

Continuing the examination of methodology, the final paper by David Reason questions the very notion of classification as a basis for an anthropology of knowledge. Classification, as opposed to the "categorization" of natural language, is an analytic operation "which dissect[s] entities so that either the truth or falsity of particular predicates may be established in their cases" (p. 223). It is the dominant "mode of signification" in our capitalist society. The dominant mode of signification in a culture, it is claimed, is determined by the way in which production is organized. In non-capitalist cultures — such as the Polish peasant family farm — a different mode of signification is dominant. The appropriate categories for a description of that culture are thus essentially different: "Those entities which signify for us signify not at all there" (p. 228). This is illustrated through a lengthy and somewhat mystifying discussion of the notion of "textual time" (as opposed to the "abstract time" prevalent in our capitalist thinking) which concludes that the peasant consciousness is not symbolic and not based on the "empiricist conception of a subject-object dichotomy" (p. 240); it is therefore not amenable to classificatory description in the usual sense. The paper is interesting, again, for its attention to methodology and underlying assumptions. One is hard put, however, to agree with the author that the material on the peasant family farm in the long, rambling section II was always justified and to the point.

The contributors to this volume, as we have seen, attack a common conceptual problem from the different viewpoints of philosophy and anthropology. (This limited perspective becomes apparent when we consider the curious fact that the important work of the psychologist Eleanor Rosch on universals of classification is nowhere cited.) Although the studies of folk classification predominate, they are nicely complemented by the broader perspective of the philosophy of science in the final essays. The questions posed at the outset have not been answered, but the volume of papers had admirably illustrated the complexity of the issues. There are gaps, of course; nevertheless the book can be recommended as representative of the promising trend toward interdisciplinary cooperation in problem-oriented research.

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WINGERT, F.: **Medizinische Informatik**. (Medical Informatics) Stuttgart: Teubner 1979. 272 p., 68 figs., 18 tabl., 178 refs., DM 19.80 (In German). = Leitfäden der angewandten Informatik.

This publication is a handbook-like compilation of problems and methods in medical informatics which could be used even as a text book for special courses concerning the topic "medical informatics". The author described the following sub-disciplines in particular regarding them as essential concepts of medical informatics: basic concepts of informatics, statistical decision models and -strategies, mathematical classification, classification of concepts, medical linguistics, data structures in medicine, relations, data input and error checking, generation of

information, representation of information, information systems, and real time data processing.

The chapters "classification" and "medical linguistics" being of particular interest to the reader of this journal, are given 96 pages altogether. The chapter "classification" is split into the two parts "classification of concepts" and "mathematical classification" (i.e. numerical classification). The fundamental problems in numerical classification are illustrated: arranging concepts according to a given classification scheme by a special algorithm (in this publication called "classification of first order") and establishing a classification (called "classification of second order"). The author classifies questions of decision finding, support, and strategy also as classification problems.

In the description of problems concerning the classification of concepts special consideration has been given to basic linguistic topics.

The semantic dimensions of medicine given are similar to the facet principles of Ranganathan. In addition, the basic classification systems for clinical purposes are described. Thus, the classification problems encountered are viewed both from theoretical and pragmatic points of view. Many of the problems are seen through the glasses of a person working in the field of medicine, though; they can only be generalized in certain aspects. On the other hand, this orientation toward application in medicine is an advantage of the book, since practical problems can be illustrated very well for medically informed people. In spite of the fact that the book is mathematically-oriented, non-mathematicians in the field of classification would have no difficulty in comprehending it as all the formulae have been explained in a detailed manner.

This book is recommended to all libraries and library schools involved in the theory and practice of classification in various fields of science.

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KAZMIERCZAK, H. (Ed.): **Erfassung und maschinelle Verarbeitung von Bilddaten. Grundlagen und Anwendungen**. (Input and machine processing of pictorial data. Foundations and applications) (In German). Wien: Springer Verlag 1980. 399 p.

Das Buch 'Erfassung und maschinelle Verarbeitung von Bilddaten' gibt mit Einzelbeiträgen von 29 Autoren eine komprimierte Darstellung der Grundlagen und der Anwendungen dieses Gebietes. Damit wird gleichzeitig — insbesondere bei den Anwendungen — eine Übersicht über Aktivitäten entsprechender Forschungseinrichtungen in der Bundesrepublik gegeben.

Nach Einführung der grundlegenden Begriffe der Bildverarbeitung werden zunächst die Geräte vorgestellt für die Eingabe von Bildern in digitale Verarbeitungssysteme und für die Ausgabe gespeicherter oder verarbeiteter Bildinformationen. Verarbeitungsschritte, die häufig auf die Bildaufnahme folgen, werden durch lokale Operatoren und lineare Transformationen beschrieben. Statistische Klassifikatoren und die Bildanalyse werden sehr

kurz dargestellt. Ein eigenes Kapitel ist dem für die Speicherung und Übertragung von Bilddaten sehr wichtigen Gebiet der Bildcodierung gewidmet. Für die Auswertung, d.h. die Berechnung der Objekte in den Bildern werden Methoden vorgestellt, die sich auf Bildänderungen bei bewegten Objekten, die Berechnung der Objektkonturen, die Klassifikation einzelner Bildpunkte bei multispektralen Bildern und auf die Auswertung von Flächeneigenschaften stützen.

