an organization's employees and their fallibility, and the nature and the aims of the analysis of organizations.

While focusing on human fallibility, I abstract in this paper from most other considerations. Apart from reasons of length, this is to complement the other papers in this symposium which deal with several other considerations. However, since some aspects of individual behavior emphasized in this paper may remind readers of the literature on bounded rationality (see Simon, 1979, for a lucid overview and references), I present in the last section some brief remarks on this literature.

Diversification versus Concentration of Political Authority

The recognition of the insuperable limits to his knowledge ought indeed to teach the student of society a lesson in humility which should guard him against becoming an accomplice in men's fatal striving to control society.

Friedrich Hayek (1978, p. 34)

Plato's ranking of political systems, from best to worst, was: aristocracy, timocracy (governance by a soldier caste), oligarchy, democracy and tyranny (Bloom, 1968, Book VIII). The debate on the merits of alternative political systems that Plato initiated, though often polemical and tendentious, has been one of the longest running intellectual debates in history. The changes in Eastern Europe and the Soviet Union in the late 1980s have led some to suggest that such debates have been concluded. However, this scenario is unlikely. For instance, an archetypal comparison in the last four decades has been between a political-economic system based on despotic party bosses versus one based on greedy capitalists and vile politicians. In contrast, one of the archetypal comparisons in the coming decades may be between a market economy that is closely guided by the government or by large corporations (for example, the post-War Japanese economy has been viewed as having been guided by elite government officials) versus one that is comparatively unguided (as many would say is the case in the United States).

At a somewhat more basic level, an implicit debate is between those who postulate the pivotal role of “preceptors” in the governance of a society versus those who do not. (Here, “preceptor” is a shorthand for an individual who

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2Fukuyama (1989) derives such a view from an unorthodox use of Hegelian dialectics. See Islam (1990) for a different view.
3Analogous comparisons and questions concerning the degree of centralization of government institutions have been important. For example: Is a regionally decentralized federal system, as in the U.S., better or worse than a more centralized one, as in France? Is it better to have several government organizations, rather than just one, provide the same services or deal with the same problems, even though this entails duplication and perhaps internecine competition?
exercises significant societal authority. This category includes elite bureaucrats, political leaders, and planners.) What has changed at different times in different societies is the backdrop of this debate and the actors who are claimants to the roles of preceptors. This debate is likely to continue.

Opposing views on this debate have been exposited and criticized from many perspectives. Popper's (1966) magisterial exposition and critique of the theories and prescriptions of Plato, Hegel and Marx is a leading example. However, the role of human fallibility does not appear to have been studied in this context. This section presents some arguments concerning this issue; see Sah (1989) for models and additional results.

Consider the following stylized framework. Total societal authority relating to such issues as which government policies are to be pursued, and the nature and the degree of government intervention, is divided among preceptors. A society is called "more centralized" or "less centralized" depending on whether there are few or many preceptors. (Within reasonable bounds, the precise numbers are unimportant here.) All preceptors are fallible, but some are more fallible than others. Also, before they are placed in positions of authority, the relevant differences in the abilities of preceptors can be observed only to a limited degree. The aggregate of the performances of all the preceptors in a period is a key determinant of the societal capital (that is, physical, human and other forms of capital) at the end of the period. This capital, along with the aggregate performance of all the preceptors in the next period, determines the societal capital at the end of the next period, and so on.

It follows, then, that a less centralized society has the advantage of a greater diversification of its performance across a larger number of preceptors. This is because diversification here dilutes the impact of the ability, or the lack thereof, of each preceptor on the aggregate societal performance. An analogy based on financial investment may be useful in bringing this point out. Think of the current societal capital as the initial wealth that is divided equally among a given number of investment managers (preceptors) who act independently of one another. An investment manager achieves a random return, but it is more likely to be higher if the investment manager is more capable. For the moment, assume that the investment managers are randomly selected from a given pool. Also, assume for now that there are no economies or diseconomies of scale in societal decision making. In the analogy of financial investment, this last assumption is represented as follows. The probabilities of different returns on the total wealth do not change if one investment manager is replaced by two with the same ability as the former, but with each managing half as much wealth.

Then, the wealth in any future period will have the same mean but a higher volatility under greater centralization. The difference in volatility will be more dramatic if there are large differences among the abilities of the investment managers (as perhaps is the case for preceptors), or if the difference in the number of investment managers in the two situations being compared is
large. Thus, for political systems, the largest difference in the volatility of performance will be between an absolute dictatorship with a single preceptor and a system in which political authority is widely distributed.

It is not suggested here that highly centralized societies cannot have very good performances. Such a society may get a preceptor like Lee Kwan Yu of Singapore or the late Chung Hee Park of South Korea, who have been viewed as having made substantial contributions to their societies. By the same token, such a society may get a preceptor like Idi Amin of Uganda, with correspondingly opposite consequences. Nor is it claimed here that the mean performance of more centralized and less centralized societies will be similar. What is suggested here is that, setting aside a number of considerations, an effect of human fallibility is that more centralized societies will have more volatile performances.

Gains from Coordination and Economies of Scale in Societal Decision Making

The possibility of such gains has been among the most enduring arguments in favor of centralized societies. These were, for instance, central to Lenin’s (1932, p. 84) hope that the “whole of society would become a single office and a single factory.” A key technical-economic argument in favor of the collectivization of Soviet agriculture was that a single authority making all decisions for production and for resource allocation, such as through machine tractor stations, would reap the otherwise unavailable advantages of coordination and of economies of scale, and that these advantages would more than offset the losses from weakened incentives.

