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## Introduction

People tend to describe their interpersonal encounters in terms of emotions and attitudes. After a party, we may remark: “It was an interesting evening,” “I felt very much at home,” “It was a drag,” or “I felt left out.” These statements do not describe what happened at the party; rather, they refer to the effect the party had on us. Expressions of mood, important in themselves, encourage us to ask such questions as: What excites or bores us? When do we feel included in or excluded from the group? More generally, we ask: What happens when two or more people interact? Usually, exchanges of certain “commodities” take place, and our satisfaction or dissatisfaction with an encounter depends on the outcome of these transactions.

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In many situations, the exchange is quite evident. In a shop, the buyer gives money and receives merchandise. At work, performance is exchanged for money. In other situations, the transaction may be less obvious. For example, I analyze a political situation, and you listen with interest and remark admiringly, “I never thought about that aspect before.” In another exchange, I smile at you, seeking your company, and you say, “We really should get together more often.”

In the first example, information was exchanged for an expression of respect. This exchange led to the remark “It was an interesting evening.” In the second example, the exchange of personal affection makes us feel accepted and wanted. If expressions of friendship, admiration, and knowledge are commodities, then a party is no less a marketplace than is the stock exchange.

Extending the notion of exchange to include all interpersonal experiences, we offer an apparently simple framework for analyzing social behavior. However, new questions arise from this concept. We know what satisfies people in the stock market. If we buy and sell stock at a profit, we describe the transaction in positive terms. We also know that in order to obtain desired merchandise, we have to give the shopkeeper a certain amount of money. But what can we do to obtain love? Can we be happy when our love is repaid with money? What should we give in return for respect? In general, do rules of economic exchange apply also to interpersonal exchange?

Spurred on by the relative success of economists in predicting and controlling behavior in the marketplace, social psychologists have attempted to apply the economic model to noneconomic exchanges, using the same rules for *all* types of transactions. The assumption that every transaction, both economic and emotional, follows the same rules caused disinterest in the problems of specifying and classifying exactly *what* is exchanged. If one assumes the rules to be the same for every transaction, it becomes irrelevant to state what is exchanged, and the only meaningful parameter in an event is the *amount* of the exchanged commodity. Another interesting but unfortunate consequence of imitating the economic model is that negative exchanges have not been recognized as transactions. For some reason, exchanges of the type “I shop-lift – you pick-pocket” have traditionally been of greater interest to lawyers than to economists. Similarly, interactions such as “I interfere with a pleasurable activity of yours – you express dislike for me” have often been called “frustration – aggression sequences”; their transactional nature has been ignored.

In a radical departure from these trends, we suggest that while all interpersonal encounters may indeed be perceived as transactions, the rules of exchange vary systematically for different types of transactions. Recognizing the existence of qualitative differences among transactions, we offer a system for sorting them into homogeneous categories. Moreover, the notion that the rules of exchange vary *systematically* across types of transactions suggests that these types are organized into a distinct pattern, or structure, according to their relative similarity and dissimilarity. Thus, similar transactions will have similar rules of exchange, while dissimilar ones will follow a different set of rules. In this manner, economic and psychological exchanges, though not equated, are considered within the same framework. Hence, allowances are made for the study of their interplay.

In resource theory, both positive and negative encounters are considered. Mutual deprivation becomes as much an exchange as does mutual provision. The notion of exchange is then expanded to include aggressive behaviors that were previously considered under a separate theoretical framework.

We shall begin our presentation by defining classes of interpersonal resources. Next, we shall describe the structure of these classes, that is, the pattern in which they are related to one another.

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## Definition and Classification of Resources

A “resource” is defined as anything that can be transmitted from one person to another. This definition is broad enough to include things as different as a smile, a check, a haircut, a newspaper, a reproachful glance, and a loaf of bread. Obviously, all these things cannot be grouped together. Conversely, if each is considered separately, we find ourselves burdened with an unmanageably long list of social transactions. Clearly, some resources are more alike than others in terms of their meaning, their use, and the circumstances of their exchange. Saying “Hi,” for example, has more in common with a smile than with the handing out of a five-dollar bill. Exploration of similarities and differences among various transactions has led us to suggest that the resources exchanged in interpersonal encounters could be usefully grouped into six classes: love, status, information, money, goods, and service. “Love” is an expression of affectionate regard, warmth, or comfort. “Status” indicates an evaluative judgment that conveys prestige, regard, or esteem. “Information” includes advice, opinions, instruction, or enlightenment but excludes those behaviors that could be classed as love or status. “Money” is any coin, currency, or token that has some standard unit of exchange value. “Goods” are tangible products, objects, or materials. “Service” involves activities that affect the body or belongings of a person and that often constitute labor for another.

One may wonder why time has not been included as a resource class since interpersonal behavior is often expressed as a function of time. Psychologists ask parents how much time they devote to their children and adults “spend time” with one another. Time, however, is not a resource per se, although it is a prerequisite for giving and receiving resources. As we shall see, the time required for exchange varies for different resources.

Personal space constitutes another requirement for interpersonal exchanges since space assures the privacy needed to avoid unwanted exchanges while one engages in the desired ones. Thus, space, like time, is not a resource class in its own right; rather, it is a factor that influences resource exchange.

Another resource that appears to be missing in the present classification is sex. This important element of human life is a combination of love and services. In some sexual relations, love is prevalent, while other relationships are characterized by the mutual exchange of services. This characterization of sexual behavior indicates that a classification of resources is not identical to a classification of interpersonal behavior. The relationship between behaviors and resource classes will be examined later.

Obviously, the classification of resources proposed here is not the only possible one. Many other ways of grouping exchanges can be, and indeed have been, suggested. What, then, makes a certain classification more acceptable than another? A good classification should generate testable hypotheses that will be empirically supported and provide parsimonious explanations of interpersonal behavior that can be applied to practical problems. This unit constitutes an attempt to justify, using these criteria, the classification we propose. We shall begin by advancing hypotheses on the structure of the classes, the pattern in which the various resources are related to one another. This issue will be approached in two ways: first by identifying aspects of which classes are more or less similar to one another and then by considering how these classes become progressively differentiated in the social development process of the child. As we shall see, both approaches converge on the same structural pattern.

