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BARGAINING, COMMUNICATION, AND LIMITED WAR

Limited war requires limits; so do strategic maneuvers if they are to be stabilized short of war. But limits require agreement or at least some kind of mutual recognition and acquiescence. And agreement on limits is difficult to reach, not only because of the uncertainties and the acute divergence of interests but because negotiation is severely inhibited both during war and before it begins and because communication becomes difficult between adversaries in time of war. Furthermore, it may seem to the advantage of one side to avoid agreement on limits, in order to enhance the other's fear of war; or one side or both may fear that even a show of willingness to negotiate will be interpreted as excessive eagerness.

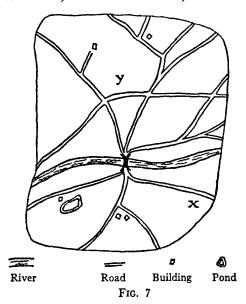
The study of tacit bargaining — bargaining in which communication is incomplete or impossible — assumes importance, therefore, in connection with limited war, or, for that matter, with limited competition, jurisdictional maneuvers, jockeying in a traffic jam, or getting along with a neighbor that one does not speak to. The problem is to develop a modus vivendi when one or both parties either cannot or will not negotiate explicitly or when neither would trust the other with respect to any agreement explicitly reached. The present chapter will examine some of the concepts and principles that seem to underlie tacit bargaining and will attempt to draw a few illustrative conclusions about the problem of limited war or analogous situations. It will also suggest that these same principles may often provide a powerful clue to understanding even the logically dissimilar case of explicit bargaining with full communication and enforcement.

The most interesting situations and the most important are those in which there is a conflict of interest between the parties involved. But it is instructive to begin with the special simplified case in which two or more parties have identical interests and face the problem not of reconciling interests but only of coordinating their actions for their mutual benefit, when communication is impossible. This special case brings out clearly the principle that will then serve to solve the problem of tacit "bargaining" over conflicting preferences.

TACIT COORDINATION (COMMON INTERESTS)

When a man loses his wife in a department store without any prior understanding on where to meet if they get separated, the chances are good that they will find each other. It is likely that each will think of some obvious place to meet, so obvious that each will be sure that the other is sure that it is "obvious" to both of them. One does not simply predict where the other will go, since the other will go where he predicts the first to go, which is wherever the first predicts the second to predict the first to go, and so ad infinitum. Not "What would I do if I were she?" but "What would I do if I were she wondering what she would do if she were I wondering what I would do if I were she . . . ?" What is necessary is to coordinate predictions, to read the same message in the common situation, to identify the one course of action that their expectations of each other can converge on. They must "mutually recognize" some unique signal that coordinates their expectations of each other. We cannot be sure they will meet, nor would all couples read the same signal; but the chances are certainly a great deal better than if they pursued a random course of search.

The reader may try the problem himself with the adjoining map (Fig. 7). Two people parachute unexpectedly into the area shown, each with a map and knowing the other has one, but neither knowing where the other has dropped nor able to communicate directly. They must get together quickly to be rescued. Can they study their maps and "coordinate" their behavior? Does the map suggest some particular meeting place so unambiguously



that each will be confident that the other reads the same suggestion with confidence?

The writer has tried this and other analogous problems on an unscientific sample of respondents; and the conclusion is that people often can coordinate. The following abstract puzzles are typical of those that can be "solved" by a substantial proportion of those who try. The solutions are, of course, arbitrary to this extent: any solution is "correct" if enough people think so. The reader may wish to confirm his ability to concert in the following problems with those whose scores are given in a footnote.¹

¹In the writer's sample, 36 persons concerted on "heads" in problem 1, and only 6 chose "tails." In problem 2, the first three numbers were given 37 votes out of a total of 41; the number 7 led 100 by a slight margin, with 13 in third place. The upper left corner in problem 3 received 24 votes out of a total of 41, and all but 3 of the remainder were distributed in the same diagonal line. Problem 4, which may reflect the location of the sample in New Haven, Connecticut, showed an absolute majority managing to get together at Grand Central Station (information booth), and virtually all of them succeeded in meeting at 12 noon. Problem 6 showed a variety of answers, but two-fifths of all persons succeeded in concerting on the number 1; and in problem 7, out of 41 people, 12 got together on \$1,000,000, and only 3 entries consisted of numbers that were not a power of 10; of those 3, 2 were \$64 and, in the

- r. Name "heads" or "tails." If you and your partner name the same, you both win a prize.
- 2. Circle one of the numbers listed in the line below. You win if you all succeed in circling the same number.

