Jan-Ola Östman & Jef Verschueren
in collaboration with Eline Versluys
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REVISION

STRUCTURALISM

Jürgen Van de Walle, Dominique Willems, Klaas Willems

1. Introduction

Given the wide range of meanings which the term 'structuralism' received in the course of the 20th century, a clear-cut definition of *linguistic* structuralism is problematical. Strictly speaking, it refers to a set of general principles shared by prominent European linguists of the inter-war period who were all deeply influenced by Ferdinand de Saussure's *Cours de linguistique générale* (Saussure 1995[1916], hereafter CLG). However, it is also customary to refer to American linguistics as practised from the 1930s through the 1950s as 'structural', although its theoretical and methodological principles were considerably different from 'European structuralism' and Saussure's influence rather limited. Moreover, several European post-war schools and movements (cf. § 4) are generally seen as falling within the purview of 'structuralism' as well. Although they differed in various important methodological issues, they have in common that, contrary to American structuralism, they were all deeply influenced by the CLG (cf. § 3).

Because of this wide range of 'structuralisms', it would be erroneous to refer to a single structuralist tradition in linguistics, and in order to be properly understood, both the European and American structuralist traditions in linguistics have partly to be assessed historically (cf. Christmann 1958-1961; Albrecht 2000; Matthews 2001). After outlining the general principles of structuralism as originally conceived in Europe (section 2), this paper focuses (section 3) on its immediate source, Saussure's CLG, the general principles of European structuralism being chiefly related to various interpretations of this work. In section 4, some of the most

important European and American traditions in structural linguistics are discussed. (We do not aim, however, to provide an exhaustive account, which would be impossible within the confines of this article.) Elaborating on this discussion, the central claims of structuralism in relation to four linguistic sub-disciplines are reviewed in section 5. Finally, section 6 focuses, by way of example, on the attempts of two major figures of modern structural linguistics – R. Jakobson and E. Coseriu – to overcome the limits of structuralism while still subscribing to some of its tenets.

2. Fundamental concepts of structuralism

Although he is generally acknowledged to have been the originator of the structuralist approach, whose impact on the humanities in the 20th century can hardly be overestimated, it is noteworthy that Saussure himself never used the term 'structuralism' in his work (cf. Benveniste 1962). It was R. Jakobson who coined the term in 1929 (Jakobson 1971:711), in reference to an emerging new method which was being used at the time in linguistics, as well as other disciplines such as literary studies, psychology, sociology and anthropology.

Although it is difficult to find a set of common criteria on which all structuralists would agree, a number of general principles seem to unite at least Saussurean structuralism and the various schools which developed from it after World War I. These principles were interpreted in various ways by different scholars who supplemented them with own theoretical and epistemological assumptions and did not agree with everything written in the CLG. For that reason, Saussure's general principles are discussed in a separate section (§ 3). In very general terms, then, the following principles may be said to hold at least for the European structuralists:

(a) Languages should be studied as systems, and the relations constituting a language system have priority over the linguistic units they generate. Structuralism constitutes a radical rejection of the atomism of the neogrammarians who dominated the latter decades of 19th century linguistics.

(b) Languages should first be studied from a synchronic point of view, not a diachronic one, since the latter is dependent on the former. From the

synchronic viewpoint a language is a system of signs for its speakers. Again, this was a reaction to the predominantly historical perspective of 19th century linguistics.

(c) Structuralists tend to stress the autonomy of the language system vis-à-vis other aspects of language, such as sociological, psychological and pragmatic or discourse factors, which are considered ‘external’. Different structuralist schools, however, held different opinions on this particular issue. The view that language is an autonomous, self-contained system also entails that there are as many particular systems as there are languages (which, of course, does not exclude cross-linguistic similarities nor the existence of language universals).

(d) European structuralists put particular emphasis on the view that meaning is an inherent aspect of the language system, not reducible to external factors or reference. Moreover, they postulated that meaning can be analysed with the methodology they had been developing for analysing languages into phonemes. Again, this is a reaction to 19th century linguistics, in particular to a strong positivist tendency which can be traced back to the work of such linguists as A. Schleicher (who believed language to be a natural organism, cf. Albrecht 2000:14-17) and, again, the neogrammarians.

(e) Structuralism grew out of the finding that from the vantage point of linguistics language is not a substance but rather a form or, more generally, a structure. A linguist, therefore, should not study language with the methodology of the natural sciences but develop new methods appropriate to the requirements of the linguistic object he has in mind.

For a considerable period of time, structuralism was viewed as a genuine ‘paradigm shift’ in linguistics, and, in Europe at least, Saussure’s CLG was read as a revolutionary work full of novel ideas. This had two effects. First, many linguists tended to overestimate the originality of Saussure’s work, forgetting that he stood in a long tradition. Conceptual correspondences (and, occasionally, direct influences, although this has been a hotly debated issue) have been convincingly demonstrated between Saussure and W. von Humboldt, W. D. Whitney, G. von der Gabelentz, J. Baudouin de Courtenay, E. Durkheim and other scholars (cf. Scheerer 1980:120-151). This lack of awareness of the historicity of Saussure’s thought also resulted in

uncritical interpretations of the CLG which attempted to downplay its ambiguities and inconsistencies (which nevertheless were often, as is not uncommon in a major seminal work, highly thought-provoking). Second, from the late 1960s onwards, linguists started to neglect structuralism because of its supposed over-abstract concepts and mistaken overall view on language. This not only resulted in an occasionally deplorable ignorance of the basic tenets of structural linguistics, especially among younger generations of linguists, but also in the unduly negative connotation from which the term 'structuralism' suffers today, notwithstanding the lasting value of the scholarly work of many structural linguists. In view of the existing misconceptions, the focus of the present paper is therefore on the central theoretical claims and assumptions of structural linguistics.

3. The source of structuralism: Saussure's *Cours*

Many points of discussion between members of the first generation of structural linguists in Europe date back to a number of distinctions first introduced in the CLG. These distinctions, for the most part presented in the form of dichotomies, are discussed in this section. They provide the indispensable basis to understand what early structuralism was all about. The different structuralist schools and movements are set out in the next section.

The CLG was published posthumously by C. Bally and A. Sechehaye (and A. Riedlinger) in 1916. Their book was based on three series of lectures on general linguistics delivered by Saussure at the University of Geneva between 1906 and 1911. Nearly four decades passed before the problematic passages in the book gave rise to a much-needed Saussure exegesis. Starting in the 1950s, new texts from Saussure's own hand were discovered (e.g. Godel 1957), including, as late as 1996, a completely new manuscript (published in 2002 as *Écrits de linguistique générale*; Saussure 2002, hereafter ELG). From this time, a number of interpreters have tried to reconstruct Saussure's original thought, a notable result of which was the publication of a critical edition of the CLG by R. Engler, with notes taken by some of Saussure's original students and some by Saussure himself (1968/1974, hereafter CLG/E). These publications show that Saussure's thoughts on general linguistics are to be seen as a continued reflection on the theory of language and

the epistemology of linguistics without, however, reaching the stage of final completion which a superficial reading of the CLG could lead one to believe (cf. De Mauro[3] 1995[1967]; Koerner 1973:216ff.; Wunderli 1981a; R. Harris 2000; Sanders, ed. 2004). The publishers of the CLG not only interpreted some of Saussure's statements in an idiosyncratic or selective way (Engler 1966; Jäger 2003a) but also seem to have downplayed the innovativeness and radicalness of Saussure's thought in various ways. This is not to say that the work of the publishers of the CLG was entirely unsatisfactory (cf. Wunderli 1981a; Scheerer 1980; Gadet 1989). However, in the present paper all references to the *Cours* are to Engler's version (CLG/E) – a practice which ought to be standard among linguists.

3.1 Langue/parole/langage

Fundamental to structural linguistics is Saussure's distinction between *langue* and *parole* (CLG/E 24-27). Although this has turned out to be one of the most difficult pairs of concepts to interpret coherently, it has also constituted one of the most fertile conceptual distinctions for 20th century linguistics and for structuralism in particular (cf. Godel 1957:159; Koerner 1973:243-262; De Mauro[3] 1995[1967]: 420, note 65).