### **Differentiating Attributes of Resource Classes**

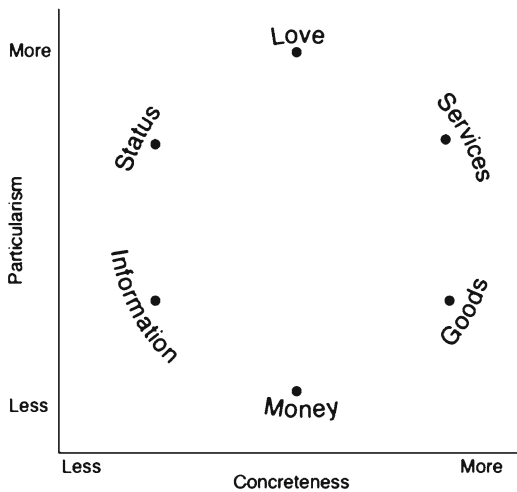
Having defined six resource classes, it is natural to inquire about their relative similarity. Which of them are similar to one another and which are different? In order to answer this question, we must

determine the attributes or characteristics by which similarity will be judged. Various alternatives are possible, suggesting different patterns of organization. The choice made will be correct to the extent that it is later supported by empirical results.

The attributes we chose for ordering the classes were concreteness versus symbolism and particularism versus universalism. The notion of particularism is derived from the writings of Talcott Parsons (1951) and Longabaugh (1966) and is similar to Blau's (1967) notion of intrinsic and extrinsic rewards. This attribute indicates the extent to which the value of a given resource is influenced by the particular persons involved in exchanging it and by their relationship. Changing the bank teller will not make much of a difference for the client wishing to cash a check, but a change of doctor or lawyer is less likely to be accepted with indifference. One is even more particularistic with regard to a friend, a spouse, or a mother. Indeed, Harlow and Suomi (1970) showed that when the facial features of a surrogate mother are altered, the baby monkey reacts with fear, refusing to accept the change. In some animal species, certain communications are more target specific than other. Mating calls are more particularistic than status signals, and the latter are less general than distress or alarm signals (Johnsgard 1967, pp. 71–72).

Love, the most particularistic resource, is at one extreme of this coordinate. Money, the least particularistic resource, is situated at the other extreme. It matters a great deal from whom we received love, for its reinforcing effectiveness is closely tied to the person stimulus. Money, however, is the most likely of all resources to retain the same value and meaning regardless of the relation between, or characteristics of, the reinforcing agent and the recipient. Service and status are less particularistic than love but more particularistic than goods and information, which are more universalistic.

The concreteness attribute ranges from concrete to symbolic and suggests the form or type of expression characteristic of the various resources. Some behaviors, such as handing an object or performing an activity on the body or the belongings of another individual, are quite concrete. Other forms of expression, such as



**Fig. 2.1** The cognitive structure of resource classes (Reprinted by permission of American Association for the Advancement of Science, 1971)

language, posture of the body, a smile, a gesture, or facial expression, are more symbolic. Services and goods involve the exchange of some tangible activity or product and are classed as concrete. On the other hand, status and information are typically conveyed by the more symbolic verbal or paralinguistic behaviors. Love and money are exchanged in both concrete and symbolic forms; thus, they occupy an intermediate position on this coordinate.

The plotting of each resource class according to its degree of particularism and concreteness produces the structure of resources presented in Fig. 2.1.

In Fig. 2.1, resource classes are shown as discrete and neatly separated from one another. It would be more accurate, but more confusing, to present each resource class by a segment that merges gradually into its neighboring class on both sides. We should remember that the resource classes assign meaning to actions but are not a classification of actions. Consequently, each class covers a wide range of actions that all convey the same resource. For example, one person can convey his liking for another by verbal means, by a smile, by a kiss, or by some other display of affection. Thus, for any given resource class, there are some forms of expression that are closer to one neighbor than to the other. A verbal expres-

sion of love, such as “I like you very much,” is symbolic and thus is more closely allied to status than to services. Conversely, fondling and kissing are concrete ways of expressing affection and are closer to services than to status. Services to the body are proximal to love, while services to one’s belongings are nearer to goods. A credit card can be considered a form of money, but it is more particularistic than currency; not every merchant will honor a credit card, and the card is not issued to everyone. This form of payment is also more symbolic than currency. While currency actually changes hands, nothing concrete is given in a credit card payment. Therefore, a credit card will be nearer to information than currency. In fact, the card provides information on the solvency and reliability of the holder.

Generally, the many different expressions conveying various resources can be seen as arranged along the circular continuum of classes depicted in Fig. 2.1. This continuity is responsible for the permeability of the boundaries among resource classes and for the structural relationship among them. But if the boundaries are so permeable, one might question the usefulness or the accuracy of the proposed classification. We may answer the question in empirical terms. As long as events of the class tend to be more like each other than like events of different classes, it will be possible to obtain empirical evidence for the categories we have established.

## Structure of Resources and Interpersonal Behavior

Some colleagues of ours questioned the usefulness of resource classification noting that actual interpersonal behaviors can seldom be categorized into class. Usually, an expression of friendship conveys some implication of esteem. A gift brings both goods and love. Advice provides information, but it may at the same time deprive the advised one of status. Services often involve provision of goods, as, for example, changing parts while repairing a car. The physician or the lawyer gives not only information (on the state of your health or the strength of your case) but also

services – or the preparation of a legal document. Clearly, more than one resource can be given or taken away in the same act. What then is the relationship between the structure of resource classes and interpersonal behavior? To answer this question, we first need to remember that in the present context, classes represent the *meaning* of interpersonal behavior, rather than the actual musculoskeletal pattern of movement or the verbal manifestations involved in such behavior. Raising a clenched fist or an open hand involves similar movements, but their meaning is different, so they belong to different classes. Conversely, smiling and waving the hand differ greatly with respect to the movements and body parts involved, yet they share the same meaning – both convey liking.

In any interpersonal encounter, behaviors acquire their meanings through a process of categorization. John calls Sue and invites her to the movies. Sue receives the message and classifies it as an expression of admiration for her. Now, she must reciprocate by choosing an expression from the classes available to her. If she accepts the invitation, she has chosen an expression from the class “I like you”; if she rejects the invitation, she has selected from the class “I do not like you.” In general, a message received is assigned to one or more cognitive classes, and a message sent originates from one or more such classes. Since classes are related in the cognitive structure, it is likely that when one class is activated by a given behavior, other proximal ones will also be activated, although to a lesser degree. Therefore, classes are close in the structure when, in the previous experience of the person, they were frequently involved in the same behavior, and the more frequent the association, the closer the relationship. If, for example, past behavior brought love and status together more often than love and money, this earlier experience will be reflected in the structure by having love closer to status than to money.

