

Research Article

# The Linguistic Sign and the Subsystems of Language

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## Abstract

The point of departure is that the traditional linguistic «components» or subsystems like phonology, semantics, lexicon and grammar are based on the linguistic sign (or symbol), and the article discusses the relation between these components: Are they *independent and supplementary*, or are some systems *part* of others? And what is their relation to the sign and its two parts, expression and content (meaning)? First, the linguistic sign is presented and discussed, and defined 1) as a *general* unit with any expression, not limited to speech, 2) *non-mentalistically*, in a manner compatible with a *usage-based* approach to language, namely as a *social* or *conventional product* that also comprises *physical* entities like sounds or letters. Then some problems concerning the relation between the sign and the subsystems are pointed out and discussed in the following sections. The main conclusions are: 1) Lexicon and grammar include (e.g. phonological) *expressions*, phonology deals with the *expression system*. 2) There is no semantic system – meaning is part of *lexicon and grammar*. 3) Grammar is not «autonomous», but consists of (complex) *signs* and includes meaning. 4) Lexicon and grammar are neither expression nor content, but represent the *sign* or *lexicogrammatical* level. 5) Languages and texts are not signs and do not consist of expression and content, but of *subsystems* and *parts*. 6) Words are the basic part of language, presupposed by grammar.

## Keywords

Sign, Expression, Content, Phonology, Semantics, Lexicon, Grammar

## 1. Introduction

By *subsystems* I mean what is usually called ‘components’ or ‘modules’, i.e. *phonology*, *morphology*, *syntax*, *semantics* and the *lexicon*, which are the generally recognized components of *spoken* language.<sup>1</sup> In written language we have

1 Many linguists, e.g. Crystal [6] (p. 182) and Hurford [20] (p. XI) regard phonetics as a separate module, in addition to phonology. Some don't even regard phonetics as part of linguistics, because it deals with physical entities (sound types) whereas language is supposed to be mental. But if language includes sound types (see Section 2), phonetics must be a basic part of phonology [29] (p. 2), which studies sound systems, i.e. the structure and function of speech sounds. Since function presupposes structure, here: sound types, the point of departure for phonology must be a physical (articulatory or acoustic) description of the sound types of the actual language.

*graphology* instead of phonology, but the same other parts. Morphology and syntax are usually referred to as *grammar*. The terms for the subsystems also denote the *study* of the systems, parts of *linguistics* and not language – e.g., *phonology* denotes both *the phonological system* and *the study* of it – but it is the systems themselves which are the object here.<sup>2</sup>

If languages are sign systems, the sign must be the base for the division of language in subsystems. I will therefore start

2 Linguistics also includes many studies whose object is not part of language, but functional aspects such as the use of language or the sender's product, texts (pragmatics, stylistics, text linguistics, etc.), or the history (sociology, psychology etc.) of language. These are not relevant in a discussion of language structure.

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with a short definition of the linguistic sign. Then I will point out some problems concerning the relation between the subsystems and the sign and try to solve each of the problems. What is the relation between these subsystems? Are they all *independent and supplementary*, or are some systems *part of* others? And what is their relation to the two parts of the sign, expression and content? Do they consist of expression or of content – or of both? Which “side” or “level” of language do they belong to? How many levels are there?

## 2. The Linguistic Sign

By the linguistic sign I mean the *bilateral* sign of Saussure and Langacker, by Langacker called *symbol* – not the sign concept of everyday language or the “semiotic/semiological” sign, which are related *unilateral* concepts. The bilateral sign consists of two necessary parts which are connected through *convention*: a *signifying* part, usually called *expression* (or *phonological pole*), and a *signified* part called *content* or *meaning* (or *semantic pole*).

According to Saussure [31] (p. 97 ff), both parts are *mental*, respectively a *sound image* (*image acoustique*) and a *concept*. This also means that Saussure’s sign is restricted to *spoken* language, which Saussure [31] (p. 45) like other structuralists regards as the only form of language. Also for Langacker [23] (p. 11) the sign is mental as a whole: Symbols are said to consist of a semantic and a phonological “representation”. However, in Langacker (2013) [26] (p. 15) the «phonological representation» is said to include *gestures* and *written characters*. Langacker’s sign is thus wider than Saussure’s, and includes also written and gestural signs.

