Exchange theory on strategic bases

1. The logic of exchange

Social exchange theory is commonly treated as a generalization of economic exchange, where the latter is ideally conceived as exchange in a market. Attention is therefore focused on exchanging like for like and much of the argument is given over to showing why what one party yields equals in value what the other yields. The result is often an odd distortion of the relationship under study because that relationship cannot sensibly be seen as a cruder version of a market exchange. As will be shown below, the difference between social exchange in general and the ideal type of market exchange is essentially strategic. Hence, the successful resolution of social exchange problems involves the introduction of relevant, offsetting strategic considerations in the absence of which social exchange typically will fail. This can best be seen by observing that (1) the payoff structure of a market exchange is analogous to that of a social exchange but that (2) the conditions under which the two are engaged — or played — are conspicuously different.

The payoff structure — perhaps surprisingly — of a market exchange is that of a Prisoner’s Dilemma (PD). You have B and I have A. We should exchange holdings if our evaluations are analogous to those in Matrix 1. As the row player, I value A at 1 unit of currency and B at 2 units while you have the reverse valuation. Hence, other things being equal, I would rather keep A while hoping you will give me B. But you will give me B only if I simultaneously hand A over to you.

We could restate the problem in strictly ordinal terms as follows. My preference ordering from most to least preferred is: to have both A and B, to have B only, to have A only, to have neither. Yours is to have both A and B, to have A only, to have B only, to have neither. The ordinal version of simple exchange is represented in Matrix 2, where the ‘payoffs’ range from most preferred (4) to least preferred (1) for each player. It is clear from the ordinal version of simple exchange that price, per se, plays no role in the logical structure of exchange. What matters in the way of values is merely the pair of ordinal relations: I prefer what you can yield to what I can keep and you prefer what I can yield to what you can keep. Hence, effort by social exchange theorists to establish ‘prices’ for the objects, actions, and affections of social exchange is often fundamentally misguided.

If the payoff structure of simple exchange is that of the PD, one may ask why market exchange works relatively well whereas we normally suppose that rational players will defect in PD, which is to say that they would not exchange. The answer, of course, is that the conditions which recommend defection in the PD are violated in market exchange. The crucial factor in market exchange is the simultaneity of actions each of which is contingent on the other: I will not release my holding unless you release yours and vice versa. Because our exchange of holdings must take place by simultaneous surrender, the lower left and upper right outcomes of Matrices 1
and 2 are not feasible. Hence, we face essentially a coordination problem: either we both keep our holdings or we both surrender them in exchange. The choice should be an easy one to make.

In interesting social exchange contexts the actions of the parties cannot easily be made simultaneous. Hence, the usual conditions of the PD reassert themselves, at least in part, in the following sense. One of us must choose first and therefore cannot make the choice contingent on the other’s choice. Of course, if I choose second, I can make my choice contingent on what choice you have made. But, because I have no incentive actually to do so when my turn finally comes, I may be unable to induce you to choose to cooperate on the basis of that contingency. Hence, because you can neither make your choice contingent on mine nor expect me to have incentive to make my choice contingent on yours, you have no incentive to cooperate. To achieve cooperation in such contexts therefore requires the introduction of other incentives or of a norm of cooperation. The more interesting resolution is through the introduction of other incentives, especially when these arise spontaneously rather than through institutional enforcement. It is with spontaneous resolution through self-interested choosing that I am concerned in what follows, although in Section 5 I will briefly discuss the role of norms in social cooperation. The source of incentives which allow for spontaneous resolution is repeated interaction between the same actors in exchanges which are not simultaneous.

2. Iterated PD and contract by convention

Analytically, the simplest way in which I may expect to induce you to cooperate with me in a social exchange spread over the near term is to hold out the promise of further such exchanges in the future if we succeed in cooperating now. If we have a future prospect of identical exchanges, then we are not in a simple one-shot PD but rather in an iterated PD. It is well known and easily demonstrated that in an iterated PD repeated defection (i.e., non-cooperation) is not a rational strategy in the sense that defection may be rational in a one-shot PD.

In a one-shot PD, my defection is rational if your choice cannot be made contingent on mine. In Matrix 1 my payoff from defecting is higher than my payoff for cooperating no matter what you do.

Hence, if my choice does not affect yours, I serve my interests best by defecting.

In an iterated PD, however, my choice in future plays can be made contingent on your choice in the present play. Hence, continual defection will not be a dominant strategy for me if you make your future choices contingent on my past choices. In this case, my choices affect yours and I may serve my interests best by cooperating (Rapoport and Chammah, 1965; Hardin, 1982, ch. 9).

