## Book Reviews

The Torment of Secrecy. The background and consequences of American security policies. Edward A. Shils. Free Press, Glencoe, Ill., 1956. 238 pp. \$3.50.

The Torment of Secrecy is a sensitive and penetrating analysis of a nation suffering from what can be described only as multiple schizophrenia. For in the United States the familiar ambivalence, found everywhere, between freedom and conformity is compounded and confounded by tensions arising from a passion for publicity at the expense of privacy and at the same time a childlike faith in Secrecy as a bulwark of Security. De Tocqueville long ago commented on the unique and all-powerful role of public opinion in American culture and expressed misgivings lest it result in the triumph of conformity and the sacrifice of freedom and diversity.

This passionate faith in public opinion, or, as Edward Shils would have it, in publicity, is not directed against privacy as such but at privacy as a sign of dissent—for dissent may breed disloyalty. Within this unexposed area of privacy the "mass" man may well ask, "What subversive schemes are afoot? What dire deeds are being planned? Otherwise why insist on privacy? If one has nothing to conceal, why fear publicity?"

Fear of privacy is bound to be exaggerated in a closed and stratified society in which the ruling élite is forever fearful of revolt from those who may challenge its legitimacy. Czarist Russia, for example, was thus obsessed with a conspiratorial view of social and political intercourse. Continuous surveillance by secret police and an army of informers was matched by systematic efforts to enforce conformity through control of education, religion and communication and through periodic campaigns of what the Czar called Russification. All such tendencies are intensified where a monolithic or rigidly hierarchical view of society prevails-where State and Society are for practical purposes indistinguishable. A pluralistic society, on the other hand, can afford both publicity and privacy, since Society (in the sense of family, church, trade unions, and other associations) is at the same time greater than, and independent of, the State. The right to privacy, in democratic societies at least, does not normally extend to affairs of state.

In nondemocratic societies privacy as an attribute of the ruling élite becomes Secrecy, which raises "higher and more impassable barriers" to publicity. For, as Shils says, "Secrecy is Privacy made compulsory." I think it was James I who said that "one must not inquire into the mystery that surrounds a king," and some such notion applies more or less to all nondemocratic states. But democracy is as much opposed to secrecy in government as it is dedicated to the right of privacy for its citizens. Bills of Rights and other devices to guarantee and protect diversity of association and expression reflect the latter as the expression "public affairs," as a synonym for affairs of state, reflects the former. Democratic governments live in goldfish bowls, sub-ject at all times to "pitiless publicity." Secrecy is suspect, and "state secrets" must justify themselves, if at all, not as an expression of the right to privacy for a ruling élite or even as a necessary attribute of the process of government, but as indispensable to national security and the whole democratic way of life.

In no country is state secrecy more suspect than in America. But in recent years we have been so obsessed with Secrecy as a bulwark of national security that we have all but extinguished the right of privacy. "In order for secrets to be safeguarded," says Shils, "privacy must be invaded. The security of secrets has come to require not only physical security and classification"; it requires that personnel be free of any taint that might lead to the betrayal of state secrets. "The idea that the breaches in security are dependent on dispositional factors, such as political attitudes or personal propensities, is the foundation of the disruption of privacy by secrecy." The result has been that a democratic, pluralistic, populistic nation has taken on to an alarming degree the ideology and apparatus of a totalitarian, monolithic, nondemocratic society. Secret police, paid anonymous informers, spies, and counterspies, investigators turned inquisitors, have appeared; and guilt by association, if not guilt by mere accusation, has become a feature of legislative and even quasi-judicial proceedings, on the assumption that nearly everyone is a potential spy or saboteur and that a man is guilty until he proves his innocence.

In an age of science and technology and of sharply conflicting national ideologies it is not surprising that intellectuals, and especially scientists, should be special objects of concern to those who equate secrecy with security.

"There is an inner affinity between science and the pluralistic society," says Shils. "The conduct of scientific research requires a pattern of relationships among scientists which is the prototype of the free society.... The community of science is built around the free communication of ideas among a relatively small number of intellectually interested and qualified persons whose judgment is recognized to be a measure of validity, and whose approbation gives confidence in the truthfulness of discoveries and in the fruitfulness of the paths traversed...

'The standard of truth in science has nothing to do with the criteria of political success or of political loyalty. . . . The autonomy of science is infringed on when scientists who are qualified by their training, personal qualities and intellectual gifts, as assessed by their peers and seniors, are prevented for extrascientific reasons from working on problems on which research is possible and for which resources are available. It is infringed on when scientists are unable to discuss, publish, or circulate their work to other scientists interested in the same or related problems. It is infringed on when scientists are unable to leave their country or to enter another country to attend a scientific congress because the government in the country from which they come or to which they wish to go is concerned about their ideological adequacy. It is infringed on when talented young scientists are refused grants which are otherwise available and for which they are otherwise qualified, or when older and well-established scientists are refused research grants for which their achievements and reputation qualify them because their ideological disposition is adjudged to be unsatisfactory.'

All of these things have happened, not only to scientists, but to intellectuals generally, and have helped to produce that "torment of secrecy" of which Shils writes. For the scientist and the intellectual are by nature and function questing, critical minds, forever asking *how* and *why* and thus subjecting to constant scrutiny the most precious of all tribal loyalties, including those official secrets upon which security is thought to depend.

It remains to ask, How come? How could democratic, pluralistic America get itself in such a fix? Shils, I believe, is inclined to lay too much to what he calls our "populistic tradition." In my judgment there is at least one other factor of critical importance.