According to Saussure, language (*langage*) is a complex phenomenon in which two levels can be discerned, viz. *langue* and *parole* (note that in the CLG the term *langage* covers both *langue* and *parole*, in contrast to *faculté de langage* which stands for the psychological as well as physiological device all human beings have at their disposal to create *langage* [*langue* and *parole*], cf. CLG/E 41-42 and Wunderli 1981a:57-74). Saussure introduced *langue* in order to delimit, within the complex phenomenon of language, the true object of linguistic research. However, *langue* should not be understood – as has frequently happened – as an actual, existing, empirical object. Rather, it is the object the linguist has to construct when he sets out to analyse language; i.e. it is a theoretical object. It is true, however, that Saussure was not entirely coherent on this point. He emphasized the abstractness of *langue* and at the same time tried to give it a place in the human mind. According to some interpreters (cf. Albrecht 2000:31), this was a residue of the positivistic tendencies at the end of the 19th century. Essentially, *langue* and *parole* are defined in the CLG by a series of contrasts which can be outlined as follows: *langue* is

social, essential, passive, and conventional; *parole* is individual, accidental, active, and not conventional. These seemingly neat contrasts are not without problems and have received much discussion in the literature (cf. Coseriu 1952; Hjelmslev 1961[1943]; Jakobson 1988[1942]; Koerner 1973:224-262; Scheerer 1980:77-87; Wunderli 1981a:9-146; Gadet 1989:§2; see also several contributions in Bouquet, ed. 2003 and Sanders, ed. 2004).

3.2 Synchrony/diachrony

Structuralists study language first and foremost from a synchronic point of view, as opposed to the primarily diachronic perspective of 19th century linguistics (cf. Koerner 1973:263-310; Albrecht 2000:36-43). The synchronic perspective means that language is studied at a specific point in time ('états d'un même idiome', CLG/E 180), its object being the 'rapports logiques et psychologiques reliant des termes coexistants et formant système' (CLG 140; cf. CLG/E 227). Because the synchronic point of view is, according to Saussure, the only perspective to which speakers of a language have immediate mental access, it has logical priority over the diachronic perspective, which studies language as it changes over time. Diachronic linguistics is concerned with 'les rapports reliant des termes successifs non aperçus par une même conscience collective' (CLG 140; cf. CLG/E 227). Saussure argues that the strict division of linguistics into a diachronic and a synchronic branch is an immediate consequence of its status as 'une science de valeurs' (cf. § 3.3). Unlike the 'values' in sciences such as astronomy, geology and even economics, the *valeurs* constituting the language system have no connection whatsoever with any language external objects (CLG/E 184-194; ELG 46-47, cf. Chiss and Puech 1997:43).

It should be stressed, on the one hand, that Saussure's emphasis on the synchronic perspective did not introduce a completely new approach in linguistics. It was common practice to distinguish between historical and descriptive-systematic linguistics throughout the 19th century (Koerner 1973:263-283; Albrecht 2000:38). On the other hand, several interpreters of the CLG misinterpreted the synchronic perspective to mean that Saussurean structuralism ignored change in languages altogether. One result was that structuralism became associated with a kind of 'Geschichtsfeindlichkeit' (Albrecht 2000:39). This unwarranted interpretation is in complete discord not only with Saussure's own emphasis on the importance of the

historical analysis of languages (cf. Saussure 1879 and the third part, 'Linguistique diachronique', of the CLG) but is also blind to the consequences of his discussion of the arbitrariness of the linguistic sign (cf. § 3.5). Another recurrent misinterpretation is the assumption that the difference between synchronic and diachronic resides in the object of investigation itself (*in re*), whereas for Saussure – *pace* Jäger (2003b) – it was first and foremost a methodological distinction (De Mauro [3]1995 [1967]:452-455, note 176; Albrecht 2000:42).

According to Saussure language change can only originate in *parole* (CLG/E 223). Only when a particular variation is frequently repeated in discourse and is imitated by a majority of speakers will it be integrated in *langue*. An important mechanism for language change is analogy, which is based on reinterpretations of linguistic structures (cf. Wunderli 1981a:50ff – note that the importance of analogy in language change had previously been pointed out by linguists in the 19th century). In this context two other important notions should be mentioned: idiosynchrony (*idiosynchronique*) and panchrony (*panchronique*). The former term is introduced in the CLG to replace the less precise term *synchronique*, emphasising that each individual language has its own idiosyncratic system (cf. also Hjelmslev 1928). As to the latter term, Saussure (CLG/E 212) asks whether a *panchronic* view on language – that is, a point of view in which the factor time plays no role – is possible. Such a point of view would enable linguists to arrive at regularities akin to the laws of natural science that govern language and are always and everywhere true. According to Saussure, however, the difference between idiosynchrony and panchrony constitutes a criterion for distinguishing between the true object of linguistics, which is idiosynchronic, and that which falls outside the purview of linguistics proper.

3.3 Language as a system

According to Saussure, every language can be studied as a relational structure or *system*. Crucially, the relations between the different units of a language are considered to have priority over the units themselves (CLG/E 270-273; ELG 200-201). This means that linguistic units have to be defined in relational terms, i.e. they exist because they differ from other units within a network of units in one and the same language ('*dans la langue il n'y a que des différences*' CLG 166; cf. CLG/E 270).

As a rule, structural linguists study such relations, rather than the units themselves. Phonemes, for instance, can only be defined relationally (Trubetzkoy 1939), and the same holds for meanings (Trier 1931) (cf. § 5.3). The development from linguistic analyses of units (cf. 19th century 'atomism') to analyses of the relations which define them shows a remarkable parallel with developments in the natural sciences in the first decades of the 20th century, in particular physics.

As already pointed out, a core concept of Saussure's CLG related to the systematic character of language is the 'value' (*valeur*) of a linguistic sign. Each sign possesses a *valeur* within the system of language which is delimited negatively by the existence of other signs. For Saussure, a *langue* can be defined as a system of *valeurs* (CLG/E 251ff; cf. 65). Yet, the term 'value' not only applies to signs but also to *signifiant* and *signifié* separately. The *valeur* of a *signifié*, for example, is determined by its relation to 'similar' values, which is not to be confused with its relative 'worth' in relation to 'dissimilar' objects. Saussure illustrates this distinction with a telling example drawn from the monetary system: the 'value' of a coin is determined by the other coins of the system (i.e. the *similia*) but it is worth what can be bought with it (*dissimile*) (CLG/E 259). One important consequence of this characterization of *valeur* on the level of *signifié* is that it differs from the referential meaning of the term. Saussure supplies a number of examples to illustrate this: the French word *mouton* may have the same referential meaning (*signification*, CLG/E 257-262) as the English word *sheep*, but it does not have the same *signifié* or semantic *valeur* because English has the words *mutton* and *sheep*, a distinction not available in French. Similarly, a plural in German and Latin can have identical reference as a plural in Sanskrit, yet it definitely does not share the same *signifié*, as German and Latin distinguish between singular and plural number only, whereas Sanskrit distinguishes between singular, plural and dual (CLG/E 262-263).

3.4 Signifiant/signifié/signification

A language is a system of signs. To Saussure, a sign establishes a relation between a concept and a sound (or a series of sounds, an 'acoustic image') (CLG/E 150). To make the distinction appropriate for linguistics, Saussure substitutes the term 'acoustic image' with *signifiant* (signifier) and 'concept' with *signifié* (signified) (CLG/E 151). These are not to be understood as purely mental or purely material entities, but rather as the genuinely linguistic counterparts of an 'idea' and a

'sound'. The relation between *signifiant* and *signifié* is logically prior to the 'idea' and 'sound' which are connected through them. This crucial feature of Saussure's theory of signs is illustrated with a well-known analogy: *signifiant* and *signifié* can be compared with the front and back of a sheet of paper, it is impossible to cut the front without cutting the back, and vice versa (CLG/E 253-256). Nevertheless, for Saussure signs are 'real', because speakers have – consciously or unconsciously – mental access to them.