I shall follow Langacker on this point, as it is obvious that we have to do with sign systems also in writing and gestural (or «sign») language. Signs can have *any* expression as long as there is a definite *content* as well as a definite expression – also traffic lights or drawings on toilet doors. The most important sign systems are spoken and written language – usually called “verbal language” – which are to a high degree *parallel* systems, most obviously in *alphabetic* writing, where also the *expressions* and the *expression systems* are parallel. Here, I use verbal signs, mostly written ones, as examples.

However, both Saussure’s sign and Langacker’s symbol are «mentalistic» and place signs and language in the *individual minds* and not in *speech communities* – although that is exactly where Saussure places signs and language elsewhere, e.g. by saying that signs are “social by nature” [31] (p. 34). This precludes that signs and languages can consist of *physical* objects like the sounds or letters that occur in usage and texts. In my view, this is not compatible with a *usage-based* view of language, where usage and language are supposed to be of *the same kind*, as Langacker [25] (p. 109) points out: «...structure [...] is not independent of usage or radically different in nature. Rather, structure emerges from usage, is immanent in usage, and is influenced by usage on an ongoing basis». As usage and texts comprise physical units like sounds or letters, these units

must also exist in the language, as general *types* instead of individual *tokens* (exemplars). Else language and usage would be radically different.

In other words, usage – the regular or conventional use of language – consists of tokens of the types in the language, else it is ungrammatical. Phonology does not deal with *sound images*, but with *sound types* like the famous «thick /l/» of parts of Norway and Sweden. It is not the *image* or mental *representation* of the sound type that is part of these dialects, but the *sound type* (an apico-postalveolar flap) itself. But to be able to pronounce it, one must have a “representation” or mental image of the sound type (and expressions where it occurs, i.e. words with “thick /l/”), built from previous encounters with the sound (and the words). To use a language, one must *know* it and be *competent* in using it. But that is *knowledge* of and *competence* in language, not language: A representation presupposes *something that is represented*, e.g. speech sounds or other linguistics units, and knowledge of language presupposes language. Mentalism confuses these two objects, or sees only one of them.

## 3. Some Problems with the Subsystems

It should be obvious that the linguistic components must have something to do with expression and content and therefore with signs, since phonology can be said to study *the expression* of spoken signs while semantics studies *the content* of the signs. But expression and content seem relevant also in the other subsystems. As to the *lexicon*, it is generally recognized that words have both an expression (a pronunciation or a spelling) and a meaning (which is described in dictionaries). Does the same go for *grammatical* units? And what about *language as a whole* and *texts*, the product of the sender’s usage: Do they consist of expression and content as well? There are five problems involved here:

- 1) There seems to be agreement that the *sound system* is an independent system. At the same time, sounds are relevant also in *lexicon and grammar*, since grammatical units consist of either morphemes or word forms<sup>3</sup> and therefore have a *pronunciation*. Should we distinguish between two aspects of speech sounds, both as an *independent system* and as a *part of lexicon and grammar*?
- 2) Is there a corresponding *semantic system*, a parallel to the sound system? Does meaning constitute an *independent system* or is it just a *part of lexicology and grammar*?
- 3) What is the relation between semantics and *grammar*?

3 Following Lyons [27] (p. 101), I distinguish between words (lexemes), which are abstract lexical units in the language (the lexicon), and word forms, which are concrete grammatical units in usage and texts (and as types in the language), in writing separated by spaces. In inflected words, word forms are inflectional forms, but some words have unstressed forms. The verb (to) have, e.g., consists of the verb forms or verbals have, has and had, which can be combined into the verbal syntagm have/has had. Word forms are the largest units (the subject) of morphology and the smallest units (ultimate constituents) of syntax, so they are a central type of sign.

Few issues have been discussed as much as the place of meaning (if any) in grammar, especially syntax: Are syntax and semantics two *independent* systems, such that syntax is “autonomous”, independent of meaning, or do grammatical units *include* meaning?