We can substantially generalize this result. If we are involved in a sequence of quite different PDs rather than a sequence of identical PDs, cooperation may still be rational. That this might be so is easily seen from the ordinal representation of each of our PDs: in this representation they are identical (as in Matrix 2).

We may generalize the result still further to cover PD interactions among groups of more than two people. In such a context, each of us may elect to cooperate or not in each interaction according to a large number of plausible contingent strategies. As in the analysis of market exchange above, we can virtually guarantee that outcomes in which some participants defect will not often happen so that our interaction soon reduces to the simpler problem in which either we will all cooperate or we will all defect. We may achieve that result by all coordinating on one or another of the plausible contingent strategies which punish defection and reward cooperation.

Elsewhere I have analyzed the outcome of mutual cooperation in iterated n-person PDs as a convention in Lewis’s (1969) sense (Hardin, 1982, ch. 10). For Lewis there is a convention when one of the possible attractive outcomes in an iterated coordination game has come to be selected by all players on every play of the game. Since, in an iterated PD, the cooperative outcome which may be achieved by convention is also one which might have been achieved by the use of an enforceable contract, I have called successful resolution of an iterated PD a “contract by convention.” Social exchange is characteristically a matter of contract by convention. The chief weakness of contract by convention, and hence of social exchange, is that which Taylor (1976, p. 93) recognizes for his contingent-strategy resolution of iterated PD: the information requirements are more likely to be met in small than in large groups.

Finally, we may generalize this result in a further way. We have so far gone from iterations of identical PDs to sequences of varied PDs and from 2PD to nPD. We may also suppose that group
membership may vary to some extent over time without upsetting the general cooperativeness. Indeed, my cooperation with you in our sequence of 2PDs may influence my cooperation with you and various others in a sequence of large nPDs: if you do not cooperate in the larger interactions I may eventually cease to cooperate with you in our 2PDs (see further, Hardin, 1982, ch. 11).

To distinguish the nature of exchange in such a complex case from the ideal case of market exchange, we may say that the latter is an instance of disperse exchange, the former of relational exchange (Macneil, 1980). Many market transactions are almost perfectly discrete in time and, hence, from any other interaction: I buy x from you this minute at the most favorable price for which I can get you to sell it and we have no further relationship. Each of us has one strategy available to try to affect the other's price: I can refuse to buy at the price you offer and you can refuse to sell at the price I offer. If finally I buy, I have x and you have my money and that is the end of our relationship. This is a caricature even of many market transactions. First, I often have other strategies available. I can be obnoxious enough to make not selling x to me at my price seem very costly to you. More reasonably, I can threaten the loss of my future patronage. And second, if I later discover defects in x I can generally return it to you with some expectation of your making it right or returning my money. On the other side, you can have established a reputation for fair dealing which makes it pointless for me to hope for a better price and which assures me that you will indeed make x right if I do discover defects in it later. Much of what superficially looks like market exchange therefore lacks discreteness and involves substantial elements of social exchange.

Given the relative smoothness and efficiency with which market exchange works, one might think that more general social exchanges could be improved by introducing greater discreteness. There are, of course, inherent obstacles to discreteness in many situations. But the law of contracts has traditionally been seen as a vehicle for making exchanges which will be spread out over time as discrete as possible. As Macneil (1980, p. 19) writes, "The ultimate goal of parties to a discrete transaction is to bring all the future relating to it into the present or, to use a rare word, to presentiate. They can then deal with the future as if it were in the present..." That effective presentation is not necessarily advantageous, especially for large groups, however, will be argued in Section 3 below.

The lack of discreteness means that there is strategic interaction because there is a prospect of applying sanctions in some realm of the ongoing relationship other than in the present exchange itself. This point can be expressed more positively and more accurately in many contexts: ongoing relationships allow us to establish commitments. The law of contracts enables us to make commitments by subjecting ourselves to the potential for court action. Contract by convention likewise enables us to make commitments — within limits — as discussed in Section 4 below.

Just as discrete exchange may border on the realm of contract by convention from one side, so behavior governed by norms not based in exchange may border on it from another side. And one may have difficulty determining the relative roles of norms and exchange relations in securing outcomes. Indeed, apparent norms may themselves often be explained as contracts by convention, as discussed in Section 5 below.

3. Explicit contract versus contract by convention

As already noted, very large groups cannot easily develop conventions which are complex or precise in their goals or behavior. For example, the populace of Iran during 1978 could achieve conventional behavior whose "purpose" or intention was to depose the Shah and bring in the Ayatollah. It could not have brought itself to coordinate in achieving more extensively defined outcomes, and many of those who cooperated with the simplistic Ayatollah-over-the-Shah convention must have done so with great unease. To achieve a more precisely detailed outcome would have required some form of more explicit contracting. One might therefore suppose that explicit contracting or its equivalent would be preferred to contract by convention. But this conclusion does not follow. Explicit contracting is generally costly, contract by convention may be considerably less so.