With these considerations in mind, we can describe the relationship between resources and interpersonal behavior in the following two propositions:

1. Every interpersonal behavior consists of giving and/or taking away one or more resources.

2. Behaviors that involve closely allied resources occur more frequently than behaviors that involve less closely related resources.

In a way, the structure of resources can be compared to the table of chemical elements. Both reduce the great variety found in nature to fundamental structure of relatively few basic components and permit us to formulate rules about the manner in which they combine. Certain chemical elements, such as iron and copper, are always compounded with other elements in the natural state. Similarly, a resource such as love is most often found in combination with other resources. For example, the expressions “I am fond of you” and “You are a great guy” both convey love and status. The first expression emphasizes love, while the second one focuses on status. If we disregard these relative emphases and we concentrate only on whether or not a specific resource is involved in the behavior in question, it becomes simpler to compute the number of possible interpersonal behaviors. Given six resource classes, each of which can be given or taken away, the number of combinations possible in our scheme is 4,095 and includes behaviors that may never be found in practice. In fact, relatively few of these behaviors occur very frequently, and they involve resources that are close to each other in the structure (see Fig. 2.1). Behaviors that involve distal resources, on the other hand, occur less frequently. When three or more classes are involved in a single behavior, by necessity, some will be distal from one another; therefore, such combination will be rather infrequent in actual life. Indeed, it does not often occur that we receive love, respect, money, and goods, all in single act of behavior.

The structure of resources thus provides a framework for the systematic classification of interpersonal behavior and for predicting the frequency of occurrence of each act.

### Structure-Related Properties

We shall now consider several variables on which resource classes differ systematically from one another. Once again, however, neighboring classes

will be more similar on these properties than distal ones. Some of these properties refer to the environmental conditions (or institutional settings) that aid or hinder the exchange. A small group, for example, is more suitable for exchanges of love; a large group facilitates exchange of money. Some other properties bear upon the effects of resource exchange on the motivational state of the individual. Giving to self and to another, for example, is related positively for love and negatively for money. Consequently, when one exchanges love, he becomes richer, while after giving money, he is poorer. This property reflects a cognitive state (self and other are less differentiated for love than for money), which, in turn, determines differential rules of exchange for the various resources.

In those properties that have so far been identified, love and money differ most. This suggests that the particularistic dimension may be the more relevant one, as love and money are at its opposite poles. By stating the values appropriate to love and to money on each characteristic, we shall provide also an approximate idea about the values of other resources. Services and status will be similar to love, while information and goods will have values closer to money.

### **Properties Affecting the Motivational State**

We have identified six properties that influence the balance of resources after the exchange has taken place.

#### **Relationship Between Self and Other**

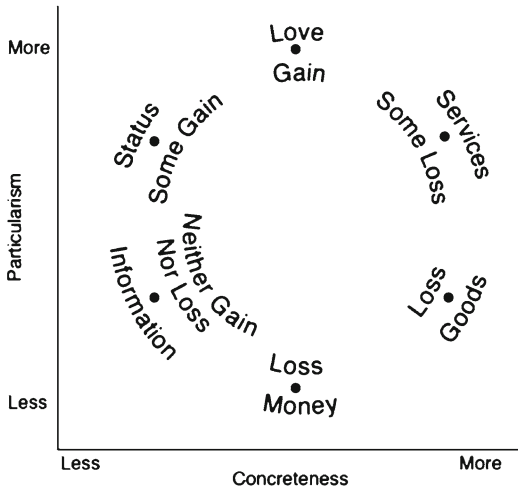
It is proposed that the relationship between the amount of resource given to the other and the amount left to self is positive for love and that it decreases and becomes negative as one moves along the structure toward money.

The relationship between giving love to self and to others (as well as between taking away from self and from others) is positive. The more we give love to the other, the more is left for ourselves. For status, the relationship is still positive but weaker. Giving information to another person does not appear to decrease or increase the amount possessed by the giver. It can be

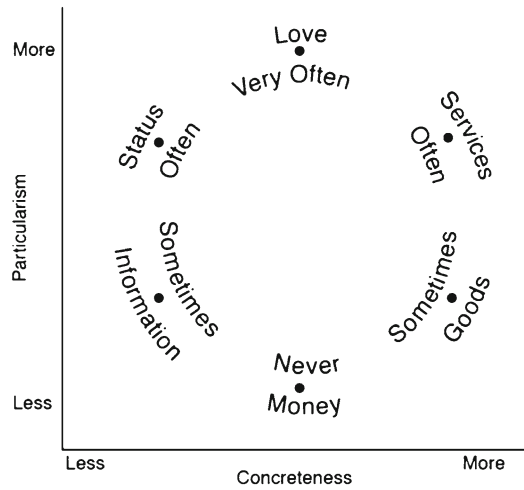
argued, however, that sharing may reduce the value of the information if the situation is competitive, that is, if the information concerns industrial or military secrets. On the other hand, transmission of information may also result in some increase of information available to self, as when repressed information is brought to the surface during a psychotherapeutic session. Similarly, misleading another person (depriving him of information) does not change the amount of information possessed by the deceiver, except for the eventual knowledge that the victim has been duped. On the whole, it appears that the amount of information left to the giver is independent of the amount he has given so that information is characterized neither by positive nor by negative relationship between self and other. Strong negative relationship is characteristic of money and goods, where giving to another definitely reduces the amount left for the self. Service may show a more moderate but still negative relationship. Performing a service for another person usually results in physical discomfort for the performer as it involves expenditure of energy. In general, the relationship between giving to other and to self appears to change gradually for the various resources, varying with their positions in the structure. Love has the most positive relationship; status is less positive; information is independent; money and goods are most negative. Service is again less negative. In conclusion, giving to another will sometimes result in a gain for the person who gives and at other times will cause a loss to him, depending on which resource is transferred. The effect on the self of giving to another is shown for each resource class in Fig. 2.2. For taking away from the other, the effect on self will be opposite to the one depicted in the figure.

