work together, Udy (1959, 1970) labeled this mode of recruiting labor *familial recruitment*.⁵ People are working in CS mode when they just pitch in and work until the job is done, treating it as a joint responsibility, whether the task is painting the church, defending the citadel, or digging out survivors of a building collapse.

The principle of equivalence within a group is by no means limited to the production, transfer, use, and meaning of material objects, however. Consensus, unity, and conformity are the expressions of the structure in CS decision making and social influence. In CS decision making, people seek the sense of the group, contributing ideas not as individual positions but as part of the search for a joint judgment that transcends the separate attitudes of the participants. This works best when the participants can be diffident and maintain a strong sense of humility, and when they each seek to please the others. In Japan, CS is the predominant approach to interpersonal relations (Doi, 1981; Kerlinger, 1951), so that people state their differences very indirectly and circumspectly. CS decision making is the ideal of the Religious Society of Friends, was practiced by the early Jesuits (Sheeran, 1983), and operates in many other cultures. It has the particular advantage that unanimous participants tend to be very strongly committed to their collective commitment (see Orbell, van de Kragt, & Dawes, 1988). Some university departments tend to make policy in this way too, as does the entire faculty of Haverford College and other Quaker institutions. Mansbridge (1983) called this form of decision making in the political sphere *unitary democracy* (see also Barber, 1984). However, when a conformist type of CS is applied prematurely so that it precludes consideration of alternatives and discussion of doubts and problems, this collectivist decision process results in what Janis (1982) called *groupthink*. (The risk of groupthink is also enhanced by fear of a leader who treats dissent as insubordination—an authority ranking process.)

There is a lot of other evidence that the desire to create and maintain undifferentiated equivalence among members of a group can be a powerful force for uniformity of expression. Analysis of how social influence acts on the members of such a reference group shows that people often want to be like others,

to conform, and above all not to be set apart from the group by a difference of opinion (Asch, 1956, 1992; Cooley, 1922; Krech, Crutchfield, & Ballachey, 1962). People conform because they identify with the group and want to belong (F. H. Allport, 1962), so the influence of the group is stronger the more similar its members are to the target person (Festinger, 1954) and the more unanimous they are (Allen, 1975; Orbell, van de Kragt, & Dawes, 1988): Even a single dissenting voice destroys the equivalence relation. Cialdini (1988) used the terms *social proof* and *imitation* to describe this tendency to change one's attitude to correspond to the attitudes of similar others. When CS is operative, people want to be the same as others like them, and they like others who are similar to them (cf. F. Heider 1946, 1958). This effect seems to be especially strong in adolescence, when it is often crucial to conform to one's reference group or clique in dress, speech, eating, sexual behavior, and music.⁶

Communal sharing does not just shape how people behave in a group; it is also the basis for constituting a social group. The inverse of the process described above is that people construct a CS group when they focus on their common nature, common ancestry, common origins, or common substance (consider descent groups, castes, ethnic groups, migrants or travellers from the same country, blood brothers, and twins). Tönnies (1887–1935/1988) described such group relations as *Gemeinschaft*, treating them as more natural than and historically prior to *Gesellschaft*. Cooley (1922) later described the CS bond in terms of *primary groups*, which he argued are the psychosocial source of all other social relations. Later writers, although acknowledging that CS groups are much stronger in some contemporary societies than in others, have eschewed this quasievolutionary approach. Margaret Mead (1937/1961) demonstrated that societies differ considerably in the extent to which they have a cultural focus on *cooperative* relations across the board. More recently, Douglas (1978) has explored the same issue from the perspective of a theory of the basic dimensions of social relations; she called the CS form of social organization simply *group*. Blau (1964) used the term *social attraction* for essentially the same form in his typology. All of these theorists regarded CS as a universal form that is an essential basis for all social life.

Meeker, Barlow, and Lipsit (1986) showed that this CS relational ethos is the dominant, ideologically preferred form of group organization in the stateless, food-harvesting societies of island Southeast Asia, Australia, and Oceania, where people's basic personal identity derives from belonging to a primary group of similar others. A. P. Fiske (1991a) demonstrated that CS predominates in the villages of the Volta–Niger culture area in West Africa, and is also common elsewhere. Among Moose, for example, men who are all descended from a common male ancestor through the male line tend to live together, pool their labor, share food, eat together, make religious sacrifices together, help each other to court wives, and feel that they share a

⁴ Marx's *ancient* and *Germanic* modes of production also involve important elements of CS.

⁵ All these writers apparently recognized and described this form of labor more or less independently of each other, as is the case for the majority of authors cited below, most of whom do not cite each other's work.

⁶ Of course, adolescents also emulate prestigious and charismatic role models; see the section on authority ranking, below.

collective fate—they are jointly at risk when any member violates a taboo.

People oriented toward this relationship have a feeling of being all the same kind, being naturally united by a common identity. Thus, CS crystallizes a collection of people into a group or a dyad, and at the same time gives members a sense of self in relation to the group. Selves are merged into a whole that transcends the particularity of each individual, and people identify with the collectivity. Turner (1969, 1973) described this merging of the self into a collectivity as a liminal state, *communitas*, that occurs when the normal (i.e., hierarchical) social structure breaks down or a person is going through a major role transition, especially in rituals. This kind of merging of selves also occurs in romantic love (cf. Schwartz et al.'s, 1980, *solidarity perspective*) and sometimes in parental love, in which therapists call it *enmeshment*. Other writers have shown that this kind of merging of the self into the collectivity is a normal, stable state, although perhaps in less intense forms. G. H. Mead (1934) described this kind of self in a group as one of two universal forms of social relationship, the *religious attitude* of helpful neighborliness and sympathetic assistance to those in distress. Bakan (1966) termed it *communion*. McAdams (1982, 1988) used life histories to show how some people define themselves with respect to their closest, most intimate, and focal enduring relationships—that is, with reference to their CS relationships. More generally, most people define a sense of self based in large part on their feeling of kind—the CS group with which they have the strongest identification (race, ethnicity, tribe, nationality, gender, place of origin, lineage, or caste). In this respect, identity and group formation have the same psychological basis in people's basic-level categorization of persons, including themselves, into natural kinds.

People often believe they have CS relationships with nonhumans, immaterial beings, or ancestors, projecting the model onto a social vacuum in the absence of objective human partners. In fact, CS is a central element in most religions, emerging in the form of communion rituals, sacrifices in which people share food with the gods, commensal meals, an ethos of universal love and caretaking, and the close bonds of religious communities. For example, the idea of the unity of all beings and an ethic of compassion is central to Buddhism, and the Christian New Testament enjoins brotherly love. Turner (1973, pp. 206–207) mentioned the African manifestations of CS in connection to rituals related to fertility and the earth, and Lebra (1976, pp. 234–247) offered a beautiful description of CS in the context of Japanese spirit possession. Lebra's account shows how people impute to spirits a desire to merge with their own kind, be accepted, and belong: When spirits are shut out, they bring misfortune on their descendants and others who are connected to them. These projective manifestations of CS suggest that people may often want to have more intense or pure CS relationships than they are able to realize with ordinary human beings.

This means that one can describe as a motive this human proclivity to belong to a larger whole and thus to form and join groups in which people share their lives and their resources while caring for each other. To call something a *motive* means (a) that there is a set of functionally related conditions that arouses efforts toward a defined goal, and (b) that individuals may differ in how persistently they seek that goal. Up to now, I

have been ignoring situational and individual differences in the tendency to relate communally, but presumably this is a variable. Indeed, Murray (1938) described a set of *needs for affiliation, succorance, and nurturance*. Doi (1962, 1981) has independently described the pivotal importance in Japanese culture and personality of the succorant desire (*amaeru*) for empathic, nurturant, indulgent caretaking. Rosaldo (1980) described similar motives and norms related to sharing, tolerance, and forgiveness among Ilongot in the Philippines. McAdams (1980, 1988, 1989), Hill (1987), and Clark, Powell, Ouellette, and Milberg (1987) have all independently developed measures of CS motivation. The goal of this motive is to be intimate with certain others, to be able to depend on them, and to share or even merge identities with them. The intention may be to include only two individuals, or it may incorporate many people in a group. Doi (1981) explained that Japanese psychotherapists commonly treat patients to enable them to express and act on their dependency needs, whereas American ideology and therapeutic practice tend to focus more on achieving autonomous separation and avoiding enmeshment.

One of the earliest and most important manifestations of the need for CS relationships is the desire to be spatially close to CS partners (Ainsworth, 1967; Bowlby, 1969, 1988). Physical separation causes great distress, whether in toddlers or lovers (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1973), and total loss of the other's presence is devastating (Bowlby, 1980; Freud, 1917/1957b). In effect, the personal space (cf. Goffman, 1971; Hall, 1966) of people in a CS relationship becomes a jointly shared locus within which they seek to contain each other, excluding others who are not themselves. In a sexual CS relationship, the interpenetration of the partners' bodies themselves becomes desirable. Skin-to-skin contact is probably at the same time a source and an intrinsic expression of attachment, and so is commensal eating, in which people eat or drink from a common source. Nursing another from one's own body is even more basic.

When a goal varies as a function of situation and differs consistently among individuals, it is called a *motive*, but when the same goal is consistent and widely shared it is called a *value*. When a shared goal is observed from the point of view of its functions for the collectivity, it is called a *norm*, and when individuals insist that they and others must pursue it, it is called a *moral standard*. When people justify the legitimacy of a social system with reference to such a purpose, it is called an *ideology*. As a prominent social goal, CS assumes all these forms. Margaret Mead (1937/1961) and later Triandis (1972, 1987; Triandis, Bontempo, Villareal, Asai, & Lucca, 1988) have shown that in some, but not all, cultures, CS is an important shared value; Mead called it *cooperation*, and Triandis called it *collectivism*. Furthermore, CS is a core moral standard or norm in many cultures, including those of classical Greece (Wong, 1984), traditional Africa (A. P. Fiske, 1990; Fortes, 1963/1970, 1983), and Japan (Doi, 1981, pp. 33–35; Lebra, 1976). The morality of CS is evident in the contemporary United States as an ethic of *caring* or commitment to loving relationships (Blum, 1987; Gilligan, 1982; Noddings, 1984). In social justice research, this normative orientation is called *distribution according to need* (e.g., Deutsch, 1975; Mikula, 1980; Tindale & Davis, 1985). That is, if we belong together, my needs and your needs are the same thing. The essence of this ethical or jural standard is one of

mutual compassion and mutual responsibility: "Never send to know for whom the bell tolls, it tolls for thee."

In the sociological tradition, Gouldner (1973b) called CS the *norm of beneficence or goodness*; V. Hamilton (1978, Hamilton & Sanders, 1981) showed that people feel that *status* relationships involving a sense of collective identity (as in the family) entail special moral responsibilities. In many cultures, individual morality and public political ideology are continuous, so it is not surprising to find that the ideology of CS has a long history (see Aristotle's *Politics*, 1988), encompassing the Diggers, Gandhi, the peace movement of the 1960s, and perhaps the contemporary mother-earth/ecology/Green Party position. The most prominent political expression of this ideology is the doctrine (if not the institutional realization) of communism.

People tend to see CS relationships as rooted in nature and as enduring. Hence, in ideology, and often in norms or moral ideals, people account for their sense of solidarity and identity with the "we" group, and the special care and altruistic sacrifice they provide for their CS partners, in terms of immanent, preexisting, natural facts. A mother nurtures her baby because it is "her own flesh and blood"; soldiers die to protect the soil of their homeland from alien incursions (or kiss it when they return safely) because it is and has always been their national soil, where their ancestors are buried. More generally, as Weber (1922/1978) pointed out, people often legitimate social structures (including political authority and religious institutions) in terms of immemorial *tradition*—that is, as maintaining the perpetual CS community that encompasses ancestors and descendants. In this case, the CS orientation is toward continuity, conformity, and sameness with predecessors and successors, as well as contemporaries. People imitate their predecessors, maintaining customary practices intact to transmit them to their successors: what is right is what "we" have always done and always shall do—what is in our nature to do. Piaget (1932/1973) offered a brief but perceptive discussion of this as the earliest ontogenetic precursor of the sense of moral necessity.

The result of representing CS as a quasimaterial collective essence is a concern about contamination by otherness. When people are all the same, when they share a common substance without personal boundaries, they are vulnerable to pollution. Hence the strongest, most central CS relationships in a society are often linked to sex and food taboos, like the incest taboo in Western culture or the focal taboos constitutive of male solidarity in many other cultures (A. P. Fiske, 1992a). The inverse of the sociomoral and jural manifestations of CS is victims' search for a transgression when they suffer a misfortune. That is, people treat a misfortune victim as contaminating and contagious, as if the victim had committed some polluting violation that tainted the CS relationship. In a journalistic account of divorce, for example, a woman's husband left her, and her two friends "remembered how horrible they felt that neither bothered to call Beth Elliott, as though what she had might be contagious" (DePaulo, 1990, p. 68). This is what Ricoeur (1967) called the concept of evil as *defilement*. Even the victim may feel this way. My own unpublished data show that Americans who have suffered a major misfortune often feel isolated and different; they withdraw from outside contacts, and others treat them as tainted or contagious. People feel vaguely uncomfortable around such victims and avoid them without quite understanding why. When someone commits suicide, their kin and friends often

feel cut off in this way (Carter & Brooks, 1991; Dunn & Morrish-Vidners, 1987; Lukas & Seiden, 1987; Wagner & Calhoun, 1992; Wertheimer, 1991). Needing to belong, misfortune victims seek out similar others in peer support groups of fellow victims (see, for example, "Talk of the Town," 1990).

Another manifestation of CS in the interpretation of misfortune is the fact that people may entertain the possibility that any member of a group (e.g., a family) is suffering because of the transgressions of any other member: All members are equivalent under a principle of collective responsibility. This attitude is common in African societies and is also represented in the story of King Saul, the punishment of Achan, and other Old Testament stories in which family members suffer for one another's sins.