In the abstract a group is likely to face a trade-off between costs of agreement and precision of agreement. It will have to choose between the higher cost of explicit contracting and the lesser precision of contract by convention. Often the former will be the greater barrier, so that the impression of contract by convention will be acceptable. The costs of organizing Iranian opposition to the Shah so carefully as to produce a constitution to succeed him were surely
prohibitive, so that a conventional choice of a more crudely defined alternative was the only plausible recourse.

Macaulay (1963) argues that business firms often prefer informal to formal contracts. The sanctions available under contract by convention are sufficient to protect each firm's interests so that the costs of explicit contracting can be avoided. According to one of Macaulay's businessmen, "you can settle any dispute if you keep the lawyers and the accountants out of it. They just do not understand the give-and-take needed in business." Their expectations of future dealings and their need to have reputations for honorable dealing mean that firms can effect mutual savings by avoiding too explicit contracts beyond routine "boiler plate" provisions. To use Macneil's old-fashioned term again, market exchanges which must of necessity be spread over time can as nearly as possible be presented under the law of contracts to make them appear to be merely discrete market exchanges. Alternatively, they can be left spread over time and can be governed by contract by convention rather than by contract at law just as non-market exchanges commonly are governed. Indeed, to insist on a complete contract may guarantee performance to the letter, which is likely to be minimum performance.¹

Among the greatest costs of explicit contract is that it requires clear articulation of what is at issue. As argued above, often what the members of a group can do almost instinctively is likely to be both a more efficient and a more coherent guide to action than what they might be able to agree on after extended discussion. Even if there had been no barriers to open political conspiracy in Iran, opponents of the Shah could not likely have reached extensive agreement on an alternative government. Having an ill-defined but real alternative in Ayatollah Khomeini made coordinated opposition to the Shah possible. One might suspect that many so-called charismatic leaders are merely necessary conventions; such a leader makes it possible to focus a movement, to seem to reify a tenuous program.

The great appeal of Osgood's (1962, n.d.) GRIT (for Graduated and Reciprocated Initiatives in Tension-reduction) proposal, which involves informally reciprocated steps in mutual arms reduction by the United States and the Soviet Union,² is that it avoids the laborious and cumbersome process of treaty negotiations, a process which engenders antagonism and conflict even while it is directed at mutual accommodation. The histories of SALT I and II suggest that treaties can be similar to explicit contracts in encouraging minimum performance. They can also produce so much careful calculating of slight individual advantages and disadvantages that mutual advantages recede from view.

In his GRIT proposal Osgood sets numerous guidelines for an effective conflict and arms reduction strategy. Almost all of these can be seen as helping to establish commitment and to communicate and secure that each side has a clear understanding of the strategic structure of the interaction and its implications. For example, Osgood (n.d., p. 5) recommends that initiatives be diversified in nature.³ Diversity may increase the quality of communication, making it seem more likely that there is a commitment to reduce arms. A clearly patterned series of initiatives might seem explainable in other terms as a self-interested program. For example, a serial reduction of forces in Europe might be cynically interpreted as an economic measure or as part of some negotiating ploy with the Europeans. A series of diverse measures may be harder to interpret cynically; hence, it makes commitment to reduction of tension more credible. Most of his other recommendations have similar implications.

Since contract by convention depends on reciprocation for the others' action, inability to observe the other side's activities in a given realm makes it harder to achieve contract by convention over that realm. Furthermore, if there is an unobservable realm of armaments, any reduction in other realms might be largely compensated by increases in the unobservable realm, so that the prospects for contract by convention are undercut across all realms. Hence, the suggestion that, in the era of mutual interest in reducing the costs and the risks of nuclear deterrence, the United States should sooner reward than punish Soviet spies is not altogether facetious.

Would GRIT be preferable to such negotiations as SALT II? Although experience may be too limited to judge with confidence, there is one experience which is more than suggestive. On 10 June 1963, President Kennedy in a widely reported speech put forward "A Strategy of Peace" and announced that the United States was unilaterally ending nuclear tests in the atmosphere and would resume them only if another nation did. At that time, negotiations on a test ban treaty had long been stalled. Premier Khrushchev immediately reciprocated and went further, announcing that the Soviet Union would unilaterally cease production of strategic bombers. Numerous other steps were taken unilaterally, and in
August a nuclear test ban treaty was signed (Etzioni, 1967; Osgood, n.d.).