- 4) Saussure’s definition of the sign is usually understood to mean that also *language* as a whole has an “expression side” and a “content side” (or “level”). If so, it seems clear that phonology belongs to the expression side and semantics to the content side. But on what side should we place *lexicon* and *grammar*? Are words and grammatical units *expression* units or *content* units – or none of them?
- 5) And do languages and texts really consist of expression and content?

In the following I discuss each problem in this order.

## 4. Expressions and Expression Systems

Most sign systems, such as speech, alphabetical writing and gestural («sign») language, have «double articulation» [28] (p. 2) or «duality of patterning» [19] (p. 90), which means that the expression normally is «articulated» or *complex*, consisting of meaningless *expression units* (occasionally one, as in the English article allomorph *a*) selected from an *expression system*: in spoken language *syllables* and *speech sounds* forming a *sound system*, in writing *letters* forming an *alphabet*.<sup>4</sup> An example from Langacker [23] (p. 298) is the spoken word form written *picnics*, consisting *phonologically* of the *syllables* /pik/ and /niks/, which can be further analyzed in phonemes, but *grammatically* of the *stem* /piknik-/ and the *inflectional suffix* /-s/, which are *signs* with a *meaning*. Syllables, sounds and letters have no meaning by themselves, but can combine according to certain rules to form *expressions* with meanings, e.g. /pik-nik/ or /p-i-t/. Thereby they also distinguish (the expression of) different signs from each other, e.g. /pit/ from /bit/ or /pin/ (distinctive function).

Double articulation means that in both spoken language and alphabetical written language, we must distinguish between the *expression system* – the sound system or the alphabet – that governs the expression in *all* signs, and individual *sign expressions*, i.e. *pronunciations* or *spellings*, which consist of selected units from the expression system. For example, we should distinguish between English *a* as a general *expression unit* (phoneme or letter) and as a specific *expression* with a meaning, namely the indefinite article. In most words, *a* is just a sound or letter; in the article it’s something more – a *meaningful* sound or letter, functioning as a complete sign expression by itself.

The phoneme is the subject of phonology, which studies all sign expressions, determining which sounds occur in the language and their distribution in syllables and words (e.g.

that /h/ only occurs word-initially in English). The article is the subject of *lexicology* and *morphology*, which describe specific *words* and *word classes* such as articles, both expression and content, and is also relevant in *syntax* as an important element in noun phrases. Variation of expression in inflection (allomorphy), e.g. syncopated forms of Norwegian adjectives like *naken* (naked), definite or plural *nakn-e* (conditioned by the following vowel), is often called “morpho-phonology”, but must be part of *morphology* since it concerns the inflection of certain adjectives (and nouns) and not the sound system. So there is phonology in morphology too – and in syntax and lexicology. All these subsystems deal with *signs*, which necessarily have an expression, in spoken language a pronunciation.

## 5. The Place of Meaning

Also the content can often be analyzed in *content units* or semantic factors, i.e. minimal elements of meaning. For example, the meaning of *man* can be divided in the factors ‘person’, ‘adult’ (compare *boy*) and ‘male’ (compare *woman*), and the meaning of the indefinite plural suffix *-er* in Norwegian *gutt-er* (boys) can be analyzed in the meanings ‘plural’ and ‘presumed unknown to the receiver’ (unlike in English, the form is opposed to the *definite* plural *gutt-ene*, the boys). Is there a finite *system* of such minimal content units that in various combinations constitute the content of all minimal signs (morphemes) – a parallel to the sound system or the alphabet?

Many linguists have taken for granted that content and expression are parallel, and have assumed a semantic system corresponding to the sound system, usually without further description. One example is Hockett [18] (p. 138). Another is Wierzbicka [36], who posits an innate and universal «natural semantic metalanguage» with around 60 «conceptual primitives» such as ‘negation’ and ‘good’. According to Aitchison [1] (p. 80–83), a general semantic system has not been demonstrated. At best, there are *limited* systems of semantic factors within «semantic fields», small groups of semantically related words such as hyponyms and antonyms, kinship terms or personal pronouns, but no *general* system that comprises *all* words.