Communal sharing relationships ordinarily involve *kindness*, in both senses of the word: people are *kind* to people of their own *kind*, prototypically their own *kin*. (All three words have the same Indo-European root, meaning *birth* or *beget*, from which derive a great many cognate words expressing aspects of CS: e.g., nation, native, nature, gentle, generous, gender.) But the other side of CS is not so benign. CS engenders a loss of a separate personal identity that can be destructive; *deindividuation* may give rise to mob violence (Diener, 1980) or to more organized aggression. People attack others who threaten their collective honor (Peristiany, 1966), or they justify genocide "to purify the race." Furthermore, people often treat all members of an enemy group as equivalent: When people from an outside ethnic group harm other members of one's own group, people in the victimized group may indiscriminately shoot, rape, or bomb any members of the enemy ethnic group without distinction. Many cultures acknowledge the principle of *collective responsibility* for offenses committed by any member of the group against an outsider (Evans-Pritchard, 1940/1967; Rosaldo, 1980; Schieffelin, 1976) as well as joint responsibility for each other's welfare (e.g., paying indemnity for a kinsperson's crimes).

The converse of CS is the binary polarization of evaluations that is called *ethnocentrism* (LeVine & Campbell, 1972). This corollary of the CS orientation commonly involves a sense of contrast between the subjective "we" and the objectified "they." In some situations, at least, people may use even very trivial criteria to draw the lines between we and they (Tajfel, 1978, 1982). This binary contrast readily turns into opposition when bad qualities are projected onto outsiders. For the immediately relevant social purposes, people inside the boundaries of the group in question are thought of as similar and good, while outsiders are completely other (Sherif, Harvey, White, Hood, & Sherif, 1961/1988; Sherif & Sherif, 1964). When people feel no sense at all of identity or similarity with others—when there is no CS relationship at all, however attenuated—they treat others as nonpeople, unworthy of care or concern, or as so degraded as to be nonhuman, outside the pale of any possible CS compassion or responsibility (G. Allport, 1954/1979). Everything depends on where people are drawing the binary boundaries of the CS relationship at crucial moments. Being outside may be deadly.

These domains and features of social relations differ in content, but they all show the same CS form in which people in some dyad or group treat each other as equivalent and undifferentiated, submerging their individual identities in a superior-

dinate collectivity. People in a CS relationship see themselves as similar to the other participants, try to make themselves similar, try to act in unison, and feel that it is right, good, and natural to do so, especially with people who share some bodily essence with them. The inference is that all of these aspects of social relations exhibit the same form because, in every case, people are using a common psychological model—communal sharing—to produce their own behavior, to understand the behavior of others, to coordinate with others, to judge each other, and as a standard to which they demand that others conform. This model is much more prevalent, more salient, and more highly valued in some societies than in others, but it exists everywhere. My thesis is that people have only a few fundamental modes of interacting with others, and they use their limited repertoire of models in all of these aspects of their social relations. Let us look now at a second relational structure in this repertoire.

Authority Ranking

The meaning of material things in Authority Ranking relationships contrasts with their significance in CS relations. In distributions, high-ranking people may preempt rare or valuable items, so that inferior people get none at all. When people transfer things from person to person in an AR mode, higher ranking people get more and better things, and get them sooner, than their subordinates. In bilateral transactions, subjects may have to pay goods in tribute to rulers, or authorities may simply appropriate what they want. For example, in West Africa, Moose chiefs traditionally "own" all their subjects and, ipso facto, all their subjects' possessions; thus, chiefs can appropriate whatever they like. This principle is so powerful that Moose chiefs avoid entering markets, because vendors would all have to make them gifts from their wares. On one occasion the chief of my village took coils of rope from me without asking or compensating me, and he kept a bench that I had intended only to lend him.

Conversely, a principle of *noblesse oblige* usually obtains in AR relations, so that authorities have an obligation to be generous and hospitable to inferiors and to exhibit pastoral responsibility in protecting and sustaining their subordinates. The Moose explicitly acknowledge a major constraint that often operates in AR relations: If subordinates have any alternative leaders they can follow, leaders who fail to shelter their followers or who display a lack of largesse may find themselves without anyone to rule over.

Overall, the aggregate effect may be a bidirectional flow of goods in to the central authority and out again to retainers and subordinates. This is why Polanyi (1944/1957, 1966) and Sahlins (1965) described this kind of circulation as *redistribution*.

Quite apart from their transactional flows through exchange, many objects are static markers that serve to represent the rank or authority of the person displaying them: European thrones, crowns, and scepters; the conical hats of Moose elders and the ostrich eggs that signify a chief's house; or the limousines and enormous desks of modern executives and political leaders. Likewise, land almost always has a distinctive significance under AR: It is the fief, jurisdiction, or dominion of an authority. Anyone living in an authority's realm is subject to that authority, and authorities may do as they wish in their own do-

main. All these aspects of material things may be combined, of course. A conqueror may seize the symbols of sovereignty and thereby claim the right to receive tribute from the inhabitants of a territorially defined state.

When people produce goods and services according to the AR model, masters manage and direct underlings and control the product of their subordinates' labor. High-ranking people often do less manual labor, and have less arduous, less dangerous, and less noxious tasks than lower ranking people. Udy (1959, 1970) called this *custodial recruitment* of workers; Marx (1857–1858/1964, 1857–1858/1971, 1857–1858/1973) described this kind of production as *slavery*; and regarded capitalism too as a kind of hierarchical exploitation of workers.⁷ These prerogatives mark the linear hierarchy.

The same kind of linear ordering that emerges in the AR use of objects appears in the ways in which people affect each other's attitudes and behavior. When AR manifests itself in decision making, people channel information upward and hand decisions down through the chain of command, as in a military organization. The highest ranking person decides for all subordinates, or else delegates specific decision authority. Social influence works in a similar way: People emulate, defer to, or obey their superiors. Cooley (1922) called this obeisant attitude *hero-worship*, and in the political sphere Barber (1984) called one kind of AR decision making *authoritative democracy*. Even in a culture that devalues AR, such as modern U.S. culture, the effects of simple commands are very powerful, as Milgram (1974) demonstrated in his experiments in which subjects obeyed orders to give another person what they believed were dangerous shocks. Cialdini (1988) reviewed somewhat more subtle kinds of influence by *authority* in U.S. society, showing that almost any of the trappings of high rank encourage people to acquiesce to demands. For example, in one common confidence scam, an elderly man in an expensive business suit poses as a bank examiner and inveigles people into withdrawing money and turning it over to him.

AR is more than a mechanism, like the conservation of momentum, by which individuals have an impact on each other. It is also a force like the chemical bond in a crystal that links people together to form organized social entities on a higher level. Freud (1921/1955, 1939/1964) and G. H. Mead (1934) described the formation of groups on the basis of emulation of and identification with a leader; Mead described this kind of *dominance* as leadership through force of personality, an account convergent with Weber's (1922/1978) ideal type of *charismatic* authority. In such groups, members are linked to the leader, and to each other by their common awe and obeisance. When there are multiple levels in the hierarchy, such groups often have a distinct dendritic tree structure in which each branch is a linear ordering.

Douglas (1978) described societies in which AR is a principal component of social relationships as *high grid*. In contrast, there are cultures in which differences in rank tend not to be overtly marked, and many societies in which no one—however

⁷ Marx was focusing on the AR characteristics of slavery as a form of legitimated domination (see also Kopytoff, 1988), but slaves may also be transferred from person to person as commodities or exploited as productive capital in an MP manner.

much prestige he or she may have—presumes to tell any other adult what to do (see, e.g., Godelier, 1982/1986; K. Heider, 1970). There are also some hunting and gathering societies in which AR influence among adults appears to be virtually absent and is even extremely attenuated in parent-child relationships (e.g., Miller, 1955), although gender and age commonly form the basis for AR relationships that operate in some contexts in most of these societies.

In the individual, the reflex of AR group structure is a sense of self that comes from knowing one's place in the hierarchy. In cultures in which AR is recognized as important, the self may be defined in terms of what kind of authority one has and whom one respects or obeys or whose follower one is (cf. McAdams, 1982, 1988). When power is contested, allegiance may be the central dimension that defines who one is (consider the Wars of the Roses or even a hotly contested election). In many languages, every time someone refers to or addresses a person (and in some cases every time one identifies oneself), the relative or absolute rank of the person must always be indicated (C. Geertz, 1966/1973; H. Geertz, 1959/1974; Irvine, 1989). Surely this incessant expression of social status informs personal identity. In other cultures in which AR is less important or ideologically negated, linguistic marking of status may be optional, or even disapproved, as in the Quaker mandatory *thou* or the widespread American use of first names (see Brown & Gilman, 1960).

Many Western social scientists have tended to treat all hierarchical relationships as if they were ultimately based on pure force, coercive power, or unilateral control over resources. But Weber (1922/1978) made clear the distinction between fear and material concerns on the one hand, and legitimated authority on the other. Weber showed that when people interact according to AR, they typically make an effort to validate these relationships ideologically. In particular, Weber made analytic distinctions among four types of personal authority: *charismatic*, *patriarchal*, *patrimonial*, and *feudal*. In all four types, persons subject to authority accept the leader's commands as valid reasons for action: It is sufficient that the superior wills something for it to be right. Etzioni (1975) also contrasted coercive physical sanctions with normative power, but did not seem to recognize that people commonly consider AR relationships to be legitimate, or even desirable. Kopytoff (1988) described this kind of belief in African cultures in which everyone, including slaves, considers AR relationships to be natural and inevitable.

Authority ranking has been legitimated innumerable times in popular political thought and academic analyses. Many Western political philosophers have written arguments for the validity and necessity of the coercive powers of state authority. The most notable is Hobbes (1651/1958; see also Kavka's, 1986, critique of Hobbes and of Niebuhr's, 1953, legitimation of AR in states in which MP is an inadequate basis for social organization and CS is needed). Davis and Moore (1945) argued that AR norms are a functional necessity in any social system, because stratification and rank distinctions are essential to motivate people to perform arduous duties in leadership roles and other crucial but demanding positions.

What these sociologists and political scientists identify at the level of collective ideology, others have described in the moral reasoning of individuals who regard whatever an authority wills as right. Piaget (1932/1973) explored the ontogeny of children's

sense that rules are obligatory. He identified this unilateral awe and respect for the edicts of parents and other superior beings as an early recognition of moral obligation, calling it the morality of *heteronomy*. Looking at the complementary duties of rank, V. Hamilton (1978; Hamilton & Sanders, 1981) showed that people construe the *authority role* as carrying with it distinctive moral responsibilities to look after subordinates. In many African and other societies, the authority of men over women, chiefs over subjects, and nobility over serfs are universally accepted as necessary, appropriate, and valid facts (e.g., P. Brown, 1951; A. P. Fiske, 1990, 1991; Irvine, 1974; Llewelyn-Davies, 1981). Fortes (1965) and many others have shown the great importance Africans attach to the authority of elders, who represent wisdom and social reason and are the sacred repositories of tradition. Their moral authority becomes absolute when death transforms them into ancestors. Similar AR ethical values are salient in China in the form of filial piety, devotion to the emperor, and ancestor worship (Fung, 1947; Ho & Lee, 1974; Makra & Sih, 1961; Wong, 1984).

Obeisant sacrifices to ancestors represent one manifestation of AR in religion, but the most prominent one is the belief in a supreme being who is the creator, whose word is truth and whose will is good. God is omnipotent and omniscient, and whatever God commands is right and necessary. The other side of such a belief is the feeling that if one is suffering, it must be the will of God: Devout victims of misfortune believe that they must have disobeyed and angered God (or at least people like Job's neighbors make this attribution). Ricoeur (1967) discussed the theological history of this concept of evil as sin, that is, rebellion against the personal authority of God. In many polytheistic religions there is a linear hierarchy of gods ordered by rank, and medieval Western society had a similar idea of the great chain of being.

The prominence of AR in so many religions is evidence that humans have a proclivity for projecting this schema on the world as a way of interpreting, judging, and validating experience. Such religious beliefs are also a sort of historically accreted projective test of the motivational importance of the AR model, and they demonstrate the basic form that underlies AR relationships among people. People act as if they were interacting with a supreme authority, even when there is no human partner in the interaction. This implies a desire for participation in purer or more absolute AR interactions than are ordinarily possible. Of course, people often do seek out hierarchical relationships with other people, and some people attempt to give an AR structure to most of their ongoing relationships. Building on Murray's (1938) concepts of *need for dominance* and *need for deference*, Winter (1973), McClelland (1975), and McAdams (1982, 1988) have shown the importance of such *power motivation* in the West. Kracke (1979) and Rosaldo (1980) showed that similar motives operate in at least some traditional societies. Research on the *authoritarian personality* provides some reason to believe that there may be a unitary motive to engage in AR relationships, whether in superordinate or subordinate position (Adorno, Frenkel-Brunswick, Levinson, & Sanford, 1950; the authoritarianism trait as they describe it also involves ethnocentrism—the hostile inverse of CS—and other factors besides AR motivation). All of this reminds us, whatever we think of AR, to be wary of assuming that people in

subordinate positions find AR relationships inherently aversive, much less that they are involuntary victims of coercion.