The Kennedy-Khrushchev GRIT episode had against it that it required deep understanding, so deep as to compel relevant action, on both sides. It was also a short episode — Kennedy was assassinated less than six months after his speech, and Khrushchev was toppled soon thereafter. Strategic thinking has not been a notable strength of any of their successors to date. It may also well be that Kennedy and Khrushchev did not feel sufficiently compelled by their own grasp of their equivalent of GRIT to carry through with it very far. But they made a beginning, and they achieved surprising momentum in very short order — the SALT negotiations have been glacial by comparison. It may be that even to be compelled to do that much depended on their personally having taken us so near the edge over the Cuban missile crisis that the prospect of nuclear war and its implications carried force for them far beyond what it has carried for subsequent leaders. Obviously, to attempt GRIT or other contract by convention at all requires of the relevant parties that they perceive that there are mutual gains to be made. It is not obvious that certain senators, military leaders, and presidential advisors in the United States and certain of their counterparts in the Soviet Union perceive any such thing. Chairman Brezhnev may have attempted a round of mutual reductions with his 1979 offer to withdraw some forces from eastern Europe if new Pershing missiles were not installed in western Europe. President Carter's instant dismissal of the proposal must have killed any chance of contract-by-convention arms reduction on that occasion.

The contrast between explicit contract and contract by convention suggests another explanation of the often noted tendency of popular interest groups to decline soon after their founding. What can be achieved through contract by convention is, again, likely to be general and vague. A spontaneous contract-by-convention creation of a movement with generally defined goals seems to be commonplace. Once the movement generates organizations to prosecute its goals, however, these often must be precisely defined, even to the point of being given explicit legislative content. At that point, the parties to the original convention may find that they have substantial disagreement. The reverse of the fact that precision — as in a legislative program — cannot be achieved through contract by convention may often be that contract by convention cannot survive precision. The American civil rights movement and more recently the women's movement seem to have suffered from their success not because there is little left for them to do but because success has meant defining their goals more extensively and, hence, bringing intragroup conflicts to the fore.

4. Commitment: A reformulation of sanctions

To make a small number contract by convention work requires little more than mutual understanding that the small group is in an ongoing PD, because there can be no hope of long term freeriding. To make a large number contract by convention work requires support from overlapping activities which give rise to opportunities for sanctioning freeriders. This condition has what may seem like a perverse implication: if I wish to get others to cooperate with me, I would want to give them power to sanction me. Schelling writes with strategic irony that,

Among the legal privileges of corporations, two that are mentioned in textbooks are the right to sue and the "right" to be sued. Who wants to be sued? But the right to be sued is the power to make a promise: to borrow money, to enter a contract, to do business with someone who might be damaged. If suit does arise, the "right" seems a liability in retrospect; beforehand it was a prerequisite to doing business.

In other words, "the right to be sued is the power to accept a commitment" (Schelling, 1960, p. 43). Analogously stated, the problem of sanctioning is a problem of commitment: a very large group can achieve contract by convention if its members can all establish credible commitments to cooperate.

We can recast the analysis of exchange in terms of commitment. We can analyze not how I can sanction others but how I can commit myself, how I can subject myself to the threat of sanctions. Not surprisingly, when so recast, the argument is similar to the argument for how one may make a threat credible in order to deter certain acts by another. To make a threat credible one has to make one's commitment to carry it out credible, even though to carry it out once it has failed to deter may not be in one's interest — it may seem "a liability in retrospect". To make a contract by convention seem likely, all or many of the potential parties to it must make
their commitment to cooperate under it seem credible.

Analytically, one can think of numerous ways to establish commitment — for example, by making side-bets, entering into contracts, burning one’s bridges, and so forth. In ordinary social life, these are often not suitable devices, and the only available device may depend on whether one has had and credibly expects to continue to have an ongoing relationship with the person or persons with whom one wishes to establish a commitment. Hence, there may be only a small subset of a relevant population with whom one could establish commitment. Hence, again, if a large group is to establish or maintain a contract by convention, it is likely to require overlapping activities that allow credible commitment within small subgroups.

Commitment requires coupling one action with others. We can expect a contract by convention in a small enough group (two members or a few more) simply from the logic of their ongoing PD. That is, we can decouple their ongoing PD from all other considerations and still expect cooperation. We cannot decouple a large group’s PD from other considerations and still expect cooperation on narrow self-interest grounds. In neither case can we decouple choice in this moment from all other considerations and still expect cooperation. Contract by convention implies that a group’s actions are somehow coupled: they are coupled over time in repeated plays of the same game and they may also be coupled across various games.