An obsessive fear of both privacy and secrecy may develop in a society whose population is composed of heterogeneous and mutually hostile racial, nationality, ethnic, religious, or political elements. The English can afford to be indulgent of those who differ or dissent, or who insist that their private affairs are no concern of the state or public opinion. As Shils observes, "Mutual trust (in Britain) reduces the fear of secretiveness and the need for publicity." In America, however, the same influences that operate to create attitudes of freedom and toleration toward differences-that is, a heterogeneous population in an extensive land, operate also to produce fear of diversity, especially when these differences take, or appear to take, a political turn. The American knows well that in a nation composed of men and women of nearly every conceivable national, racial, or religious heritage, toleration of religious and cultural differences is a condition of survival. Otherwise we might quickly revert to that state of nature of which Hobbes spoke. But the limits of this toleration, although vague and variable, are nevertheless real, particularly when political values are involved.

Without a common culture, with historical, religious, and literary traditions as diverse as the groups entering into the so-called "melting pot," and to a large extent lacking even a common language, the nascent Americans looked for a common bond of unity in the political and economic institutions of their adopted land.

The very differences that produced a tradition of toleration on the cultural level produced an equally fanatical belief in the necessity for conformity in political and economic ideas. Hence, the passion for Americanization, for loud and repeated affirmation of devotion to the Constitution, the Declaration of Independence, Free Enterprise, and other signs and symbols of a common political and economic loyalty. It is a loyalty, be it noted, not to any omnipotent state of Hegelian or Marxist hue, but rather to a set of political ideas that give meaning to our kind of heterogeneous, pluralistic society. Among these is the notion that publicity is a safeguard if not a cure for most political ills. Hence, state secrets too are anathema.

Yet when state secrets are associated with national security and the defense of other democratic values they join the Constitution, the Declaration of Independence, and other symbols of our common political heritage as part of the "ceremonial of solidarity" so important to a heterogeneous, pluralistic people.

No brief review can summarize this searching and stimulating volume. Nowhere have I seen so impressive an analysis of one of the major problems of our time. Shils is no zealot, either of the right or left. He recognizes that in the context of polarized political power a security problem of considerable dimensions confronts all the free nations. His quarrel is with those methods that not only are ineffective in promoting security but actually impair national security by undermining those features of our pluralistic society upon which our national security most depends. His concern is not with security or even with secrecy as such, but with The Torment of Secrecy. PETER H. ODEGARD

Department of Political Science, University of California, Berkeley

Protoplasmatologia. Handbuch der Protoplasmaforschung. vol. II. The pH of Plant Cells. James Small. The pH of Animal Cells. Floyd J. Wiercinski. Springer, Vienna, 1955. 116 pp; 56 pp. \$8.10.

As introduction to the pH in plant cells, a brief history is given of early estimations of pH values in plant cells as well as an outline of Small's Range Indicator Method. This method (R.I.M.) was largely used to obtain the data on which the monograph is based. Tables of indicators and of color changes for rough practical estimations and an outline of new notation for R.I.M. follow. The present-day outlook on pH and the R.I.M. is discussed, and significant precautions, advantages, and limitations of the method are pointed out. In the succeeding section the relationships between pH and natural indicators are reviewed.

The following major chapter comprises methods and data on the pH of plant cell sap. Significant results and pHranges are assembled here according to taxonomic groups, together with a detailed listing of varied tissue locations in angiosperms and of cell and tissue distribution within the plant. Varied conditions are also taken into account, such as flowering and vegetative state, maturation, seasonal changes, gradients, diurnal variations in succulents, nonsucculents, and stomatal guard cells, effects of plant hormones and chlorosis on pH. One chapter deals with the plant cell wall, buffers in plant cells, and the protoplast including nucleus, chromosomes, chloroplasts, granules, and limiting layer. These sections are relatively short, since considerably less is known here. The bibliography contains 230 full citations.

The purpose of Wiercinski's review is to evaluate all the existing literature and data on pH in the protoplasm of animal cells. In his presentation of modern problems, methods, and results, the author is mindful of the fact that in the past faulty methods and techniques have been common sources of error. Both the methods and the assumptions on which their procedures are based are therefore carefully examined.

Detailed discussions are given in three sections on the methods used for the determination of intracellular and tissue pH: namely (i) potentiometric methods (hydrogen, platinum, and antimony electrodes; capillary glass electrode; glass electrode); (ii) indicator method (general considerations; vital dyes; acid-base indicators; natural indicators in living cells); and (iii) methods of calculation (Henderson-Hasselbalch equation; zeta potential; buffering power). The actual data are subsequently given in tables systematically from the Protozoa through the Chordata.

In lieu of a summary the author presents a critical discussion of data for pHobtained by different workers, in nucleus, cytoplasm, and vacuole. He concludes that only a few investigators have in the past entirely excluded possible errors involved in the methods used, although it would certainly be incorrect to assume that all cells have the same pH at all times.

Robert Bloch

Biological Abstracts, University of Pennsylvania

Advances in Carbohydrate Chemistry. vol. 10. Melville L. Wolfrom and R. Stuart Tipson, Eds. Academic Press, New York, 1955. xx + 437 pp. Illus. \$10.50.

The technical stature of this series of *Advances* is outstanding, and volume 10 is one of the best. Determination of the true value of these volumes is hardly possible, but it is obviously very great. If the present apparently high editorial standards are maintained, carbohydrate chemists can be assured that developments pertinent to their major scientific interests will be continuously reorganized in the light of current needs.

Contributions from 11 well-qualified scientists (one each from Australia, Canada, and Scotland in addition to four each from England and the United States) treat nine subject headings. Because of the detailed exactitude with which each section is handled, perhaps several reviewers rather than a single one would have been more in keeping with the tenor of the work.

"The stereochemistry of cyclic derivatives of carbohydrates" is discussed (J. A. Mills) from a fresh point of view which ultimately should be helpful in