However, AR often has real victims. Because Westerners often fail to distinguish between coercive force and AR as a relationship, they tend to see many AR interactions as illegitimate and to recognize their potential for harm. Indeed, U.S. history begins with a Declaration of Independence, rebellion against tyrannical abuses, and a Bill of Rights that limits imperial authority. World history is replete with wars over succession and dominion. Typically it is subordinates who are the victims, and AR is often the justification, and not infrequently the true context, for all kinds of brutality. At their trials, Nazi officials attempted to excuse their atrocities as obedience to authority (Arendt, 1977). But any war demonstrates that most people will kill on command; it is appalling how easily military boot camp accomplishes its purposes. Sometimes people willingly go to their deaths if ordered to do so by a charismatic leader. If war were not sufficient to make the point, events in Jonestown, Guyana, in 1978 proved it (Ulman & Abse, 1983). The modern history of most countries is full of intimidation, imprisonment, torture, execution, and disappearance of people who refuse to accept (or who merely contest) the legitimacy of the authority of political leaders. Lord Acton's dictum might be revised to read, "All power brutalizes, and absolute power brutalizes absolutely." Conversely, ruthless subjugation brutalizes the oppressed, so that brutalized subordinates tend to become ruthless in their turn. Because people often construct AR relations, much more needs to be learned about what makes one realization of AR benign and another brutal.

In this context, it is interesting to observe that a moral corollary of the AR model is that although a superior (human or inhuman) may and often should physically chastise subordinates for disobedience, it is a most heinous crime to assault a superior. In the British navy two centuries ago, for example, officers frequently hit sailors and beat them with canes and whips, but striking a superior officer was a capital crime. In the present era, examples include the U.S. presidential order to the CIA forbidding assassination of foreign leaders and the continued concern about the murder of John F. Kennedy. The extreme reaction to regicide, parricide, and assassination suggests that harming a superior being is the focal taboo of AR relationships. Thus, the AR relationship is constituted not only by subordinates' respect and deference for superiors, but also by subordinates refraining from physically attacking them.

Like CS, AR emerges in a great variety of domains of social action, thought, and evaluation. Whatever the substance of the matter that people are addressing, AR is one of the basic structures available to them to organize their social relationships. In each social domain, the characteristic asymmetrical differentiation and linear ordering emerge. Like CS, AR involves the principle of reflexivity and transitivity, but whereas the CS relation is symmetric, AR is antisymmetric. Thus in AR, unlike CS, differences are not just nonequivalences, they are uniquely ordered.

If linear orderings are prominent in exchange, distribution, the organization of work, the meaning of land and other things, social influence, group decision making, moral judgment, norms, motives, ideology, religion, the interpretation of misfortune, and the mechanisms of conflict, then the mechanisms organizing all of the social processes in these domains can

hardly be independent. The congruence of structure across such diverse contexts suggests that the structure is the product of the one thing that is constant across them all: the human mind. That is, people have models of social reality that they also use as models for relationships, constructively imposing them on every sort of social interchange. But before I consider this point in detail I consider two other modes of interaction that seem to be equally universal.

Equality Matching

Despite a cultural emphasis on the equal value of persons, Americans often confuse equality matching with one or another of the other three models. However, the structure of EM is quite distinct, and in most cultures people explicitly recognize it as a separate and important social form that contrasts with any other mode of relating to people. Malinowski (1921, 1922/1961) brought EM to the attention of anthropologists and economists in his classic account of the Kula ring in Melanesia. The Kula, the central cultural institution of this region, is a system of egalitarian exchange of prestige items that continually circulate from one person to another. Men undertake long and dangerous journeys across the open seas in canoes to give their partners shell bracelets and necklaces that have no "practical" value. Whoever is in temporary possession of such a bracelet or necklace lends it freely to anyone who wishes to dress up for a special occasion. Some time later, the recipient makes a return journey to give back an equally valuable gift that, in his own judgment, balances what he initially received. Before long, the recipient also gives the gift he received to another exchange partner, continuing the endless cycle. In parallel with but entirely separate from these EM exchanges, people carry on commercial market pricing trade, bargaining to get the best value they can for the things they are bartering. Both the Trobriand Islanders and Malinowski have pointed out many important contrasts between the EM exchanges and MP transactions, which resemble the contrast between the exchange of Christmas gifts and buying things for oneself. (See Mauss, 1925/1967, for the classic theoretical discussion, and Leach & Leach, 1983, for recent studies of the Kula.)

Egalitarian exchanges of this kind are common throughout the world. Polanyi (1944/1957, 1966) recognized the symmetry of such EM transfers in calling this kind of transaction *reciprocity*, and Sahlins (1965) called it *balanced reciprocity*. Sahlins pointed out that people often use balanced reciprocity as a way of establishing relationships between strangers or reestablishing amicable relationships among people who have been enemies. Blau (1964) called this form of transfer *social exchange* to emphasize the trust involved in initiating such exchanges and the implicit sense of obligation to reciprocate, in contrast to the explicitly contractual and potentially mistrustful nature of *strictly economic exchange* (MP).⁸

Anthropologists have also discovered that this kind of egalitarian, one-for-one exchange is a principal form of marriage

⁸ The terms *reciprocity* and *exchange* are used much more broadly by other theorists and in many descriptions refer to any bilateral sequence of contingent transfers in which things move in both directions. As I demonstrate in the present article, bilateral transactions can take any of four forms (CS, AR, EM, or MP).

transaction in some cultures. In his influential theory, Lévi-Strauss (1961) called it *restricted exchange*. Meillassoux (1981) made the concept more precise by showing that its essence is the idea that each woman matches each other woman one-for-one: The only thing that corresponds to and therefore compensates for the gift of a wife is the gift of a bride in return. For the purpose of such interchanges, men ignore the differentiating qualities that might make one woman more desirable or valuable than another. In the same way, a dinner party matches a dinner party, within a range of possibilities that the culture defines. In order to count and match in any of these cases, equivalence classes of the sort that underlie CS have to be defined, as well as rules for combining them. These axioms and operations permit relationships to be balanced and the amount of imbalance to be assessed, despite the differences that actually exist between the entities exchanged.⁹

Perhaps the most striking example of EM transactions is the kind of institution called a *rotating credit association* (RCA; see Ardner, 1964; Bascom, 1952; Firth & Yamey, 1964; C. Geertz, 1962; Kramer, 1974; Vélez-Ibañez, 1983). RCAs are common in Africa, the Caribbean, and Asia. At some fixed interval, the members each make exactly equal contributions, and on each occasion in turn one of them takes home the entire sum. At the end of a full round, each participant has received the total sum once, so that every person gets an equal share, and every person receives precisely as much as he or she contributes. Using the same principle, each share in the RCA can be subdivided into equal parts that belong to separate individuals, or a large RCA can consist of several subgroups that make exactly equal contributions and receive the total in rotation, allocating it to each of the subgroup members in turn. If people drop out part way through, they receive back exactly what they put in, and they pay back the pot if they have already received it. A new person may join as a substitute for someone who drops out, with the new member compensating the former member for payments already made. In some parts of the world, RCAs may be run as lotteries, with each person getting an equal chance at the total sum on each occasion. Thus, the structure of an RCA contains almost all of the principal manifestations of EM: turn taking, equal contributions, egalitarian distribution, balanced reciprocity (in which people get back just what they gave), leveling compensation, and a fair chance lottery. Note the contrast with savings and loans based on the payment of interest, with which RCAs have long coexisted: Interest is a rate, and interest is paid in proportion to the amount deposited. In RCAs, only interval differences and sums are defined; proportions and rates have no meaning.

Besides these dynamic social functions of material things in EM, people also make use of static objects to mark EM relationships. The equal status of peers is often a function of their possession or display of some standard object that puts them on a par with their fellows. Ilongot young men feel intensely jealous of their peers who display the red hornbill earrings that show that they have taken a head, and feel the pride of equality only when they can sport the same emblem (Rosaldo, 1980). In other cultures and at various stages in the life cycle people may accord the same significance to long pants, a bicycle, an automobile, a tattoo, a spouse, children, or a house of one's own. In some societies, land has this meaning, so that everyone who owns land has an equal vote. In others, families may be entitled

to equal allotments, as in the U.S. Homestead Act or the Chinese land reform of 1978–1979 (Gargan, 1988). People are often acutely aware of imbalances in such material tokens of social value, to the point that avoiding arousing others' envy becomes a pivotal factor in social life.

EM is often the basis for organizing contributions of labor between groups, although in his world sample, Udy (1959, 1970) found that EM *reciprocity* never operates alone as the primary basis for a permanent production group. Erasmus (1956) and Guillet (1980) provided more detailed ethnographic evidence showing how this form of organizing production coexists alongside wage labor in South America, and A. P. Fiske (1991a) described several EM forms of work that are common in West Africa. (This evidence should dispel the idea that the organization of work along EM lines is more "primitive" than wage labor, or that wage labor inevitably supplants it.) These EM institutions around the world involve working for other people, who in turn work for them—help with threshing my grain in return for help with threshing your grain, for example. Often the people who attend such reciprocal work bees match their labor with each other in one-for-one correspondence, everyone doing an equal amount of work (although no one has any quantitative knowledge of how much they have worked). Thus, EM operates within the work party as well as between work parties. In U.S. jobs, equality in work loads is often an important principle (e.g., each member of a department teaches the same number of courses, or each person in a given job classification works the same number of hours). When work loads get uneven, people have a clear sense of how much needs to be done to restore equality.

EM shapes the qualitative aspects of interpersonal processes just as it does material interchange. As a collective decision-making mechanism, EM often takes the form of a one-person, one-vote electoral process. Other EM schemes for group choice include rotating chairmanships (as in the United Nations Security Council), the congressional practice of arranging to pair off legislators who miss important votes, and lotteries (e.g., flipping a coin). Many theorists have described how EM operates as a social influence mechanism (Cialdini, 1988; Clark, 1983; Cook, 1987; Gouldner, 1960/1973a; Homans, 1958). The operating principle is that when people relating in an EM mode receive a favor, they feel obligated to reciprocate by returning a favor. Logrolling in Congress works this way when legislators exchange votes on each other's special interest legislation. Some kinds of lobbying also operate on the basis of balanced exchange of favors.¹⁰

The EM processes I have discussed do not presuppose the prior existence of a group: EM is itself a common blueprint for connecting people. Many social groups are composed on the basis of equality among members, and balanced egalitarian relationships are significant in most parts of the world. Indeed, a

⁹ In contrast, CS is based on equivalence classes alone: The ideas of linear differentiation, intervals, counting, and addition that constitute EM are undefined and socially meaningless in CS relations.

¹⁰ People may use this principle manipulatively by getting someone to reciprocate with a favor that, although categorically a favor and therefore the same thing, is quite different on some important dimension; for example, a salesperson gives a prospective customer a gift, inducing the customer to make a major purchase as a return kindness.

principal focus of anthropology has been on the mechanisms by which balanced exchange between individuals and groups generates and maintains social structures. In every society, people give matching gifts back and forth, although the actual gifts vary from culture to culture (e.g., Christmas cards, birthday presents, dinner invitations, Kula shells, potlatch coppers, or wives, as the case may be). Sometimes people even give back to the donor precisely the same thing they received in the first place (see Sahlins, 1965). The implication of the anthropological evidence is that what people get out of such even exchanges is not some kind of long-term gain or material security, but the EM relationship itself. People can also build, sustain, or repair an EM relationship by taking turns paying each other visits or by matching each other's effort in some arduous or dangerous enterprise like mountain climbing or valorous exploits in war. A pair of Moose horsemen will gallop across a field, as fast as they can go, with their arms across each other's backs, keeping perfectly parallel and even with each other, like a precision flying team or a marching band. Each of these expressions of one-to-one correspondence simultaneously builds group (or dyadic) solidarity and gives people a sense of self as coequal peer, matched to their fellows. But in every case the corresponding actions of the two are separate and distinct, in contrast to CS relationships in which people do not differentiate among the actions of the participants. Furthermore, unlike people in either CS or AR relationships, people in EM relationships attend to the magnitude of imbalances, using addition and subtraction to calculate the net result of a series of interchanges.

Something is called a *norm* when it is viewed as an external constraint coming from society, and it is called a *motive* when it is perceived as emanating from within the individual. The same directive force is called a *moral principle* when it is regarded as a universal obligation—that is, as independent of individual preference or social convention. The EM model has been described in each of these terms, suggesting that perhaps they are complementary perspectives on the same directive standard. The EM model is a moral principle when it is compelling in its own right, when it is binding regardless of what anyone wants or what one's position is in the matter; EM is a motive when one person pursues it more than others and that person's behavior is analyzed in terms of his or her volition; EM is a norm when people expect and require it of each other and consider its functions for the social structure. These are valid analytic distinctions, but it is important to keep in mind that the structure being used as a goal or a standard is the same in all three accounts; what differs is how people are using it, or how observers use it to explain behavior. Each of the four fundamental models can also be viewed from any of these three perspectives.

Sometimes there are biases that lead observers to make unwarranted assumptions about whether a model is operating as an ideology, a value, a norm, a genuine moral value, or a motive. In particular, it is important to avoid the facile assumption that people are egalitarian merely because of external norms or other social constraints. The metaphor of external causation (Sabini & Silver, 1987) explains very little, not least because we are still left with a need to explain why people impose sanctions on each other and why people are susceptible to the invocation of sanctions. *Duty* and *desire* may be two terms for the same guiding model as a standard and as a goal in social relations (A. P. Fiske, 1990b). There is no a priori reason why norms,

motives, and morals have to be discrepant, and in many respects in many social systems they are largely congruent. For example, EM has been described as both a motivation and a congruent norm in Japan (Lebra, 1976) and in two very different traditional Philippine cultures: Tagalog (Hollnsteiner, 1964; Kaut, 1961) and Ilongot (Rosaldo, 1980).

In a classic paper, Gouldner (1960/1973a) postulated that the EM *norm of reciprocity* is universal. Subsequent researchers have not located any societies in which it is entirely absent, although it is more central to some cultures than others. It is particularly salient, for example, in Melanesia, where it is the central organizing theme of social life (Forge, 1972; Foster, 1990; Malinowski, 1922/1961; Schieffelin, 1976). For example, in New Guinea, Gahuku-Gama soccer teams play as long as necessary, often for days, until they reach a tie (Read, 1959).