7 100 13 261 99 555

3. Put a check mark in one of the sixteen squares. You win if you all succeed in checking the same square.

- 4. You are to meet somebody in New York City. You have not been instructed where to meet; you have no prior understanding with the person on where to meet; and you cannot communicate with each other. You are simply told that you will have to guess where to meet and that he is being told the same thing and that you will just have to try to make your guesses coincide.
- 5. You were told the date but not the hour of the meeting in No. 4; the two of you must guess the exact minute of the day for meeting. At what time will you appear at the meeting place that you elected in No. 4?
- 6. Write some positive number. If you all write the same number, you win.
- 7. Name an amount of money. If you all name the same amount, you can have as much as you named.
- 8. You are to divide \$100 into two piles, labeled A and B.

more up-to-date version, \$64,000! Problem 8 caused no difficulty to 36 out of 41, who split the total fifty-fifty. Problem 9 secured a majority of 20 out of 22 for Robinson. An alternative formulation of it, in which Jones and Robinson were tied on the first ballot at 28 votes each, was intended by the author to demonstrate the difficulty of concerting in case of tie; but the respondents surmounted the difficulty and gave Jones 16 out of 18 votes (apparently on the basis of Jones's earlier position on the list), proving the main point but overwhelming the subsidiary point in the process. In the map most nearly like the one reproduced here (Fig. 1), 7 out of 8 respondents managed to meet at the bridge.

Your partner is to divide another \$100 into two piles labeled A and B. If you allot the same amounts to A and B, respectively, that your partner does, each of you gets \$100; if your amounts differ from his, neither of you gets anything.

q. On the first ballot, candidates polled as follows:

Smith	19 Robinson	Robinson	29
Jones	28	White	9
Brown	15		

The second ballot is about to be taken. You have no interest in the outcome, except that you will be rewarded if someone gets a majority on the second ballot and you vote for the one who does. Similarly, all voters are interested only in voting with the majority, and everybody knows that this is everybody's interest. For whom do you vote on the second ballot?

These problems are artificial, but they illustrate the point. People can often concert their intentions or expectations with others if each knows that the other is trying to do the same. Most situations — perhaps every situation for people who are practiced at this kind of game - provide some clue for coordinating behavior, some focal point for each person's expectation of what the other expects him to expect to be expected to do. Finding the key, or rather finding a key—any key that is mutually recognized as the key becomes the key — may depend on imagination more than on logic, it may depend on analogy, precedent, accidental arrangement, symmetry, aesthetic or geometric configuration, casuistic reasoning, and who the parties are and what they know about each other. Whimsy may send the man and his wife to the "lost and found"; or logic may lead each to reflect and to expect the other to reflect on where they would have agreed to meet if they had had a prior agreement to cover the contingency. It is not being asserted that they will always find an obvious answer to the question; but the chances of their doing so are ever so much greater than the bare logic of abstract random probabilities would ever suggest.

A prime characteristic of most of these "solutions" to the problems, that is, of the clues or coordinators or focal points, is some kind of prominence or conspicuousness. But it is a promi-

nence that depends on time and place and who the people are. Ordinary folk lost on a plane circular area may naturally go to the center to meet each other; but only one versed in mathematics would "naturally" expect to meet his partner at the center of gravity of an irregularly shaped area. Equally essential is some kind of uniqueness; the man and his wife cannot meet at the "lost and found" if the store has several. The writer's experiments with alternative maps indicated clearly that a map with many houses and a single crossroads sends people to the crossroads, while one with many crossroads and a single house sends most of them to the house. Partly this may reflect only that uniqueness conveys prominence; but it may be more important that uniqueness avoids ambiguousness. Houses may be intrinsically more prominent than anything else on the map; but if there are three of them, none more prominent than the others, there is but one chance in three of meeting at a house, and the recognition of this fact may lead to the rejection of houses as the "clue." 2

But in the final analysis we are dealing with imagination as much as with logic; and the logic itself is of a fairly casuistic kind. Poets may do better than logicians at this game, which is perhaps more like "puns and anagrams" than like chess. Logic helps — the large plurality accorded to the number 1 in problem 6 seems to rest on logic — but usually not until imagination has selected some clue to work on from among the concrete details of the situation.