Finally, even the problem of anomic can be restated as a problem in establishing commitments. In wider social contexts, my reputation depends less on me than on the reputations of others. If almost no one is trusted, then I will not be trusted even if I am — alas, known only to me — utterly trustworthy. In certain communities, no marriage is secure because no one individual can establish a credible commitment for holding to a more exacting norm than the larger community honors. In some contexts, a very low incidence might destroy everyone’s trust for all — this is perhaps the least misanthropic interpretation of Hobbes’s view of the state of nature (Hobbes, 1972, p. 100, “Author’s Preface”). This is also essentially Akerlof’s (1970) argument for “the market for lemons”. Only sellers of used cars know their defects and they have an interest in not sharing this knowledge. Therefore, buyers must generally discount the value of any car offered for sale by a stranger on the expectation that the car will have unadvertised defects. But this means that the value of a well maintained car free of defects will also be discounted by buyers. As a result, owners of “lemons” (generally defective cars) will have incentive to sell them in the strangers’ market where they will fetch prices at the average expected value of equivalent cars, and owners of very good cars will have incentive not to sell these in the strangers’ market. Hence, the used car market will disproportionately be a market for lemons. This much we have in common with used cars: the incidence of enough lemons among us will wreck the reputations of us all.

5. Contracts and norms

When ongoing cooperation has been established through contract by convention, it may often be difficult either for the cooperators themselves or for observers to separate moral from narrowly rational contractual motivations. One might tend to speak of one’s formally contractual obligations as moral, even though the obligations are powerfully backed by sanctions which would make it more costly to violate than to honor them. So, too, one might speak of one’s contract-by-convention obligations as moral. In particular, one might speak of both as matters of fairness.

One should often distinguish two norms under the rubric of fairness. For example, one may act from a norm of fairness in voting or sending a check to some political group, a norm which is not based in exchange or dependent on sanctions. One may also act from a norm of fairness in dealings with one’s associates — but this norm may be a convention solidly based in ongoing exchange relationships. Although a norm of the latter type, which is conventional in the technical sense used here, may govern the provision of small scale collective goods, it is less plausible that it can govern the provision of large scale collective goods. The former type of norm may govern behavior on any scale, whether it benefits a whole society, a group, an individual, or even no one at all (as keeping a promise to a dead friend may benefit no one).

The ethical norm of fairness may be reinforced by or may be the spillover effect of the conventional norm of fairness. I may eventually act from considerations of fairplay in wider contexts because I have developed the habit of fairplay in small scale exchange interactions. One could argue that such spillover is rational in the sense that the mental cost to me of deciding in each case what the
costs and benefits are of fairplay this time outweighs the sometime cost of being fair contrary to my narrow interests. Just as an Act-utilitarian, for reasons of bounded rationality, may choose to follow standard rules and hence appear to be a Rule-utilitarian, so I may choose to generalize my conventional norms to cover cases in which the convention could not possibly arise. However, this sort of argument, although it might explain my being honest to a store clerk whom I will never see again, is unlikely to explain many important instances of large scale collective action. Similarly, overlapping relationships and activities may seem to explain the strength of widespread conventions that are norms for behavior in which are generally small scale interactions — such norms as honesty, keeping promises, fairplay, and so forth — but it is not so plausible that they can explain cooperation in large scale collective actions.

The habit of voting, for example, is not readily generalized from everyday conventional norms, nor is the decision to write a check to any of various political groups. Although a substantial part of all voting in national elections may be the easy result of rational choice, much of it surely is not explicable as acting from narrow self-interest. The narrowly rational part is those acts of voting which are stimulated by net gains from private benefits over costs, not by concern for the collective good. For example, in parts of Philadelphia, there are voting machines almost on every block, so that one can hardly claim that going to vote is particularly burdensome. But not going to vote can be burdensome, because party workers will knock at one’s door repeatedly and increasingly often — right through dinner if necessary — until one does vote. Conspicuously, however, many people do not live in Philadelphia, and many non-Philadelphiaans seem to vote strictly voluntarily without heavy social pressure and they suffer no costs when they do not vote. One may argue that, in voluntarily voting, they act from a social norm. But that norm is not easily seen as a convention based on exchange relationships, it is not a narrowly self-interested norm, as honesty and fairplay often may be. Much of the activity of contributing strictly voluntarily to large scale political interest groups is evidently similar to voluntary voting: it is governed by norms which are not based in self-interested exchange relationships.