Die bei der maschinellen Verarbeitung von Bilddaten auszuwertenden Datenmengen sind so groß, daß spezielle, d.h. parallele Prozessoren benötigt werden. Für lineare Berechnungen können analoge optische Systeme verwendet werden. Durch die Verbindung optischer Systeme mit Digitalrechnern zu hybriden Systemen und durch die Entwicklung parallel arbeitender, digitaler Verarbeitungssysteme wird die notwendige Flexibilität programmierbarer Rechenautomaten erreicht.

Die Darstellung der Anwendungen ist aufgeteilt in die drei Gebiete Anwendungen in Wirtschaft und Industrie, in der Medizin und in der Erdfernerkundung und Kartographie. Das erste Gebiet beschreibt Belegverarbeitungsanlagen, ein Bildverarbeitungssystem mit Anwendungen in der Materialprüfung und Sensoren für Handhabungsautomaten in der Fertigung. Für den Bereich der Medizin werden Tomographie, Röntgenbild- und Zellbildanalyse sowie die Auswertung von Szintigrammen dargestellt. Abschließend wird die Verarbeitung von Geodaten behandelt. Dabei steht die Bildaufnahme im Vordergrund. Behandelt werden Luft- und Satellitenaufnahmen im thermischen und optischen Spektralbereich sowie die Mikrowellen- und Radartechnik. Verfahren zur Bildverbesserung und Systeme zur Aufbereitung der Bilddaten bilden die Basis für Bildinformationssysteme, in denen die Bilddaten den Anwendern der verschiedenen Fachrichtungen für die Auswertung zur Verfügung gestellt werden.

Das Buch wendet sich an Nachrichtentechniker, Informatiker und Anwender der Bildverarbeitung. Aufgrund der knappen Darstellung des sehr umfangreichen Gebietes ist das Buch als Einführung für Leser ohne ingenieurwissenschaftliche Kenntnisse auf verwandten Gebieten nur bedingt geeignet. Durch die große Zahl der beteiligten Autoren wird in der Gliederung des Gebietes und in der Notation nicht die klare Linie einer Monographie erreicht; durch die größere Authentizität der Einzelbeiträge wird dieser Nachteil aber ausgeglichen.

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FELBER, H., LANG, F., WERSIG, G. (Ed.): **Terminologie als angewandte Sprachwissenschaft**. (Terminology as applied linguistics) (In German). Gedenkschrift für Univ.-Prof. Dr. Eugen Wüster, München/New York/London/Paris: K.G. Saur, 1979. 272 p. ISBN 3-598-10028-0.

When Eugen Wüster died in 1977, the fields of international terminology and standardization lost one of their most distinguished personalities. Wüster, who in 1931 had already published a work of fundamental importance, "Die internationale Sprachnormung in der Tech-

nik, insbesondere in der Elektrotechnik," is acknowledged as the founder of terminological research and theory.

Wüster also dedicated considerable attention to the related fields of documentation and classification; further emphasis was placed on general linguistics, and here more particularly on the field of artificial languages, which Wüster viewed as an important means to surmounting language barriers.

According to the intensions of the editors the present commemorative volume is supposed "to offer help in orienting the coming generations of terminologists and translators, technical-language researchers, developers of artificial languages and standardization authorities."

Corresponding to the areas of emphasis in Wüster's work as described above, this volume is divided into the following sections: 1. Eugen Wüster – Leben und Werk; 2. Internationale Tätigkeiten auf dem Gebiet der Terminologie; 3. Terminologieforschung und -lehre; 4. Information und Dokumentation; 5. Plansprachen.

Besides an article commemorating Wüster's personality and his scholarly accomplishments, part 1 contains a complete, 26-page bibliography of his publications giving an impression of Wüster's productivity.

Part 2 begins with a contribution by *H. Felber*, "Die internationale Grundsatznormung – Rückblick und Ausblick." The activity of ISO/TC 37 is central to this article. The author gives the intensification of terminology research as an important task for the future.

The International Information Center for Terminology (Infoterm) plays an important role within the international cooperation in terminology. The following article by *H. Felber* and *M. Krommer-Benz* describes the work of this center. The role of Infoterm in the organization of the international network for cooperation in terminology (Term Net) is particularly emphasized.

In the final article in this section, *A. Manu* discusses the international bibliography of monolingual scientific and technical glossaries, an extensive work in which Wüster was able to realize numerous original ideas on bibliography and classification.

Part 3 ("Terminologieforschung und -lehre") is introduced with an article by *H.E. Wiegand* "Definition und Terminologienormung – Kritik und Vorschläge."

In his consciously polemic article the author fundamentally questions one of the decisive axioms of Wüster's theories of terminology, the existence of concepts. Among other things he strongly criticizes both the 1961 and the 1974 versions of DIN-Norm 2330 ("Begriffe und Benennungen"), which, according to the views of the author, handle the "concept" and the "definition" inconsistently. For the author, the "concept" as an instrument for terminological work is not only doubtful, but also superfluous. For him "meaning" alone is of importance in terminology which he understands as follows: "To explain the meaning of a technical term to someone is to show someone how this technical term is understood, has to be understood, should be understood." Wiegand assigns a rather subordinate function to the "concept" itself: its use should only be permitted where terminologists are making a statement about their own technical language.

In the only English contribution to this volume "Training in Terminology: Needs, Achievements and