European structuralists have laid particular importance on the indispensable role of meaning in language, thus taking Saussure's hypothesis concerning the inseparable character of *signifiant* and *signifié* to its logical conclusion. Not a single entity of language is considered to be deprived of meaning. Although for Bloomfield and the post-Bloomfieldians too language was inconceivable without paying attention to meaning, they nevertheless maintained that meaning could not be described scientifically by contemporary linguistic methodology (cf. Bloomfield 1933:74-75 and 139-157). The American structuralists' decision not to analyse and describe meaning for its own sake (cf. § 4.3) not only turned out to be the major dividing line between American and European structuralism but also constituted the hallmark of American linguistic research for decades to come (note that meaning was also completely left out of Chomsky's early linguistic model). When semantics finally came to play a role in Generative Grammar, the term 'meaning' was used in a sense entirely at odds with the Saussurean doctrine (cf. § 5.3 below and see also Newmeyer 1988), not as a constitutive element of language but as a second-order element, hinging upon syntax.

3.5 Arbitrariness and motivation

Another essential feature of Saussure's theory of language is the nature of the linguistic sign (CLG/E 151ff), which is claimed to be 'radicalement arbitraire' (CLG 180; cf. CLG/E 297). Although this view has a longstanding history in European thought (cf. Coseriu 1967), in Saussure's theory of language it takes on a new dimension and has a range of profound consequences. From the CLG it becomes clear that the arbitrariness of the linguistic sign should be understood in at least four different ways. First of all, the relation between the acoustic form and the object/concept referred to is arbitrary. Saussure illustrates this by pointing out that the sequence of sounds [*s-ö-r*] is not related in any way to the meaning 'sister' in

French (CLG/E 153). Second, the relation between a linguistic sign (i.e. *signifant* and *signifié* together) and the object/concept referred to is also arbitrary, because language is not a nomenclature (CLG/E 147-148; cf. De Mauro [3]1995[1967]:439-440, note 129). It is a mistaken, albeit not uncommon, opinion to conceive of a language as a stockpile of words referring to a set of objects or already established mental concepts. According to Saussure the *signifié*, or linguistic meaning proper, precedes referential meaning, and not the other way around. Third, the relation between *signifiant* and *signifié* is 'immotivé' (CLG/E 155-156); that is, there is neither a causal relation nor a natural resemblance between them. Rather, the relation is purely conventional in the sense that it is a product of a historical tradition within a linguistic community. It should be noted that Saussure discusses two exceptions to this kind of arbitrariness (CLG/E 155-157). The first one is only seemingly an exception: onomatopoeia show a relation between *signifiant* and *signifié* which is partly motivated by the sound they imitate. However, because their *signifiants* are only approximations of real sounds, generally present considerable differences in various languages and are subject to historical change, they do not really contradict the arbitrariness claim; the same holds for exclamations. The other exception to the general rule seems more interesting (CLG/E 295-303): unlike a word such as *vingt* '20', a compound word such as *dix-neuf* '19' is only 'relativement arbitraire', the word being 'motivated' by the parts of which it is composed (*dix* and *neuf*). Fourth, finally, the way sounds and ideas are portioned out and mutually delimited by *signifiants* and *signifiés* is itself arbitrary (cf. De Mauro [3]1995[1967]: 442, note 136). According to Saussure, every historical language is based on a particular selection of entities of sound and meaning, and before language makes its appearance, the realms of sounds and ideas are just amorphous continua (CLG/E 251-253).

3.6 Syntagmatic and associative relations

Saussure distinguishes between two different classes of relations in language: syntagmatic and associative relations (CLG/E 276-289). Syntagmatic relations are possible combinations of linguistic units on the linear axis of speech production. They hold between signs that are actually present in the speech chain (*in praesentia*). In French, for instance, *contre tous* 'against all' instantiates a syntagmatic relation between the two consecutive units (CLG/E 279). In a syntagm or phrase a term stands in a relation to everything that follows or precedes it.

Associative relations, on the other hand, are relations holding between a sign and other signs not involved in the discourse (*in absentia*) and which are associated in memory, according to Saussure. They can be based on a common sign (e.g. *enseignement* calls to mind a series of other words including *enseigner, enseignons,* etc.) or on a common *signifié* (e.g., *apprentissage* and *éducation*) or *signifiant* (e.g. *changement, justement*, etc.).

Saussure introduced these two relations to replace the traditional distinctions between phonetics, morphology, syntax, and lexicon with two mutually irreducible relations that better corresponded to the object of linguistics he envisaged (Albrecht 2000:52). In modern linguistics, the distinction is better known as the syntagmatic/paradigmatic dichotomy, the term 'paradigmatic' going back to Hjelmslev who proposed this substitution of 'associative' in order to avoid the undesirable psychological connotations of that word (Hjelmslev 1938a:161n3). However, strictly speaking, paradigmatic relations hold between *signifiés* only, not between distributional classes because not all words that can be selected in a slot on the syntagmatic axis are paradigmatically related (cf. Coseriu 1992:144ff; cf. § 4.3).

3.7 Internal and external linguistics

A somewhat neglected Saussurean distinction, which is however of particular importance for understanding some crucial differences between the Prague and Copenhagen Schools (cf. § 4.1 and § 4.2), is the difference between internal and external linguistics (CLG/E 59-65). These terms refer to different approaches that have their own methodologies. External linguistics is concerned with 'tout ce qui concerne la langue sans entrer dans son système' (De Mauro [3]1995[1967]: 428, note 83); that is, it collects details about a language without taking into account its internal system. Internal linguistics, on the other hand, is concerned with the study of the system proper (*langue*) and only with the system: 'interne [or: 'intérieur'] est ce qui est susceptible de changer les valeurs (à un degré quelconque)' (CLG/E 65). Both internal and external linguistics are important to Saussure. It would be incorrect to think that he ultimately attempted to reduce linguistics to a purely internally defined science (as some interpreters of the CLG would claim), although it is true that Saussure, in contrast to most of his contemporaries, emphasized that every historical language has its own autonomous system.

4. Structuralist circles and movements

The ascent of linguistic structuralism which followed the publication of the CLG is intimately connected to the formation of a number of linguistic circles and movements from the 1920s onwards. The most notable of these were the Prague Circle, the Copenhagen Circle, the Geneva School, the Russian formalists, the English School, and American structuralism (the Yale School). In this section we focus on three of them in an attempt to point out the remarkable breadth of structural linguistics.

4.1 The Prague Circle

The Prague Linguistic Circle was founded in 1926 by a group of scholars which included R. Jakobson, B. Havránek, V. Mathesius, J. Mukařovský, N. S. Trubetzkoy, and B. Trnka. Their programme was published in 1929 in the seminal 'Thèses présentées au Premier Congrès des philologues slaves' ('Thèses' 1929). The *Thèses* were particularly important in disseminating structuralist ideas in Europe. In addition, a European programme for the phonological analysis of different languages was set up (cf. Vachek 1966). Although the Praguians became particularly known for their seminal research in phonology, their work encompasses much more.

To some extent, the *Thèses* derive directly from the CLG. But some statements by the members of the circle are genuine contributions, and it is often overlooked that they indicate some fundamental differences between Saussure and the Prague Circle (cf. Sériot 1999). Moreover, it would be simplistic to present the members of the circle as a homogenous group, just as it would be erroneous to identify the circle as a whole with its two best-known members, R. Jakobson and N. S. Trubetzkoy. Many members, for instance, were deeply influenced by the work of Mathesius, who was, incidentally, a strong advocate of synchronic language studies as early as 1911 (cf. Vachek 1966:4).

The members of the Prague Circle described themselves as both structuralists *and* functionalists: structuralists because they claimed that every element of a language is part of a paradigmatic 'structure' (e.g. the sound structure of a language, its lexical structure, its intonational structure, etc.); functionalists because they saw each linguistic unit as existing only in as far as it serves a particular purpose which ultimately contributes to the communicative function of language.

A phoneme, for instance, is a linguistic unit in virtue of its function of signalling a difference in meaning. For the Praguians, the specific structure of the language system as a whole is essentially due to the fact that man uses language as a means of communication: 'la langue est un système de moyens d'expression appropriés à un but' ('Thèses' 1929:§1). It should be stressed that with this view, aptly called a 'means-ends' model by Jakobson (Jakobson 1963), the Prague Circle radically departs from the theory of language set out in the CLG. In particular, Saussure's famous schematic representation of two interlocutors (CLG/E 36-37) should not be interpreted as relating to communication. Nor does it show that Saussure adhered to a 'communicative' approach to language (cf. Joseph 1997).

