4 Collective Silence and Individual Voice: The Logic of Information Games

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In its original formulation, the Prisoners' Dilemma concerned the decision whether or not to reveal information: two prisoners being interrogated separately had to decide whether or not to confess to a crime they had both committed. Subsequently, virtually all study of the Prisoners' Dilemma game (and of related formalizations of collective-action problems) has examined two other classes of decision-making, unrelated to decisions to reveal or conceal information.[1] These games have been used to study strategic decisions by parties in conflict, such as price-cutting by competing firms, arms build-ups or military attacks by antagonistic nations, or negative campaigns by candidates for political office; and decisions to undertake costly individual action in support of collective welfare, such as decisions to reduce pollution, restrain exploitation of common resources, or contribute to military alliances.

Olson's primary contribution to these studies was to demonstrate that the strong propensity for voluntary efforts to lead to under-provision of conventional public goods such as open space and clean air also applied to the organization of groups to pursue their political objectives. Thus, despite their strong economic concerns with government policy, neither repairers of automobiles nor consumers of food have found the way to organize themselves to be strongly represented in Washington, DC. Olson also identified two major mechanisms to resolve the problem of under-provision. The first was to bundle the public good with a private good provided to contributors. The American Medical Association used this mechanism effectively for many years. Members supported the organization's political activities through their dues, but also gained professional status and a referral network (Olson 1965). The second mechanism was disproportionate provision: those who value the public good the most – in simple formulations, the largest actors – provide the lion's share of it (Olson and Zeckhauser 1966). Examples are the disproportionate spending by the largest corporations to secure influence over public policy through campaign contributions, and the vast military expenditures of the United States (exceeding those of the next six nations combined), which as the sole superpower acts as policeman of the world (U.S. Department of State 1998).

This work on under-provision and the means to cope with it has focused overwhelmingly on the provision of material resources. Often, however, as in the original story of the Prisoners' Dilemma, the critical issue for a group is whether

[1] One exception is Scheppele (1988).

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its members reveal or conceal information. This chapter focuses on these situations, which we call "information games". In an information game, there are a number of players – whom we will call "peers" – in similar roles. The peers may be industrial polluters, parties to a crime, faculty members in a department, or partners at a private firm such as Arthur Andersen. Each has private information relevant to some decision to be made, and each must decide whether to reveal or conceal it. Revelation may be to their peers, to a player or players on the opposite side of the table, or to the world at large.

Our purpose in this chapter is to introduce the concept of information games, to identify how they resemble and how they differ from other forms of collective-action games, to undertake a preliminary investigation of their major types, characteristics, and predicted outcomes. While games of information revelation can be as diverse in their payoff structures as any other kind of games, many prominent information games are filled with issues of mixed motives and tensions between individual and collective interest – problems of the kind that intrigued Olson. The constructs of these games can describe a wide range of settings, from unsavory nations cooperating with U.S. intelligence in the fight on terrorism to fairy-tale children noting the nakedness of the Emperor.

Among information games whose payoff structures resemble traditional collective-action problems, we distinguish two broad classes. In the first, the collective interest of the peer-group is to maintain silence; in the second, it is to promote individual voice. For each type, we identify broad regularities in the pattern of interests and resultant behavior that we expect, and identify numerous real-world examples. Part 1 places information games in the context of the general literature on collective-action problems, in particular the games of Prisoners' Dilemma, Assurance, and Chicken. Parts 2 and 3 discuss the two broad types of information games we highlight, those in which collective silence and individuals speaking up, respectively, provide a collective benefit for the group. Part 4 summarizes the principal characteristics of information games, and identifies directions for elaborating the concept further. Table 4.1 provides a schematic preview of what follows, presenting the main features of our argument in summary form.

4.1 Prisoners' Dilemma and Assurance Games as Information Games

We treat peers' decisions to reveal or withhold information as binary choices: reveal honestly and completely, or not at all. This allows the information game to be defined simply in terms of peers' payoffs from whose information is and is not revealed. This approach abstracts from a great deal of complexity in the character of information that actors hold and might choose to reveal, and in how others may interpret information that is revealed. With this simplification, we need not describe the character of each agent's information in detail. Similarly, we need not concern ourselves with whether the information that actors reveal is accurate or biased, steering clear of the vast literature on honest revelation in various contexts. Nor do