#### **The Relationship Between Giving and Taking**

A positive relationship between giving and taking, denoted by the term "ambivalence," usually refers to love exchange. It is not possible to describe money transactions as ambivalent. Indeed, the relationship between giving and taking is most positive for love. One can love and hate the same person simultaneously. Ambivalence regarding



**Fig. 2.2** How much does one gain or lose by giving to others



**Fig. 2.3** How often giving and taking go together

status, lower than for love, is well expressed when we say that we “pay respect grudgingly.” Still, less ambivalence is found in information, although some erroneous, misleading, or ambiguous item may be included in a given transmission of information. Likewise, information that is mainly erroneous may contain some correct items; sometimes, one tells “half the truth.” Money exchange allows no ambivalence since giving money appears to exclude taking it away. Ranking of resources by decreasing degree of ambivalence has so far followed the structural order. If this rule is valid for the remaining resources, ambivalence will increase as we approach the most particularistic resource, love, from the other side of circle. The extent to which giving and taking occur jointly may be slightly higher for goods than for money; defective goods may actually cause damage. The “ambivalence” of services may be higher than that of goods. It may happen that some damage is done in the performance of a service: The barber may cut the client’s skin, the physician may cause some damage to the patient’s body in the course of treatment, the mover may damage the furniture, and the housewife may burn the roast. These considerations suggest that the joint occurrence of giving and taking away will follow the circular structure of resources, being highest for love and lowest for money, in the manner depicted in Fig. 2.3.

It appears then that different resources *do not* follow the same rules of exchange. The unity of the system is, however, preserved by the fact that these rules change gradually along the structure and that they are similar for proximal resources. At one extreme, there is money, where giving to self excludes giving to another and taking away excludes giving. For money, then, each transaction can be described by a single value. If *A* gives five dollars to *B*, *A* has five dollars less and *B* five dollars more. As any accountant knows, the amount credited to an account should be the same as the amount debited to another account.

At the other extreme, there is love. Our accountant would probably tender his resignation if he were requested to keep books on love exchanges. Here, giving to the other often increases the amount left for self, but giving does not necessarily rule out a certain amount of taking away. It should be noted, however, that the same types of behavior, (giving and taking away, from oneself and from others) occur with money as with other resources. It is only the relationship among these behaviors that varies for different resources. When we understand the differing rules underlying interpersonal transactions, we can understand why attempts to extend the rules of money transactions to other resources have caused difficulties. The fact that one can give without reducing the amount in his possession

has been considered contradictory to the very notion of exchange (Cartwright and Zander 1968, p. 233).

Building on the notion that information, unlike goods, can be transmitted without loss to the giver, S. Rosen (1966) predicted that the monetary price demanded for information would be lower than for goods. To test this hypothesis, Rosen gave his subjects control of a box that contained three pieces of a jigsaw needed by another person in order to complete his picture and win points. Some subjects were given a key for the lock; others were told the combination for opening it. Both groups were asked to set a price for giving the key or the combination to the other person. The price demanded for the key was, on the average, higher than for the combination. This differential property of goods and information was neutralized in other experimental groups by stipulating that (a) the key would be used and then returned, and (b) the information on the combination would not be given to a third individual. Under these conditions, the prices for key and combination tended to equalize, particularly when the other person was expected to comply with these limitations.

### **Verbalization of Need**

We propose that the easiest need to express is the need for money, and the most difficult is the need for love. Statements such as “I demand an increase in salary” or “I have raise the price” are commonly heard, particularly in times of inflation. But a straightforward bid for love is relatively rare, even among intimates. This difference may be related to the degree to which verbal communication is suitable for the various resource classes. Language appears quite appropriate for money transactions. Love, on the other hand, is more easily expressed by paralinguistic communication, that is, by touching, expressions of the face, eye contact, body posture, or physical proximity. We often say that we have no words with which to express our feelings. Indeed, only poets can find words to express emotion; for common mortals, a misty look is easier to manage. The property verbal communication affects reciprocation and substitution of resources. In expressing a need

or in bidding for a resource, there is a tendency to “skid” toward less particularistic ones. A child in need of love may ask for a toy or some candy or he may complain of pain. A lovelorn adult may settle for professional success, for information, or perhaps even for money. On the other hand, a person who needs money is unlikely to ask for sympathy. Thus, substitution of one resource for another is not a two-way street. A less particularistic resource is likely to be substituted for a more particularistic one, but the transaction is not likely to move in the opposite direction.

### **Reciprocation in Kind**

A lonely individual who needs love will wish to meet another lonely person so that they will be able to exchange love. But meeting another pauper will not help the person who is short of money. Thus, the more particularistic a resource is, the higher the probability that it will be exchanged for the same resource, while nonparticularistic resource will tend to be exchanged for different ones.

In studying exchange preferences, it was found that choice of exchanging love for love was maximal – 96%. Following the structure of resources, the preference for same-resource exchange decreased gradually: Status was 81%; information, 75%; money, 66%; and goods, 54%; then the figure went up again for services to 75%. Although the data are restricted to exchanges in a specific social institution – friendship – they support the notion that exchanges within the same resource are more likely for particularistic than for nonparticularistic ones.

### **Range of Exchange**

This property refers to the number of resources with which a given resource may be exchanged. It is related to the “reciprocation in kind” property but does not necessarily follow from it. A given resource, although not often exchanged with itself, may be traded mainly for one or a few specific others. We propose that the more particularistic a resource is, the narrower is the range of resources with which it can be exchanged. Few resources can be exchanged with love, but several can be obtained for money; consequently, money



constitutes an appropriate means of exchange in several social institutions, while love is suitable only in a few.

### **Relationship Between Interpersonal Setting and Exchange**

Transmission of money does not require face-to-face interaction; it can be sent conveniently through a third person. Moreover, money may be kept for future exchange. Exchange of love, on the other hand, can hardly be separated from the interpersonal situation, and love cannot be kept for a long time in the absence of actual exchange or transmitted by an intermediary without incurring loss. This property is closely related to the *locus* of storage of the resource. Love is stored (but not for long) in the “heart”; money is kept at the bank or under the mattress. Some other resources can be stored either inside or outside the individual. Information, for example, can be memorized or recorded in writing or on tape or punch cards. Food can be stored in the refrigerator or inside the body as fat.

The relationship between the interpersonal setting and the resource to be exchanged influences the outcome of the exchange and, in turn, is influenced by the environment or, more precisely, by the level of technology. In cultures that do not possess a written language, information must be memorized, which is stored inside. Where food cannot be kept long enough to assure a steady supply, obesity is considered an advantage, but overweight constitutes a problem when freezing and canning are within easy reach. Thus, in a sense, this property mediates between the motivational states of the individual and his environment. Let us turn now to some of the properties that are more clearly influenced by environmental conditions.

### **Properties Affected by Environment**

The following properties indicate characteristics of the environment or institutional setting that will enhance or inhibit the exchange of a given resource.

#### **Time for Processing Input**

Giving and receiving love cannot be done in a hurry: It requires time and even some leisure.

Money, to the contrary, can change hands very rapidly. In an environment providing an overload of stimuli, those resources that require a longer processing time are more likely to receive low priority. Such selection will thus favor the less particularistic resources.