One might roughly suppose that how widespread a contract by convention may be depends inversely on the size of the group in which the contractual norm is likely to be exercised. Truth-telling is largely at issue in dyadic or very small group interchanges. Hence, the sanctions are dyadic. And the contractual norm of truth-telling is widespread. To build up a contractual norm of cooperation in a large scale collective action is far more difficult. Although one should not too casually claim it would be impossible in the absence of overlapping small scale interactions, it seems likely that the latter will be very important. Edna Ullmann-Margalit (1977) argues that, in situations having the strategic structure of the PD, norms will emerge to encourage cooperative behavior. She calls such norms PD-norms (p. 60). Unfortunately, ethical generalization may be confused in ordinary understanding. For example, the Golden Rule may seem to have meaning only in small number contexts and may not seem to apply in very large collective action contexts. (There is often little sense in which I can do unto a million people what I would have them do unto me.) But the principal role of a PD-norm is precisely in large number cases, because in small number cases contingent choosing will commonly suffice to bring about cooperative behavior (except for one-shot interactions).4

Much of the individual contribution to large scale collective action which we see may plausibly be normatively motivated. The person who privately writes a check to send to a campaign to save whales, children, redwoods, or some foundering candidacy may sensibly expect to receive virtually nothing in return (not even a commensurate level of good feeling, the last resort of failed exchange theorists). One might suppose that exchange relations must have influenced the values and ethical commitments which that person holds, but one should be reluctant to assert that these values could be reduced to a combination of exchange relations which would make any norms apparently guiding the person’s behavior narrowly self-interested any more than one should deduce that all puritanical urges are merely another form of pleasure seeking.

6. Conclusions

Social exchange theory is often criticized as a conceptually destitute cousin of economic exchange theory. In a generally lucid and insightful critique of students of the former, Heath remarks that:

The economic theory is forward-looking. Bygones are bygones for the economist. Goods or services are handed over with an eye to the future, not to the past. If I reciprocate it is because I want your help again in future, not
because I feel grateful for past favours. In contrast, the sociological theory is
backward-looking. Bygones are of crucial importance. Services are given and
judgment made in recognition of past favours, not in expectation of future ones
(Heath, 1976, pp. 59–60).

These remarks tell against many passages and faulty analyses in the
work of some notable scholars who have considered themselves
social exchange theorists. But they do not tell against a properly
framed social exchange theory.

The point of contingent choosing in contexts of social exchange
as analyzed above is to influence future behavior. The role of past
behavior is perhaps most important for its contribution to one's
reputation, which is valued because future relations depend on it.
That economic and social exchange are not particularly different in
this respect is seen from the fact that oligopoly pricing above the
competitive market price is commonly achieved through convention
rather than collusion. The profit-making oligopolist is hardly
backward-looking. A more accurate statement perhaps is that the
emphatic, emphasis of social and economic exchange explanations is dif-
ferent. In economic exchange on a market the account books are
generally cleared immediately or soon, whereas in social exchange
and much of economic exchange the books are kept open with red
and black entries not made in strict order or within strictly deter-
mined time limits.

To the extent both economic and social exchange require informa-
tion about the other parties, both are backward-looking. To the
extent both require incentives to act, both are forward-looking.
The most commonplace market exchanges are backward-looking in
this respect: I buy a given product with confidence that I will not be
cheated in the transaction because the maker and the seller have
reputations based on past behavior and because their futures
depend on maintaining their reputations. We all know that we are
likely to be cheated when we buy supposedly valuable handicrafts
while we are tourists. We may too readily associate being cheated
with dealing with, say, Italians, because we have bought painted
plaster — thinking it was alabaster — in San Marino. But we do not
get cheated in Florence, while even Florentines get cheated in San
Marino. That is because the market in San Marino almost
exclusively involves exchanges with transient, one-time-only
customers. It is almost impossible for merchants in San Marino to
develop reputations for honesty and quality, and it would be

pointless for them to behave as though their reputations mattered.
(They only reputations at stake in San Marino may be among
artisans in fraud. The best frauds will get the best wholesale prices
from merchants.) Merchants in an amoketic market can no more be
expected to strive to be honest than others can be expected to
cooperate in collective purposes in amoketic settings. Tourists'
experiences in San Marino are, of course, the ultimate in discrete
exchange.