While the presence of economies of scale in societal decision making may benefit a centralized society, there are also related drawbacks. Suppose that the future performance of an economy drops precipitously if its current societal capital falls below some threshold level. An example is the sequence of deleterious events that ensue from a substantial lowering of a country’s credit rating in the international capital markets. These often include projects currently in the pipeline being shelved, credit becoming exorbitantly expensive for many future periods, and the domestic industrial and financial infrastructure being severely damaged. Such features will lead to a worsening, over time, of the relative performance of a more centralized society, because the probability of a very bad outcome is higher in this case. One bad dictator can, in a few periods, ruin the society to such a degree that the resulting lack of a threshold level of societal capital impairs performance for many future periods, even if there are significant economies of scale in societal decision making.

Likewise, while the potential for coordination may benefit a centralized society, there are countervailing effects as well. Since coordination is not possible without communication, and communication is fallible (a central premise in this paper), coordination beyond some point will be detrimental. Moreover, coordination almost always introduces delays. If each preceptor has to coordinate with several others, then many decisions must wait until other
decisions have been made and communicated. Such delays are perhaps costlier the more rapid the change in the economic environment.4

**Merit-based Selection of Preceptors**

Another argument in favor of centralized societies that has been historically important goes like this. In a more centralized society, more hinges on the ability of fewer individuals. Hence, a greater effort will be made to ensure that these individuals are of higher ability. This will improve the society’s performance.

Such an emphasis on “merit-based selection” was a foundation of Chinese bureaucracy, which lasted more than two millennia, originating in the Western Han dynasty and enduring until its formal abolition in the early 20th century. This bureaucracy invented elaborate methods for selecting a very small group of individuals who were to exercise vast administrative authority. At times, emperors themselves administered and supervised the examination of candidates (Franke, 1960). A similar emphasis on merit-based selection provided a basis of the British cadres or “civil services” designated for colonial rule. The members of the elite civil services, always very small in number, were to be rigorously selected and then fully empowered to rule the colonies. Domestic variants and successors of these civil services, deriving their legitimacy largely from a merit-based selection, can be found today in most of the former colonies. The members of these services exercise far greater authority than their unelected counterparts in most modern democracies.

A system of merit-based selection of preceptors is obviously better than one based on bribery and nepotism. However, there are several reasons, apart from the direct public and private costs of such a system, that limit the extent to which it can improve the performance of centralized societies. Once a system has been in place for some time, and is thus well understood, a larger proportion of those who qualify are likely to do so less because of their intrinsic abilities and more because of the resources they spent on the coaching they needed to master the techniques necessary to qualify. More important, selection systems do not change as rapidly as does the mix of the characteristics of the preceptors that is most useful to a society. This may partly reflect inertia. It may also reflect the fact that no one has the ability to fully foresee the characteristics of preceptors that will be societally most valuable in the future. Again, this is a reflection of human fallibility. A less centralized society is partially insured against this problem because the larger number of preceptors are more likely to span a wider range of characteristics. Diversification here not only reduces risk in a standard, static sense, but it also has a deeper, longer-term advantage in an environment that is changing and is essentially unpredictable.

4These and other adverse consequences of coordination were largely ignored in the post-War theory and practice of economic planning in socialist and mixed economies, as well as in the literature on economic growth.
Some Empirical Implications

The perspective presented in this section can help interpret some aspects of the post-War development experience. For instance, the superior performance of a small number of countries with centralized political authority (like South Korea, Singapore, and, more recently, Indonesia) has often been presented as evidence that centralized political authority is conducive, if not essential, to rapid progress in the early phases of development. What is left out in this line of reasoning is that, during the last four decades, political authority has actually been highly centralized in the vast majority of developing countries (in most cases, dictatorships), and that, with a handful of exceptions of the type noted above, their performance has been poor. This overall pattern is in accord with the perspective presented here.

Moreover, this perspective may help explain some puzzles. For instance, since the October Revolution, there have been periods during which the performance of the Soviet economy was judged by outside observers to be remarkably good in comparison to historical and contemporary international standards. Given that the cumulative performance has turned out to be quite disappointing, it is not yet sufficiently understood why the Soviet economy performed as well as it did during particular periods. On the other hand, such a performance of a highly centralized economy, over time, is consistent with the perspective presented here.

The Succession of Managers in Organizations

The current set of managers in any organization must, at some stage, be replaced. A part of human fallibility is that the choices of successors are fallible. Thus, an organization’s succession process has dynamic consequences for its performance; for example, the quality of the current managers is influenced by that of the past managers, and the current managers will affect the quality of the future managers. A natural question, then, is: how does the degree of centralization, in regard to the decision-making authority to appoint successor managers within an organization, affect the quality of the managers actually appointed?

Consider, first, an organization consisting of two managers. If one of these two managers chooses the successor for himself or herself as well as for the other manager, then, arguably, this organization is more centralized than one in which each manager chooses his or her own successor. Extending this further, consider an organization consisting of many managers, only some of whom appoint successors. The number of slots for which a particular manager appoints successors varies across managers. The total number of slots in the organizations under consideration is fixed. Then, one organization could be viewed as being more centralized than another if, in the former, a smaller