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Prospects for a New Structuralism

Edited by Hans-Heinrich Lieb

PROSPECTS FOR A NEW STRUCTURALISM

Edited by

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PROSPECTS FOR A NEW STRUCTURALISM

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Volume 96

Hans-Heinrich Lieb (ed.)

Prospects for a New Structuralism

Foreword

The beginnings of this book go back to the Fourteenth International Congress of Linguists, held in Berlin in 1987, in what was then the German Democratic Republic. At the time I organized an official Round Table, already under the title of the present book. A brief report on the Round Table has since appeared in the Congress Proceedings.¹

Some of the papers in this volume (Sgall, Heger, Bańczerowski et al., Wurzel) go back to contributions submitted to the Round Table but only one (Heger) is virtually unchanged. Three others (Carr, Seiler, Lass) were solicited after the Congress, and the remaining two (by Lieb) are also entirely new (the second Lieb paper replaces a Round Table contribution).

This book has been a long time coming, for reasons that were largely beyond the editor's control:

- (i) From the very beginning, this was not to be another collection of round-table papers but an exploration of a new position in linguistics. The philosophical issues raised were to be studied from different angles by different authors, and current linguistic frameworks were to be checked against the position by leading representatives. Securing cooperation on such a project proved to be much more time-consuming than I had suspected. I had eventually to accept that four authors who had been seriously interested were unable to contribute, each for a good reason:
 - Jerrold J. Katz, of the City University of New York, whose paper would have been an asset to Section I: Philosophical Issues

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(however, Katz and Postal² may now be read in conjunction with Section I);

- Hans Uszkoreit (Universität Saarbrücken), who at the Berlin Round Table had read a paper on "The status of linguistic objects in GPSG and other Unification Grammars" but who was unable to submit a final version for inclusion in Section II: Frameworks;
- Jacek Fisiak of the University of Poznań and Rolf Haberbeck of Siemens Nixdorf, who could not contribute their papers on, respectively, "Structuralism and applied linguistics" and "Structuralism and technology".
- (ii) In 1989 the Berlin Wall came down; in 1990 West Berlin and East Berlin were once again a single city in a united Germany. Since, academic institutions in both parts of Berlin have been subject to dramatic reorganization (in some cases, dissolution); linguistics at my own university, the Freie Universität of West Berlin, was also affected. As a result, I was stopped short in my scientific endeavours.

While it is a loss that some of the papers did not materialize, the delay in publication is hardly a disadvantage: the foundational issues raised in this book have become much more pronounced in the meantime by Carr's³ and Katz and Postal's independent pleas for realism on the one hand and by the 'connectionist' challenge to recent cognitivism on the other, which may give the book a more interested readership. Still, I am sincerely grateful to the contributors, to the series editor, and to the publisher for their patience.

Berlin, Germany, June 1992

Hans-Heinrich Lieb

Katz, Jerrold J., and Paul M. Postal. 1991. "Realism vs. conceptualism in linguistics". Linguistics and Philosophy 14.515-554.

Carr, Philip. 1990. Linguistic Realities. An Autonomous Metatheory for the Generative Enterprise. Cambridge etc.: Cambridge University Press. (Cambridge Studies in Linguistics 53).

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Prospects for a New Structuralism: Introduction

Hans-Heinrich Lieb Freie Universität Berlin

1 Nine Principles of New Structuralism

1.1 Introduction

There are two different ways of dealing with linguistics: first and foremost, doing linguistics by studying languages; or else, doing metalinguistics (which is a branch of the philosophy of science) by studying linguistics itself. As a matter of fact the two are closely interrelated: no linguistics, no metalinguistics; on the other hand, barely a linguistic study without reflections on 'aims' and 'methods', presupposing a certain stand on foundational issues.

There are periods in the development of any field when foundational issues, buried in day-to-day research under layers of shared beliefs if not prejudice, rise to the surface. This is such a period in linguistics, and the present book is an attempt at reorientation in a changing field.

Currently, the metascientific assumptions of cognitivism stand out prominently in linguistics: the heuristic hypotheses that (i) concepts of perception, cognition, and action apply equally in the study of humans, animals, and machines; (ii) dealing with perception, cognition, and action in the three areas means studying underlying internal mechanisms; and (iii) such mechanisms should be jointly studied from a unified point of view by a number of disciplines that include, in particular,

neurophysiology, computer sciences, formal logic, psychology, and linguistics construed as a natural science.

The present book is to document a different orientation in linguistics, an orientation that may be called a New Structuralism, characterized by nine principles.