An experiment done by Teichman showed that subjects who allotted 15 min for affective exchanges were significantly less satisfied than comparable subjects who had 25 min available for the interaction. The number and content of love messages received by the subject were the same in both conditions so that subjects who interacted longer did receive the same amount of affection as those in the other group; the remaining time was filled by neutral messages. By contrast, increasing the time available did not alter satisfaction when the resource exchanged was money. These results support the notion that time available is a significant factor in love exchanges but not in monetary transactions.

#### **Delay of Reward**

Love is a relatively long-term investment, with rewards being reaped only after several encounters; a friendship needs to be “cultivated,” and a girl needs to be courted. Therefore, exchanges of love require the possibility of repeated encounters and trust, that is, high expectation that the transaction will be completed. On the other hand, an exchange of money with goods can be consummated in a single encounter and, at least in cash payments, does not require trust in the buyer. In an environment where most encounters are with strangers and are nonrepetitive, the less particularistic the resource, the more likely it is to be an object of exchange.

#### **Optimum Group Size**

It has been noted that in animal species living in groups, such as monkeys and apes, there is an optimum group size (Carpenter 1963). When the group becomes too large, behavior that disrupts its normal functioning appears to increase (Calhoun 1962). The work of Bailey (1966) suggests that such negative effects are obtained even when the increase in group size does not result in higher density. In Bailey’s experiment, density was kept constant by increasing the space

available to the animals in proportion to their augmentation in number. The sheer effect of group size, as distinct from crowding, may be explained by limitations in the cognitive capacity of the animals to handle an overly large number of mates.

As for human beings, it appears that the more particularistic a resource is, the heavier are its demands on cognitive representation for the following reasons:

1. The very notion of particularism implies that the uniqueness of the exchange partner as an individual is important; hence, there is a desire to obtain a large amount of information about him and to provide him with information about ourselves. Indeed, the significance of self-disclosure, particularly in relationship with intimates, was stressed by Sidney Jourard (1964). One of the first things lovers do is to exchange intimate information, and Mowrer (1964) has held that avoidance of self-disclosure is a major source of alienation from the group. Perhaps not by chance, the verb “to know” is used in biblical Hebrew to indicate sexual intercourse, a highly particularistic form of behavior.
2. The more particularistic a resource, the less it is amenable to external conservation. Therefore, it depends more on internal, cognitive storage: The very idea of a lover taking notes on the self-disclosure of his beloved sounds ridiculous.

In summarizing results of studies on group size and particularistic exchanges, Goldstein et al. (1966, pp. 340–341) noted the following effects of large groups: (1) “Sense of belonging” decreased (Miller 1950), (2) affectional ties among members decreased (Coyle 1930; Kinney 1953), and (3) the tendency to form subgroups and cliques increased (Hare 1962).

Latane and Darley (1969) conducted a series of experiments to identify variables influencing the willingness to help or to safeguard the well-being of another individual in an emergency situation. In our classification, helping belongs to the class of services, a neighbor of love. Latane and Darley varied the number of persons present in the emergency situation; they consistently found

that the probability of helping behavior decreased when the number of bystanders increased.

All these investigations indicate that exchanges of particularistic resources are more likely to occur in a small group than in a large one. By contrast, economic transactions appear to be facilitated by larger groups: Access to a wide market is considered advantageous by businessmen, shoppers will tend to prefer a store where sales are brisk, and brokers will prefer a stock or commodity exchange where many people convene. We can thus expect that in an environment of large-sized groups, nonparticularistic resources will be exchanged more than particularistic ones.

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## The Effect of Structure on Exchange

We have seen that in the structure of resources, certain classes are neighbors, while certain others are distant. Love, for example, is a neighbor of status but not of money. In psychological space, proximity indicates similarity; love is more like status than like money, and goods are more like services than information. Similarity among resources has some notable consequences. It means, for example, that neighboring resources can be substituted for one another more easily and more efficiently than distant ones (see Fig. 2.1). A person who needs love and fails to receive it is more likely to try to become famous (to achieve status) than rich (to obtain money). Moreover, acquiring status will satisfy the person deprived of love more than the accumulation of money would. Similar resources are more likely to appear together in the same behavior, as well as in a given exchange situation, and in a specific social institution. Let us examine some empirical evidence for these propositions.

## Similarity

In a study probing the notion of similarity, participants received a series of messages belonging to various resource classes. Their task was to return, from a prearranged array of resource messages, the message most similar, as well as

the one most dissimilar, to each message received. Experimental manipulation of their alternatives denied subjects the option of returning a message from the same resource class as the stimulus card.

The items used to represent the six resources consisted of short statements that were individually typed on 3 × 5 index cards. Examples of these items are as follows: I feel affection for you (love), you do things very well (status), here is my opinion (information), here is some money for you (money), here is a package for you (goods), and I ran that errand for you (services). Three messages were provided for each resource, giving a total of 18 different card messages.

All messages representing a given resource were pretested on another group of subjects to see whether they were perceived as belonging to the same class. These subjects (N = 11) sorted the total deck of 18 cards into as many different categories as they thought appropriate. Only one subject used more than six categories in performing this task. Although several subjects initially used less than six categories, in each case, this was a result of combining neighboring resources into the same category. The most common tendency was to use six categories of unequal Ns. Here again, it was always neighboring resources that were combined. The most common “error” was to combine love with status and/or goods with money. When further instructed to sort the cards into six different categories of three cards each, there was substantial agreement across subjects that each triplet of messages belonged to the same distinctive class.

With only a few exceptions, messages belonging to proximal resources were judged as most similar. Furthermore, those belonging to resources opposite to one another in the structure were chosen as most dissimilar. In the post-session interview, a substantial number of subjects volunteered the information that judgments about which message was most similar were considerably more difficult to make than judgments about which message was most dissimilar. Since the circular order depicted in Fig. 2.1 suggests two neighbors for each resource but only one resource in true opposition, these subjective reports are

consistent with the circular order, and they lend credence to the relevance of the scheme as a model for the cognitive structure of resource classes.

Support for the notion that proximity in the structure indicates similarity was also obtained from a study on degree of preference for various resources. Specifically, we tested the hypothesis that the degree of preference will be similar for neighboring resources.