Presumably, individuals also differ in how avidly they pursue EM, and domains must differ in how much they elicit this goal. Research on experimental games has shown three kinds of motivation that vary in this way: concern with own outcome regardless of others (null orientation), concern with joint outcome (CS), and concern with the difference between own and other's outcome (EM; Guth, Schmittberger, & Schwartz, 1982; Knight & Dubro, 1984; Kuhlman & Marshello, 1975; Kuhlman & Wimberley, 1976; Lowenstein, Thompson, & Bazerman, 1989; Messick, 1985; Messick & McClintock, 1968; Messick & Thorngate, 1967). When people are considering differences between people's outcomes, the socially relevant features of the situation correspond to those defined for the structure of an ordered Abelian group. The relational models theory suggests that when people are thinking in these terms, their preeminent goal tends to be equality, or zero difference. For a long time, researchers tended to simply assume that subjects' orientation toward the difference between their own outcome and that of other participants involved a competitive desire to maximize the difference. However, social justice researchers have found that acquaintances often select the *equality principle* in distributing rewards (Deutsch, 1975; Lerner, 1974; Mikula, 1980; Tindale & Davis, 1985). Such a distribution means disregarding relative contributions to a task and ignoring differing needs and even self-interest. Kahneman, Knetsch, and Thaler (1986) found that subjects are nearly indifferent between an equal share and a much larger share, but are highly averse to receiving even slightly less than an equal share. Lowenstein et al. (see also Messick & Thorngate, 1967) have shown that people sometimes prefer equality to payoffs that are much more advantageous to themselves in absolute magnitude. However, even a small decrease in payoff below equality produces a very sharp decrease in utility. Indeed, ultimatum bargaining research has found that people will often choose to get nothing rather than receive a reward that is less than the other party's reward, indicating that equality of rewards is an end in itself (Guth et al., 1982). The combined evidence from these studies suggests that the major social comparison motivation is the EM desire to equal (or do no worse than) the others in one's reference group. These norms and values are important, and result in distributions in which everyone gets the same thing (or knows just how much they are short of it). In the university milieu, for example, every faculty member may automatically get one computer, one telephone, and a fixed amount of free photocopying or postage.

Ironically, egalitarian standards may ultimately result in very

inegalitarian relationships. Several writers have independently postulated or described a process in which hierarchical AR relationships derive from gratitude or obligation to reciprocate in EM relationships (Athay & Darley, 1985; Blau, 1964; Godelier, 1982/1986; cf. Komorita, 1984; Gouldner, 1960/1973a; K. Heider, 1970; Hollnsteiner, 1964; Lebra, 1969, 1976, p. 103; Mauss, 1925/1967). The idea is that, when EM norms or motives are operating and one person gives others unique resources or rewards that the beneficiaries are unable to return, the recipients are beholden to the donor. If the benefactions continue to be unbalanced, the recipients may accumulate debts that they may eventually have to pay back in respect, loyalty, deference, or submission. Thus, as these authors have demonstrated both in personal relationships and at the level of institutions, EM norms may give rise to AR relationships when the initial distribution of resources is unequal.

If one looks at EM from the perspective of ethics, it is obvious that EM is fundamental to many moral systems. In U.S. society it is synonymous with the impartiality of the law, and it is represented in the icon of the blindfolded Justice holding a pan balance—the scales of justice. Piaget (1932/1973) laid great emphasis on egalitarian *mutual respect and cooperation* (although he tended to conflate the morality of EM and MP). V. Hamilton (1978; Hamilton & Sanders, 1981) argued that people assign distinctive moral obligations to people occupying relational roles based on *equality*.

Rawls (1971) based his whole theory of justice on the thought experiment of people in a veil of ignorance. That is, people would not know what role they will play in the world until after they make up the social and moral rules. In a sense, this is a formal extension of an egalitarian folk model for EM allocation of work or goods: One person divides, and then the others choose first. This motivates the person making the division to make the worst share as good as the rest—that is, to make them all equal. In such a situation, people may not always choose to maximize the welfare of the worst off. Jackson (1949) made a convincing fictional case for the idea that people might use a lottery as a framework for legitimating random violence. Like a boxing match or a duel, harm may be legitimated by observing that each person started out with an equal chance.

Indeed, EM is a common source of hostility and violence, and people often justify aggression in EM terms. Retaliatory feuding and vengeance are often based on EM. Among the Kaluli of New Guinea, revenge may involve matching the precise manner of killing and disposing of the corpse (Schieffelin, 1976). International politics sometimes works on the same eye-for-an-eye basis (e.g., a bombing for a bombing), and the basic strategy of deterrence is derived in part from the EM principle (see Dworkin's, 1985, idea of a bounce-back device, and Kavka, 1987). Among children, a great deal of conflict and distress results from the insistence on equality, even distribution, and tit-for-tat negative reciprocity, as well as fights over turn taking. Among adults, envy among peers (e.g., African cowives who insist on precisely equal treatment) is also a common source of hostility. In many traditional societies, any kind of major inequality in fortune often leads to accusations of witchcraft or sorcery, with people assuming that the only way someone could do better than his or her fellows is by taking their shares away from them (cf. G. Foster's, 1965, analysis of the idea of the limited good). Conversely, Africans often try to make sense of

misfortune in terms of EM, looking for someone who might have bewitched the victim because of jealousy about an inequality (e.g., Douglas, 1970; Evans-Pritchard, 1937; Offiong, 1983). This encourages people to be scrupulously fair and to hide their resources, in order to avoid inciting envy. Most Americans do not assume that their misfortunes are the consequence of someone trying to get even with them, but my unpublished research indicates that they often do wonder whether things even out in the long run; American victims are concerned about whether everyone gets an equal share of bad things, turn by turn, and whether their blessings balance their misfortunes.

Equality matching is the third relational structure that cuts across diverse social domains in a wide variety of cultures. It always involves a conception of distinct but equal individuals whose relationship is based on an assessment of socially significant differences between people; the reference point, the equilibrium around which the relationship oscillates, is even balance. The most parsimonious and plausible explanation of the homology of structure across these domains and dimensions of social relations is that they have a common source. The mechanism that produces this EM orientation in the production, transfer, use, and meaning of material things is the same mechanism that produces the corresponding structures and processes in social influences, decision making, the genesis of groups, and the formation of selves. The thesis is that the same EM model that gives form to moral evaluation, norms, and political ideology also underlies the interpretation of misfortune as a matter of things coming out even, and promotes one-to-one retaliatory misfortune.

The four models share some relational properties with each other, but these properties change their meaning as a function of what other properties and operations are defined. Although social asymmetries are significant and generally salient in both AR and EM relationships, in EM (unlike AR), differences are not only directional (people think about who is greater than whom), they also have magnitudes: People think about *how much* they have to give to reciprocate or compensate others or come out even with them. EM always entails some kind of additive tally of who owes what and who is entitled to what. When the relation becomes unbalanced, the additive identity operation, subtraction, specifies what has to be done to restore the relation to its previous equilibrium. Because EM is based on the comparison and balancing of intervals, the structure permits only very limited intermodal comparisons. Hence EM is usually implemented on the operational principle that each person gets the "same" thing. Relationships that involve ratio comparisons and that require the use of a distributive axiom require another relational structure, market pricing. In the ordered Abelian group structure of EM, for example, there is no way of specifying the relation between the value of working 5 hours in one day at \$2 an hour, and the value of the combination of 3 hours at \$2 an hour one day and 2 hours at the same rate on another day. Without the ratios and distributive law of an Archimedean ordered field, it is very laborious and impractical to make calculations comparing complex combinations of unlike items: Values have to be literally counted out by enumeration. In EM it is impossible to compare the total price of a basket of two apples at 25¢ each and three oranges at 40¢ each with the sum of the prices of the fruits purchased individually. Thus, in EM, people tend to exchange apples for apples, or fruit

for fruit, or to divide up the apples equally and then distribute the oranges, because it is not feasible to exchange or distribute to people equal-value baskets composed of different fruits. However, all of these operations are routine in market pricing.

Market Pricing

Market pricing is so pervasive in Western society and so important in the Western cultural conceptions of human nature and society that many theorists have postulated that all human social behavior is based on more or less rational calculations of cost-benefit ratios in self-interested exchange.¹¹ However, other analysts have shown that there are essential differences between the three kinds of transactions described above (CS, AR, EM) and MP exchanges. Like many other Western theorists, Blau (1964) regarded *strictly economic exchange* as the expression of asocial selfish individualism, and Sahlins (1965) placed MP on a continuum approaching the pole of *negative reciprocity* (a hostile asocial orientation), but both recognized it as a distinct kind of interaction. Polanyi (1944/1957, 1966) made it clear that, like the other three models, *market exchange* is not natural, inevitable, or inherently connected to material production or exchange; all four are culturally formulated social processes. Polanyi recognized the crucial point that MP, like the other models, is a mode of relating to other people. Polanyi, Sahlins, and Blau focused on how MP mediates relationships by the way it shapes and gives meaning to exchange processes, but as we shall see, MP is not limited to organizing the transfer of objects or benefits.

Market pricing transactions are distinctive because they are based on proportionality. In bilateral MP transfers, people use either a price or an exchange rate. People operating according to MP use proportional standards to establish rates of contribution (e.g., tithing and most systems of taxation) or proportionate distributions (e.g., budget expenditures in which the federal government pays in proportion to what the local government spends, or expenditures made in proportion to some criterion of merit or need). Experiments in the social justice and equity theory paradigms show that Westerners often allocate rewards in proportion to task input (Adams, 1965; Deutsch, 1975; Mikula, 1980; Tindale & Davis, 1985; Walster et al., 1978). People commonly use a single proportional standard to make a wide variety of MP calculations. MP transactions typically entail a transmodal standard of value (price or utility) by which all costs and benefits, all inputs and outputs, can be compared and any value-relevant feature of any commodity can be assessed.

As we have seen, the meaning of tangible things depends on the social relationship in which they are embedded. The recipient's thoughtful gift may originally have been a manager's overstock, unloaded in an advertised "special sale." In the case of an object, what is socially significant in an MP framework is its value, a ratio by which it can be compared to objects, acts, or other entities in the same market system. According to Marx and Engels (1867/1906, 1848/1959; Marx, 1859/1959) when people adopt an MP orientation, objects are commodities or embodied capital whose value depends on the labor time and fixed costs that go into them. Hence, they argued, people tend to become alienated from what they produce. It is probably more accurate to say that the defining characteristic of MP production and transfer is that objects are valued according to

the price that people can sell or buy them for—that is, the ratios at which commodities are exchanged on the market. For example, in contrast to the uses of land in the other three social modes, in the MP framework people acquire land as a capital investment to renovate and resell for profit, to hold in the hope of appreciation, to rent, or to use as a tax write-off.¹²

The way people exchange things is closely connected to the meaning that objects have, and both are closely linked to how people organize work. People almost always use a variety of models in any domain, but the predominance of any model in a major domain influences people's choice of models in other domains. Marx (1857–1858/1964, 1857–1858/1971, 1857–1858/1973) argued that the way people organize their labor has pervasive effects on how people organize all other social relationships, so that the model that governs work becomes the dominating model throughout the society. As a system of production, Marx contrasted *capitalism* with other forms of production, showing that this form of MP has unique and profound effects on the rest of the sociocultural system. Durkheim (1893/1933) subsequently focused on other features of MP when he argued that specialized division of labor results in a distinctive kind of social bond that he called *organic solidarity*, associated with a legal emphasis on restitutive sanctions.¹³

Neither Marx nor Durkheim had extensive or very good anthropological data available to them to study the modes of organizing labor that actually exist in different cultures. When this data became available, it supported their contention that MP is a distinctive, widely used manner of organizing work. When Udy (1959, 1970) did two world surveys of systems of organizing work (without citing either author), he found that *contractual recruitment* is one of the four basic forms. Although contracts are not a defining feature of MP, the contractual work arrangements Udy described are almost invariably forms of wage labor, in which payment is a rate per unit of time, task, or output.

When it is a major system of organizing work and exchange and giving value to things, MP also tends to become a system of collective decision making. The most widespread and far-reaching MP decision mechanism is the *invisible hand* of the

¹¹ Some of the most prominent of such theories are those of Becker, 1976; Berkowitz & Walster, 1976; Blau, 1964; Homans, 1958; Kelley & Thibaut, 1978; and Walster, Walster, & Berscheid, 1978; see Cook, 1987, and Ekeh, 1974, for overviews. For critiques of this monistic "economic" approach, see Etzioni, 1988; A. P. Fiske, 1990b, 1991; Kohn, 1990; Schwartz, 1986; and Westen, 1984.

¹² The fact that the account of each model begins with a description of the social uses of things is a purely rhetorical choice and is not intended to imply that objects or material transactions have any ontological or causal primacy. However, for Western readers, the realizations of the models in material transactions are the most intuitive. For African readers, social influence processes might be the most obvious, and for others, perhaps, the religious manifestations of the models.

¹³ As such, the division of labor into distinct and complementary tasks does not imply MP. The gender and age specializations typical of domestic relationships are usually organized in terms of CS and AR, as are some kinds of caste specialization in small-scale social systems. But Durkheim's (1893/1933) primary focus was on the progressive division of labor associated with the modern MP economy, which, he noted, is regulated by the restitutive sanctions of civil law and commonly involves contracts.

market, as Adam Smith (1976) recognized more than two centuries ago. In this mode, the interaction of supply and demand largely determines what people produce, how and where they produce it, to whom it is allocated, and how it is consumed. Prices also shape who goes to what schools, what kind of education and occupation they choose, and what work they do in that occupation. Prices are ratios of exchange that simultaneously represent the individual's choices among alternative commodities and socially generated values that are a function of many other people's choices. So thinking in terms of prices, or returns on investment, or other costs-benefit ratios, is a way of taking social values into account and thus participating in the collective decision mechanism of the market. In this way the market operates as the most influential decision making mechanism in contemporary Western society. This kind of decision making occurs in the political sphere as well as in economic matters: Barber (1984) calls one common MP form *pluralist democracy*.

