But in speaking to philosophers, and particularly to philosophers of education, the volume must be counted among the most illuminating and useful works in the philosophy of education. Wit, elegance of style and analytic rigour characterize an impressive number of the papers. Especially noteworthy in this regard are Ryle's delightfully provocative paper entitled "A rational animal," Black's "Reasonableness" and Hirst's "Liberal education and the nature of knowledge." The section on reason which occupies slightly less than half of the volume brings together a goodly assortment of lucid papers which treat of the concept "reason" and closely related notions like belief, will, truth, and the like. While no attempt was made by any of the contributors to tie in their discourse with educational concerns as such, the nature and scope of each discourse contributes significantly to intelligent talk about what Hirst has called, "the educational enterprise." It is precisely this concern for placing educational philosophy squarely within the setting of discourse on reason that sets the work apart as extremely important if not unique.

The first part of the volume also contains an impressive collection of essays. It would seem, though, that Hirst's "Liberal education and the nature of knowledge," and Peters' "Education and human development," both excellent papers, have much more in common with the material in the first part of the volume than with that of the last part where they seem almost out of place. Peters' analysis of the concept "development" which appears in the last part runs roughly parallel in strategy to Dearden's analysis of the concept "growth" in the first part and their conclusions are largely similar.

Given the diversity of authorship and of focus — there are twenty-one contributors to the collection — an essentially substantive review would seem impractical. But the absence of a unifying theme or the failure to follow through on promises is not altogether tragic. While the editors appear remiss in not saving the planners from "pressure groups with very particular axes to grind," they amply catered to the philosophers. The volume seems to survive the book.

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Frank Smith. *Comprehension and Learning: A Conceptual Framework for Teachers.* New York: Holt Rinehart and Winston, 1975. Pp. 277. Paper.

Contemporary educational psychology is characterized by a schism between those who emphasize the rational and purposive quality of learning and those who conceive of the process in terms of the modification of observable behaviour by the arrangement of appropriate contingencies of reinforcement. Smith occupies a secure position within the former camp. *Comprehension and Learning*, however, is not an attempt to further elucidate (or confuse) the basic differences of theory that characterize the study of learning. It is not a review of the literature, nor a research report, but an attempt to link both theory and research in human learning, psycholinguistics and cognition. As the author states in his Introduction the book is written "from the perspective of a teacher trying to understand the mental processes of a schoolchild." Indeed, because of its emprasis the title might well have read as *A Conceptual Framework for Teachers: learning and comprehension.*

Books about psychology written for teachers often tend to suffer from one of two shortcomings. They become sets of prescriptions for practice loosely based upon phychological "laws", or they treat academic psychology as a subject having little to do directly with classroom practice and leave it up to the teacher to relate the two. Smith has tried to avoid both pitfalls by presenting a theory which he views as "an attempt to conceptualize a child's interaction with his environment in terms that are congruent with scientific research and experimental data, but at the same time make sense to the teacher" (p. 243).

The implication here, of course, is that there are scientific theories based upon empirical research which do *not* make sense to teachers. It is the opinion of this reviewer that any theory which is "congruent with scientific research" must, *ipso facto*, make sense — even to teachers! What Smith has actually done in order to make his theory more "sensible", is relate it to several aspects of behaviour which are seldom examined within the framework of a learning theory.

The first three chapters of the book are concerned with comprehension and its relation to perception, concept formation learning and language. Comprehension is defined as "the condition of having cognitive questions answered, the absence of uncertainty" (p. 34). The reader may well question the validity of defining a term as the absence of something else (since "uncertainty" may be defined as "noise", and that may be described as the absence of comprehension). The author, however, goes on to describe the development of a "cognitive structure" which enables the individual to go about making sense of his environment. This structure is at once a system of categories, a set of rules for allocating objects or events to categories, and a system of interrelationships among the categories themselves. For Smith, learning is the process that results in changes in the individual's cognitive structure. Learning takes place because "human beings are innately predisposed to learn whenever the effort to comprehend fails and the world does not make sense" (p. 35). Thus it is that the issue of motivation is resolved.

The nature of learning — the elaboration and modification of cognitive structure — is the central concern of the second part of the book. The process of learning consists of the generation and testing of hypotheses, and consequent modification of the cognitive structure. This, the author contends, is the "one basic process by which every individual tries to make sense of the world" (p. 140), and underlies the different kinds of learning postulated by other psychologists. Reinforcement is intrinsic, a direct function of increased comprehension: "reinforcement for meaningful learning seems basically to reside in success in learning . . . Achievement of a skill is adequate reinforcement for learning the skill" (p. 231). For example, the child who does not attend to the teacher is simply not interested in what the teacher is doing. To reinforce attending attending behaviour is not the solution for "without interest, there is no possibility of his learning or even paying attention" (p. 232). The whole question of classroom management is resolved, according to Smith, if the teacher's behaviour is both meaningful and novel for the child.

Smith's analysis of learning in the latter part of the book deals initially with the differences between meaningful acquisition and rote memorization. He is particularly critical of much controlled laboratory investigation of learning, contending that it deals with nonsensical material and has little to do with the task

of making sense of the world. The author makes no real attempt to discuss the difficulties of carrying out research in learning that is at once carefully controlled yet reasonably generalizable, but implies that the limitations of experimental psychology frequently stem from the perversity of experimental psychologists. The book goes on to describe the processes of learning to speak and to read, and examines the implications of cognitive learning for both written and spoken language. Smith argues persuasively that reading is essentially an exercise in comprehension, and that "learning to read, like reading, is easier if you can make sense of what you are doing" (p. 186). The implications for the teaching of reading and writing are thoughtfully discussed, establishing the chapter (from the point of view of this reviewer) as the most stimulating in the book. The subsequent section concerns individual differences in cognitive skills. It is essentially a brief discussion of cognitive styles, intelligence and intelligence testing, and differences in language codes and dialects. The chapter is a short one, and because these diverse topics are only superficially covered and tenuously linked, adds little to overall impact of the book.

Comprehension and Learning concludes with an overview of the implications of Smith's theory for the instructional process. The theme of the first part of the book, that learning is essentially a process that the child himself can manage, is complemented by the author's analysis of the teachers' role. He does not offer sets of rules or specific procedures, contending that the learning process is so poorly understood that such rules are usually no more than "slogans" employing "very diffuse and superficial terms" (p. 225). He stresses that teachers cannot train or discipline children into learning, because learning requires cognitive involvement. As Smith sees it,

> the teacher's task is a restorative one . . . to persuade the child once more that he is in an environment where learning is worth the trouble and risk involved, because it will pay off. And that involves finding situations in which the child wants to learn and can succeed (p. 227).

Smith's intention, expressed in the Introduction, is to provide a "broad conceptual framework that will enable teachers to make their own decisions in the classroom" (p. 7). The book does not present a carefully elaborated, precise theory of learning along with supportive research evidence — its objective is to provoke inquiry rather than to provide solutions. If the reader questions Smith's basic assumptions and is skeptical of his generalizations about human behaviour, then the book will have almost certainly achieved its purpose.

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Daniel J. Sullivan. *Public Aid to Nonpublic Schools.* Toronto: D. C. Heath and Company, 1974. Pp. 146.

Public fiscal support for nonpublic schools has long been debated by many groups in the United States and the issue is not without some import on the Canadian scene. Consequently, as this volume is touted as an endeavour to introduce new and salient information regarding this matter, one might anticipate the reading of an important contribution to the resolution of a question that is contentious both morally and politically. Unfortunately for anyone who has already addressed the issue in any depth, such an expectation will be left unfulfilled.