An instrument called a “Social Interaction Inventory” was devised and administered to 120 college freshmen. In this inventory, the subject is presented with six situations in which he presumably gives a certain resource to another person. For love, the following situation is described to the subject: “You convey to a person that you enjoy being with him and feel affection for him.” For status, the subject is told “You convey to a person your respect and esteem for his talents.” For goods, he is told “You give a person certain objects that you possess.” Similar descriptive statements were provided for the other resource classes. After each statement, a series of items pertaining to various resources was given, and the subject was requested to rate the desirability of the item in reciprocation for the resource he had presumably given on a scale ranging from very desirable to very undesirable.

The following are samples of the return items. For love, “The person indicates that he wants to be your friend” and “The person says he is fond of you.” For status, “The person praises you” and “You are told that the person has confidence in your abilities.” For information, “The person gives you the benefit of his familiarity with a certain subject” and “The person makes you familiar with new facts.” For each resource, three statements were rated on a five-point scale.

As expected, it was found that the closer two classes were in the structure, the more similar were the preferences for them. Conversely, there was little or no relationship between degrees of preference for distal classes. When love was most preferred, the next preference would go to status and/or services (two neighbors of love), while preference for money was low. On the other hand, when money was very desirable, there was also

high preference for goods and low preference for love or status. Although the interrelationship among degrees of preference remained the same, the preferences themselves changed. Whether or not this change depends on the resource previously given was explored in another investigation.

### Exchange Preferences

When a person provides another with a certain resource, what resource will he prefer in reciprocation? Will his preference change according to the resource given by him? Will similar resources elicit similar preferences? In order to answer some of these questions, 160 freshmen at the University of Missouri, Columbia, were administered the "Social Interaction Inventory" in a slightly modified form. Instead of rating the desirability of each item, subjects were presented with pairs of items and instructed to choose in each pair the item preferred in exchange for the resource they had presumably given.

Once again, preference followed the structure, being similar for proximal classes and different for distal ones. Tendency to exchange within the same class was strongest for love and decreased as one moved along the structure toward money. Consequently, love was most likely to be exchanged for itself, while a wide range of preferences were expressed as exchange for money. It was further found that irrespective of the resource they "gave," subjects most preferred to receive love, while they least preferred to receive money. These results suggest that preference for a given resource depends not only on the resource previously provided but also on the institutional situation in which the exchange takes place; among friends or acquaintances (to whom the "Social Inventory" refers), love constitutes a more appropriate medium of exchange than does money. One does not expect to be paid when running an errand for a friend, but lack of appreciation expressed verbally will be resented. Conversely, a boss is expected to pay for work done by his employee; words of appreciation will not do as the sole compensation.

We have considered preference patterns in positive exchanges, where each participant gives something to the other. Will the same picture emerge when the exchange is negative, that is, when participants deprive each other of some resource? To answer this question, an inventory for negative exchanges was constructed. Subjects were presented with six situations. In each, they were presumably deprived of a given resource. Each situation was followed by presentation of alternative ways for retaliation. The subjects, 58 undergraduates at the University of Missouri, Columbia, were asked to indicate their preference for forms of retaliation.

The results were similar to those obtained for positive exchanges; thus, it seems that transactions of giving and taking follow essentially the same rules. The preference for particularistic resources that was already noted in positive exchanges was even stronger for negative exchanges. Regardless of the resource that was taken away from them, subjects preferred to retaliate by depriving their aggressor of love. In spite of this proclivity to withhold love, a tendency to exchange in kind was also evident: For each resource, the preferred form of retaliation was payment in kind. For example, the choice of misleading (taking away information) as a form of retaliation was most frequent when one had been previously deceived.

In the two investigations just described, subjects neither received nor were they actually deprived of resources; they were simply asked to state their reaction to hypothetical situations in which they could either gain or loss resources. A verbal report is not necessarily a reliable indication of what people do in *actual* situations. Indeed, many studies show that statements given by people regarding their reactions are not always identical with what they actually do. The next step, then, was to study actual exchange behavior.

### Actual Exchange

Investigation of actual patterns of exchange had two goals: (a) to clarify the rules by which resources are exchanged in social encounters and

(b) to compare actual exchange behavior with verbal responses to hypothetical situations and to note similarities and differences between them.

An experiment that was quite similar in format to the hypothetical negative exchange was set up. This time, however, subjects were actually deprived of a resource and then were offered a choice between two different resources for retaliation: one similar to the resource of deprivation and the other quite different (i.e., distant from it in the structure presented in Fig. 2.1). Subjects were 90 male students at the University of Missouri, Columbia, randomly assigned to six groups, 15 subjects to each group. The resource of which the subject was deprived and the two resources available to him for retaliation differed in each group.

Subjects were introduced to a partner of the experimenter, who was presented as another subject. They were told that the experiment was designed to study the effects of stress conditions on learning that followed a brief interaction between the “stress giver” and the “subject.” A loaded lottery always designated the subject to be the “stress provider,” while the confederate of the experimenter was always the “stress receiver.” In the first part of the experiment, subject and confederate were asked to build a model brick house; this joint task provided an opportunity for interaction, thus giving the confederate occasion for aggressing against the subject. Upon completion of the construction task, the confederate was removed from the experimental room under the pretext of instructing him about the learning task to follow. The subject was then provided with a sheet of paper on which two stress conditions were indicated. He was asked to choose the stress he would deliver to the confederate in the ensuing learning experiment and was left alone to make this choice. The subject preferred to retaliate by taking away a resource similar to the one that had been taken from him. Thus, most subjects who had been personally rejected, that is, deprived of love, by the confederate chose to insult him, that is, to deprive him of status rather than deprive him of money. On the other hand, subjects who had been deprived of goods chose money over status as retaliatory resources.

The only deviation from the predicted behavior occurred for subjects deprived of services: While we predicted that the subjects would express dislike for our confederate (love deprivation), they tended to retaliate by misleading him (information deprivation).

The overall pattern of preferences followed once more the structure of resources. Misleading (taking away information) was chosen most often, while deprivation of services – its opposite in the structure – was chosen least. The frequency of choice of other resources varied systematically between these two extremes.

Comparison between verbal report and overt behavior reveals that in both cases the pattern of preferences follows the structure of resources. However, the tendency found in verbal responses to prefer love retaliation disappeared when actual choices were observed; the experimental situation manifested instead an increase in the propensity for retaliation in kind. It seems that this difference between questionnaire and experimental results is due to differential degrees of arousal and inhibition. In the questionnaire study, the subject was requested to indicate his preferences for retaliation against a hypothetical frustrator. Since he was not actually frustrated, his level of anger arousal could not be high. In addition, the possible consequences of retaliation were unspecified in the questionnaire, probably leading to higher inhibition. In the experimental investigation, on the other hand, the subject was actually deprived and thus was more aroused. Furthermore, he was permitted to retaliate in the relative safety and legitimacy of a psychological experiment, which reduced inhibition and alleviated the fear of being subjected to further deprivation in response to retaliation. Thus, the questionnaire situation created low arousal and high inhibition, while the experiment produced higher arousal and lower inhibition.