Although a functional language system can be split up into various subsystems (phonology, morphology, syntax, intonation, style, etc.), each subsystem has its own particular structural features. An entire language is considered a 'system of systems' (Vachek 1966:28), a higher order structure which is more than the mere sum of its parts. Moreover, each language system is said to have both a core of stable units and a periphery with units that may not correspond to the general tendencies of the core system.

A well-known example of a functional account along the lines of the Prague Circle is Mathesius' analysis of an utterance as *theme* and *rheme*, which he contrasted with the traditional formal analysis of a sentence as subject and predicate. The *theme* is the basis of the statement and already known from context; the *rheme* adds new information to the ongoing communicative action. As Coseriu (2001:75) points out, the *theme/rheme*-distinction is nothing less than a linguistic universal.

One of the major methodological contentions of Prague structuralism was that the strict separation between synchrony and diachrony advocated by Saussure should be replaced by a 'dynamic synchronism', understood both externally as well as internally. Being a goal-directed or 'teleological' (Jakobson 1963) activity, a means for communication, language is bound to change incessantly during the course of time and in changing settings. Therefore, languages change because language-external (e.g. sociological) factors have repercussions on the system. In addition, language change does not result only from variation in *parole*, as Saussure claimed. It can also emerge internally, from the system within. Jakobson, for instance, in his monograph on the phonological development of Russian (Jakobson 1929), argued that a language system is always striving towards an optimal equilibrium, but because it never reaches perfect balance, various unstable elements

(which belong to the periphery of the system) are subject to change. A psycholinguistic proof that language is not static but dynamic is that speakers are aware of what is old and new in their language; words, for example (cf. Jakobson 1928).

A. Martinet, without adhering completely to Jakobson's teleological views on language evolution, developed one of the most complete applications of diachronic phonology, describing the evolution of the French sound system not in terms of isolated sounds but of their constitutive systems (Martinet 1955). He also further developed Trubetzkoy's concepts of archiphoneme and neutralisation. His major contribution to general linguistics is, however, the introduction of the concept of 'double articulation', which is still often cited as one of the major defining properties of human language: all languages can be analysed in units (so-called *monèmes*) with a content and a phonic expression; the latter is further analysable as both distinctive and successive units, the phonemes (Martinet 1960:25).

4.2 The Copenhagen Circle

In 1931 a group of Danish linguists – L. Hjelmslev, V. Brøndal, J. Holt, P. Diderichsen, H. C. Sørensen, among others – founded the Copenhagen Linguistic Circle. Although inspired by the Prague initiative, the Copenhagen Circle never provided the linguistic community with a programme that could stand the comparison with the *Thèses*. Moreover, from the outset there were major disagreements on a number of important issues among its members and therefore the term 'School' does not apply to the Copenhagen Circle without qualification. Overviews usually concentrate on the work of L. Hjelmslev, who can rightly be considered the most prominent representative of the circle. Hjelmslev conceived an entirely new theory of general linguistics which was partly inspired by his disagreements with the Prague *Thèses.* Other influences can be traced back to A. Sechehaye, A. Meillet, E. Sapir, W. von Humboldt, F. Boas, among others, as well as formalist and neo-positivist tendencies of the 1920s and 1930s, in particular the Vienna Circle (cf. Ungeheuer 1961). Several Scandinavian linguists (e.g. P. Diderichsen and E. Fischer-Jørgensen) were immediately influenced by Hjelmslev, but after World War II his influence extended well beyond the north of Europe, especially to France (R. Barthes, A. J. Greimas), Italy (U. Eco), Spain (E. A. Llorach), Romania (E. Coseriu), and the USA (S. Lamb).

In a sense, Hjelmslev is the most 'true-to-type' of all structural linguists, but in general his work is rather poorly understood, and this justifies a more thorough look at it. Hjelmslev's central claim is that only an appropriate, strictly scientific method can turn linguistics into a truly objective science (Hjelmslev 1939a). Linguistic analysis should not be based on allegedly universal cognitive or logical principles (cf. Hjelmslev 1928, chapter 8; Hjelmslev [2]1961[1943]), nor on a set of a-priori assumptions taken from earlier traditions in linguistics, for example the difference between subject and predicate (cf. Hjelmslev 1928, chapter 8; Hjelmslev [2]1961[1943]:79) or the case categories of the classical languages Greek and Latin (Hjelmslev 1935). At the same time, linguistic methodology can be scientific only if it succeeds in making a clear distinction between linguistic and non-linguistic facts (cf. Hjelmslev 1928:5; Hjelmslev 1961[1943]:6-8). Linguistics should be concerned with the clarification of language for its own sake: 'Linguistics must attempt to grasp language, not as a conglomerate of non-linguistic (e.g., physical, physiological, psychological, logical, sociological) phenomena, but as a self-sufficient totality, a structure *sui generis*' (Hjelmslev 1961[1943]:5-6). This radically 'immanent' point of view contrasts sharply with that advocated by the Prague Circle, which Hjelmslev dismissed as 'functionalist', considering himself to be a 'structuralist' in the only valid sense of the term (Hjelmslev 1939b). In order to emphasise their intention to break with tradition and erect an entirely new theory, Hjelmslev and Uldall invented the term *glossematics* (a blend of the Greek *glōssa* 'tongue' and *mathematics*).

As one might expect from the above, for Hjelmslev Saussure's major contribution to linguistics lay in 'the conception of language as a purely relational structure, as a pattern, as opposed to the usage (phonetic, semantic, etc.) in which this pattern is accidentally manifested' (Hjelmslev 1947:73). But in contrast to Saussure, Hjelmslev advocated the panchronic perspective (cf. § 3.2) on top of a Saussurean focus on *langue*, thus explicitly venturing into the realm of general laws of language (Hjelmslev 1928:103). However, Hjelmslev's 'general grammar' (*grammaire générale*) was not a universal grammar in the sense of, for example, N. Chomsky. Its aim was to elucidate what can possibly be realized in language as well as the conditions under which it is realized (Hjelmslev 1928:103-104). Essentially glossematics is a theory of linguistic possibilities rather than a theory of concrete languages (cf. Coseriu 1954).

For Hjelmslev a structure is a relational network of dependencies ('functions') in the logico-mathematical sense of the term also vindicated by the logicians and philosophers of the Vienna Circle. This perspective is in line with the fact that Hjelmslev distinguished between language internal and language external functions in a much stricter sense than the Praguians (cf. § 3.7). In his view, a function gives rise to linguistic entities, whereas for the Prague linguists every linguistic unit (a phoneme, a word, etc.) has a function within the system. A phoneme, called 'ceneme' by Hjelmslev, has to be defined as the intersection of different relations, whereas the Prague linguists define a phoneme as a sound unit having the function of differentiating meaning.

Hjelmslev has the merit not only of stating more precisely some of the methodological issues of linguistic structuralism, but also of deepening our knowledge of a whole range of fundamental structural concepts. Today he is probably best known for his discussion of Saussure's concept of the linguistic sign (esp. Hjelmslev 1961[1943]:47-60).

On the one hand, he elaborated on Saussure's definition of the sign as 'an entity generated between an expression and a content' (Hjelmslev 1961[1943]:47), rejecting the view that a sign points to a content outside the sign itself. For this reason he replaced 'sign' by the more precise 'sign function', denoting a relation established between two entities, *expression* and *content*. *Expression* and *content* have to be analysed and described separately because the ultimate elements of linguistic analysis, e.g. phonemes or syllables, are not signs (i.e. bearers of meaning) but a limited set of non-signs which Hjelmslev calls *figurae*. From an internal point of view each language is to be seen as a system of *figurae* to be defined relationally. Only from an external point of view (i.e. the perspective of language use) is it a system of meaning bearing signs connected to the world. Whereas the number of *figurae* is finite, the number of signs is infinite: speakers can model their language to suit any purpose (the introduction of terms for a scientific theory, the creation of words in poetry, etc.).