1.2 The principles

- (1) [Modesty] The objects of linguistics are the objects actually studied by the practising linguist, of which the theoretician may give a theoretical account. They cannot be prescribed independently of linguistic practice.
- (2) [New mentalism] Something is an object of linguistics only if it is needed for describing the content of intentional (directed) mental states or events that are connected with
 - a. speaking
 - b. understanding speech, or
 - c. judging speech form a communicative point of view.

Adequately conceived, the content of such states or events is extramental.

- (3) [*Mechanisms*] Neurophysiological or mental mechanisms do not belong to the objects of linguistics.
- (4) [Shared branches] Relations between objects of linguistics and neurophysiological mechanisms are studied in biolinguistics, a shared branch of linguistics and biology; relations between objects of linguistics and mental mechanisms are studied in psycholinguistics, a shared branch of linguistics and psychology.
- (5) [Ontology 1] The objects of linguistics, in particular, languages, their systems, and linguistic structures, are abstract and extramental.
- (6) [Ontology 2] Despite their abstract nature the objects of linguistics may have derived spatial and temporal properties, based on spatial or temporal properties of objects or events in spacetime.

- (7) [Diversity] Linguistic diversity, both within and between languages, is a fundamental linguistic fact. To account for it, objects of linguistics must be allowed to differ in abstractness.
- (8) [Structuralism] Traditional structuralism was right in mostly construing the objects of linguistics as extra-mental and emphasizing their structural (system-based) properties. Traditional structuralism was wrong where it failed to clearly recognize their abstract nature and their basis in human intentionality.
- (9) [Closure] An optimal conception of linguistics necessarily includes these eight theses.

These principles stand in need of explanation.

1.3 Heuristic nature and modesty (Principles 9 and 1)

PRINCIPLE 9, the *closure principle*, is a factual hypothesis on linguistics not languages; being factual, it may be wrong. The principle determines the status of Principles 1 to 8: these are *heuristic* hypotheses not factual ones, and are to be adopted in the hope that (9) is true (there is also a factual reading of several principles if "linguistics" is understood as "linguistics at [a given time]"). Thus, Principles 1 to 9 jointly define a position to which individual conceptions of linguistics may or may not conform, or may partly conform. The position must of course be consistent, i.e. there must be an interpretation of (1) to (9) on which the nine principles may be jointly held.

PRINCIPLE 1, the *modesty principle*, forces us to respect linguistics as a field that is given through what linguists do (we should of course be generous in deciding who counts as a linguist): it must be a defensible claim that the objects of linguistics as construed by the metalinguist, or by a linguist taking a metalinguistic point of view, are indeed what is studied in linguistics. True enough, we may suggest that linguistics should be reconceived by redefining the objects of linguistic study but even then linguistic practice must be respected. (The modesty principle is not to imply naïve realism; the objects of any field are theory dependant.)

1.4 New mentalism (Principles 2 to 4)

PRINCIPLE 2, the *new mentalism principle*, is obviously heuristic. Once again, there is an implicit relativity to theories: what is necessary for describing mental content in one theory may not be so in another. The mentalism principle may be understood to require necessity with respect to any relevant theory that may be seriously considered in linguistics.

For the mentalism principle to be compatible with the modesty principle, we must make the factual assumption on linguistics that the objects actually studied in linguistics are objects as required by the mentalism principle, or may be reconceived as such without violating linguistic practice. There are good reasons for such an assumption. Linguistics deals with entities such as words, inflexions, sentences, with dialects, languages and their systems. Speaking is an action, hence, has an intention — a mental state — as one of its components. Understanding speech involves perceptions, mental events that are directed towards something (a perception is a perception of something). Judging speech relies on mental states connected with knowing entities such as 'languages'; a good case can be made for these states to be 'about' something, too. Since mental states and events of the three types are all 'directed towards' something or 'about' something, each may be assigned a 'content', which should be construed as extra-mental. (The content of a perception of, say, a dead leaf contains the properties of being a leaf and being dead, which are properties of extramental objects, and are themselves independent of the perceiver.) Now it is at least plausible that the objects actually studied in linguistics words, inflexions, languages etc. — are all needed for describing the content of relevant mental states and events (the objects do not have to figure directly in their content).

PRINCIPLE 3, the *principle of mechanisms*, should be implied by the new mentalism principle, i.e. once (2) and its supporting assumptions have been formulated more precisely, (3) should be a logical consequence of (2) and the assumptions. Intuitively, no neurophysiological or mental mechanism underlying a relevant state or event of a person is necessary to describe its content: assuming that an adequate vocabulary is available, the person could in principle give a descrip-

tion without referring at all to any underlying mechanisms. Indeed, such mechanisms are irrelevant to any description that is to mirror basic speaker abilities: barring the most artificial arrangements, speakers — just as anybody else — have no access to any mechanisms underlying their own mental states or events.

