

the identification parade in particular, is a crucial determinant of accurate recognition of people. But we must not ignore the importance within that environment of the individual witness, who after all is doing the recognizing. The Devlin Report was pessimistic about distinguishing between a valid account and an invalid one. Clifford and Bull are optimistic; they believe that there are cognitive and personality factors that can be used to predict which individuals are likely to be the more reliable witnesses. The evidence they provide, however, is flimsy.

The Psychology of Person Identification serves us well in at least three ways. First, it brings together a good deal of the work of British psychologists. Although it by no means covers only research from across the Atlantic Ocean, the book makes it evident that British researchers are engaged in important projects designed to elucidate the effects of certain social, situational, and personality factors in eyewitness testimony. Second, the book offers a good source of references.

Third, the book presents a fairly balanced picture of the reliability of eyewitness memory. One trap that researchers who study eyewitness testimony and who push for reform often fall into is that of regarding all eyewitness accounts as unreliable. However, it is not true that all eyewitness accounts are untrustworthy. If a robbery victim spends two hours in good lighting with an assailant and then identifies him or her the next day under equally "ideal" circumstances, we may not wish to lump the identification in the "inherently unreliable" category. It is important for psychologists to stress that some identifications, not all, occur under unfavorable conditions and to shed light on the nature of those conditions. While Clifford and Bull occasionally give in to the temptation to regard all eyewitness memory as inherently poor, they allow for the finding that visual memory is often quite good, and they think that some conditions are more favorable than others. Armed with knowledge about these conditions, the authors make recommendations throughout the book for reducing falsifications and enhancing accuracy and completeness in testimony. They suggest, for example, that "testimony be confined to that given in a spontaneous report and in answer to questions which are framed with as little suggestibility as possible" (p. 157), that "group discussion with witnesses is an ill-advised procedure" (p. 162), and that "two pa-

rades be used, only one of which contains the suspect" (p. 198). These recommendations are sound and can easily be implemented by law enforcement officers and others with a genuine interest in the improvement of justice in our society.

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Elasmobranchs

Sensory Biology of Sharks, Skates, and Rays.
EDWARD S. HODGSON and ROBERT F. MATH-
EWSOON, Eds. Office of Naval Research, Ar-
lington, Va., 1978 (available from the Superin-
tendent of Documents, Washington, D.C.).
xii, 666 pp., illus. \$13.25.

The study of elasmobranch biology has been stimulated by financial support from the Office of Naval Research, beginning in the 1950's. This volume is the fourth summary of the subject to be published since 1963. The volume differs from its predecessors in that it focuses on sensory biology. There are sections on vision (four papers), chemical senses (two), mechanical and acoustical senses (three), electrical senses (two), and ecology and behavior (four). There is a foreword by R. K. Geiger, a preface by the editors, a perspective by Perry W. Gilbert (the only author who turns up in all four publications), and a retrospect by Bernard J. Zahuranec. The volume is well produced and is a good buy.

Not much in the volume is new; the papers are mainly literature reviews written by researchers active in their respective fields. Taken as a whole, however, the volume will come as a surprise to persons unfamiliar with elasmobranchs beyond the lab exercises of a comparative anatomy course, wherein sharks are portrayed as simply organized primitive vertebrates that survive, somehow, in spite of themselves.

Samuel H. Gruber and Joel L. Cohen find that elasmobranchs have eyes that are highly developed, in contrast to earlier statements that shark eyes have a "sluggishly mobile iris without nerve supply," a "shallow anterior chamber without annular ligament or Schlemm's canal," and a "retina, with few exceptions, provided only with rods"—statements that in their view "are no longer correct."

R. Glenn Northcutt finds that in elasmobranchs the ratio of brain weight to

body weight is comparable to that of birds and mammals and that "the common conception that chondrichthians are small-brained creatures is clearly false." Focusing on interspecific variation in brain structure, he finds that "comparison of elasmobranch brain evolution with that of other vertebrate groups reveals a number of similarities: increase in brain size, restricted olfactory projections to the telencephalon, expansion of the striatum, and expansion and differentiation of the nonolfactory telencephalic pallium."

R. Curtis Graeber confronts the problematical subject of behavior and central nervous system integration and asserts that "substantial evidence indicates that sharks can learn certain types of instrumental discrimination tasks as rapidly as most mammals. . . . They also respond quickly to standard classical conditioning procedures."

In a more traditional vein, Barry L. Roberts ponders the mysteries of the lateral system, which have been complicated in recent years by the discovery of an efferent innervation, apparently inhibitory, of the lateral-line organs.

Arthur A. Myrberg, Jr., reviews once again the interesting findings of his group that "sound plays an important role in the lives of sharks. It is used by them to locate food sources and possibly even other objects, such as competitors and predators."

My prize, if I had one to award, would go to Ad. J. Kalmijn, whose experiments have shown that elasmobranchs have "the highest electrical sensitivity known in the animal kingdom" and that they "can detect and take prey by the exclusive use of their keen electric sense, not only under favorable laboratory conditions, but also in their electrically more intricate oceanic milieu."

And my hat goes off to A. K. O'Gower and A. R. Nash for their efforts to confront the animals in their own environment, during a three-year study of inshore populations of *Heterodontus* in Australia.

The eight other papers in this volume deal with eyes (J. G. Sivak), chemoreception (E. S. Hodgson and R. F. Mathewson; Herman Kleerekoper), telemetry (Donald R. Nelson), electroreception (M. V. L. Bennett and W. T. Clusin), Indian Ocean sharks (A. John Bass), Pacific folklore (Hodgson), and fasting in confinement (Frederic H. Martini).

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