On the other hand, Hjelmslev introduced a distinction between *form*, *substance* and *purport* (or 'matter'). Although he frequently referred to the famous statement in the *Cours* that language is 'une forme et non une substance' (CLG 157; note that 'non une substance' has been added by the editors, cf. CLG/E 254), his own discussion of this matter primarily draws on the work of Humboldt, Steinthal, von der Gabelentz, among others (Hjelmslev 1928:112-113n2; Hjelmslev 1938b:151;

cf. also Coseriu 1954 and Fischer-Jørgensen 1966). For Hjelmslev substance comprises not only sounds but also psychological concepts. From the point of view of physical science the expression side of language is mere sound or matter; from a linguistic point of view it is a form imposed upon matter, turning it into a rigidly structured substance. The linguist has to investigate sound as a substance, and he will find that some phonetic features are relevant while others are not. According to Hjelmslev – and this is the crucial move from 'phonematics' to a full-fledged 'glossematics' – essentially the same holds for meaning. Meaning too can be studied from different angles, for example by psychologists and linguists alike, who are all concerned with thought in the most general sense of the term. Yet to linguistics it is essential to see that linguistic forms are imposed upon thought matter resulting in content substances: what may be called 'ideas' become 'ideas of language' (*Sprachideen*, Hjelmslev 1938b) when formed by language, leaving some elements of content irrelevant from a structural point of view (they are mere semantic variants). According to Hjelmslev, however, semantics (the study of the content substance) and phonetics (the study of the expression substance) are the objects of a meta-semiology; that is, not part of 'linguistics' proper, which is restricted to the study of the content form and expression form of a given language.

For Hjelmslev, form is independent from substance, the relation between them being entirely arbitrary and conventional. Whereas for Saussure the relation between *signifiant* and *signifié* is arbitrary, for Hjelmslev it is the relation between form and substance. Arbitrariness applies to how a particular historical language (a form) divides the continuum of sound and thought ('purport' or 'matter') into different substances. This aspect of the theory of glossematics has been a matter of controversy in the literature, but it should be kept in mind that nowhere does Hjelmslev state that substance is not part of linguistics, even if substance can only be grasped from the point of view of linguistic form (substance is, after all, linguistically formed purport). The thrust of his argument is that some parts of substance are functional while others are not (cf. Hjelmslev 1938 and Rasmussen 1992). Moreover, Hjelmslev did not hold the view that linguistic forms can exist without being realized in purport. As a matter of fact, he showed that the relation between a substance (for instance a series of sounds, but also, e.g., a gesture in sign language) and a particular linguistic form is arbitrary and conventional.

To decide whether two items correspond to two functions or are merely two variants of one and the same 'functional' entity, Hjelmslev conceived the so-called

'commutation test' which is arguably the single most important test in structuralist methodology. Two entities of expression are variants if they can be interchanged without entailing a difference in content, otherwise they both constitute an invariant. For instance, the substitution of */b/* for */p/* in */pan/* results in a change of content in English, whereas both sounds would be mere variants in, e.g., Finnish. The same holds, mutatis mutandis, for entities of content: there are two different content invariants if substituting one for the other entails a change in expression. For example, the commutation of 'he' (male) for 'she' (female) results in a different expression in parts of the English lexicon; compare, for instance, *ram* and *ewe*.

Finally, Hjelmslev is also to be credited with an important clarification of the Saussurean concept of *langue* (cf. Hjelmslev 1943). *Langue*, he argues, actually covers purely relational oppositions (*schémas*), an array of variation licensed by the language system (*norme*) as well as linguistic habits (*usage*) (cf. also Hjelmslev 1972[1934]). The intermediate level of *norme* is crucial: it is the result of an 'abstraction' of particular language uses within a speech community (Hjelmslev 1928:237) and 'c'est elle seule qui peut être observée par une méthode objective' (Hjelmslev 1928:239 and cf. also Hjelmslev 1957; for a further elaboration of the concept of *norme* see Coseriu, § 6.2).

4.3 American structuralism

As pointed out in section 1 above, the term 'linguistic structuralism' not only applies to the immediate European heirs of Saussure, but also to a number of American linguists since the 1930s. Although the influence of E. Sapir (1921) was considerable, the main representatives of this 'American branch' of structuralism were L. Bloomfield and his student Z. S. Harris, whose ideas dominated American linguistics in the 1940s and 1950s. (Because Bloomfield was appointed professor of linguistics at Yale University in 1940, after Sapir's death, American structuralism is also referred to as the Yale School.) Nowadays it is common practice to restrict the term 'structuralism' in American linguistics to the period before the advent of Chomsky, although the extent to which Generative Grammar continues some of the basic structuralist tenets (e.g. the focus on the systematicity of language, favouring linguistic structures over semantics, feature analysis, the scant attention paid to language experience, etc.) is still a subject of considerable debate (cf. Lepschy 1966; Koerner 2002; Joseph 2002).

It is important to keep in mind that when applied to American linguistics, the term 'structuralism' carries some specific characteristics which considerably alter its scope in comparison to its European counterpart. First of all, there is the radically empirical character of linguistic analysis carried out by Bloomfield and the post-Bloomfieldians. (Here too, the influence of the theory of science of the Vienna Circle was considerable; cf. § 4.2.) Bloomfield and his descendants (also called 'distributionalists' or 'descriptivists') were very much interested in setting out a comprehensive picture of language as the hallmark of human culture in the widest sense of that term. Bloomfield's *Language* (published in 1933), for example, is not only an admirably lucid textbook, but also an unequalled 'state of the art', in which virtually all aspects of language study known at the time are dealt with at some length. Second, American structuralism introduced a new methodology by maintaining that all linguistic analysis should be conducted on the basis of data extracted from a representative corpus. Third, special emphasis was laid on comprehensive descriptions of linguistic forms; that is, the sound system and phonotaxis of languages, their morphology, and syntax. Meaning, on the other hand, was virtually excluded from the analysis, as it was considered an aspect of language that, although important in itself, was not amenable to a truly empirical structural linguistics. Bloomfield conceived his linguistic theory explicitly along the lines of behaviourist psychology and his ideal is the methods of the natural sciences (Bloomfield 1933:32ff, 509; 1939:13). As noted above, this point of view was in stark contrast to the credo of European structuralism (see § 3.4).

The focus on a corpus – i.e. a finite but infinitely extensible set of naturally-occurring utterances – displays a marked absence of faith in intuition, which for American structuralists is either a source of unwarranted prejudices or errors in linguistic analysis. It was not until its explicit introduction in Chomsky's 'mentalistic' theory of language that intuition was accepted as a valuable linguistic tool in post-war American linguistics – without, however, filling the gap that had been left by the distributionalists' evasiveness with regard to semantics.

The scholarly work of American structuralists was strongly weighted towards classifications and establishing adequate methods for conducting them. (From the late 1950's, generative grammarians would rather contemptuously refer to this research strand with the term 'discovery procedures'.) Each linguistic unit, at all levels of analysis, was first characterized as to its set of possible occurrences, its so-called 'distribution'. 'What is essential', Z. Harris (1951:6) writes, 'is the

restriction to distribution as determining the relevance of inquiry'. The elements that can occupy the same positions in an utterance and display a similar distribution are grouped together, and the classes thus delineated are ordered hierarchically. (Note that as its point of departure distributionalism assumes the undeniable existence of elements, and that this viewpoint contrasts with the Saussurean view that elements derive their function from relations within the system rather than the other way around, cf. also Hjelmslev, § 4.2.) This emphasis on observable phenomena precludes an interest in differences that are not readily extractable from a corpus. The dedication to surface phenomena in language would be vehemently attacked by early Generative Grammar, for whom surface structures are triggered by transformations of more abstract deep structures.

In the next section we discuss some of the issues dealt with by structural linguists and wherever useful compare the American and European structuralist traditions.

