aspects must appear alternately, not as compromise. Since they do not lead circularly back to where they started, they provide an inescapable basis for dynamic change. Institutionalized opposition can also provide the analytical base to account for social change.

I have reservations about some of Blau's analytical tools. First, the central focus is on *social* exchange, which involves things given without explicit return obligation. Although some highly important aspects of social structure are competently developed from this base, which is essential to them, I strongly suspect that a more complete explanation will have to rest simply on *exchange*, whether social *or* economic (Blau's terms are roughly equivalent to what I would call *generous* or *selfish* transactions). Second, much emphasis is put on the power differentiating effects of giving larger favors than others can reciprocate, in which process "the ability to distribute valuable possessions becomes a socially defined mark of superiority." With awareness of the many sociological toes to be trampled, and without in the least deprecating the importance of the symbols involved, I would suggest that nothing really important about power differentiation has been explained until we have found out why one man is able to dispense more favors in the first place. This reservation ties to the first, since the answer may lie heavily in selfish transactions, whether of a sort that economists deal with or not. Third, after some long tussles of my own with related problems, I think that a meaningful analysis of power *must* distinguish sharply between bargaining power (whether A can get B to do what A wants, on relatively good terms) and "just plain" power (whether A can get B to do what A wants, whether on relatively good or bad terms in the particular case). Blau does not make the distinction, and, in consequence, his analysis of power often seems fuzzy.

I am convinced that Blau is working squarely in the area, and with the general kind of technique, that will produce the most significant social analysis at this stage of the science. Further, despite my reservations about particulars, I feel that this contribution is itself highly significant.

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Refractory Materials

The Science and Technology of Tungsten, Tantalum, Molybdenum, Niobium, and Their Alloys. Based on an AGARD conference. N. E. Promisel, Ed. Published for the North Atlantic Treaty Organization by Pergamon, London; Macmillan, New York, 1964. xiv + 588 pp. Illus. $20.

Since the end of World War II, the development of materials suitable for structural uses at ever higher temperatures has been one of the principal aims of materials research conducted on behalf of military and space programs. Among the metals with high melting points which suggest that they are potentially useful, tungsten, tantalum, molybdenum, and niobium, and their alloys, are currently considered most promising. This judgment is based on a number of considerations including not only the melting points of the metals, but also the temperature dependence of their mechanical properties, as well as their fabricative properties, rate of oxidation, and availability. In June 1963 (at Oslo, Norway) NATO's Advisory Group for Aeronautical Research and Development, AGARD, sponsored a Conference on Refractory Metals which was held to discuss the present state of the science and technology of these four metals and their alloys. The papers that were submitted to the conference constitute the major portion of the bulk and substance of the volume under review.

The papers are organized in seven sections: Introductory Papers (three papers that provide the rationale for the conference); Alloys and Alloying Behavior; Properties and Engineering Applications; Deterioration and Protection; Analysis and Testing; Primary Fabrication; and Secondary Fabrication. With the exception of the first section, each section consists of four or five contributed papers (which were distributed as preprints and therefore not presented in full at the conference), an interpretive paper in which one or more rapporteurs comment on the contributed papers, and a summary of the discussion that was stimulated at the conference by the rapporteurs' remarks and the preprinted papers.

The field of refractory materials, doubly blessed by the urgency of military and space requirements and by generous funding, is moving rapidly. This collection of approximately 30 papers provides the most up-to-date, comprehensive discussion of the state of the art and the science that is available. However, as one would expect, the papers are not of uniform quality. This is, unfortunately, equally true of the interpretive statements and the summary and conclusion provided in each section.

It is stated in the preface to the book, that one of the objectives of the conference was ". . . to force a 'marriage,' a more intimate intellectual relationship, between the . . . 'scientist' and 'engineer.'" To this end, both are well represented among the authors, and it is evident that theoretical concepts are being used, with some success, to explain the behavior of engineering materials and to suggest approaches to the development of more desirable properties.

I was most pleased with and reassured by Frederick Seitz's remarks in his introductory paper, "Trends and stimulation in solid state science," to the effect that solid state science ". . . is still a very rich field for future work and will continue to be exciting as long as man has any direct interest in condensed matter." It is difficult to conceive of a time when this might not be so.

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On Teaching Mathematics

Some Lessons in Mathematics. Members of the Association of Teachers of Mathematics. T. J. Fletcher, Ed. Cambridge University Press, New York, 1964. xiv + 367 pp. Illus. Paper, $2.95.

Some 20 members of the Association of Teachers of Mathematics (of Great Britain), who had been giving careful consideration for a substantial period of time to problems of the mathematical curriculum, met in Leicester in the summer of 1962, and from that meeting the volume under review emerged. Its aim is to indicate, through the presentation of model lessons, the sort of mathematics and the sort of classroom treatment that the authors deem appropriate for the training of users of mathematics in the