fluence the outcome of negotiations, whether those negotiations are between representatives of sovereign states or between representatives of less august entities.

Common sense tells us that agreement depends on package in which there is something appealing to both sides; it also tells us that the side that "plays it cool" may extract some last-minute short-run advantage. What common sense does not tell us is whether to propose the package early or late, or to propose it by stages; nor does it tell us how to calculate the hidden costs of success in last-minute demands. It is at this level that the theorist searches for discriminating explanations and the practitioner for precepts. A more detailed investigation on a narrower front will be required to satisfy either.

Iklé's "rules of accommodation" (chapter 7) similarly invite further research to demonstrate when they have or have not been observed, and are or are not likely to be observed. Beyond that, if the objective is to promote more rational negotiating behavior, we need to know what are the benefits and what the penalties that flow from conformity to these rules of accommodation, and whether there are particular circumstances in which conformity is especially profitable or unprofitable.

Only on the last page of his excellent "bibliographic note" (pp. 256–264) does the author comment on the parallels and contrasts between labor-management bargaining and interstate negotiating. Had he pushed his analysis further at this point, Iklé might have wanted to deal explicitly with the question of which characteristics of diplomatic negotiations are inherent in any bargaining process, which are peculiar to bargaining among sovereign states, and finally, which are novel features of interstate bargaining in our time.

Obviously more can be done to codify the styles of negotiating behavior of different countries. How often, for example, does a particular opponent invent some new issue for trade-off purposes, once public expectations of a détente have been aroused? How regularly does he withhold significant concessions until one begins to pack one's bags? On these questions, too, the impressions of astute participant-observers, valuable as they are, need to be supplemented by systematic investigation.

During the period in which *How Nations Negotiate* germinated, Iklé was associated with three of the leading American groups concerned with research on international relations—at the RAND Corporation; at Harvard's Center for International Affairs, under whose auspices the book was written; and at Massachusetts Institute of Technology, where he is now a professor. All three groups must have been greatly invigorated by this fresh attack on a neglected field of inquiry.

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Exploration and Exploitation

Islands in Space: The Challenge of the Planetoids. Dandridge M. Cole and Donald W. Cox. Chilton, Philadelphia, 1964. xii + 276 pp. Illus. $6.95.

This is an irritating book. It is irritating because of the use of the word *planetoid*, the least widely used of all the terms invented to name the objects that have orbits between Mars and Jupiter. It is irritating because of the unnecessary and gratuitous attack made on astronomers in general because some astronomers have outspoken opinions about the present goals of our national space program with which the authors disagree. The "journalese" science, the florid rhetoric, and the exhortations with which the book is filled are irritating. It is irritating to read the suggestion that an implausible hypothesis (Shklovsky's idea that the inner satellite of Mars is artificial) that has not been proved needs to be disproved.

Apart from the irritations that I have mentioned, there is quite a bit of interesting material in the book. The historical material, particularly in chapters 2 and 5, seems to be correct for the most part. However, a statement (p. 39) implies that the minor planet program carried on under my direction at Indiana University terminated in 1954, but that program is in fact still going on, undiminished, at the present time.

The more controversial parts of the book, such as the discussion of capturing and mining minor planets, are given far too many pages and printed words, with the result that a potentially interesting subject becomes dull. The unnecessarily large number of quotations and footnotes seems to be an attempt to make the book appear scholarly, and this is a mistake. This criticism does not apply, however, to the quotations given at the beginning of the different chapters. In particular, one would like to know the time, the place, and the circumstances that led Lyndon B. Johnson to make the very interesting statement quoted on page 122:

> Someday, we will be able to bring an asteroid containing billions of dollars worth of critically needed metals close to earth to provide a vast source of mineral wealth for our factories.

Appendix B (pp. 179 to 239) gives the orbital elements and photometric constants for minor planets with permanent numbers 1 through 1650. There is a useful bibliography (pp. 251 to 267).

In summary, this could have been a much better book. It is not uninteresting, but it could have been much more interesting. If the authors had had a little less missionary zeal and a greater desire to inform their readers, this book would have been half the size (and half the cost) and ten times more interesting.

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Diffusion Phenomena

Atomic Migration in Crystals. L. A. Girifalco. Blaisdell (Ginn), New York, 1964. xii + 162 pp. Illus. $3.75.

The diffusion of atoms through solids is of scientific and of technological interest. The scientist studies the phenomenon to learn more about imperfections in solids (such as vacancies, interstitial atoms, dislocations, and surfaces) and more about how they interact with one another and with impurity atoms. Moreover, diffusion processes are basic to the understanding of many other properties of solids, such as plasticity and radiation damage. The technologist uses solid-state diffusion in fabricating semiconductor devices, in preparing precipitation-hardened alloys, and in dealing with the problem of tarnishing and corrosion. The appearance, then, of a book that presents the fundamental notions of diffusion in crystals, and is addressed to readers who