5. Structuralism in linguistic subdisciplines

5.1 Structuralism and phonology

At the level of sound, which was initially the main target for the application of structuralist methods and principles, the linguist should not concentrate on sounds in isolation but rather on those differences between them which are termed 'functionally relevant' and distinguish functional units in the sound system of a given language (cf. § 4.1). Sounds that are distinctive units are called 'phonemes' and their systematic study is called 'phonology'. (Note that the term 'phoneme' already had a long history. It was introduced in the 1860's by J. Baudouin de Courtenay). European and American structuralists have defined the object of phonology in somewhat different ways, in accord with their focus on abstract paradigms or concrete distributional classes respectively. But the common aim of structural phonological research is to carefully select, from all observed sound differences, those sounds that are used to differentiate between two meanings and to set them apart from those that have no such semantic effects. Only the first category of differences (called 'distinctive oppositions') are judged pertinent to the language system.

Once the object of research is reduced to distinctive oppositions, the phonological system of each language can be described in terms of recurrent patterns.

The definition of the phoneme as a minimal distinctive unit implies that it cannot be further subdivided into successive distinctive units. But – especially for European structuralists – this does not prevent its analysis in terms of still smaller components which are simultaneously realized to form a phoneme. According to structural phonology, there are a limited number of elementary components; for every language, a maximum of about ten such traits can be found. These traits, when combined in a variety of ways, generate a closed inventory of the phonemes of the language, and each phoneme is thus seen as a complex of these elementary components, called 'distinctive features'. Though there is an agreement among phonologists about the principle of analysing the phoneme, there has been considerable controversy concerning the nature of the distinctive features, focused on the question as to whether these features should be ordered in binary pairs, as well as on the issue of their phonetic reality. In Europe, the Prague Circle (Trubetzkoy, Jakobson, cf. § 4.1) was the frontrunner in the elaboration of the basic principles of phonology in the 1920s and 1930s, although other scholars developed competing theories (see, for example, J. R. Firth's 'prosodic phonology' in which, in an attempt to overcome the rigid structuralist distinction between phonology and morphology, phonological features are attributed to prosodies – intonation, stress, voice, vowel harmony, etc. – rather than to phonemic units: cf. Firth 1957). It is safe to say, however, that by the 1960's, structuralist phonology had been universally supplanted by generative phonology and its offshoots.

5.2 Structuralism and morphosyntax

American linguists, faced with the urgent task of describing the rapidly disappearing American Indian languages, developed from the 1920s onwards a descriptive morphosyntax, the principles of which simultaneously display great similarity as well as important differences with the structuralist ideas of Saussure. Following Bloomfield (and Boas, cf. Boas 1911), their attention was directed at methods enabling the linguist to 'uncover' the units of a given language, and to describe it in the most objective way possible. In order to avoid any mentalist prejudice, they were to base themselves exclusively on formal and observable data,

conspicuously avoiding any reference to the meaning of the utterances. In morphosyntax too, Bloomfield and the post-Bloomfieldians focused on the study of syntagmatic relations rather than paradigmatic ones. The study of the distribution of elements allows an exhaustive description of the set of environments for a linguistic unit or class. This analysis, when applied at all levels of morphology and syntax, generates a hierarchically ordered and systematic description far superior to a mere inventory. To the distributionalists, language manifests itself first and foremost as a set of combinatory regularities revealed by the distributional structure (cf. Z. Harris 1951). The additional procedures of 'substitution' and 'permutation' allow a segmentation of the data samples into constitutive units or 'immediate constituents', while also allowing the reconstruction of the class of elements that can appear in the same position. It should be emphasised that such a class is a 'syntagmatic class' which, contrary to what many commentators would have us believe, has nothing to do with a 'paradigm' in the sense of European structuralism (cf. Coseriu 1992:§6).

In the domain of syntax a number of interesting 'structuralist' approaches can be distinguished. Undoubtedly, the most influential contribution came from L. Tesnière. His theory of verb valency and hierarchical syntactic structures (so-called *connexions*) laid the foundation for a new theory of syntax known as Dependency Grammar. It was set out in *Eléments de syntaxe structurale*, published posthumously in 1959 (2nd edition 1966), in which Tesnière explains that the traditional dichotomy between subject and predicate (which goes back to Plato and the Greco-Roman linguistic tradition) rests on a logical distinction rather than a linguistic one and should therefore be banned from syntax. Tesnière proposes to analyse sentences as constituted by a verb that takes a number of arguments (ranging from one to three – or four if one includes causatives as well; cf. Tesnière 1966[1959]:260ff) to which it simultaneously assigns a range of syntactic as well as semantic properties. In the 1960s this theory was taken up by C. Fillmore to form a central part of his Case Grammar (cf. Fillmore 2003) and through the work of Fillmore and others it eventually became part of modern Generative syntax as well.

In addition to valency and dependency theory, Tesnière introduced the concept of *translation*, which is comparable to the later Harrisian-Chomskyan notion of 'transformation'. Tesnière uses the term *translation* to refer to a procedure whereby a part of speech is being recategorised – for example, a noun as an adjective (e.g. *Peter* in *Peter's book*), adverb (*opera* in *they sing at the opera*) or verb (*to*

shanghai). Occasionally a *translation* does not alter the initial category of the word but only the internal structure of the phrase (e.g. *tomorrow* > *until tomorrow*). Yet the main thrust of the theory of *translation* is that it provides structuralism with a powerful tool to analyze complex sentences in a fairly straightforward way. Tesnière explains that entire sentences (with a verb as structural head constituent) can serve as input for category-changing procedures. For example, the sentence *He will bring the copies* functions as a noun in *John said (that) he will bring the copies*, the element *that* being an optional *translatif* whose sole function it is to convert a sentence into an argument of a transitive or 'divalent' verb (*said*) of another sentence.

5.3 Structuralism and semantics

Although the works of Trier (1931), Hjelmslev (1935; 1937a) and Jakobson (1936) had proven that structuralist methodology was readily applicable to problems of semantics as well, structuralism fully penetrated into the domain of semantics only after having extensively demonstrated its efficiency in phonology. Many linguists continued to doubt that meaning could be the object of analyses as systematic as those in phonology and morphosyntax. While (post-)Bloomfieldian descriptivism banned semantics from the realm of distributional analysis, a number of European scholars (Jakobson, Hjelmslev, L. Weisgerber, E. Coseriu, among others) invested much energy in adapting structuralism to the study of meaning. Jakobson and Hjelmslev were among the first to show, in seminal papers on the meaning of Russian cases (Jakobson 1936) and the paradigmatic structure of the lexicon (Hjelmslev 1957), how the methodology of structuralism could be coherently applied to linguistic meaning as well. After that, many attempts were undertaken to make structural semantics a full-fledged branch of structural linguistics (for an overview cf. Coseriu and Geckeler 1974 and Matthews 2001).

Structuralist approaches to semantics have not only been concerned with the lexicon but with the entire domain of grammar as well (number, voice, case, argument structure, etc.; Hjelmslev 1935, 1937a; Greimas 1963; Tesnière 1966[1959]; Coseriu 1976, 1987), and their applications have generated significant methodological innovations. Structural semantics is based on the assumption that meanings of linguistic units can be identified by comparing all items of a paradigm as to their content, every sign (i.e. a lexical or grammatical unit) entering into paradigmatic relations with other similar signs in the language. In the study of the lexicon, this

assumption has given rise to a new method for the analysis of meaning known as 'componential analysis'. If phonemes can be analyzed in terms of pertinent features, the hypothesis runs, lexemes can be analyzed on the basis of the same principles and decomposed into so-called 'semes', or distinctive features of content. However, in comparison to the phonological system, the lexicon of a language is characterized by a much higher number of features to be taken into account.

