

examination because the professor has shown trust in them by leaving the room. Would the students feel they had been trusted if the professor continually returned to the room or planted agents to report on cheaters? Would trust have been shown if the professor's absence was due to other business?)

The second sense of trust is at once more relevant and more ominous in respect to the autonomy of the citizen. In politics it arises from recognizing that those in authority have the wisdom, skill, or rectitude to decide issues that arise in a manner the citizen will approve. The advantage of this understanding of the relationship between the citizen and those in authority is two-fold. First, the official, as recipient of the trust, acquires a duty to be faithful to it. Second, the citizen has undertaken no obligation (expressions of trust are not performatives) and is at liberty to withdraw the trust when it is no longer deserved. Thus "one ought to obey the state to the extent to which he trusts those in political authority."

Abbott's objective in this argument is to find a conceptualization that makes continuing critical assessment of the performance of the state internal to the process of deciding whether to obey it. But the concept of trust is a poor choice for this purpose. Trust renders critical scrutiny unnecessary if not inappropriate. Moreover, Abbott exaggerates both the extent to which being trusted is conducive to trustworthiness (especially in impersonal relationships) and the ease with which genuine trust will be withdrawn when not deserved. Numerous liberals have thought that trust is exactly what ought never be placed in anyone who "has the shotgun behind the door."

But there is a more fundamental problem here. Trust must be a derivative not a constitutive feature of the relationship between citizens and those in political authority. Critical assessment of the actions of the latter may with time and good performance warrant a kind of grudging trust in them. But officials must have authority before they can warrant trust in themselves qua officials. Thus either there is no authority (in which case Abbott's problem disappears) or "trust" cannot be the basic concept in terms of which to understand authority and how to relate to it.

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Condorcet: From Natural Philosophy to Social Mathematics. By Keith Michael Baker. (Chicago: University of Chicago Press, 1975. Pp. 538. \$22.00.)

Condorcet was a mathematician, philosopher, political pamphleteer and occasional politician, advocate of social rationality, and eventual victim of the Terror for his Girondist sympathies. Until quite recently he has been best remembered for his posthumously published fragment *Esquisse d'un tableau historique des progrès de l'esprit humain*. This title has become synonymous with the idea of progress and the infinite perfectibility of man. Recent scholars (notably Duncan Black, *The Theory of Committees and Elections*, Cambridge, 1958; Gilles-Gaston Granger, *la Mathématique Sociale du Marquis de Condorcet*, Paris, 1958; and G. Th. Guilbaud, "Les théories de l'intérêt général et le problème logique de l'agrégation," partially translated as "Theories of the General Interest and the Logical Problem of Aggregation," in *Readings in Mathematical Social Science*, ed. Paul R. Lazarsfeld and Neil W. Henry (Chicago: Science Research Associates, 1966) have rescued another of Condorcet's works, his *Essai sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix* from the neglect to which its opaqueness and lack of mathematical elegance have long condemned it (Baker, p. 227); and in my view it will prove to be the *Essai* rather than the *Esquisse* on which Condorcet's claim to distinction will rest in the long run.

The *Esquisse* is credited with considerable influence on figures such as Saint-Simon and Comte (the latter of whom hailed Condorcet as his "spiritual father" [p. 475 n. 4]). The *Essai*, on the other hand, can be regarded as the first work of mathematical political science, with direct influence on scholars such as Poisson and Cournot. It introduces two ideas of central importance to contemporary democratic theory: the notion of the paradox of cyclical majorities (which has been called by Guilbaud "L'Effet Condorcet") and the notion of a pairwise majority winner (now often referred to as the "Condorcet Winner") as the sine qua non of democratic choice. A third element of the *Essai*, in which Condorcet connects together the logic of majority rule with his probabilistic notions of truth, is at present less well known, but is crucial to an understanding of Condorcet's thought. Condorcet's jury theorem (which can be shown to be a corollary of the "law of large numbers") asserts that, for a group whose individual probabilities of reaching a correct judgment on some issue are each

greater than one-half, the group's majority verdict approaches one as the size creases—what appears to demonstration of a case *de*." More generally, under the Condorcet jury theorem of the tradeoff between special judgmental competence.

Keith M. Baker's *Condorcet: From Natural Philosophy to Social Mathematics* is a biography in the usual sense of intellectual history. Baker provides a rounded portrait of Condorcet for the first time, links together the *Esquisse* with the *Essai*—relating Condorcet's political theory to his "vision of a rendered rational through mathematics" (p. 370). It is important because

the treatment of Condorcet's histories of sociology—such almost invariably rested on the notion of the doctrine of probability. The *Esquisse* as a powerful (if not the) of the historical sociology successors, Saint-Simon and Comte, as it does the conception of a rationality that has in recent years been at the heart of his idea of a rationality. The traditional view is clearly misleading (p. 344).