Market pricing can be viewed from another angle as a social influence device. Etzioni (1975) listed *remuneration* as one of the basic mechanisms of influence or power. Americans take it for granted that people will do virtually anything if offered enough money: "Everyone has his price." As Cialdini (1988) illustrated, when people are led to perceive that there is a scarcity of goods, limited time for choice, or competition, they can often be inveigled into making a purchase or a choice that they would not otherwise select. These are all manipulative misuses of common MP heuristics. In U.S. culture, at least, the ideas of freedom of choice and contractually based commitments are at the core of the way we think about MP, so that both reactance and promissory commitment are other important influence mechanisms (cf. Cialdini's overview).

A collection of people may implement different models in their work, their transfer of things among each other, their valuation of things, their decision making, and their influence on each other. But when they use MP as the primary model in all of these domains, they are particularly likely to organize themselves into groups along the same lines. Organizations constituted out of the MP model include corporations, commercial partnerships and other business enterprises, labor unions, trade and producers' organizations, guilds, cartels, stock and commodity exchanges, banks, and mutual funds. Tönnies (1887-1935/1988) identified this form of organization by the term *Gesellschaft*, and I have already observed that Durkheim (1893/1933) later described *organic solidarity* as a form of sociality based on the division of labor (which is principally mediated through markets and contracts). Conflating EM and MP relationships, Clark and Mills (Clark, 1983, 1984; Clark et al., 1987; Mills & Clark, 1982) described comparable links that they called *exchange relationships*.

As I have already noted, the formation of groups or dyadic relationships and the formation of selves tend to be complementary aspects of the same process. Marx argued that MP relations destroy people's identification with what they produce, resulting in *alienation* (Marx & Engels, 1867/1906, 1848/1959). In contrast, G. H. Mead (1934) wrote that by thinking in terms of prices, people are identifying with all potential buyers and sellers, internalizing others' value-relevant attitudes and preferences. Mead stressed the uniquely powerful universalizing potential of *economic relations*: Through the medium of trade and money, people can relate to anyone. Despite their opposed

views on the impact of MP, both Marx and Mead depicted the market as a fundamental medium of communication that shapes the self (and see Durkheim, 1893/1933, pp. 372-373). The importance of MP relations for the formation of identity and the self in the United States is captured by the questions adults pose to children about what they want to "be" when they grow up, by which adults mean the job the children expect to hold in the MP economy. The same MP orientation comes out in the pivotal importance of occupational identities; if you ask Americans who they are, they usually tell you what they "do," that is, the occupation by which they earn a living. In many traditional societies in which MP is less important, it would never occur to people to identify themselves in terms of what they are paid to do.

Although I have made the point with respect to the other three models, it is especially important to stress that (despite what economic theorists claim) MP is not merely a pattern that happens to emerge out of the independent and unrelated actions of individuals. MP is also a directive force¹⁴ that guides coordinated action toward a goal. Furthermore, whether as a norm or a motive, the directive force of MP is a variable that must be assessed, not assumed. Although many theorists presuppose what seems to be the American folk perception—assuming that all human action is governed by a calculus of personal benefits and costs—there is ample evidence that, in most traditional societies (and probably in the West), profit motives are usually much less important than other social motivations (e.g., Bohannan, 1955; Firth, 1965; A. P. Fiske, 1991a, 1991b; M. Mead, 1937/1961; Price, 1975; Triandis, 1972, 1987; Triandis et al., 1988). The tendency to use a calculus of benefit-cost ratios to organize social interactions, or to strive to maximize this ratio, is highly variable across individuals, groups, contexts, and occasions; it cannot be assumed to predominate in any given interaction. This is the conclusion of the long tradition of research on *achievement motivation*, which is a maximizing orientation toward making the most out of challenging opportunities (Atkinson & Feather, 1966; McClelland, 1961/1976; McClelland, Atkinson, Clark, & Lowell, 1953; Murray, 1938).

Although not all MP relations involve maximizing (A. P. Fiske, 1991a, 1991b), all complex, intermodal maximization entails an MP calculus for comparing alternatives and assessing their relative merits according to a ratio scale. Significantly, although the students of achievement motivation did not initially intend to study economic behavior, in their external validation of the measure they repeatedly found that people with high need for achievement tend to find their way into entrepreneurial positions in the market, and that businesspeople in such managerial positions were exceptionally high in achievement motivation (Brown, 1965; McClelland, 1961/1976). This appears to be a function of the fact that markets provide the optimal medium for self-assessment of efficacy and efficiency, summed over a wide range of disparate factors using money as the common metric. People with high achievement motivation like to operate in a framework in which risks, choices, and outcomes are calculable. In effect, achievement motivation is the tendency to take a calculatively *rational* approach to social

¹⁴ For the idea of directive force, and the multiple complementary dimensions of models, see D'Andrade 1984, 1990, in press.

life, an orientation toward expected utility calculated from profit-expenditure and risk-return ratios. Thus, whereas not all MP relations are products of achievement motivation (people sometimes simply want a just price or a fair deal, not the best bargain they can get), achievement motivation usually entails an MP perspective.

One indication of the directive force of the MP model as a model for coordinating relationships (not just interaction) is that people typically try to validate their MP relationships, and they do so in a distinctive manner that involves appeal to MP standards. In his powerful analysis of *rational-legal legitimation* as the ideological basis of capitalism, Weber (1904-1906/1958, 1922/1978) laid the groundwork for all subsequent research on MP legitimation. Weber showed that the political and administrative organizations of capitalist societies, especially bureaucracies, tend to justify their control with reference to means-ends efficiency, accomplished by implementing codified, universalistic rules. For example, a bureaucracy may require all applicants for employment to hold a certain educational degree, on the grounds that people with such qualifications are more productive workers. Implicit in such a justification is some intermodal ratio metric for assessing the costs and benefits of all options and processes: The concept of efficiency or productivity inherently involves a comparison of rates or other proportions. When people have a rational-legal orientation, they ordinarily legitimate rules by arguing that the rules advance the general interest, which implies some kind of utilitarian scale for interpersonal as well as intermodal comparison. To make such comparisons requires the use of ratios and the distributive law in an Archimedean ordered field.

In contrast to the ideologies that people typically use to ground CS, AR, or EM relationships, people also tend to argue for the legitimacy of MP relationships with reference to the supposedly voluntary and contractual nature of the relationship. Piaget's (1932/1973) analysis of the ontogeny of moral commitment assumed that the criterion used in mature moral judgment is that a rule is right if people agree that it is in the best interest of all concerned, and hence voluntarily bind themselves to accept it. Piaget and Weber thus concurred in their analysis of this form of jural and moral legitimation: People see abstract, universalistic MP rules as intentionally created mechanisms for advancing their rationally calculated joint self-interest, and as valid only when voluntarily subscribed to (a kind of social contract theory). Inversely, V. Hamilton (1978; Hamilton & Sanders, 1981) showed that people believe that contract-based roles involve unique moral responsibilities. In short, people use a distinctive moral and ideological language to evaluate MP relations.¹⁵

This MP ideology and morality presupposes a rationally calculating person operating in a predictable world of formally expressed expediential and moral rules; the conditions of action must be knowable, and outcome expectations must be calculable. In contrast to the representations of the other three kinds of norms, such rules must be more explicit, universal, and formally stated. Ricoeur (1967) showed how this comes about in his analysis of the theological history of the *ethicization* of evil. This view is associated with the idea that victims get what they deserve (they are "failures"), and that the logical consequence of free choice is paying for one's mistakes. Indeed, my own unpublished data show that American victims of misfor-

tune often think about whether they paid too high a price, or whether the costs were in proportion to the known risks and benefits.

Market pricing attitudes have often been contrasted with more "social" or humane orientations, in part because many writers have confused MP with asocial interactions. Some of the most egregious evils of MP are prostitution, capture and sale of people into slavery, the killing of indigenous inhabitants to open land up for economic exploitation, child labor, and colonial systems of forced labor. Mercantile wars fought for markets and sources of raw materials are also high on the list, as is the violence that is intrinsic to the businesses of drug dealing, loan sharking, and extortion. Widespread miseries were caused by the forcible conversion of traditional economies to an MP system by colonial powers early in this century or at the behest of the International Monetary Fund in recent years, and by the abrupt transition from centrally planned economies to market systems in the former Soviet bloc.

Across diverse cultures and social contexts, there are social processes whose meaningful properties and relations are isomorphic with the structure of an Archimedean ordered field. In combination with the other three models, MP appears to have the potential to organize interaction in any or all of the major domains of human social thought and action. MP is by no means the dominant organizing principle of social relations in most cultures, but it appears to exist in most societies, with the possible exception of some isolated, autonomous hunting and gathering societies. It has been most pervasive in the West since the Industrial Revolution (Polanyi, 1944/1957; Polanyi, Arensberg, & Pearson, 1957/1971), although it is spreading into new domains and increasing its influence around the world year by year.

Asocial and Null Relationships

Some interactions involve little or no coordination with reference to a shared model of what the interaction is and ought to be. In these cases, people are not interacting for the sake of the relationship as an intrinsic good or as an obligatory standard, but are using the other person purely as a means to some ulterior or nonsocial end: The relationship is asocial. When people are operating in an asocial mode, they are often fully aware of the desires, beliefs, and moral standards of these social tools. In contrast, people may simply ignore others, giving their existence no attention at all or treating them as beings without meaningful desires and intentions, and to whom even nominal relational criteria do not apply: This is a null relationship. People operating in a null mode disregard all social qualities of the people whom they affect: They do not recognize any shared standards or ideals as governing the interaction, any more than one does when stepping around a tree. Durkheim (1897/1969) found both of these related tendencies in his research on sui-

¹⁵ This tradition of contrasting contractual jural systems with systems based on status within the collectivity goes back to Maine (1861/1963) and Morgan (1877), and was also developed by Marx (1857-1858/1971; Marx & Engels, 1867/1906) and Redfield (1955). Dumont (1977) traced the rise of this ideology in the West. Boulding (1953), Friedman and Friedman (1981), and Nozick (1975) were among the prominent modern apologists for MP ideology.

cide. His concept of *egoism* represents a deficit of social involvement or connection approaching the null situation. In contrast, *anomie* is related to the asocial situation in that it occurs when people are insufficiently regulated by adequate social constraints, so that their nonsocial desires are not mediated or limited by social relations.

M. Mead's (1937/1961) group defined societies in which there is a cultural emphasis on the null sort of autonomy as *individualistic*, meaning that "the individual strives toward his goal without reference to others" (p. 16). Kluckhohn and Strodtbeck (1973) later used the term *individuality* (without citing Mead), contrasting it to an MP-like orientation. Building on Mead and on Kluckhohn and Strodtbeck, Triandis (1987; Triandis et al., 1988) defined and measured a personality trait of *idiocentrism*, which measures an individual's tendency to interact in a null mode. Like many other researchers, Triandis and his colleagues focused on the contrast between *idiocentrism* and *allocentrism*, a CS-like orientation toward primary groups. Similarly, Douglas (1978) defined one basic mode of social life as *nonassociation* and *exclusion*, the prototype of which is the hermit's withdrawal from human society. But even when people are in physical proximity, they may disregard each other and they may act without taking into account any common standard or shared rule, even when associating to work on some joint social enterprise. Udy (1959, 1970) defined a residual, anarchic process by which people gather together to work, *voluntary recruitment*, in which there is no organizing principle for incorporating people (e.g., people just join in a hunt if they feel like it).¹⁶ Markus and Kitayama (1991) made a similar distinction between independent and interdependent cultural construals of the self, showing the contrasting consequences of null and CS orientations for attributional processes, emotional experience, motivation, and behavior. Writing about the null orientation from a motivational point of view, Schutz (1958) described the negative pole of the *need for inclusion* (CS) dimension as wishing to be ignored, to be alone, and not relate, and to have no social significance to or with others: the "leave me alone" attitude.

One of the most influential accounts of the asocial orientation is Buber's (1923/1987) conception of the *morality of I-It*. Bakan (1966) defined an asocial attitude that he called the *agentic mode of life*, although he tended to conflate the asocial orientation with MP.¹⁷ Etzioni (1975) independently described one mechanism for recruiting and orienting people in modern organizations as negative, hostile, or *alienative*. This resembles Sahlins's (1965) conception of the asocial extreme form of bilateral exchange, *negative reciprocity*, in which there are no norms and people just get what they can, by theft or treachery if it is expedient. However, Sahlins, too, treated asocial relations and MP as qualitatively similar, understating (in the 1965 article, although not subsequent work) the totally sociable nature of MP relations.

The asocial orientation is related to Freud's (1914/1957a, 1916–1917/1963) concept of *narcissism*, a basic orientation intrinsic to early childhood and a universal component of the adult psyche. The most extreme form of asocial morality and motivation is sociopathy (Cleckley, 1988; Hare, 1970; McCord & McCord, 1964; Millon, 1981). Sociopaths understand the relational models and are highly effective at simulating real relationships, but they have no interest in the relationships for

their own sake and no commitment or sense of obligation to them. They have no compunction about violating social relationships or any remorse when they do so. Relationships are only important to them as means to extrinsic asocial ends, and normal social sanctions are meaningless and without incentive value. Sociopathy is a pathology, however, and for most people most of the time in most situations, each of the four basic kinds of social relationships are moral and motivational ends in themselves. That is, normal people seek to create, sustain, and repair social relationships because the relationships themselves are subjectively imperative, intrinsically satisfying, and significant. On the other end of the scale there appear to be pathologies based on extremely rigid or inappropriately modulated use of the four fundamental models. Some personality disorders are characterized by this kind of hyperactivation or misimplimentation of the basic forms of sociability (American Psychiatric Association, 1987; Millon, 1981).