When inhibition is high and arousal is low, one is more likely to heed the demands of social norms according to which some forms of retaliation are more acceptable than others. Purloining of money and goods, even in small amounts, frequently constitutes a crime punishable by law. A similar, but sometimes lower, degree of

legal protection is provided against bodily harm (loss of services). Giving false information or causing loss of status are not considered crimes, except in special circumstances. In free societies, there are practically no legal restraints against expressing dislike for a person (loss of love), and this form of aggression appears to be most socially acceptable. This acceptability is reflected in the preference for causing loss of love expressed by questionnaire respondents. On the other hand, the higher arousal and lower inhibition produced by the experimental situation combined to reduce the influence of social norms. Consequently, retaliation in kind was more frequent here than in the questionnaire study. Nevertheless, in both situations, closely allied resources were similar in degree of preference.

### **Consequences of Appropriate and Inappropriate Exchanges**

Respect for social values and fear of counterretaliation are instances of conditions that limit retaliation in kind and narrow the range of responses. The common experience of everyday life teaches us that we cannot always behave in the manner we would most prefer: One may find it advisable to refrain from pushing a strong fellow, arguing with a policeman, or insulting the boss. What happens, then, when one can retaliate only, with a resource that is quite different from the one involved in a previous deprivation? Will retaliation increase in intensity to compensate for inappropriate quality? If so, will this increased intensity effectively decrease residual hostility? These questions were explored in another experiment in which each subject was again deprived of a specific resource by a confederate of the experimenter, who pretended to be another subject. This time, however, instead of offering the subject a choice between resources, the resource available to the subject for retaliation against the confederate was predetermined by the experimenter. Some groups could retaliate with a resource similar to the one they had lost; for other groups, the available resource was quite different from the one they had lost. An occasion for retali-

ating was created by asking the subject to help the experimenter in another study in which the confederate was ostensibly a subject. While the resource itself was predetermined, subjects were free to set the intensity of retaliation. After the retaliatory act had been accomplished, residual hostility was measured.

Subjects were 120 female undergraduates recruited from introductory psychology classes at the University of Missouri, Columbia. They were divided randomly into six groups, 20 subjects to each group. The resource of deprivation differed for each group.

Half of the subjects in each group were then given the opportunity to retaliate against the confederate by subjecting her to expressions of dislike (taking away love); for the other ten subjects in each group, the available retaliation involved money. The opportunity to retaliate by deprivation of love was given under the guise of helping the experimenter to run an experiment investigating "behavior in conditions of deprivation." The subject was asked to set the intensity of an apparatus from which the confederate was to receive negative statements about herself. In money retaliation, the confederate was supposed to play against the machine and to lose money. The amount of loss was determined by the subject. In the love retaliation, the confederate would feed into the machine statements regarding her own behavior in a hypothetical group situation: The subject could then cause the machine to deliver negative responses to the confederate. These responses differed in intensity depending on the setting chosen by the subject. Twenty additional subjects who were not deprived provided a control group for ascertaining the effectiveness of the deprivation procedure. In summary, each subject was first deprived of a resource from one of the six classes; she was then given the opportunity to retaliate by taking away either love or money in the amount she wished. Hence, for some subjects, resources of deprivation and of retaliation were the same, or quite similar, while for others they were different. A measure of residual hostility was taken immediately following the retaliatory act.

The results indicated that the less similar the two resources were, the stronger the intensity of

retaliation was. The highest intensities were obtained for subjects deprived of love who could retaliate only by taking money and for subjects deprived of money who had love as the only resource of retaliation. We can conclude, then, that when a deprived individual can retaliate only in a resource that is distant from the one of which he has been deprived, his reaction is likely to be stronger than if he had a more appropriate avenue of retribution. It is not difficult to find practical applications of these results. They might explain, for example, the extensive destruction of property during riots and the decrease in this type of aggression as blacks are either given more status or become increasingly able to reciprocate in kind by taking away status from white people rather than by burning their shops. Since status and goods are opposite in the structure of resources, damaging goods is a rather inefficient form of retaliation for the deprivation of status suffered until recently by many black Americans.

When residual hostility was measured after retaliation had been completed, it was found that increased intensity of response did not compensate for retaliation with an inappropriate resource. Subjects who retaliated more strongly with an inappropriate resource were precisely those who exhibited the highest degree of residual hostility, thus reflecting a sense of dissatisfaction and imbalance.

We have seen earlier that the same exchange preferences hold for negative as well as for positive transactions. Does it follow, then, that the effect of inappropriateness in positive exchanges will be similar to that found for negative transactions? Imagine the reaction of a friend to whom you have confided intimate problems and who has expressed affection and care when he receives a check in return for his love; would this exchange satisfy your friend and preserve your relationship?

Some time ago, a graduate student came to the laboratory upset and angry. What had happened? A young professor with whom he maintained a close relationship had just moved to another house, and our student helped him pack his belongings. After they had completed the move, the professor insisted on paying him for his help. The student could not explain why this offer of

monetary reward upset him so. We thanked him profusely for bringing some evidence from the field for our ideas and explained to him that it was the offer of the wrong resource – money instead of love – that upset him.

Another case that we know of concerns a woman who had more than her fair share of personal problems and required a good deal of sympathetic attention from her friends. Busy as she was with her troubles, she could hardly reciprocate their affection. To make matters worse, she indulged in offensive remarks when her mood was bad. One of her favorite comments was that the color of our living room upset her stomach. After a number of these exploits, her friends would begin to desert her. At such a time, she would give a dinner party – she was an excellent cook – and invite the alienated friends. Then the game would start again. Was the good food a satisfactory exchange for the love she demanded and the loss of love and status she inflicted? Would her friends have been happier had she been able to reciprocate with affection?

These questions led us to conduct an experiment on positive exchange quite similar to the one described above on negative transactions. Again, the subjects were 120 undergraduate girls, but now the experimental design called for giving transactions rather than deprivation and retaliation. In this experiment, we encountered a new problem: While it is easy enough to deprive a subject of a resource, it is much more difficult to induce him to give a predetermined resource. Modeling on natural transactions, we instructed the confederate to bid for a specific resource, a procedure that created unforeseen difficulties.