The mechanism principle may also be implied by the modesty principle but this is less clear. Of course, (3) can be accepted without subscribing to either (1) or (2).

PRINCIPLE 4, the principle of shared branches, relates the study of mechanisms to linguistics. For Principle 4 to be consistent with the principle of mechanisms, any branches shared by linguistics and neighbouring disciplines must be conceived in a way that bars the following consequence: every object of a shared branch is also an object of linguistics; and indeed, such a conception is possible. We may therefore assume that neurophysiological mechanisms underlying speech are objects of biology that are objects of biolinguistics but not of linguistics; similarly, appropriate mental mechanisms are objects of psychology that are also objects of psycholinguistics and yet no objects of linguistics. (Conversely, linguistic objects studied in biolinguistics or psycholinguistics are not, for that reason, objects of biology or psychology.) Such a construal is desirable on independent grounds if reductionism—the attempt (hopeless, it must be feared) to 'reduce' linguistics to either psychology or biology—is to be avoided.

The principle of shared branches guarantees that linguists and non-linguists may jointly pursue the study of relevant mechanisms, without making biological or psychological objects (mechanisms) into linguistic ones or linguistic objects (words etc.) into psychological or biological ones.

1.5 Ontology and linguistic diversity (Principles 5 to 8)

PRINCIPLE 5, the *first ontology principle*, excludes a nominalist position towards linguistics by requiring that the objects of linguistics must be abstract; and excludes a cognitivist or 'conceptualist' position by assigning extra-mental status to all linguistic objects. Furthermore, it would allow drawing a clear distinction between linguistic *data* and linguistic *objects* if the former are construed as concrete objects or

events (such as speech objects and events); such a conception is, however, much disputed and is no consequence of either the first ontology principle or any of the other principles.

The first ontology principle should be implied by either the modesty or the mentalism principles once these are restated more formally and supplemented by auxiliary assumptions, but may of course be adopted independently.

PRINCIPLE 6, the second ontology principle, ties the abstract objects of linguistics down to space and time without making them spatiotemporal, hence, concrete. A term like "English in 18th century England" must have a good linguistic meaning even if it does not denote an entity of the same type as "Alexander Pope in his 25th year". Indeed, English has the derived temporal and spatial property of being used in England in the 18th century because Alexander Pope, among others, spoke and wrote in English while living in 18th century England. The second ontology principle should be needed for any conception of linguistics that is to avoid separation of 'core branches' of linguistics dealing with linguistic objects per se from 'peripheral' ones dealing with their 'temporal and spatial aspects'.

PRINCIPLE 7, the diversity principle, precludes certain notorious idealizations in accounting for linguistic data and linguistic objects, idealizations by which linguistic differences within a single language community are treated as irrelevant, or linguistic differences between language communities as something to be abstracted from. Dealing with linguistic diversity may require a sophisticated view of increasingly abstract objects to replace an approach that concentrates on 'ideal' objects obtained in a more or less intuitive way. The diversity principle should be indispensable for any conception that includes applied linguistics among the branches of linguistics.

PRINCIPLE 8, the *structuralism principle*, establishes a relation to traditional or 'classical' structuralism, including its present-day versions. Since classical structuralism is anything but homogeneous, the principle is formulated as a rough generalization; moreover, only two aspects are emphasized. As will be obvious to anybody familiar with the history of linguistics in this century, the first part of the structuralism principle implies a positive evaluation of two basic features shared by most if not all versions of European and American structuralism

(extra-mentality is not adopted by Saussure); the second part rejects a feature typical (with some exceptions) of American structuralism: its nominalist slant. The second part of the structuralism principle also takes a stand against the disregard of human action, perception, and cognition in linguistics that is characteristic of many forms of structuralism excepting, in particular, the Prague School and its derivatives.

The structuralism principle, which roughly determines the position of New Structuralism towards classical structuralism, is an obvious consequence of previous principles. Thus, classical structuralism is not used as a point of reference in a definition of New Structuralism, irrespective of the question of historical influences; rather, it is a consequence of underlying principles that New Structuralism is partly structuralist in orientation also in a classical sense.

Finally, Principles 1 to 8 should jointly imply that linguistics is construed as an 'empirical' discipline, in *some* accepted sense. (This very much depends on how "empirical" is understood.)