To frame the analysis of social exchange in terms of rationally
committing oneself, as was done in Section 4, is to make the actions
strictly forward-looking. It may well be, however, that for many
people it works the other way, that is, backward-looking, in that
they make no substantial calculation of expected returns, but
merely cease to deal with those who do not reciprocate so that the
development of cooperative relationships over the longer term is an
evolutionary phenomenon. But in some respects it does not matter
how people work out their interactions. They may choose not to
deal again with those who have cheated them, or they may choose
not to cheat those with whom they expect or hope to deal again.
The results will be the same in either case: we will come to enjoy
ongoing cooperative relationships. And in either case it will be
possible to build up to successful large number collective actions,
although it will be increasingly difficult as the numbers increase. 4

In general, to the extent it makes sense to cooperate in single-play
PD, a binding agreement can be signed, and then it often makes sense
to cooperate in the iterated version of the same game. Social
exchange theory is commonly about those cases in which binding
agreements would be impossible or costly. It differs from economic
exchange theory principally in that it emphasizes the ongoing
nature of relationships and, sometimes, the richness of relation-
ships. These are generally necessary features of economic exchange
as well, but the latter generally takes place in contexts in which
these features are so well understood as to be taken for granted in
our explanations of behavior — they need not be emphasized.
Social exchange explanations commonly involve much more detect-
ive work in determining how relationships are ramified in relevant
ways to make cooperation or exchange rationally secure. Hence,
the explanations are often defective, or plausibly so — as in many
of the studies criticized by Heath — for reasons of fact rather than
of logic, although the enormity of the factual burden of such ex-
planations may depress the logical facilities of even good scholars.
But when one keeps clear what is at stake, one can see that social exchange and economic exchange theories are both deductions from the assumption of self-interest, or narrow rationality, and that their logical structures are the same.

As Williamson (1975, p. 38) notes, the kind of reciprocity which arises in sociological exchange relationships “is much more common among the members of an internal organization” than in a market. “Market exchange tends predominantly to encourage calculative relations of a transaction-specific sort between the parties. Such transactions are carefully metered; unsettled obligations do not carry over from one contract, or related set of transactions, to the next.” The large number conditions which permit market exchange make transaction-specific relations attractive because they permit selection from large numbers of potential partners to any exchange. But they may also make the rise of PD conventions difficult. To the extent that contract by convention cannot be established, the usual analysis of single-play PD may apply even to an ongoing PD.

The ongoing interactions of internal organizations permit the easy rise of less specific, more subjectively metered exchange relations. Groups with ongoing interactions among their members similarly permit the rise of sociological exchange relations — that is, exchange without money and with reciprocation deferred to an unspecified future opportunity. To understand such a group generally requires a knowledge of its past history to explain its extant pattern of stable expectations.

Much social analysis is based on a peculiar bit of logical slippage: collectivities such as groups and nations are wrongly treated as though they had certain of the attributes of individuals. In particular, it is commonly clear what constitutes narrowly rational behavior for an individual in a given context and therefore it is clear what would be a rational choice or outcome for the individual. It is not clear that there is any similar sense in saying of a group or national “choice” that it is rational. A group choice or outcome, can, of course, often be rationally understood but this is to say that it can be understood as the joint outcome of individual choices which can each be rationally understood (see further Barry and Hardin, 1982).

Among the great values of PD and of Olson’s (1965) analysis of the logic of collective action is that they show that the analogy from individual to group behavior is wrong. Yet so strong has the grip of that analogy been that individual behavior in the static single-play version of the PD is commonly viewed as paradoxical. In the context of large scale collective action, the strategic implications of PD are more readily reconciled with common sense and evidently seem less paradoxical, perhaps for the simple reason that most of us are aware that we typically do not contribute to many collective causes which interest us. But there may be a further reason for our sense that the 2PD is paradoxical while the frequent failure of larger scale collective actions is not: when we think of actual instances of 2PD we may naturally think of PDs which occur in ongoing relationships. Hence, our instincts may be to think of one-shot relationships with strangers when we contemplate the problem of large-scale collective action and of ongoing relationships when we envision 2PD problems. As a result we happily find that our examined intuitions easily correspond to Olson’s (1965, ch. 1) claim that small groups should and large groups should not be expected to cooperate in collective action situations. However, the logic of collective action is not a function of group size because that logic as clearly applies to relevant 2-member (e.g. very large groups (Hardin, 1982, ch. 2). The greater distinction between small and large groups is not one of different logics but merely of the likelihood of their being involved in a thick enough network of mutual interactions. Hence as with the distinction between market and social exchange, the difference is strategic. Almost any common sense assumption of the limits to how many people one can involve in ongoing exchange relations with oneself would suggest that very large groups might have greater difficulty than smaller groups in acting collectively when there are costs to individual participants. Generalization of such a common sense conclusion, however, is not easy because overlapping small and large group relationships may enable even very large groups to achieve cooperation and because very small groups defined by some common interest may not be bound by any ongoing relationships.