Whereas the four basic relational models are distinct categories, the results of many of the studies cited above suggest that asocial and null relationships are continuous dimensions of the four basic models. That is, each type of relationship varies in intensity, from null (ignoring each other) to total involvement. Relationships also vary in the degree to which the participants are relating for the sake of the relationship itself or are using each other as means to asocial ends.¹⁸ Another variable that may covary with these is the formality (strictness) with which people observe the standards of whatever model they are using. Edgerton (1985) contrasted cultures in which people follow rules to the letter and cultures that leniently allow exceptions. Some of the spatial analyses of social relations discussed above have found dimensions like these, although they tend not to make conceptual distinctions among formality, intrinsic vs. extrinsic motivations for interaction (asociality), and intensity (from involvement to nullness) of relationships. Furthermore, some writers have confused one or more of these three dimensions with features of specific relational models; for example, Lonner (1980) treated autonomy (null relations) as the dimensional opposite of power and domination, ignoring the fact that all four modes of relationships constrain individualistic autonomy.

In addition to the theorists already mentioned, there are a number of dimensional accounts that distinguish among two or three kinds of sociable relations in spatial terms. Brown and Gilman (1960) used pronouns and other forms of address to argue that power and solidarity are the basic dimensions of sociality. Etzioni (1975) also used a taxonomy that was loosely related to the distinctions of the relational models theory. Other

¹⁶ Udy was concerned with the structure of recruitment by which people assemble for work; people's private motivations for participating in a hunt or a fishing effort may be complexly sociable, even when the process of congregating is not.

¹⁷ For a recent, literate review of the idea of agency, see Wiggins (1991). Wiggins contrasts agency (which he conflates with AR) to communion (CS).

¹⁸ Mills and Clark (1982) brought this issue to my attention by arguing that communal relationships vary in intensity, whereas exchange relationships do not. But it was the cogent arguments of Shinobu Kitayama and William Lambert that finally convinced me that I had to address the varying intensity of relationships.

theorists have used multidimensional scaling, factor analysis, or clustering to derive dimensions underlying folk conceptions of similarities among types of social relationships, or simply posited a specific array of basic dimensions of social relationships.¹⁹ All of these analyses have yielded at least two primary dimensions, one of which corresponds to CS closeness (often in contrast to being outside the primary group), whereas the other is the vertical dimension of AR. The MP dimension occasionally emerges as a business, formal, or task orientation.

Sometimes EM comes out as a separate dimension, and sometimes it is treated as a midpoint of the dominant and submissive ends of the AR dimension. Treating EM as merely a lack of hierarchical inequality ignores a fact that the relational models theory brings out: In EM relationships, people are concerned about the quantitative amount of imbalance, which is undefined in AR. In EM, but not AR, difference intervals are socially significant. Furthermore, people in EM relationships actively seek equality *per se*, for example, by making balanced exchanges or taking turns. They are not merely nullifying order, but constituting an EM relationship. As Forge (1972) observed, "To be equal and stay equal is an extremely onerous task requiring continual vigilance and effort" (p. 534). Note also that it is impossible for two people in an AR relationship defined as a linear ordering to have equal rank: They must always be able to discriminate. So EM is not simply the absence of rank differences.

However, the relational models theory treats each of the four fundamental models as autonomous, distinct structures, not dimensions. Because the models are constructed from discrete properties that define which relationships and operations are socially significant, there is no continuum of intermediate forms. Occasionally, more than one model may lead to the same action, and sometimes (even within a culture) the same action may be interpretable in terms of two or more models. Any model can be used with varying frequency by different persons, or within different dyads, groups, or societies, but the four models are mutually exclusive alternatives in the orientation of any person at any given moment with regard to any one aspect of any particular level of interaction in any given domain.

Almost all of the dimensional analyses of social relations have investigated conceptions of *role* terms. Virtually the only exception is Horowitz's (1979; Horowitz & Vitkus, 1986) research on the issues that people present when they express concerns about their relationships. He found clusters of patient complaints that are consistent with the relational models theory. If one examines people's conceptions of their own personal relationships, one finds distinct types, not continuous dimensions. In a pair of recent studies, American student and nonstudent subjects rated the similarities among their relationships with 20 acquaintances, and later did a free sort of another 20 acquaintances into their own spontaneous categories (Haslam & Fiske, in press). When subjects were asked to rate the similarities among their relationships, their modal response was "0, not at all similar." Dimensional analyses of these similarity ratings and free sortings produced strikingly discrete clumps that appear to represent categorical prototypes of basic forms of relationships. Three recent taxometric analyses by Haslam (1992) confirmed that people perceive their own relationships

as tokens of discrete categories or types, not as points in a space characterized by continuously variable dimensions.

The Elementary Forms of Sociability

As the preceding review suggests, the relational models typology builds on and meshes with a number of other taxonomies of social relations, although many early theories have described only one or two of the basic types. Polanyi (1944/1957, 1966), Blau (1964), and Sahlins (1965) described four basic kinds of exchange, and Udy (1959, 1970) discovered four ways of organizing work, but none of them recognized that these structures organize diverse aspects and domains of social life. No previous work has recognized that these basic models are fundamental to more than one or two related domains. Marx went furthest in recognizing connections among domains by arguing that other domains—what he called superstructure—were reflections of the organization of productive work, but he did not have a psychological account of this or perceive the structural homomorphisms across domains.²⁰

Given the tremendous diversity of paradigms and assumptions, methods and data, questions and arguments, the fact that so many approaches yield results that correspond so closely says something striking about the implicit cultural concepts underlying social science, or about the nature of academic writers' inherent psychosocial intuitions and perceptions, or about the actual structures of social life. The most plausible inference is that these same structures emerge in all the major domains of social life because people everywhere have just four fundamental models for relating to other people. People are not using distinct, unrelated schemata for making decisions and making contributions. The scripts that people follow when working with others are not disparate from the scripts they use in interpreting misfortunes. The grammars of religion and the mechanisms of social influence are the same. The sources of identity and systems of exchange, the processes of group formation, and the foundations of morality are all implementations of the same four models. These directive models provide the fundamental programs for relating to people, whatever the substance, the medium, and the aspect of the relationship. People create most of their social world using just four elementary psychological models. Indeed, the most fundamental prediction of the rela-

¹⁹ See Bailey, 1972; Bales, 1958, 1970; Benjamin, 1974; Foa, 1961; Hofstede, 1980; Kiesler, 1983; Krech & Crutchfield, 1965; Leary, 1957; Lorr & McNair, 1963; Marwell & Hage, 1970; Parsons, Bales, Olds, Zelditch, & Slater, 1955; Rosenberg & Sedlak, 1972; Schutz, 1958; Triandis, 1972; Triandis et al., 1988; Triandis, Vassiliou, & Nassiakou, 1968; Wiggins, 1991; Wiggins & Broughton, 1985; Wish, 1976; Wish, Deutsch, & Kaplan, 1976. Lonner (1980), White (1980), and White and Prachuabmoh (1983) review many of these studies and some others.

²⁰ Talcott Parsons (1949) aimed at integrating much the same range of research and theory, but approached the problem very differently. Both directly and indirectly, my work has been greatly influenced by his theory, and by my early inability to make his approach do the theoretical or empirical job that I thought needed to be done. I should note that, try as I may, I cannot make my models mesh with his pattern variables, or his four system functions: pattern maintenance, integration, goal-attainment, and adaptation. Nor can I see the empirical reference of this set of functions.

tional models theory is that in any domain or aspect of social life, people will organize their relationships out of these four models.²¹

One way of putting the point is to say that the basic structures of social relations are invariant across diverse contents. That is, for example, equivalence relationships (CS) are evident in group decision making, social influence, motivation, material transactions, moral judgments, work, and in all sorts of other types and aspects of interactions. In each case, people regularly use one basic structure that entails grouping people into equivalence classes, such that people are undifferentiated with respect to the relevant dimension or concern. There are distinct, bounded groups of people whose mutual relationship is characterized by reflexivity, symmetry, and transitivity. Considering the moral dimension of an equivalence (CS) relationship, people should be kind and caring to themselves (reflexivity) and be kind and caring for people who are kind and caring to them (symmetry); and if A is kind to B and B is kind to C, A should ideally be kind to C (this is transitivity). Within the framework of CS relations, when kindness and caring are not reflexive, symmetric, or transitive, something seems morally wrong, the relations are probably unstable (cf. F. Heider, 1946, 1958), and they are difficult to learn and remember (cf. the related work of De Soto, 1958; De Soto & Albrecht, 1968a, 1968b; De Soto & Bosley, 1962; De Soto & Keuthe, 1958, 1959; De Soto et al., 1965). Structural congruence is apparent from the fact that the same structure is evident in decision making—for example, if we substitute “strive for a common opinion” in place of “be kind and caring to.” To see that material transactions also exhibit this equivalence structure, simply define the relation as “shares communally with.” If one considers the linear ordering of authority ranking relationships, one again observes that in all these domains people are aware of their hierarchical position relative to everyone else in the system. But if authority ranking relationships indeed correspond to linear orderings, it follows that the interval, space, or difference between any two people in such a structure is undefined: it is meaningless. Similarly, people do not think about ratios of ranks in an AR relationship. Intervals and ratios are uninterpretable in equivalence structures and linear orderings, and correspondingly irrelevant to AR and CS relationships. Each model generates a social structure that is characterized by a distinct set of relations and operations, whatever the domain.

A number of important conceptual and empirical issues remain about the nature of the four models; however, I can only mention some here. One is a general problem about the links between the formal structure and the focal value of each social motivation. The issue may be illustrated with respect to EM, which is an orientation toward magnitudes (differences, or intervals) as defined in an ordered Abelian group. Why is this orientation associated with the specific motivation to equalize, match, or balance the intervals? There are also a host of interesting questions about why, and to what extent, the MP orientation toward ratios is linked to individualism, selfishness (egoism), competitiveness, intent to maximize, material subsistence activities, freedom of choice, and voluntary contractualism. These features are neither theoretically necessary nor empirically invariable associates of MP, but they are linked in Western culture and may co-occur in others as well.

Another issue is theoretically unambiguous, but urgently requires empirical validation. The relational models theory conceives of human conflict and antagonism as arising out of the attacker's perception of fundamental transgressions against one of the four basic models. This view contrasts with the widespread perception of aggression as an autonomous motive or instinct (e.g., Lorenz, 1974; MacCrimmon & Messick, 1976). It also contrasts with the dimensional view that aggression is the polar opposite of communal sharing (e.g., Lonner, 1980), and the conception that market pricing is merely a regulated, controlled form of aggression (e.g., Sahlin, 1965). When people jointly engage in conflict or aggression organized in terms of any of the four social models, they use the models to respond to each other, communicate, make sense of each other's behavior, coordinate their actions, and to judge, sanction, and redress wrongs. The models serve as templates for constructing enmity, both motivating and constraining violence. So says the theory. But given the very different view of aggression in much of the literature, all kinds of data are needed.

How People Construct Social Relations

It is quite rare to find a personal relationship, a pair of complementary roles, a group, or an institution that draws on only one model. People commonly use a combination of models to generate sequences of action, to understand what someone else is up to at different times, to judge different features of social action, to anticipate different facets of others' actions, and to coordinate with them (or to obstruct their intentions). Generally, people string the models together and nest them hierarchically in various phases of an interaction or in distinct activities of an organization. In other words, the four models are the elementary components out of which people construct complex social relations. For example, roommates may share tapes and records freely with each other (CS), work on a task at which one is an expert and imperiously directs the other (AR), divide equally the cost of gas on a trip (EM), and transfer a bicycle from one to the other for a price determined by its utility or exchange value (MP). Similarly, an activity such as a formal dinner may involve purchasing the food and paying servants in an MP mode, inviting guests in accord with EM to reciprocate previous invitations and offering reciprocally balanced toasts, while seating people at the table and leaving the party according to AR precedence, having served the food and drinks in a commensal, “help yourself” CS mode. When people are eating the meal, each of the models is operating simultaneously at a different level. That is, people are using different models to generate different aspects of the same interaction and to make sense of it from different points of view.

Not very much is known about the combinatorial syntax of the models. Marx (1859/1959; Marx & Engels, 1867/1906) and

²¹ As a matter of intellectual history, it is worth mentioning that I tested this theory repeatedly as I explored one domain of social life after another. For example, soon after I realized that the theory should apply to the organization of work, I discovered that Udy (1959, 1970) had very thoroughly surveyed the cross-cultural literature on work, and had found precisely the four modes of organization that I predicted.

Weber (1904–1906/1958, 1922/1978) and their successors studied the relationships among religion, ideology, systems of productive labor, and social organization. McClelland (1961/1976; McClelland et al., 1953) also investigated the links between motivation and socioeconomic organization. Etzioni (1975) pioneered exploration of the consequences of congruence between the mechanism by which an organization recruits people and the form of influence that it uses to control members. But little is known about general combinatorial principles.

The most important unsolved questions about the relational models concern the processes of change at every level—in the orientations of individuals, the transformation of dyadic interactions and groups, and the ideologies of groups. Perhaps influenced by obsolete theories of social evolution, many theorists have described dynamic sequences of transition in which the dominant form of interaction in a society changes from one of these modes to another, usually over historical spans of time (Blau, 1964; Douglas, 1978; Durkheim, 1893/1933; Erasmus, 1956; Guillet, 1980; Maine, 1861/1963; Marx, 1857–1858/1964, 1857–1858/1971; Ricoeur, 1967; Sahlins, 1965; Udy, 1959, 1970; Weber, 1904–1906/1958, 1922/1978).²² Piaget (1932/1973) set out a sequence of ontogenetic transformations in the orientations of each individual. Turner (1969, 1973) described transformations that participants in rituals sometimes experience in a matter of hours or days. Most writers suggest a temporal sequence that is some subset of the ordering,

CS → AR → EM → MP.