If so, we have no parallel to the sound system or the alphabet on the content side, only a parallel to the *pronunciation* or *spelling* of individual signs, and semantics is not on par with phonology. Meaning does not constitute a separate system, but must be a part of the *meaningful components* of language, namely lexicon and grammar. As to the expression, it’s not quite as straightforward: There, we have to assume both *specific expressions* in lexicon and grammar – pronunciations or spellings – and a general phonological or graphological *system* that determines possible pronunciations or spellings in the actual language.

Thus, the two parts of the sign are not parallel in spoken language and alphabetical written language: The expression is

<sup>4</sup> In gestural languages the expression units are position, configuration (i.e. the shape of the active hand), and motion, according to Stokoe [32] (p. 40).

governed by a system, the content is not. Our ancestors managed to «articulate» the expression, but not the content, likely because we can only produce a limited number of sounds, making it necessary to *combine* sounds to complex expressions to achieve a sufficient number of different sign expressions. Something similar is not necessary, probably not even possible, on the content side, since there is an unlimited number of concepts, often not clearly delimited.

## 6. Grammar and Meaning

One consequence of regarding meaning as an independent system is that meaning and grammar, especially syntax, by many linguists are regarded as two independent systems, e.g. in generative grammar [37] (p. 15). Also Jackson [21] (p. 4) assumes «...a semantic system, concerned with the meaning relations between elements of a construction, and a grammatical system, concerned with the grammatical relations between elements of a construction». However, «...syntax and semantics interweave in the structure of language» and «...a 'grammatical' description really has to take account of both aspects» [21] (p. 165–166). Then how can they be different systems? With such a general theory, it's not surprising that we often get contradictory statements and practices (more examples below). A contradiction between theory and practice usually indicates that the theory is wrong.

The separation of semantics and grammar or more specifically syntax means that grammar is seen as *meaningless*, and excludes the possibility that grammatical relations such as the subject and object functions are meaningful. Faarlund [8] (p. 103) explicitly denies that grammatical categories have meaning: «Considering subjects as a morphosyntactic category, I will disregard semantic criteria from the outset». So what is the purpose of syntax, then?

According to Sundman [34] (p. 5), syntax is «...a rule system that relates the meaning (content) of a sentence to its form (expression)», and the sentence constituents she places (p. 8) «between form and meaning». Morphemes, however, she refers to (p. 17) as «meaningful elements». And since sentences *consist* of morphemes, they must also be meaningful. Faarlund [9] (p. 41) describes syntax as «a mediator between expression and content», and Teleman et al. [35] (p. 41) describe grammar as «a bridge between the expression side and the content side of language», and place (p. 31) vocabulary, grammar and text study *between* phonology/graphology and semantics, suggesting that the first three parts do not *include* the latter two but are *supplementary* to them. However, the authors inform (p. 34) that meaning is described «...in connection with the specific grammatical categories and structures, whereas semantics is not given a unified account». A sensible and common procedure, but hardly in agreement with the account on page 41 and 31. The same goes for the statement (p. 34) that grammatical categories like word classes and sentence constituents «...normally have a semantic motivation, i.e. they have a general meaning that characterizes

the category». If grammatical units *have* meaning, meaning must be *part of* grammar. *Meaningful* or *having meaning* is something else than *relating* or *mediating* meaning and expression, because in the last case there's something *between* the two.

According to this theory, expression and content are not *directly* connected, at least in grammar: Between them lies an entirely abstract system – syntax or grammar – that does not include either of them. Compare Gil [11] (p. 176), who says that there is «...a crucial difference between human language and most other semiotic systems, such as, for example, traffic lights [...], where *red* means 'stop' and *green* means 'go'». Namely that «...the relationship between sounds and meaning is not direct [...]. Rather, the relationship is mediated by various intervening entities: the linguistic forms [...] which constitute the basic building blocks of linguistic analysis», i.e. lexical and grammatical units. From this follows «the autonomy of syntax».

Such abstract units certainly don't occur in usage, and in a usage-based account not in the language that is used either. All grammatical units, from morphemes to sentences, obviously have an *expression*, e.g. sounds or letters, else we could not observe and understand them. This goes for the *system* (language) as well as for the *use* of it. Using a system shows what the system *consists of*. And if morphemes, unlike phonemes, have meaning, then also word forms have meaning, because they consist of morphemes. And then also syntagms and sentences must have meaning, because they consist of word forms. Otherwise, linguistic communication would be inexplicable.

