

composed of: V. Dudman, I. Hinckfuss, J. McGeachie, C. Mortensen, T. Richards, M. von Thun and G. Williams. The ALTJ is the journal of the Australian Logic Teachers' Association. Here is further information about this journal, quoted from its cover:

The Editors of this Journal would welcome papers, reviews, teaching notes, problems and news items for consideration for publication.

The Journal is primarily for the publication of material relevant to the teaching of logic and philosophy, but related scholarly papers, particularly in logic, will also be considered for publication.

#### Manuscripts:

Prospective contributors are asked to prepare their manuscripts as follows:

1. Manuscripts should be typewritten, double-spaced, with a five cm left margin.
2. Follow, as far as possible, the format of the papers in this and subsequent issues.
3. Eliminate footnotes as much as possible by incorporating the material in the text.
4. Collect footnotes, numbered consecutively, at the end of the paper.
5. Indent substantial quotations (over 60 words) without quotation marks.

The inclusion of sufficient International Reply Coupons with submitted papers will be a condition of their being returned by air. Non-returnable photocopies are acceptable.

Manuscripts, books for review, and all other editorial communications and enquiries should be addressed to -- The Editors, Australian Logic Teachers' Journal, Philosophy Department, University of Queensland, St. Lucia, Queensland. 4067.

#### Subscription:

The subscription for the Journal, at present two numbers each year, is A\$2.00 (US\$3.00) for individuals. Membership of the Association automatically entitles one to receive the Journal. Membership is A\$5.00 (US\$6.00) p.a. for teachers, A\$2.00 (US\$3.00) for bona fide students. The institutional subscription remains at A\$5.00 (US\$6.00) p.a.

Subscriptions should be sent to the Editors.

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# conference reports

## Annual Conference

The 1980 Annual Conference of the Australian Logic Teachers' Association was held July 26-27 at the University of Queensland. Programme items included: "Further Uses of Truth Tables," "Uses of Logic Diagrams," "Logical Dialogue," "Competency Based Assessment," "Teaching Introductory Philosophy: (a) Moral Philosophy, (b) Philosophy of Logic".

## KNOWLEDGE REPRESENTATION AND REASONING IN THE HUMANITIES AND SOCIAL SCIENCES

The editors have received the following conference report from Mario Borillo of the Centre National de la Recherche Scientifique, Laboratoire d'Informatique pour les Sciences de l'Homme. Anyone wishing further information about the operations of the Centre or the conference should write to M. Mario Borillo, LISH/CNRS, Université de Toulouse Le Mirail, 109 bis, rue Vauquelin - 31058 Toulouse Cedex, France.

Conference at Saint-Maximin de Provence (17-19 September 1979) organized by l'Institut de Recherche en Informatique et Automatique and le Laboratoire d'Informatique pour les Sciences de l'Homme du C.N.R.S. (France).

The aim of the conference was to try to bring out the essential points concerning computing in the Humanities and Social Sciences from a discussion between computer people and researchers in the disciplines where formalisation and computation have the most impact. The diversity of the links between computation and the "Human Sciences" is well known to be difficult to clarify because of the fine difference between the operational aspects and their theoretical implications.

Specific problems arise, however, on both of these levels. On the technical and instrumental (operational) plane, it is a question of determining the exact nature and the economical and practical consequences for the Human Sciences with regard to the computational aspects which may take the form of statistical and mathematical software, information retrieval and text handling software, data-base management systems, etc.

This diversity has hidden the fact that at

a deeper level, these techniques, however adequate they may be "locally", take part in complex scientific constructions which may not have the status of natural sciences but which nonetheless possess some type of coherence. Therefore the introduction of computing into the Human Sciences involves bringing together within the same research project scientific conceptions that may prove to be different. So it is in this way that computing, far from being neutral, could have important theoretical implications and could thus play a role in the epistemological debate on the fundamental status of Human Sciences.

The organizers felt that the interplay between those two preoccupations - the technical and the theoretical - could best be approached by concentrating on the nature of the reasoning applied by the researcher in the Human Sciences, whether he uses formal methods or whether, more traditionally, his approach is explicit through discourse.

The complexity, the diversity according to the disciplines, and in certain respects the newness of the problems raised in this way exclude a priori, quick, simple and, above all, reassuring replies. Nevertheless, starting from the examination of the coherence of the reasoning, it is hoped to establish a critique concerning the habitual recourse to computation and, in particular, to determine whether or not it is logically justifiable and what it actually contributes to knowledge. At the same time, the concrete analysis of certain types of reasoning is likely to bring to light precise facts that have escaped the overall reconstructions of epistemology. These facts concern the nature of information taken from the phenomena studied (the "data" of the problem) as well as that of the logical operations and procedures which constitute scientific discourse. One can think here of such problems as the structure of the data, the definition of algorithms, the characterization of inferential relations, which are familiar to computer programmers.

In a somewhat symmetrical way, the recent evolution of research in computation science raises questions already dealt with in the Human Sciences. In fact, the present developments of artificial intelligence - man-machine communication, knowledge representation structures, non-classical logic - in certain respects links up with some trends in cognitive psychology and the logico-semantic approach in linguistics. This research, extending beyond the limits of the sentence, is concerned with the representation of discourse. Thus, it has to deal with the same preoccupations stated above in relation to reasoning in the Human Sciences (for example, deontic logic).

At the conference, computer people and logicians were confronted with linguists, psychologists and jurists for three days' discussion on the above hypothesis. Participants and researchers came from ten countries.

The dialogue revolved around four topics:

- Knowledge representation and natural language analysis;
- "Natural" logic and scientific discourse;

- Logic and knowledge representation;
- Cognitive processes and the modelisation of reasoning.

We will not try to analyse here the scientific results of the conference, which are as usual to be found in the modifications of some research and the organization of seminars (for example the interdisciplinary seminar on analogy at LISH-Paris). Two areas were particularly studied: the connexions between computing and non-classical logic, and the links between the latter and the formal applications in Human Sciences.

Perhaps we ought also to add that the rather condescending attitude of computing towards Human Sciences has tended to be modified with the discovery of the unexpected precision of some of their constructions. And some computing people admitted that certain methods in the Human Sciences could benefit their discipline.

The Proceedings of the Conference in Saint Maximin will soon be published by the IRIA. \*

## books received

The extended reports of new books received are provided as a service to readers, and are not intended as substitutes for critical reviews. We invite readers to volunteer to write critical reviews of new books (though we do reserve the right to extend individual invitations). The appearance in these columns of a critical review of a particular book does not preclude our publishing other reviews of that same book, particularly if the subsequent reviewers' judgements are distinctly different from those of the initial reviewer.

### TEXTBOOK

Wilson, Barrie A. The Anatomy of Argument. (Lanham, MD: University Press of America, Inc., 1980.) pp. xvi, 1-436. Paperback; typewriter print, right margin unjustified. US\$12.75, ISBN 0-8191-1211-9

It is perhaps fairest to let the objectives and features of this new textbook be expressed in the author's words, in excerpts taken from his Preface for the Instructor.

Its purpose is to provide a comprehensive introduction to the study of argument, by providing theory and presenting skills in argument (i) identification, (ii) evaluation,