TACIT BARGAINING (DIVERGENT INTERESTS)

A conflict of interest enters our problem if the parachutists dislike walking. With communication, which is not allowed in our problem, they would have argued or bargained over where to meet, each favoring a spot close to himself or a resting place particularly to his liking. In the absence of communication, their overriding interest is to concert ideas; and if a particular spot

² That this would be "correct" reasoning, incidentally, is suggested by one of the author's map experiments. On a map with a single house and many crossroads, the eleven people who chose the house all met, while the four who chose crossroads all chose different crossroads and did not even meet one another.

commands attention as the "obvious" place to meet, the winner of the bargain is simply the one who happens to be closer to it. Even if the one who is farthest from the focal point knows that he is, he cannot withhold his acquiescence and argue for a fairer division of the walking; the "proposal" for the bargain that is provided by the map itself—if, in fact, it provides one—is the only extant offer; and without communication, there is no counterproposal that can be made. The conflict gets reconciled—or perhaps we should say ignored—as a by-product of the dominant need for coordination.

"Win" and "lose" may not be quite accurate, since both may lose by comparison with what they could have agreed on through communication. If the two are actually close together and far from the lone house on the map, they might have eliminated the long walk to the house if they could have identified their locations and concerted explicitly on a place to meet between them. Or it may be that one "wins" while the other loses more than the first wins: if both are on the same side of the house and walk to it, they walk together a greater distance than they needed to, but the closer one may still have come off better than if he had had to argue it out with the other.

This last case illustrates that it may be to the advantage of one to be unable to communicate. There is room here for a motive to destroy communication or to refuse to collaborate in advance on a method of meeting if one is aware of his advantage and confident of the "solution" he foresees. In one variant of the writer's test, A knew where B was, but B had no idea where A was (and each knew how much the other knew). Most of the recipients of the B-type questionnaire smugly sat tight, enjoying their ignorance, while virtually all the A-questionnaire respondents grimly acknowledged the inevitable and walked all the way to B. Better still may be to have the power to send but not to receive messages: if one can announce his position and state that his transmitter works but not his receiver, saying that he will wait where he is until the other arrives, the latter has no choice. He can make no effective counteroffer, since no counteroffer could be heard.8

This is an instance of the general paradox, illustrated at length in Chap-

The writer has tried a sample of conflicting-interest games on a number of people, including games that are biased in favor of one party or the other; and on the whole, the outcome suggests the same conclusion that was reached in the purely cooperative games. All these games require coordination; they also, however, provide several alternative choices over which the two parties' interests differ. Yet, among all the available options, some particular one usually seems to be the focal point for coordinated choice, and the party to whom it is a relatively unfavorable choice quite often takes it simply because he knows that the other will expect him to. The choices that cannot coordinate expectations are not really "available" without communication. The odd characteristic of all these games is that neither rival can gain by outsmarting the other. Each loses unless he does exactly what the other expects him to do. Each party is the prisoner or the beneficiary of their mutual expectations; no one can disavow his own expectation of what the other will expect him to expect to be expected to do. The need for agreement overrules the potential disagreement, and each must concert with the other or lose altogether. Some of these games are arrived at by slightly changing the problems given earlier, as we did for the map problem by supposing that walking is onerous.

- r. A and B are to choose "heads" or "tails" without communicating. If both choose "heads," A gets \$3 and B gets \$2; if both choose "tails," A gets \$2 and B gets \$3. If they choose differently, neither gets anything. You are A (or B); which do you choose? (Note that if both choose at random, there is only a 50-50 chance of successful coincidence and an expected value of \$1.25 apiece less than either \$3 or \$2.)
- 2. You and your two partners (or rivals) each have one of the letters A, B, and C. Each of you is to write these three letters A, B, and C, in any order. If the order is the same on all three of your lists, you get prizes totaling \$6, of which \$3 goes to the one whose letter is first on all three lists, \$2 to the one whose letter is second, and \$1 to the person whose letter is third. If the letters are not in identical order on all three lists, none of

ter 2, that what is impotence by ordinary standards may, in bargaining, be a source of "strength."

you gets anything. Your letter is A (or B, or C); write here the three letters in the order you choose:

- 3. You and your partner (rival) are each given a piece of paper, one blank and the other with an "X" written on it. The one who gets the "X" has the choice of leaving it alone or erasing it; the one who gets the blank sheet has the choice of leaving it blank or writing an "X" on it. If, when you have made your choices without communicating, there is an "X" on only one of the sheets, the holder of the "X" gets \$3 and the holder of the blank sheet gets \$2. If both sheets have "X's" or both sheets are blank, neither gets anything. Your sheet of paper has the original "X" on it; do you leave it alone or erase it? (Alternate: your sheet of paper is the blank one; do you leave it blank or write an "X"?)
- 4. You and your partner (rival) are to be given \$100 if you can agree on how to divide it without communicating. Each of you is to write the amount of his claim on a sheet of paper; and if the two claims add to no more than \$100, each gets exactly what he claimed. If the two claims exceed \$100, neither of you gets anything. How much do you claim? \$_____.
- 5. You and your partner are each to pick one of the five letters, K, G, W, L, or R. If you pick the same letter, you get prizes; if you pick different letters, you get nothing. The prizes you get depend on the letter you both pick; but the prizes are not the same for each of you, and the letter that would yield you the highest prize may or may not be his most profitable letter. For you the prizes would be as follows:

K	\$4	L	\$2
G	\$3		\$5
W	\$T		

You have no idea what his schedule of prizes looks like. You begin by proposing to him the letter R, that being your best letter. Before he can reply, the master-of-ceremonies intervenes to say that you were not supposed to be allowed to communicate and that any further communication will disqualify you both. You must simply write down one of the letters, hoping that the other chooses the same letter. Which letter do you

choose? (Alternate formulation for the second half of the sample shows schedule of $K-\$_3$, $G-\$_1$, $W-\$_4$, $L-\$_5$, $R-\$_2$, and has the "other" party make the initial proposal of the letter R before communication is cut off.)

- 6. Two opposing forces are at the points marked X and Y in a map similar to the one in Fig. 7. The commander of each force wishes to occupy as much of the area as he can and knows the other does too. But each commander wishes to avoid an armed clash and knows the other does too. Each must send forth his troops with orders to take up a designated line and to fight if opposed. Once the troops are dispatched, the outcome depends only on the lines that the two commanders have ordered their troops to occupy. If the lines overlap, the troops will be assumed to meet and fight, to the disadvantage of both sides. If the troops take up positions that leave any appreciable space unoccupied between them, the situation will be assumed "unstable" and a clash inevitable. Only if the troops are ordered to occupy identical lines or lines that leave virtually no unoccupied space between them will a clash be avoided. In that case, each side obtains successfully the area it occupies, the advantage going to the side that has the most valuable area in terms of land and facilities. You command the forces located at the point marked X (Y). Draw on the map the line that you send your troops to occupy.
- 7. A and B have incomes of \$100 and \$150 per year, respectively. They are notified of each other's income and told that they must begin paying taxes totaling \$25 per year. If they can reach agreement on shares of this total, they may share the annual tax bill in whatever manner they agree on. But they must reach agreement without communication; each is to write down the share he proposes to pay, and if the shares total \$25 or more, each will pay exactly what he proposed. If the proposed shares fail to add up to \$25, however, each will individually be required to pay the full \$25, and the tax collectors will keep the surplus. You are A (B); how much do you propose to pay? \$______.
- 8. A loses some money, and B finds it. Under the house rules, A cannot have his money back until he agrees with the finder on a suitable reward, and B cannot keep any except what A agrees to. If no agreement is reached, the money goes to the house. The

amount is \$16, and A offers \$2 as a reward. B refuses, demanding half the money for himself. An argument ensues, and the house intervenes, insisting that each write his claim, once and for all, without further communication. If the claims are consistent with the \$16 total, each will receive exactly what he claims; but if together they claim more than \$16, the funds will be confiscated by the house. As they sit pondering what claims to write, a wellknown and respected mediator enters and offers to help. He cannot, he says, participate in any bargaining, but he can make a "fair" proposal. He approaches A and says, "I think a reasonable division under the circumstances would be a 2-1 split, the original owner getting two-thirds and the finder one-third, perhaps rounded off to \$11 and \$5, respectively. I shall make the same suggestion to him." Without waiting for any response, he approaches the finder, makes the same suggestion, and says that he made the same suggestion to the original owner. Again without waiting for any response, he departs. You are A (B); what claim do you write?