The view of grammar (and lexicon) as an intermediary between expression and content doesn't explain where meaning *comes from* when language is used. How do we know what *cat* means when we hear or see the word, e.g. in a sentence? Meaning must come from the *expression* (*c-a-t*) plus the *conventions* that connect expression and content into signs of various types. So expression and content are *directly* connected, just like in the traffic lights, and *between* them there is nothing. An abstract «bridge» between expression and content we can safely discard with Ockham's razor. Grammar doesn't *connect* expression and content because that is already done in the minimal units of grammar, the *morphemes*. Instead, grammar *combines signs* of various types, from morphemes to clauses, and grammatical units *consist* of both expression and content.

That words (lexemes) have meaning, is assumed by all dictionaries, and inflected forms have grammatical meanings – content factors like 'plural', 'past tense' etc. – in addition to the lexical meaning. It is also commonly assumed that sentences have meaning, e.g. that interrogative sentences by themselves express a question (but can be *used* «*rhetorically*» to express other speech acts). Then how can they be situated *between* content and expression? Grammar *consists* of word forms, either by themselves (morphology) or combined (syntax), and includes the meaning (and expression) of these



forms, in addition to relational or functional meanings between constituents, like ‘subject’ and ‘object’ or ‘head’ and ‘modifier’. For example, *syntactic constructions* are assumed to have a meaning that consists of the semantic relation between the constituents [5] (p. 78–79).

As to *syntactic functions* like subject and object, the sentences *It* (e.g. a dog) *can see you* and *You can see it* mean different things, although they consist of the same word forms: In the first *it* refers to the *agent* and *you* to the *patient* (or goal), in the last it’s the other way round. The reason must be that the syntactic and semantic *relation* between the word forms is different: In the first sentence *it* is the *subject* and *you* the *object* (which we can see from their positions), in the last it’s the other way round. And in the active voice subjects refer to agents while objects refer to patients. So, in active sentences the subject and the object must have the meanings of ‘agent’ and ‘patient’, respectively, and to understand such sentences it is necessary to realize this, i.e. to analyze the sentence syntactically, at least intuitively.

Therefore, it is meaningless to ask whether something is grammatical or semantic, since grammar *includes* meaning and things consequently can be *both* – e.g. the meaning of an inflectional ending, a word class, a syntactic function or a sentence type. And therefore, grammatical terminology is full of semantic descriptions: We talk about *possessives*, adverbials of *manner*, *interrogative* sentences, *causal* clauses, etc., and many linguists have underlined the close relationship between grammar and meaning. Langacker states that «...grammar is symbolic in nature, consisting in the conventional symbolization of semantic structure» [23] (p. 2), and that «...all valid grammatical constructs have some kind of conceptual import» [24] (p. 282). According to Matthews [30] (p. 53), «...syntactic relations are in part semantic relations». Dixon [7] (p. 28) says that «There is a semantic basis to each part of every grammar», and Bouchard [3] (p. 247) that «Every syntactic combination reflects a semantic combination». Regarding *word classes*, Haugen [15] (p. 25) states that «...it is hard to imagine why categories like noun and verb should emerge in the first place if they did not have a semantic basis».

Thus, meaning is fundamental in grammar and can largely *explain* grammatical properties, both morphological and syntactic. Why aren’t nouns like *milk* or *silver* normally used in the plural, and why can’t they be used with numerals or the indefinite article? Because they denote an unbounded *substance* that occurs in a certain *quantity* and not in a certain number, and therefore cannot be *counted*. Why are adjectives inflected in *degree* and used with degree modifiers like *more/most/very/too/as (elegant)*? Because they denote *qualities* (or states) that usually exist in varying degrees. For the same reason, adjective phrases typically function as either *modifiers* or *predicatives* to a noun phrase and *describe* the referent of the noun. Why can normally only *nominals* function as subjects or objects? Because nominals denote *entities* that can be *participants* with specific roles in an action or a

state. Why is *give* a three-place verb that in the active voice normally requires a *subject*, a *direct object* and an *indirect object*? Because it denotes an action involving three participants: a *giver*, a *gift*, and a *recipient*, denoted by each nominal. Ignoring such aspects makes grammar a mystery.