If the four modes indeed tend to transform themselves in this particular sequence over historical time, or during childhood, we need to know why. A formal analysis of the four relational structures suggests that this sequence represents increasing complexity in the constituent relations and operations that comprise the models (A. P. Fiske, 1991). As with the four classical measurement scales, it appears that the structure of each model encompasses all or most of the relations and operations that are defined in the models preceding it in this Guttman sequence, whereas each differs from the models that precede it by the inclusion of new, previously undefined relations and operations. Such a unique ordering of the models by inclusion and increasing complexity offers a cognitive developmental explanation for a temporal sequence of emergence. It may also be that this is a case of ontogeny recapitulating phylogeny: Only humans have evolved the capacity for MP, and EM is probably limited to higher vertebrates (perhaps only humans). In contrast, many social mammals and birds exhibit dominance hierarchies that tend to be transitive (see Wade, 1978, for the significance of transitivity), and there are social insects and even aggregations of unicellular organisms that interact in ways that are formally similar to human CS.

The transformation of the relationship between a given pair of people or among the members of a particular group probably tends to move in the opposite direction, from MP to EM to CS, or from AR to CS, although sequences may vary. However, very little is known about the transformations from one mode to another.

It remains for future investigators to determine all the factors that determine when people use each of the four models, but there are two striking facts about this use. First, ethnographic

researchers (A. P. Fiske, 1991a; Kluckhohn & Strodtbeck, 1961/1973; LeVine, 1984; Mead, 1937/1961) have suggested that there is typically an extremely high degree of consensus among interactants about what model is, and should be, operative. Second, people in different societies commonly use different models and combinations of models in any given domain or context. This taken-for-granted consensus within societies, along with the striking discrepancies between societies, implies that culture is the primary determinant of the selection of models.²³ There appear to be two major aspects of this cultural implementation of the models—rules that stipulate when each model applies, and rules that stipulate how to execute each model.

For example, any aspect of the relations between husband and wife can be structured as CS, AR, EM, MP, or any combination of these models across different domains of the marital relationship. Each model can be applied in many different ways. Törnblom and Jonsson (1985) looked at three implementation rules for EM (equality of treatment, of results, or of opportunity) and three implementation rules for MP (outcomes proportional to contributions measured in terms of productivity, effort, or ability) within Swedish culture. They found that implementation rules (subrules) accounted for the largest part of the variance in the fairness judgments of nursing students, and that the specific implementation rules these women considered to be just depended on whether the framework was a soccer match or a track meet, and whether rewards were being distributed or withheld.

Many of the discrepancies in ethical judgments that raise the issue of moral relativity are the product of just such differences in cultural implementation rules (A. P. Fiske, 1990). For example, actions of a brother toward his sister that are unjust from the standard of EM (e.g., telling her to prepare food for him) may be entirely virtuous in the framework of AR. Both of the cultures in question may accept the validity of EM and AR as moral principles in the abstract, but differ about the legitimacy of applying EM and AR to adult siblings of opposite sex. Or both cultures may concur in applying EM to some aspects of relations among siblings, but differ on what content areas these persons should structure in EM or AR terms (e.g., division of inheritances, mutual influence and correction, the organization of work, help in time of need, or preference for educational opportunities). The arbitrariness of the application of models to specific domains across cultures is illustrated in the work of Kluckhohn and Strodtbeck (1961/1973), who studied five cultures in the U.S. Southwest. Interviewing informants about three models (lineal = AR, collateral = CS, and individualistic = asocial), they found that in any given social domain different cultures had different values or expectations. Conversely, they showed that any given social orientation is preferred or expected in different domains in different cultures.

²² See also the writers mentioned above who have described a process by which inability to meet EM obligations can transform a relationship into AR.

²³ It does happen—particularly in complex, multiethnic, rapidly changing societies—that two or more people interacting with each other are applying different models to any given aspect of their interaction. When they do this, recriminations, conflict, and a breakdown of trust almost inevitably result, because adherence to one model usually violates the standards of any other.

Given that the culture specifies that a particular model applies in each specific domain or is relevant to each particular dimension of interaction in a given context, there are additional issues to be determined regarding how the model will be implemented. For example, EM can be applied to decision making in a given domain in many different ways, as the U.S. Constitution and its amendments illustrate at two levels. The definition of who counts as a voter having equal say in elections has changed over time, from property-holding White male citizens over the age of 21 to all citizens over 18 except convicted felons. Also, the unit of equal representation is defined in two ways in the Constitution—by persons in the House of Representatives, and by states in the Senate. Even given the principle that every person of a defined kind has equal voting rights, the ways that people are grouped to implement that principle make all the difference, as is demonstrated by gerrymandering and by the timing of elections in a parliamentary system. Another implementation issue arises in EM exchanges: What is the appropriate delay before reciprocating? Should you invite someone to dinner in return for a dinner the next day, the next month, or the next generation? And there are crucial categorization issues in what counts as equal: In return for someone's attendance at your barn-raising bee, do you have to go to their barn-raising bee, or can you go to a harvest bee or two husking bees instead? If someone has you over for filet mignon, can you reciprocate by inviting them over for hamburger?

Similar issues arise in the other models. Although the formal structure of MP is the same regardless of the actual prices of particular commodities, in real life the relative prices of things profoundly affect human welfare, and the process of price setting is an important culturally shaped social act (see Prus, 1985). Furthermore, what counts as an offer of sale or a bid to buy, and the conditions under which one can acceptably withdraw from such an agreement, are quite variable. Similarly, what it is like to live in a system of AR depends on whether people are ranked by age, gender, race, inheritance of or succession to office, or various kinds of achieved status, such as competitive appointment, election, productivity, or originality and value of work. The same principles of cultural relativism in implementation apply to CS. Moose kin who are in a close CS relationship share living space, work, child care, food, possessions, land, and other resources in a way that most Americans would find astonishing and intolerable: Moose seem to lack any privacy, autonomy, or freedom. Conversely, Americans in a close CS relationship share thoughts, attitudes, feelings, personal history and experiences, plans, and intentions in a way that would be inconceivable to Moose: Americans seem to lack any privacy, autonomy, or freedom. The principle of social equivalence is the same in both cases, but the substantive issue of just what is shared makes the cultures subjectively very different. Cultures also differ greatly in how widely they apply each model, how much they value each model, and in their relative use of each one to explain human conduct and human nature.

The cultural rules for the application of the elementary models often permit people to adopt different models on different occasions or to realize different potentials in any social situation. For example, Galaty (1982) has shown how East Africans use the ethnic term *Maasai* as a pragmatic shifter to vary boundaries to include or exclude different people in their CS ingroup.

C. Geertz (1974/1984) showed that this contextual relativism of inclusion and contrast is also characteristic of the *nisha* appellations that define personal identity in Morocco in terms of nested and overlapping social categories. In my experience in Burkina Faso, speakers of the Moore language use the ethnic term *Moose* in much the same shifting way to mean "we here," (in contrast to disparaged others).

The same phenomenon is observable in AR. Although it is obligatory for Wolof speakers in Senegal to greet each other at every encounter and to mark social inequality in every greeting, Irvine (1989) showed that people seek to implement either high or low relative AR positions depending on whether they wish to assume the responsibilities of superior rank or prevail upon the other to do so. Wolof speakers also use paralinguistic metacommunication to indicate the speaker's stance relative to the AR position he or she is linguistically asserting at the moment, and there are rules for the ironic assertion of rank in prescribed joking relations. In many other languages, marking of AR or CS relationships is also obligatory, but the linguistic markers are in turn partially constitutive of the relationship (e.g., Brown & Gilman, 1960; Galaty, 1982; H. Geertz, 1959/1974; Silverstein, 1976). Hence language allows creative flexibility in defining relative status.

In summary, each of the four universal models can be realized only in some culture-specific manner; there are no culture-free implementations of the models. Each model leaves open a number of parameters (variables or options) that require some determinant setting. The models cannot be operationalized without specifying application rules determining when and to whom and with regard to what they apply, and without setting some parameters about how they are to be put into practice. However, comparatively little is known about the historical, cultural, social, and psychological processes by which these implementation rules are formed. A major problem for future researchers is the study of how people select a particular implementation of a specific model in any given context. People are probably guided primarily by cultural rules; if so, we need to know how they acquire, encode, use, and modify these cultural implementation rules.

Tests, Functional Constraints, and Predictions

In this article I use inductive inference from previous studies to explore a theory that was built on ethnographic research. A number of readily falsifiable hypotheses derived from the formal axiomatization of the theory have been stated, and many additional ones can be deduced. With respect to AR, for example, the theory predicts that nontransitive and incomplete social hierarchies will be rare and unstable. It also predicts that people in AR relationships will mark and pay attention to rank ordering but not to the interval distances between ranks (in contrast to people using EM).

We (A. P. Fiske, Haslam, & Fiske, 1991) have already tested the relational models theory empirically, using naturalistic data. Naturally occurring social errors were used to explore the cognitive structure of social relationships. Seven studies examined the patterns of substitution that occur when people confuse one person with another. Two investigated instances in which people called a familiar person by the wrong name, one examined memory errors in which people misremembered

with whom they had interacted on some occasion, one looked at actions that were mistakenly directed to an inappropriate person, and three encompassed all three kinds of errors. All seven studies provided support for the theory: There is a strong and consistent tendency in all kinds of errors to confuse two people with whom the subject interacts in the same basic relationship mode. The pattern of errors suggests that these four modes of relationships are salient in everyday social cognition. Subjects also tend to confuse people of the same sex, same race, and similar age, as well as people whom they describe by the same role term. But the effects of the basic relationship mode were independent of most of the effects of the attributes inhering in the person, and remain significant after partialling out the other predictors that are correlated. Recency and frequency of interaction and sound-similarity of names had small effects on the substitutions. These results have been replicated in studies of subjects from Bengali, Chinese, Korean, and Vai (Liberia and Sierra Leone) cultures (A. P. Fiske, 1992b).

Another study found that in an unstructured memory task, people often use the four models to organize memory for acquaintances (A. P. Fiske, 1992c). In fact, many subjects use the four models to recall their acquaintances more than they use the acquaintances' personal attributes such as gender, race, or age. The relational models are also good predictors of subjects' naive sorting of their own relationships and their similarity judgments among them (Haslam & Fiske, *in press*). The relational models correspond to both student and nonstudent subjects' relationship clusters better than Mills and Clark's (1982) theory of communal and exchange relationships, and better than MacCrimmon and Messick's (1976) game theoretic theory of social motivations. Parsons and Shils's (1951) pattern variable theory of role expectations and Foa and Foa's (1974, 1980) theory of types of resources are also good predictors of subjects' relationship clusters, but no better than the relational models theory. Haslam (1992) studied subjects' prototypicality ratings of hypothetical relationships, as well as subjects' ratings of features of their own personal relationships. The categories of the relational models theory were supported over dimensional, complementarity, or graded prototype representations. All together, there is strong and unequivocal support for the theory from 19 empirical studies using diverse methods testing six different predictions of the theory on a wide range of subjects from five cultures.

There is inductive evidence for many more hypotheses that remain to be tested deductively. Although there is great variation across cultures, there are modal, perhaps even natural or default implementation rules. CS is the characteristic and predominant mode of relating to close kin (Fortes, 1963/1970, 1983), especially young children (M. Marshall, 1977). AR is typical of the relationships between parents and children, between other people of different ages, and often between men and women. EM tends to be manifest in relationships among agemates and other peers. MP relationships are most common in large-scale, complex societies. However, these characterizations should be treated with caution. It is not only that people relate to different kinds of people using different models; perceptions of what kind of person someone is depends considerably on the model a person is implicitly using to relate to the other person.

What are the consequences of—and hence the constraints

on—organizing an activity according to each of the four models? It is possible to use any of the four models to organize any aspect of social relations, and cultures exhibit great diversity in their modes of organizing every domain of social life. However, I predict that the four models do not all work equally well in every domain, and each is dysfunctional for some purposes in some contexts. Making decisions in a CS mode is cumbersome and time consuming, and often results in no decision at all if participants cannot reach consensus. A military organization that made combat decisions by CS would probably be defeated before it chose a strategy. Another problem is that people avoiding dissension and breach of CS solidarity may not express qualms or raise problems, which can result in disastrous misjudgments (Janis, 1982).

Authority ranking has diverse functions and disadvantages. As a mechanism for allocating resources according to age or achievement, AR has the motivational advantage that people can look forward to ever-increasing rewards. AR permits rapid decisions and coordination of actions and information flow, and is therefore adaptive for military organizations and crisis management. AR also facilitates secrecy of action and information, which has both functional or dysfunctional potential. As a form of organization, AR is vulnerable to the fact that subordinates may be the only source of information about their own actions, making it difficult to assess their performance. Furthermore, ambiguous implementation rules make many AR political structures precarious and make their succession transitions unreliable: bloody coups and civil wars are common. An examination of the collapse of the communist economies around the world would indicate some of the problems of using AR to govern production and distribution on a large scale. Such aspects of AR predict the circumstances under which it will work, and when it will be unstable.

A striking finding of Udy's (1959, 1970) cross-cultural survey of the organization of work is that, whereas EM is widely used as a means of obtaining supplementary labor at times of peak demand or for tasks that require massed labor, it is never the primary mode of organizing the core group for the entire cycle of production. The history of the kibbutz movement in Israel also suggests that the organization of work by EM alone cannot be sustained. This suggests the hypothesis that EM must be deficient as a model for organizing labor. This is probably because a complete cycle of production can rarely be broken down into tasks that are all the same, and because often there is no great functional advantage in balanced reciprocal exchange of the same task. In contrast, EM is a pervasive, functionally important mode of exchanging material things and hospitality in a great many cultures. It is relatively easy to generate matching meals or objects and to keep track of the number owed to someone. As innumerable anthropologists have demonstrated, taking turns giving and receiving things creates new bonds and strengthens old ones.