Each participant met our confederate, ostensibly another subject, in the waiting room. While they were waiting, the confederate created a situation calculated to induce the subject to give him a specific resource. To elicit love, the confederate told the subject that she had just arrived on campus, did not know anybody, missed her friends back home, and left lonely. Most of subjects who were exposed to this situation invited the stooge to visit them and expressed the intention of establishing a closer relationship with her.

In the attempt to elicit the resource status, the confederate arrived in the waiting room with a folder of paintings, all with an "A" grade clearly visible. The confederate showed the subject her paintings and told her that she was taking a course in painting at the local art league. She wanted very much to become a painter but had no confidence in her abilities and therefore did not dare to major in art at the university. Most of the subjects who were exposed to this situation responded by praising the paintings (i.e., by giving her status). Appropriate situations were devised for the other resources as well. In each group, half of the subjects were later paid by the confederate with expressions of love, and the other half received money. Satisfaction with the exchange was then measured.

In general, the results were similar to those found in the previous experiment. Satisfaction was lower in proportion to the dissimilarity between resource given and resource received. Thus, the least satisfied subjects were those who gave love and received money or those who gave money and received love. However, subjects who gave either love or status and were repaid with love were not as satisfied as we had expected. Later work indicated that this surprising finding was probably due to two factors:

1. The bid for love or status devalued the confederate in the eyes of the subject so that reciprocation of love failed to restore balance. Indeed, affection is less valued when offered by a friendless, lonely person.
2. The time allotted to the confederate for reciprocating love was too short. As noted earlier, exchanges of love require more time than exchanges of less particularistic resources. Satisfaction following love exchanges increased when more time was made available.

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## Social Relevance

Is the resource theory of social exchange just another academic exercise or does it constitute a further step toward the understanding of society and the solution of its problems? We believe that this theory has provided a novel approach to the

investigation of social issues by offering a unified treatment of various resources and by establishing a framework for the study of their similarities and differences. This integrated framework clarifies a variety of behaviors that are incomprehensible when particularistic resources are ignored. Let us briefly examine a few examples.

- We are often confused by the following behavior patterns that have occurred among some black Americans: (a) preference for conspicuous consumption items like flashy cars and clothes, rather than more "solid" items; (b) demand for integrated facilities where there is separation and separate ones where there is integration; and (c) enrollment in black studies programs that do not provide training for specific future jobs. There seems to be little in common among these behaviors except that none of them appear oriented toward long-range goals. A meaningful picture emerges, however, when they are seen as different paths to achieving status, the resource of which black people have been most deprived. Conspicuous consumption goods are exchangeable with status. Refusal of social contract by insisting on separate facilities takes away status from the rejected ones; thus, the real issue is not integration versus separation, but who is taking away status from whom. The information gained in black studies may not be useful on the job, but it is a means to a needed increase in self-pride.
- Educators who are concerned by the existence of juvenile gangs advocate the creation of leisure facilities to keep the youngsters off the street. The function of the gang as the main, sometimes the only, institution available to prospective members for acquiring status is often overlooked. Alternative arrangements that do not allow for the provision of status are unlikely to prove attractive to gang members and will probably fail.
- There is a subtle loss of status in being overtaken by another car on the road and a gain in passing it. These gains or losses are too small for most drivers to risk the serious loss of services involved in an accident. But if a driver is short of status, he may be willing to



take the gamble. Thus, drivers who need status may be dangerous on the road.

- Politicians often quote the “striking economic gains” made by members of a national or racial minority to show that the minority members have no grounds for dissatisfaction. It is often forgotten that in addition to economic resources, satisfaction requires a sense of pride (status) and a feeling of belonging (love), which minority groups may find difficult to acquire.
- We have seen that when the resource available for retaliation is inappropriate, although the response is more intense, it is at the same time ineffective in reducing hostility. If a person who is deprived of status can retaliate only by destroying goods belonging to the insulter, he will inflict a great deal of material damage and still be left with a grudge. This might explain both the extensive destruction of property during riots and the decrease in this type of aggression as blacks are given more status or as they become increasingly able to reciprocate in kind. Once blacks can take away status from white people, they no longer have to burn their shops.
- Inappropriate exchanges generate dissatisfaction when resources are given as well as when they are taken away. A good example is provided by foreign aid. A “developing” country receives assistance mainly in the form of goods; the expected reciprocation is status – conformity to the policy line of the helping nation. But goods and status are opposites in the structure of resources and thus are inappropriate for exchange. Consequently, material aid is often paid with increased hostility. When, however, assistance consists of providing training (information), a neighbor of status, ingratitude is less likely to occur.
- A similar situation occurs when welfare institutions assist their clients with money and goods but create loss of status. The client loses a resource that is already scarce for him, a fact that further reduces his chances of autonomous performance as a resource exchanger in society.

- Disregard for the role played by particularistic resources in social functioning has led us to seek the solution of social problems exclusively in terms of a better distribution of economic resources. Improvement of education, for example, is considered almost equivalent to allocating more money for schools, in spite of the fact that evidence suggests that higher status improves educational achievement. Moreover, it is fairly common to see model housing projects that had been built at great expense only a few years earlier turning into model slums possibly because their dwellers were provided with houses but not with self-esteem and a sense of community. Here, status poverty produces waste of money.

The insight provided by these examples, a few of the many that could be drawn from a variety of situations, can be expressed as a three-part proposition:

1. The ability of an individual to function as a competent member of society is impaired when the resources he possesses, including particularistic ones, fall below a minimum level.
2. Economic and noneconomic resources intertwine in societal functioning: scarcity of particularistic resources often results in economic losses, and economic gains may produce particularistic losses. High-density population, for example, presents economic advantages but poses difficulties for intimate exchanges.
3. An adequate assessment of the quality of life should provide indicators that will cover the whole range of resources, since we have learned that quality of life can be poor even when the gross national product is high.

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## Summary

A main goal of this brief treatment of resource theory has been to spell out the properties and rules of exchange that apply to particularistic resources. There is nothing irrational about love exchanges; they just follow rules that are different from those that govern money exchanges. Moreover, these rules vary not only between love

and money, but for each class of resources; the change is, however, gradual, and it follows systematically the structure of resource classes shown in Figs. 2.1, 2.2, and 2.3. This structured pattern establishes a conceptual link between particularistic and economic resources that facilitates the study of their interdependence.

The new theory provides a framework for integrating seemingly disparate notions of social psychology and offers novel and relevant insights into societal problems.

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