2 Documenting the principles

2.1 Introduction

The Nine Principles of New Structuralism were formulated by Lieb in 1987 and distributed to the participants in the Round Table on Prospects for a New Structuralism to serve as a basis for the panel discussion. The principles were not named, and no explanations were given, except for a few hints at possible logical relationships. It was hoped that this way differences in position would already appear as differences in the interpretation of individual principles.

While only the new mentalism principle was discussed in any detail at the Round Table, the principles were on the whole favourably received by the panelists; they were more controversial to discussants from the floor. The contributors to this volume were again confronted with the bare principles, not receiving any additional information. Disregarding Lieb, whose commitment to the principles is obvious from his contribution to Section I of the present volume, all contributors except Wurzel reacted to the principles by explicit comments.

Contributions are arranged in three sections: I. *Philosophical Issues*, II. *Frameworks*, and III. *Areas*; a fourth section, *Applications*, which eventually did not materialize, would have shown the relevance of New Structuralism to both applied linguistics and language technology.

2.2 Section I: Philosophical Issues

Section I demonstrates that the metalinguistic issues raised by New Structuralism are of considerable interest, surfacing independently with different authors in similar ways. CARR's 'interactionism' is inspired by Popper's well-known conception of 'three worlds' (since 1972); linguistic objects are placed in the third world of 'objective knowledge'. Ontologically, this is a realist position. LIEB's conception, too, has realism as a defining feature, taking Searle (1983) rather than Popper as a starting-point for relating linguistic objects to the mind. While CARR finds little fault with most of the principles, he hesitates to accept the emphasis placed on variation by the diversity principle, at least if variation is construed as suggested by LIEB; the diversity principle is, however, general enough to allow for other construals.

Not directly represented in the Philosophical Issues section is KATZ's 'Platonism' (since Katz 1981; most recently, Katz and Postal 1991), which shares its realist orientation with New Structuralism but appears to differ in three respects: (i) The new mentalism principle establishes a tie between abstract linguistic objects and mental states or events that may be closer than warranted even by the position adopted in Katz and Postal (1991). (ii) As in the case of CARR, linguistic diversity is not a central but a peripheral phenomenon, contrary to the diversity principle. (iii) The 'core' of linguistics is construed as non-empirical (e.g., Katz and Postal 1991: 538, fn. 11).

I would also suggest that SEARLE's position on linguistics, as it appears from Searle (1990), is germane to New Structuralism, with two qualifications: (i) The extra-mental nature of mental contents (mentalism principle) would have to be more clearly recognized (on this problem, see also Bilgrami 1989). (ii) Searle is too unspecific on questions of detail for us to determine his position towards some of the principles.

All authors mentioned are on record as outspoken critics of the ontological and epistemological stand taken in Chomskyan Generative Grammar. It should be emphasized, therefore, that the Nine Principles are neutral concerning the *format* of linguistic grammars; indeed, CARR attempts nothing less than a 'metatheory for the generative enterprise'.

2.3 Section II: Frameworks

The distinction between 'frameworks' and 'areas' is meant to reflect differences in coverage: ideally, a *framework* is an approach in linguistics that attempts to cover all areas through a comprehensive theory of language; *areas* are, roughly, linguistic disciplines such as phonology, morphology, etc., or historical linguistics and sociolinguistics. (A truly comprehensive theory of language is, of course, a hope for the future.)

Section II characterizes four frameworks in which some or all of the Nine Principles appear to be adopted: present-day Praguian linguistics (SGALL); HEGER's 'noematic' approach; SEILER's UNITYP model for research in universals and typology (which, arguably, might also have been assigned to the Areas section); and LIEB's Integrational Linguistics. Presentation ranges from a brief characterization (HEGER) to a detailed overview (LIEB). Against my own qualms as an editor, I finally decided on a more detailed outline of Integrational Linguistics (or rather, of its theory of language): at least two of the remaining three contributions to this section turned out to be fairly concise so that the entire section might have given an incorrect impression of being partly programmatic, an impression that a more detailed account of one of the frameworks might help to counter.

Whereas LIEB and SEILER simply characterize their approaches, with only a few hints at linguistic tradition in the case of SEILER, both SGALL and HEGER carefully establish the relations between classical structuralism and their respective frameworks. SGALL, HEGER, and SEILER acknowledge their indebtedness, through historical affiliation or thematic closeness, to classical Praguian structuralism.

Not surprisingly, the Nine Principles are simply adopted by LIEB, but HEGER, too, finds all of them acceptable. SEILER welcomes them in