Weber (1922/1978) compared many other aspects of AR (charismatic and traditional) and MP (rational-legal) organizations, and made the inductive prediction that organizations based on AR tend to transform themselves toward MP. Ever since Adam Smith (1776/1976), it has been clear that a market system governed by prices can be the most efficient mechanism for organizing large-scale production and exchange. In part this is because MP facilitates division of labor and techni-

cal specialization, and in part because of its emergent property of conveying information about utilities and costs, permitting the use of this information to guide allocation decisions. On the other hand, many kinds of public goods cannot be produced and allocated by MP alone (e.g., infrastructure, such as roads and beacons for navigation, military defense, public health systems, and education).

Many of these functions and disadvantages, and other factors that affect their use and distribution, are largely inherent in the axioms of the four relational structures and the operations defined within them. For example, comparison of mixed baskets of different commodities requires the distributive principle, which is only defined in MP; with EM's operation of addition alone, it is impossible to construct a system of prices and the complex indirect exchange calculations they permit. Consider another example: AR implies that there should be some difference in, for example, how much each person receives in a distribution, but leaves open how much difference. This allows adaptive flexibility in some circumstances, but may also make distributions unpredictable; people cannot make plans on the basis of reliable predictions about what they will receive. This ambiguity may even generate conflict that cannot be resolved within the framework of the model itself.

In the same way, there are limitations inherent in the CS model that affect when it will be used and the consequences of using it. Because people in a CS group are not differentiated, there are no transaction costs associated with assessing or monitoring contributions or consumption. This makes CS useful for distributing some important resources, including things as varied as drinking water; access to paths, sidewalks, and roads; or radio and television. On the other hand, distribution of resources according to CS is vulnerable to the problems economists discuss under the rubric of *free riders*. If there is a mismatch of the kind that Hardin (1968) described between asocial motives and a CS structure for allocating resources, then resources will tend to be depleted, sometimes irreversibly, and one of the other models will have to be adopted. Moreover, the equivalence relations that define CS are inherently binary: Either people are equivalent to me, or they are not. This makes it impossible to make graduated differentiations among people (except over time, by repeatedly shifting the group inclusion equivalence rule). Although working communally may promote effort and increase immediate productivity among people who identify with each other, it also makes it impossible to assign tasks by ability, or to specialize. Hence, as Durkheim (1893/1933) pointed out, work organized along CS lines lacks the long-term productive potential characteristic of division of labor based on differentiated complementarity.

Many other observable patterns in the human use of the four models suggest further factors affecting their use. Food and drink, especially at the moment of consumption, appear to lend themselves to CS: people tend to eat and drink communally. More broadly, it appears that the mode in which people relate is affected by three correlated factors. The more often people interact, the longer the relationship endures, and the greater the number and diversity of domains in which they interact, the less likely they are to use MP and the more likely they are to relate in a CS mode; EM is in between. A distance metaphor of relational closeness is often used to describe this tendency (e.g., Sahlins, 1965). The tendency to use AR seems to

be largely independent of these factors: Among AR relations are found infrequent, brief, circumscribed interactions (police officers with civilians), as well as frequent, enduring, and diverse interactions ("traditional" fathers with children).

I have been considering various functional constraints on the use of each of the four models. The converse perspective concerns the effects and correlates of the use of each model. Here I may fruitfully follow the intention of Thompson, Ellis, and Wildavsky (1990), who used Douglas's (1978) two-dimensional grid and group theory of the modes of social control. They argued that whole societies can be characterized by the predominance of one or another of four modes of social control, and that many aspects of culture can be predicted from the form of social control. The facets of culture that they related to the four grid and group social control quadrants were views of human nature, myths of nature (ecological relationships between humans and natural resources), ways of life (strategies for managing needs and resources), reactions to surprise, basic preferences or desires (including forms of blame and envy, as well as interpretations of apathy), approaches to economic growth, and perceptions of scarcity and risk (see also Douglas & Wildavsky, 1982). Douglas's grid-group theory is explicitly functional, and Thompson et al. derived from the functional limitations a pluralistic, dynamic theory of the cycle of transitions from one form of social control to another. In this objective, too, future development of the relational models theory should follow their example. But sometimes they simply affirm dynamic cycles and derivations of cultural ethos from social structure without explaining the theoretical basis for these deductions or offering empirical evidence in support. Nevertheless, their approach provides an interesting alternative to Marx, as well as to Harris (1974) and other cultural materialists. The dynamics of the relational models need to be worked out in this manner to determine how systems of cultural and personal meaning derive from modes of relating, and how each model generates the conditions for its replacement by others.

In What Sense Are These Models Elementary?

Are there only four elementary modes of relating to people, or are there others? Although previous researchers have repeatedly found one, two, three, or occasionally all four of these models in various domains, no other elementary form (aside from null or asocial interactions) has consistently emerged. Considering the convergence in the repeated independent discoveries of the four elementary models, the fact that the literature offers no obvious candidate for a fifth or sixth model suggests that the basic set of four may be exhaustive. Yet it is impossible to demonstrate empirically that any and all social behavior can be explained in terms of these four models, and there are many other factors that commonly impinge on social behavior. There are innumerable influences on human interaction, from sexuality to sense of humor, from hunger to esthetics, from illness and pain to language and music, from the signal processing capacity of human hearing to the constraints on human memory. Although these factors and various special purpose schemata operate in many specific situations, no other models operate in all domains of social life in every culture. Moreover, the four relational models are uniquely important because they share certain features that make them especially powerful and perva-

sive forces in social life. A. P. Fiske (1991) described the major psychological, ontogenetic, sociological, and cultural features of the four basic models in some detail. From this analysis six features can be derived that any other model should have before it could be called fundamental and universal. The four relational models are the only known social models that exhibit all six of these features. Each has come up already at one point or another in the preceding discussion, and together they summarize many aspects of the relational models theory.

1. People believe that they should adhere to the models, and insist that others conform to the four models as well ("You should really share the work with her—it's your joint responsibility!"). People modify their relationships with others according to whether they conform to the models in their relationships with third parties. Thus, actions that violate these models have ramifications for other relationships. For example, a person who blatantly flouts EM by never doing his share of the work will find that this tends to jeopardize his other relationships ("He's a selfish slob—did you see how he left all the work to her! I don't want to have anything more to do with him"). This is the essence of the directive moral and legal character of the four models.

2. People often attack those whom they perceive to be profoundly violating the elementary relationships; thus, the four models are the major sources of social conflict. Enmity and antagonism are generated and legitimated by the relational models, and when people make peace, they typically do so within one of these frameworks.

3. Another directive quality of the models is that people find each of the types of relationships intrinsically satisfying for its own sake, so that, for example, eating with others is a communal pleasure quite apart from the food that is consumed.²⁴ People also exhibit salient and distinctive sociocultural responses to the transgression of the four fundamental models. Furthermore, people have particularly strong emotional reactions to loss of these relationships.

4. The models operate in disparate domains in many diverse cultures, providing the templates for most of social life: As this review suggests, no other models seem to function so versatily and universally in the production, comprehension, coordination, motivation, and evaluation of social relationships. People have innumerable special purpose models and rules for specific social settings and groups, but these are the only four models that people regularly use in most kinds of social relations.

5. A fifth feature which distinguishes the four fundamental models from most other relational structures is that they form an ordered set defined with respect to the relations and operations that comprise their formal structures. Each structure builds on the relations and operations that are meaningful in the previous structures, and incorporates additional ones as well. If other elementary models exist, they should fit into this well-defined Guttman sequence and have degrees of homogeneity and uniqueness that make them appropriate for social uses. In all probability, these will turn out to be the same features that make for good measurement scales, and there may be only five such structures. More work needs to be done to understand the social implications—in particular the functional advantages—of relational structures in which the same relational properties apply to all positions in the system and in which all the defined relations remain unchanged whatever the parame-

ter settings. Yet it seems intuitively sensible that these properties would make these structures singularly effective in constructing many aspects of a variety of social relations in diverse environments.

6. The sixth kind of evidence suggesting that at least two of these models are elementary is that they correspond to social structures that are widely observable in other mammalian genera and vertebrate families. It is not clear whether this congruence represents homology (phylogenetic continuity) or analogy (convergent evolution). However, patterns of social behavior and aggression corresponding to both sides of CS are evident in many other phyla, including the social insects (Wilson, 1971) and many social mammals (e.g., van Lawick-Goodall & van Lawick-Goodall, 1970). W. Hamilton (1963, 1964, 1971) and others have hypothesized that there is an evolutionary mechanism, *kin selection*, for treating others as equivalent to oneself. According to this theory of *inclusive fitness*, organisms are indifferent as to which individual transmits identical copies of a given gene into the next generation. What is still not adequately understood, however, is what psychological mechanisms trigger this sense of common identity in humans.

AR, too, is not without phylogenetic antecedents. *Dominance hierarchies* are common in other social vertebrates, apparently conferring adaptive advantages on submissive as well as dominant animals (e.g., Cheney & Seyfarth, 1990; Guhl, 1956; Packer, 1979; Sade, 1967). As Wade (1978) pointed out, the linearity of most such dominance hierarchies demonstrates that animals are observing interactions among others and making transitive inferences on the basis of a cognitive schema of linearity. Dominance hierarchies are not simply the mechanical result of dyadic differences in size, strength, or aggressiveness. Human AR is more complex than the dominance hierarchies of any other species, but its formal structure is homomorphic.

Axelrod and Hamilton (1981), Kurland and Beckerman (1985), and Axelrod and Dion (1988) analyzed the tit-for-tat model of the evolution of EM cooperation, showing that it is initially adaptive even when it is a rare strategy, and that it is also evolutionarily stable and resistant to incursions. However, there is no evidence for any other species actually making precisely balanced one-for-one exchanges or equal distributions, or using subtraction to keep track of the magnitude of imbalance conferred. As regards MP, it is an even clearer and more striking

²⁴ It is not so obvious that this is true of MP relations, which are commonly assumed—probably erroneously—to be purely a means to other ends. However, the research on achievement motivation can be construed as evidence that (to varying degrees) people enjoy interactions involving strategic cost-benefit calculation for the sake of the MP relationships themselves, not as instrumental means to any extrinsic end. As McClelland (1961/1976) pointed out, this explains the entrepreneurial behavior of enormously wealthy people who tend to wheel and deal and risk their fortunes when there is no material incentive to do so. Buying and selling seem to have their own intrinsic social rewards. Nevertheless, it does appear that there is a graded series in which the strongest and most consistent motivations (and emotions?) may be derived from CS, somewhat less strong ones from AR, and generally weaker ones from EM, whereas the weakest and most variable social motives are products of MP. If this is true, it may possibly be a reflection of the relative phylogenetic depth of consolidation of the four models.

fact that no other species uses money, labors for a wage, pays interest or rent, produces things just to exchange for other commodities, or even makes social exchanges or distributions at fixed rates. Indeed, these activities are absent or rare in some human societies. The issue is obscured by the fact that the origins, history, and contemporary developments in evolutionary theory are closely tied to economic theory, and the modern theory of natural selection is based on MP-like axioms; consider the uses of game theory in both fields today. Trivers (1971, 1974) and Dawkins (1989) offered theories about the social interaction strategies that an MP kind of economic cost-benefit analysis might yield. In short, there is good reason to believe that all four of these models enhance the fitness of social animals capable of using them and hence are products of natural selection (cf. Byrne & Whitten, 1988).

Besides communal sharing, authority ranking, equality matching, and market pricing, there seem to be no other social models that have very many of these features, and probably none that have all six of them. These four models appear to be the most important forms of sociality, and together they appear to be the primary organizing principles of most of human social life. On the basis of the supposition that these four structures are universal because they have evolved as the basic psychological structures that people use to construct relationships, the relational models theory makes three powerful predictions that can be treated as additional defining features:

1. Awareness of the four modes of relationship and motivation to impose the models on others will emerge spontaneously, in a fixed ontogenetic order (CS, AR, EM, MP), regardless of cultural context and socialization. For example, young children are aware of rank and concerned about precedence, and only later insist on taking turns and getting equal shares; then it is a long while before they care about proportional equity or understand the idea of prices and profit.

2. The models are *externalized*, not internalized: Children impose them on their social world before they learn the implementation rules for realizing them in a culturally appropriate manner. Children and adults coming into a new culture have to recognize and learn the culture-specific forms of these models. Acquiring these social forms in a new culture involves learning only implementation rules, not the fundamental structures themselves. Thus, immigrants do not need to learn by induction from personal experience about the social transitivity of rank in linear orderings; they only need to learn who takes precedence over whom with regard to what things in what settings. Rather than constructing the models anew by observation, each child comes equipped by evolution to understand them. Nor do children (or adults) behave in conformity with the models merely because they receive nonsocial rewards and punishments for conformity; they enact the models because they find them inherently meaningful, imperative, and rewarding—because these four kinds of relationships are ends in themselves.

3. In novel situations, people naturally tend to adopt one or another of these models to organize their joint activities. Thus, the prediction is that an isolated group of strangers from different cultures thrown together, say by a transportation accident, should spontaneously organize their decision making, foraging, and signaling for help according to just these models.

These features and predictions comprise some very far-

reaching new theoretical claims. With this set of four models, the relational models theory provides an integrative framework for a great deal of research and theory across the spectrum of core social science disciplines. Hence it promises to provide part of the foundation for the eventual development of a unified theory of social relationships. There is much work ahead to complete the foundation, and the final shape of the theory remains to be determined, but here is something to build on.

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