Arguments for homo economicus explanations of behavior often implicitly assume that individual choices over one set of alternatives are decoupled from choices over other sets of alternatives. For example, suppose there are two merchants selling eggs equidistant from my house. If I am fully aware of the facts, as a homo economicus I should buy from the one whose price is lower. Many of us seldom have opportunity to test our own behavior in such circumstances because such circumstances seldom obtain in our lives.
In a village, however, where ongoing relationships are thick, choices are often not so straightforward and one may choose one merchant over another for reasons other than an advantage of price or quality of the merchandise. This is not an objection to understanding the choice in rational terms but only to seeing it as a static problem involving this choice alone rather than as a problem strategically related to other issues and expectations. The static analysis may be useful because it can at least clarify part of the costs and benefits at stake in a particular choice. But it need not be conclusive for determining what choice will be made.

The usual analysis of PD — both in its 2PD version and in the nPD version of the logic of collective action — is based on a strictly static analysis of the costs and benefits of any given collective action decoupled from other exchange relationships. As an empirical theory it is therefore valid only for polar cases characterized by complete discreteness or for cases which are nearly so. As the group interested in a collective outcome becomes very large, the collective action problem tends to approach the polar case. When issues are narrowly defined, narrowly rationally motivated collective action may therefore be more prevalent at the small group level at which social exchange works best than at the societal or national level. But occasional issues are sufficiently broadly defined as to support enduring social movements, and within these movements contract by convention may motivate a high level of activity (Hardin, 1982, ch. 14). Alas, to understand exchange activity at the level of either the small group or the social movement in a particular case might require such intensive observation as would try the patience of an anthropologist and such attention to nuance as would frustrate a philologist. This is the moral of Geertz’s “thick description”, of which he says that, at least as he practices it, “it is microscopic” (Geertz, 1973, p. 21). To understand common instances of social interaction in general in exchange terms requires “microscopic” description of relevant individuals’ behaviors and intentions.

Russell Hardin (born 1940) is Associate Professor in the Department of Political Science, University of Chicago, and book review Editor and Associate Editor of Ethics. Recent publications: “Infinite regress and Arrow’s theorem”, Ethics 90(3): 383-390, 1980; “Rationality, irrationality and functionalist explanation”, Social Science Information 19 (4/5): 755-772, 1980; Collective action (1982); Rational man and irrational society? (with B. Barry) (1982). Author’s address: Dept. of Political Science, University of Chicago, 5828 South University Ave., Chicago, Ill. 60637, USA.

Notes

1. Also see MacNeil (1980, p. 68); Leff (1970); and Richardson (1972). For a summary of the issues, see Williamson (1975, pp. 106-109).
2. For a survey of research pertinent to GRIT, and more generally to contract by convention, see Lindskold (1978).
3. Osgood’s rationale for this is that we “not weaken ourselves progressively in any one area”.
4. This is related to Tittus’s (1971, pp. 37-38) argument for the larger values of having blood collected from voluntary donors — the practice may help to breed altruistic behavior in wider contexts. Williamson (1975) defends this position against Arrow (1972) and other critics, saying that an “atmosphere” of goodwill and altruism may stimulate cooperative behavior.
5. For further discussion see Hardin (1980, pp. 576-578). It does not also follow that norms may not easily govern the behavior of a very large population. They can, especially if they are invoked in small number interactions. Hence, much of Heath’s (1976, pp. 154-160) discussion of the rationality of conforming to, enforcing, and instituting norms is off the mark. Similarly, Buchanan’s (1965) discussion of the effect on norms of population size is valid if at all only for such norms as govern collective action problems. A contractual norm against lying, for example, which is largely enforced in dyadic relationships, can be strongly held in a vast population. Buchanan’s numerical assessments of the returns for adhering to or violating a general norm leave out the costs and benefits of sanctions and rewards, to the individual, which derive from small number interactions under non-collective action norms.
6. See further note 5 above and the related discussion in the text.
Akerlof, G.A.

Arrow, K.J.

Barry, B.; Hardin, R.

Buchanan, J.M.

Fitzsimons, A.

Geertz, C.

Hardin, R.

Heath, A.

Hobbes, F.

Leff, A.A.

Lewis, D.K.

Lindskold, S.
1978 "Trust development, the GRIT proposal, and the effects of conciliatory acts on conflict and cooperation", Psychological Bulletin 85: 772-793.

Mclean, S.

Macneil, I.R.

Olson, M., Jr.

Osgood, C.E.
1962 An Alternative to war or surrender. Urbana, Ill., University of Illinois Press.


Rapoport, A.; Chammah, A.M.

Richardson, G.B.

Schelling, T.C.

Taylor, M.

Tannahill, R.M.

Ullmann-Margalit, E.

Williamson, O.E.