Baker is at his best in discussing Condorcet's views in the *Esquisse*. Condorcet's views in the *Esquisse* represented, misunderstood, and taken for granted. Condorcet's views were taken for granted, rejected by those who followed in his footsteps. Baker's work of thorough and independent scholarship (nearly 90 pages of references) which demand a serious assessment of more traditional views of Condorcet, although its interpretation of Condorcet's career and views is not the basic outline ably sketched in his recent article on Condorcet in the *Encyclopedia of the Social Sciences*. Baker discusses in detail Condorcet's writings and casts light on such neglected works as the *la science qui a pour objet le calcul aux sciences politiques*.

Condorcet was "remained in the Encyclopedic age, for the interests and activities" (Condorcet) interested in the history of science; in the history of science, technology, and politics.

greater than one-half, the probability that the group's majority verdict will be correct approaches one as the size of the group increases—what appears to be a mathematical demonstration of a case of "vox populi, vox de." More generally, under certain assumptions, the Condorcet jury theorem permits a calculation of the tradeoff between elitist claims to special judgmental competence and majority rule.

Keith M. Baker's *Condorcet: From Natural Philosophy to Social Mathematics* is not a biography in the usual sense, but rather an intellectual history. Baker, an historian, provides a rounded portrait of Condorcet which, for the first time, links together the Condorcet of the *Esquisse* with the Condorcet of the *Essai*—relating Condorcet's philosophy of history to his "vision of a democratic society rendered rational through the power of social mathematics" (p. 370). Such an analysis is important because

the treatment of Condorcet in the standard histories of sociology—such as it has been—has almost invariably rested on a brief characterization of the doctrine of progress found in the *Esquisse* as a powerful (if flawed) anticipation of the historical sociology established by his successors, Saint-Simon and Comte. Neglecting as it does the conception of social mathematics that has in recent years been recognized as lying at the heart of his idea of social science, this traditional view is clearly inadequate . . . and misleading (p. 344).

Baker is at his best in showing how Condorcet's views in the *Esquisse* have been misrepresented, misunderstood, and simply mistakenly rejected by those who claimed to follow in his footsteps. Baker's *Condorcet* is a work of thorough and indeed loving historical scholarship (nearly 90 pages of notes, over 600 references) which demands a fundamental re-assessment of more traditional views of Condorcet, although its interpretation of Condorcet's career and views is not at variance with the basic outline ably sketched by Granger in his recent article on Condorcet in the *Encyclopedia of the Social Sciences*. In *Condorcet*, Baker discusses in detail virtually all of Condorcet's writings and casts important light on such neglected works as the *Tableau général de la science qui a pour objet l'application du calcul aux sciences politiques et morales*.

Condorcet was "remarkable, even in an Encyclopedic age, for the wide range of his interests and activities" (dust jacket). Anyone interested in the history of ideas; in the sociology of science; in the interplay between science, technology, and politics; in the origins

of "modern" notions of social scientific explanation; and, indeed, in the birth of the idea of social science itself, will find *Condorcet* a treasure trove. Students of comparative public administration will find both amusing and instructive Condorcet's run-in with the ancien régime's department of bridges and roads. More generally, those interested in the social scientist as social engineer and in the complex interplay between gnosis and praxis will be fascinated by Condorcet's remarkable career(s). Those interested in the philosophy of social science will marvel at the "modernity" of Condorcet's views on the probabilistic nature of social science knowledge and on the role of mathematics as a tool for social understanding and social change.

Robespierre remarked of Condorcet that he was "a great mathematician in the eyes of men of letters and a distinguished man of letters in the eyes of mathematicians" (cited p. 383). Baker notes (p. 383) that "this remark had just enough truth to be really vicious." Baker's careful scholarship (particularly when combined with that of other recent work on Condorcet as social mathematician) gives the lie to Robespierre's canard. Baker's work is a major contribution to that "reevaluation of the whole of Condorcet's theory of politics" called for by Granger (cited p. 444 n. 4), which we believe is needed to provide the balanced portrait of Condorcet which that neglected and misunderstood figure justly deserves.

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The Efficient Organization. By Selwyn W. Becker and Duncan Neuhauser. (New York: Elsevier Scientific Publishing Co., 1975. Pp. 237. \$12.50.)

The authors of this book want to say something quite simple: that the efficiency of an organization depends in part upon administrators knowing how well their subordinates work, a systematic gathering of information on the organization, and well-defined jobs appropriate to the situation. While this all seems obvious, it is not an unimportant intellectual task to demonstrate these points with empirical data. Unfortunately, on the way to the bank, something happens to obscure the obvious, to distort the findings, and to diminish the worth of the book.

The first part of the book, about 100 pages, purports to describe an entrepreneurial theory of organizations and a model of organizational