The outcomes in the writer's informal sample are given in the footnote. In those problems where there is some asymmetry between "you" and "him," that is, between A and B, the A formulations were matched with the B formulations in deriving

In the first problem, 16 out of 22 A's and 15 out of 22 B's chose heads. Given what the A's did, heads was the best answer for B; given what the B's did, heads was the best answer for A. Together they did substantially better than at random; and, of course, if each had tried to win \$3, they would all have scored a perfect zero. Problem 2, however, which is logically similar to 1 but with a more compelling structure, showed 9 out of 12 A's, 10 out of 12 B's, and 14 out of 16 C's, successfully co-ordinating on ABC. (Of the remaining 7, incidentally, 5 discriminated against themselves in departing from alphabetical order, all to no avail.) Problem 3, which is structurally analogous to 1, showed 18 out of 22 A's concerting successfully with 14 out of 19 B's, giving A the \$3 prize. In problem 4, 36 out of 40 chose \$50. (Two of the remainder were \$49 and \$49.99.) In problem 5 the letter R won 5 out of 8 votes from those who had proposed it, and 8 out of 9 votes from those who were on the other side. In problem 6, 14 of 22 X's and 14 of 23 Y's drew their boundaries exactly along the river. The "correctness" of this solution is emphatically shown by the fact that the other 15, who eschewed the river, produced 14 different lines. Of 8 imes 7 possible pairs among them, there were 55 failures and 1 success. Problem 7 showed 5 out of 6 of those with incomes of \$150 and 7 out of 10 of those with incomes of \$100 concerting on a 15-10 division of the tax. In problem 8 both those who lost money and those who found it, 8 and 7 persons respectively, unanimously concerted on the mediator's suggestion of an even \$5 reward.

the "outcome." The general conclusion, as given in more detail in the footnote, is that the participants can "solve" their problem in a substantial proportion of the cases; they certainly do conspicuously better than any chance methods would have permitted, and even the disadvantaged party in the biased games permits himself to be disciplined by the message that the game provides for their coordination.

The "clues" in these games are diverse. Heads apparently beat tails through some kind of conventional priority, similar to the convention that dictates A, B, C, though not nearly so strong. The original X beats the blank sheet, apparently because the "status quo" is more obvious than change. The letter R wins because there is nothing to contradict the first offer. Roads might seem, in principle, as plausible as rivers, especially since their variety permits a less arbitrary choice. But, precisely because of their variety, the map cannot say which road; so roads must be discarded in favor of the unique and unambiguous river. (Perhaps in a symmetrical map of uniform terrain, the outcome would be more akin to the 50-50 split in the \$100 example—a diagonal division in half, perhaps—but the irregularity of the map rather precludes a geometrical solution.)

The tax problem illustrates a strong power of suggestion in the income figures. The abstract logic of this problem is identical with that of the \$100 division; in fact, it could be reworded as follows: each party pays \$25 in taxes, and a refund of \$25 is available to be divided among the two parties if they can agree on how to divide it. This formulation is logically equivalent to the one in problem 7, and, as such, it differs from problem 4 only in the amount of \$25 instead of \$100. Yet the inclusion of income figures, just by suggesting their relevance and making them prominent in the problem, shifts the focal point substantially to a 10-15 split rather than 12.5-12.5. And why, if incomes are relevant, is a perfectly proportional tax so obvious, when perhaps there are grounds for graduated rates? The answer must be that no particular graduation of rates is so obvious as to go without saying; and if speech is impossible, by default the uniquely simple and recognizable principle of proportionality has to be adopted. First the income figures take the initial plausibility away from a 50-50

split; then the simplicity of proportionality makes 10-15 the only one that could possibly be considered capable of tacit recognition. The same principle is displayed by an experiment in which question 7 was deliberately cluttered up with additional data—on family size, spending habits, and so on. Here the unique attraction of the income-proportionate split apparently became so diluted that the preponderant reply from both the high-income and the low-income respondents was a simple 50-50 division of the tax. The refined signal for the income proportionate split was drowned out by "noise," and the cruder signal for equality was all that came through.

Finally, problem 8 is again logically the same as problem 4, the amount being \$16 available for two people if they can write claims that do not exceed the amount. But the institutional arrangement is discriminatory; finder and loser do not have a compelling equality in any moralistic or legalistic sense, so the 50-50 split seems not quite obvious. The suggestion of the mediator provides the only other signal that is visible; its potency as a coordinator is seen even in the rounding to \$11 and \$5, which was universally accepted.