Componential analysis consists of decomposing every meaning into elementary meaning parts that can be detected by means of the commutation (or substitution) test (cf. § 4.2 and § 4.3): if the replacement of one separate semantic feature by another one causes a change of form, then the feature is a pertinent seme in the language; if not, it is non-pertinent and merely a variation of content. For instance, if one replaces 'man' with 'animal' in the meaning of the German verb *essen* ('eat') the form of the lexeme necessarily has to change as well (*fressen*). However, if one replaced 'solid food' with 'liquid food', this would not entail a change of the verb form *essen* (e.g., *Fleisch essen* 'to eat meat', *Suppe essen* 'to eat soup'), hence the difference between 'solid food' and 'liquid food' cannot count as a distinctive feature in the opposition between *essen* and *fressen* (cf. Hjelmslev 1961[1943]:69-71 and Coseriu 1964). Clearly, the aim of componential analysis is not to enumerate all the characteristics of an object, but to extract from linguistic contents the elements that are linguistically relevant ('pertinent'), and only these. The meaning of a word can then be represented as a complex of more basic distinctive features, which can be found in a variety of units. Semes are minimal, abstract, mostly highly recurrent, and replaceable features, and they generate the complex meanings in the language system when they are combined in various ways. Although the notion of 'seme' has been widely accepted in structural semantic analysis, there has never been real consensus on the logical and typological properties of semes, nor on their internal organisation within the linguistic unit (cf. Rastier (1996[1987]:18).

A remarkable achievement of structural semantics is its application of the important concept of neutralisation, first introduced in Prague phonology, to meaning. In specific environments certain phonological oppositions are neutralised, e.g. the opposition between voiced and unvoiced stops in word-final position in languages such as German and Dutch (cf. Trubetzkoy 1931; 1939:71). However, the same holds true, mutatis mutandis, for certain semantic oppositions. In the English lexicon, for example, *man* is in semantic opposition to *woman*, but in a sentence

like *Man is endowed with intelligence*, the opposition between these words is neutralised and *man* includes the meaning of *woman* (Hjelmslev 1939c; Coseriu 1964; Martinet 1975:§5; cf. also Jakobson 1932). Neutralisable oppositions can also be found in grammar. One can refer to the 'extensive' functions of the present tense of verbs in comparison to the 'intensive' past or future tense in many Indo-European languages, the uses of the singular of nouns vis-à-vis the plural, etc. According to some authors (e.g. Hjelmslev 1933; Coseriu 1976:54ff, 1992:§ 8), neutralisation is a pervasive trait of natural languages that distinguishes them from logical and mathematical systems.

The main accomplishment of structural semantics is to have shown, first, that the lexicon of a language is not an unordered pile of accumulated units but that it can be subdivided into 'lexical fields' which group words on the basis of their semantic relatedness (Trier 1931), and, second, that the semantic structure of a language is made up of a myriad of micro-structures, the elements of which are connected by precise and, to a certain extent, also formalisable relations (cf. Pottier 1963, 1964; Greimas 1963, 1966; Geckeler 1982[1971], Geckeler, ed. 1978). Although the linguistic status of semantic fields has been contested, mainly because it has proved difficult to define the boundaries both between different fields and between pertinent ('functional') and non-pertinent ('referential') features, componential analysis of meaning has been a very fertile field of research. Not only is it still present in one shape or another in most contemporary work on semantics (e.g., Pustejovsky 1995); it has also been extended to units beyond sentence level (e.g. narrative texts; cf. Greimas 1966).

Another approach to meaning, conceived by American structuralists, attempts to relate it to distribution. The hypothesis, previously formulated by Z. Harris, that two morphemes with different meanings will also show distributional differences in one way or another was refined and put into practice, especially in J. Apresjan's analysis of Russian verbs. For Apresjan, not every semantic difference is necessarily expressed in a syntactic difference, but every syntactic difference corresponds to an important semantic difference (Apresjan 1973a:109). A special kind of 'componential' analysis, which had considerable impact on linguistic research in the 1960s, aimed at reconciling componential and distributional analyses with contemporary principles of Generative Grammar. Katz and Fodor (1963) distinguish for every lexical unit, apart from a number of components claimed to be intrinsic semantic features of the unit, so-called 'selection restrictions' which account for the

possibilities of it combining with others. They propose a computation of the meaning of utterances, starting from the syntactic properties of the individual lexical units: for those units that combine at the level of syntax, the selection restrictions of one unit must be compatible with those of the other. However, Katz and Fodor's approach was heavily criticized by several authors (e.g. Bolinger 1964) who showed that the approach was seriously flawed in several respects, in particular by not being able to make a clear and coherent distinction between systematic semantic features proper and components which originate in the interpretation of sentences. Therefore, Katz and Fodor's approach cannot count as structuralist without qualification.

Finally, attention should be drawn to the work of C. Lévi-Strauss. He was strongly influenced by Saussure as well as Jakobson and applied structuralist principles to the analysis of kinship systems of different societies and to the study of myth, thereby extending structuralist methodology to applications outside the field of linguistics proper, viz. anthropology (cf. Goddard 2005). Starting from the principle that human culture is made up of symbolic systems in which no single element has meaning except as an integral part of a set of structural connections, Lévi-Strauss grouped all possible kinship systems into a schema containing three basic kinship structures constructed out of two types of exchange of women between groups (Lévi-Strauss 1949). "Parce qu'ils sont des systèmes de symboles, les systèmes de parenté offrent à l'anthropologie un terrain privilégié sur lequel ses efforts peuvent presque (et nous insistons sur presque) rejoindre ceux de la science sociale la plus développée, c'est-à-dire la linguistique" (Lévi-Strauss 1958:28). The structures operate on pairs of binary oppositions which are considered to be at the basis of social structure and culture. In his structural approach to myth, Lévi-Strauss described the widely dispersed folk tales of tribal South America as all related to one another through a series of transformations. They reveal a common symbolic structure, he claimed, made of minimal oppositional elements organized in paradigms and combined in different ways.

5.4 Structuralism and discourse analysis

In the early 1950s, discourse analysis emerged as a problem within both American distributionalism and European structuralism. In both cases, scholars became aware of the limits of linguistic inquiry that took the sentence as its ultimate object, and

began to attempt to surpass its boundaries. This widening of the field of study, however, remained firmly within the theoretical framework of structuralism on both sides of the Atlantic. The text is first and foremost characterized as a closed, finished macrostructure, the elements of which are defined by the totality of their interrelations. Harris (1952) considered discourse as a combination of sentences which could be subjected to distributional analysis like any other linguistic unit. To this end, Harris developed a method he termed 'discourse analysis'. The recurrent features detected in discourse (i.e. texts) make up categories of equivalents, and the concept of 'transformation' introduced by Harris allows for the reduction of a number of sentences to a limited set of elementary sentence patterns (so-called 'kernel sentences', Z. Harris 1957).

Scholars working within the tradition of distributionalism also raised the question of the relationship between language, pragmatics, human behaviour, and culture. If rigorous analyses can detect formal patterns, valid for certain texts and not for others, relating these patterns to precise situational features may contribute to their interpretation. This strand of research prefigures a sociolinguistic approach based on rigorous and explicit procedures in a number of ways. In this connection special mention should be made of the so-called 'tagmemics school' which was originally founded by K. Pike within a linguistic framework but soon extended to provide a basis for cultural research in a much wider sense. According to Pike, a linguist, like every social scientist, can study his object from two points of view – that of an insider or an outsider. The two points of view correspond to equally important kinds of knowledge of cultural artefacts. The internal point of view deals with 'emic' units which at various hierarchical levels display a set of specific distributional features, in spite of their 'etic' variability, both synchronic and diachronic (cf. Pike 1967[1954]; 1982 and Longacre 1983). Although it is important to study languages (like cultures) 'etically', to gain insight into cross-linguistic diversity and the patterns underlying it, linguists should also seek to discover, according to Pike, the emic units of a single language 'from within' and describe it as a structured whole.

In the works of É. Benveniste (e.g. 1966), the French structuralist school deepened the study of the relationship between the speaking subject and his/her text. Benveniste contributed in particular to the study of the traces of the act of uttering (*énonciation*) in the utterance (*énoncé*): indices such as adverbs, tenses, pronouns all indicate the complex relationship between the speaking subject and

discourse. Ultimately, the absence or presence of such traces can be used to draw up a typology of texts.

6. Structuralism and beyond

As has become clear from the preceding section, several scholars have endeavoured to broaden and deepen the framework of structuralism in a number of ways, especially by introducing new concepts or proposing new points of view. In this final section we discuss the work of two of them, whose writings deserve to be acknowledged separately because of their impact and intrinsic value: R. Jakobson and E. Coseriu.

6.1 Roman Jakobson's interdisciplinary approach

Once Jakobson – one of the prime leaders of the Prague Circle (cf. § 4.1) – started working in the United States in 1941, his structuralist theory changed considerably, primarily under the influence of scientific disciplines such as Information Theory (Shannon 1948; MacKay 1969) and Cybernetics (Wiener 1948). Jakobson redefined communication in information theoretic terms as the process of transmitting information between a sender (addresser) and a receiver (addressee), thus enlarging the meaning of the term 'communication' considerably beyond that of verbal interaction (e.g. Jakobson 1968). However, throughout Jakobson's work the notion of structure remained omnipresent, although after World War II it eventually became defined in mathematical terms. A structure became defined as a graph, a set of equivalence classes, or a transformation structure.

In addition, the Saussurean distinction between *langue* and *parole* was reinterpreted as a distinction between the 'code' and 'message' in a communication process. Not only did Jakobson return to Mathesius' concept of *langue* as 'potentiality' (Mathesius 1911; Jakobson 1988[1942]), but he also conflated it with the psychological side of communication (Saussure's *exécution*, i.e. as part of *parole*, cf. § 3.1) by viewing a code as a mechanism of interpretation. During the 1980s and 1990s Jakobson's idiosyncratic interpretation of Saussure's CLG was shown

to have been seriously flawed (cf. Koerner 1997; R. Harris 1997), and his post-war linguistics was definitely a still narrower interpretation of Saussure's original ideas. Still, Jakobson played a fundamental role in diffusing Saussurean thought in the United States after World War II (cf. Falk 1995).

From the late 1940s onwards, Jakobson became acquainted with the work of the logician, mathematician and philosopher C. S. Peirce (1839-1914) whom he once called 'the most inventive and versatile among American thinkers' (Jakobson 1966). One result was that Jakobson substituted the Saussurean relational definition of the sign (cf. § 3.4) with a new definition based on the view that a sign combines a *signans* and *signatum*, the signatum being defined as the 'translatable' part of a sign. Moreover, Jakobson identified Saussure's linguistic sign as a 'symbol' in the Peircean sense, in which it is opposed to an 'index' and an 'icon'. The integration of Peircean semiotics eloquently shows how it was a matter of considerable concern to Jakobson to make linguistics part of a comprehensive and more universally valid theory of human semiosis. In accordance with this plan, he started refuting Saussure's concept of *l'arbitrarité du signe* (cf. § 3.5), not only by drawing upon Peirce's theory of iconicity, but also by building on Benveniste's critical interpretation of the CLG (Benveniste 1939), in which it is put forward that a sign or symbol possesses a conventional meaning primarily on the basis of its use among a group of speakers. (Incidentally, Saussure had also tried to integrate linguistics into the wider field of 'semiology' and attributed semiological properties to stories and manuscripts/texts, cf. Wunderli 1981a:201ff. and 2004.)

Jakobson is also to be credited with having introduced one of the best-known extensions of structuralist methodology, in which systematic core linguistics is applied to natural science. Jakobson hypothesized, for the first time, that a common denominator could be found for the study of the phonological systems of the world's languages, the study of the child's acquisition of phonological structure, and the neurolinguistic study of aphasia, thus reducing three seemingly disparate fields of research to a single interdisciplinary object to be studied in terms of structural premises (Jakobson 1968[1941]). Moreover, Jakobson (1956) claimed that aphasic disturbances were mainly due to deficiencies on either the syntagmatic axis ('similarity disorders') or paradigmatic axis ('contiguity disorders') (cf. § 3.6). Although this classification proved to be overly simple in later studies, the impact of Jakobson's structuralist hypothesis on modern-day aphasiology can hardly be overestimated.

6.2 Eugenio Coseriu's integrated approach

Another major figure in 20th century linguistics strongly influenced by structuralism (esp. Saussure, Bloomfield, and Hjelmslev) was the Romanian born linguist E. Coseriu. From his first publications in the 1950s, Coseriu tried to overcome the restrictions of an overly rigidly defined structuralist programme, and to this end he incorporated in his writings viewpoints to be found in the works of Aristotle, Humboldt, Hegel and many other philosophers. One of Coseriu's better known criticisms of the structuralist programme is that the Saussurean differentiation between *langue* and *parole* is unsatisfactory. While subscribing to the basic structuralist principle that linguistics should be founded on the analysis of paradigmatic relations which constitute the 'functional' language system, Coseriu introduced (in alignment with a number of distinctions put forward by Hjelmslev, cf. § 4.2) alongside *langue* and *parole* a third level called *norme* (Coseriu 1952). By 'norms' Coseriu refers to traditions of discourse within a speech community which cannot be defined on the basis of abstract systematic oppositions but are nevertheless constitutive for speech. Languages around the world appear to vary greatly in their lexical as well as grammatical paradigms. Yet there is also considerable variation in the way individual languages are realized within a speech community and its sub-communities, prompting Coseriu to speak of an 'architecture' of a single language (cf. Uriel Weinreich's 'diasystem'). This kind of variation, however, is not random but framed by a complex array of diverging historical discourse practices which a truly comprehensive linguistic research programme should also bring to the fore. 'Norms', then, mediate between the infinite possibilities of the language system and the concrete speech realisations of individuals in historically determined particular settings.

Another step forward in broadening the structuralist scope is Coseriu's distinction between three kinds of knowledge which speakers have about language: (1) knowledge of language as a creative activity (*enérgeia*), (2) making use of an already acquired knowledge (*dýnamis*) but also (3) going beyond and changing this knowledge in a creative way, thus resulting in an ever-changing knowledge of the products of speech (*érgon*) (Greek terms borrowed from Aristotle and Humboldt). According to Coseriu, these three kinds of knowledge correspond to distinct levels of linguistic content (Coseriu 1985). Every speech act relates to what speakers know about the world and to the objects they refer to when talking (G. *Bezeichnung*

'reference'). Reference should not be confused with language-specific meanings, that is, the 'functional' oppositions within the various lexical as well as grammatical paradigms of a given language from which each single linguistic item derives its abstract value (*Bedeutung*, Saussure's *signifié*) (Coseriu 2000). But neither language-specific meanings nor reference are the final aim of language use. They ultimately contribute to the construction of 'texts' (discourse), which are bearers of still another kind of meaning – 'sense' (G. *Sinn*). The sense of a text encompasses the speaker's intentions and assumptions while s/he engages in discourse and is, ultimately, a hermeneutic object. 'Sense' is also the level at which translations operate – a translator never translates 'meaning' but only 'sense' (cf. Coseriu 1994).

Throughout his writings, Coseriu is strongly opposed to the view, not uncommon among structuralists, that concepts such as *langue* and *code* refer to 'real things'. According to Coseriu, it is important never to forget that most concepts which linguists use to describe language are abstractions, necessary tools one works with in doing linguistics. A fully coherent and comprehensive theory of language, however, cannot be based on such abstract concepts but only on a proper understanding of the creative linguistic activity of individual speakers.

7. Conclusion

As was mentioned in the introduction (§ 1), structuralism often has a negative connotation at present. As early as the 1960s, Ducrot (1968:14) noted that linguists were hesitant to qualify their work as structuralist and tended to reserve the label for the work of others. There is, however, some consensus that scholarly work in which the idea of the 'autonomy of language' is present in one way or another can be characterised as 'structuralist', as opposed to primarily pragmatic, sociolinguistic or cognitive work. This is an idea one may approve or disapprove of, but it cannot be denied that structuralism was the single most influential trend in the development of modern linguistics in the 20th century. Not surprisingly, the controversy surrounding structuralism, engaging some of its most eminent proponents as well as its critics, has predominantly been focused on its definition of the object of linguistics as an immanent and autonomous system. Most current linguistic theories, even those that are mainly concerned with questions of context and language use, maintain several aspects of the structuralist theory of language, at least to some

extent. Moreover, by unrelentingly pursuing the question of how linguistics can coherently be conducted as a rigid social science, some of the most famous structuralists (Saussure, Bloomfield, Hjelmslev, Jakobson, Coseriu, among others) created the preconditions for developing rigorous and explicit research methods in linguistics, which eventually came to exert a pervasive influence on allied disciplines as well.

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