In each of these situations the outcome is determined by something that is fairly arbitrary. It is not a particularly "fair" outcome, from either an observer's point of view or the points of view of the participants. Even the 50-50 split is arbitrary in its reliance on a kind of recognizable mathematical purity; and if it is "fair," it is so only because we have no concrete data by which to judge its unfairness, such as the source of the funds, the relative need of the rival claimants, or any potential basis for moral or legal claims. Splitting the difference in an argument over kidnap ransom is not particularly "fair," but it has the mathematical qualities of problem 4.

If we ask what determines the outcome in these cases, the answer again is in the coordination problem. Each of these problems requires coordination for a common gain, even though there is rivalry among alternative lines of common action. But, among the various choices, there is usually one or only a few that can serve as coordinator. Take the case of the first offer in problem 5. The strongest argument in favor of R is the rhetorical question,

"If not R, what then?" There is no answer so obvious as to give more than a random chance of concerting, even if both parties wanted to eschew the letter R after the first offer was made. To illustrate the force of this point, suppose that the master-of-ceremonies in that problem considered the first offer already to have spoiled the game and thought he might confuse the players by announcing the reversal of their prize schedules. A will get whatever prize B would have gotten, and B will get the prizes shown in A's schedule in problem 5. Does the original offerer of R have any reason to change his choice? Or suppose that the master-of-ceremonies announced that the prizes would be the same, no matter what letter were chosen, so long as they both picked the same letter. They will still rally to R as the only indicated means of coordinating choices. If we revert to the beginning of this game and suppose that the original proposal of R never got made, we might imagine a sign on the wall saying, "In case of doubt always choose R; this sign is visible to all players and constitutes a means of coordinating choices." Here we are back at the man and his wife in the department store. whose problems are over when they see a conspicuous sign that says, "The management suggests that all persons who become separated meet each other at the information booth in the center of the ground floor." Beggars cannot be choosers about the source of their signal, or about its attractiveness compared with others that they can only wish were as conspicuous.

The irony would be complete if, in game 5, your rival knew your prize schedule and you did not know his (as was the case in a variant of question 5 used in some questionnaires). Since you have no basis for guessing his preference and could not even do him a favor or make a "fair" compromise if you wished to, the only basis for concerting is to see what message you can both read in your schedule. Your own preferred letter seems the indicated choice; it is hard to see why to pick any other or which other to pick, since you have no basis for knowing what other letter is better for him than R itself. His knowledge of your preference, combined with your ignorance of his and the lack of any alternative basis for coordination, puts on him the responsibility of simply choosing in your favor. (This, in fact, was the preponderant

result among the small sample tested.) It is the same situation as when only one parachutist knew where the other was.⁵

EXPLICIT BARGAINING

The concept of "coordination" that has been developed here for tacit bargaining does not seem directly applicable to explicit bargaining. There is no apparent need for intuitive rapport when speech can be used; and the adventitious clues that coordinated thoughts and influenced the outcome in the tacit case revert to the status of incidental details.

Vet there is abundant evidence that some such influence is powerfully present even in explicit bargaining. In bargains that involve numerical magnitudes, for example, there seems to be a streng magnetism in mathematical simplicity. A trivial illustration is the tendency for the outcomes to be expressed in "round numbers"; the salesman who works out the arithmetic for his "rock-bottom" price on the automobile at \$2,507.63 is fairly pleading to be relieved of \$7.63. The frequency with which final agreement is precipitated by an offer to "split the difference" illustrates the same point, and the difference that is split is by no means always trivial. More impressive, perhaps, is the remarkable frequency with which long negotiations over complicated quantitative formulas or ad hoc shares in some costs or benefits converge ultimately on something as crudely simple as equal shares, shares proportionate to some common magnitude (gross national product, population, foreign-exchange deficit, and so forth), or the shares agreed on in some previous but logically irrelevant negotiation.6

Precedent seems to exercise an influence that greatly exceeds its logical importance or legal force. A strike settlement or an international debt settlement often sets a "pattern" that is fol-

And it is another example of the power that resides in "weakness," which was commented on in an earlier footnote.

^{*} From a great variety of formulas proposed for the contributions to UNRRA, the winner that emerged was a straight I per cent of gross national product—the simplest conceivable formula and the roundest conceivable number. This formula was, to be sure, the preferred position of the United States during the discussion; but that fact perhaps adds as much to the example as it detracts from it.