## 7. Lexicon and Grammar: The Sign Level of Language

Saussure’s definition of the sign is usually taken to mean that also *language* as a whole has two «levels» or «sides». For instance, Hjelmslev [17] (p. 126) calls language «a two-sided structure, involving *content* and *expression*», and asserts (p. 127) that also a *text* consists of expression and content, which must be analyzed separately. And Harder [14] (p. 445) states that «the most basic property of language» is «its division into a content and an expression side». If these two «sides» are all there is, all linguistic units must belong to either one side or the other, i.e., they must be either *expression units* or *content units*. It seems obvious that *meanings* are content units and *sounds* or *written characters* expression units, but what about *lexical* and *grammatical* units, which have *both* expression and content?

The answer is that grammar, especially syntax (the lexicon is usually not mentioned), is placed variously on either side. An example of placing grammar on the *content* side is Kofoed [22] (p. 15), who states that «content study» is the study of «morphemics and semantics». But if morphology (and perhaps grammar altogether) is placed on the content side along with semantics, then what is the difference between morphology (or grammar) and semantics? Another example is Allerton [2] (p. 42): «...language is a two-level semiotic system, being analyzable separately for content and expression units: it has a set of meaningful content units (signs) and a set of meaningless expression units (figurae)». <sup>5</sup> And the study of «meaningful content units» is divided into «...grammar (or syntax), lexis (or vocabulary), and semantics». But if signs are «content units», what kind of units are *meanings*? We must distinguish not only signs and *expression units*, but also signs and *content units* (meanings), which are *parts* of the signs. And grammar, lexicology, and semantics are not aligned: Only the first two can be said to consist of «meaningful units» (signs) and thereby *comprise* meaning.

Others place grammar or syntax on the *expression* side or on *both* sides separately, with the somewhat surprising result that we get *two* syntaxes. An example is the Swedish reference grammar [35], which divides grammar into the «meaning side» (p. 41) and the «expression side» (p. 46), and where the grammatical structure is discussed under the expression side. Another example is the Danish reference grammar [12], which divides (p. 28) syntax into an «expression syntax» and a «content syntax» instead of a single syntax consisting of

<sup>5</sup> This is the double articulation, the distinction between signs and expression units, not the distinction between expression and content in signs.

(complex) signs. And by the expression side of sentences the authors understand (p. 101) «...the traditional construction of the sentence in syntagms [probably meaning ‘constituents’] (units that can be moved and substituted)», which means that the sentence constituents are considered to be expression units.

But if grammatical units are regarded as expression units, then what is the difference between *morphemes* and *phonemes*? Unlike sounds or letters, grammatical units, from morphemes to sentences, also have a *content*. How can they be placed on the expression side? This way the term *expression* is used in two quite different meanings: partly about *grammatical* and *lexical* units, which are meaningful, and partly about *phonological* or *graphological* units, which are not. When Sundman compares sentence constituents to *phonemes* and suggests that «...also sentence constituents should have a *meaning-distinguishing* function» [33] (p. 253–254, my emphasis), she overlooks a basic difference between sentence constituents and phonemes, namely that sentence constituents are *meaningful* (signs), not *meaning-distinguishing* (expression units).

Dividing language into an expression side and a content side means that there is no place for *signs as wholes*, i.e. for neither *lexicon* nor *grammar*. Fabricius-Hansen [10] (p. 52) points this out for syntax in glossematics: «When the content and expression planes are described separately [...], there is really no place for syntax, if one understands syntactic relations as relations between entire signs and not just content or expression units». And this is just how we should understand syntactic relations, as Harder [13] (p. 141) states: «Syntax deals with the combination of linguistic items into more complex linguistic items. Since the items combined are signs, syntax deals with both expression and content at the same time». None the less, also Harder [13] (p. 142) distinguishes between «content syntax» («how content elements are combined into larger wholes») and «expression syntax» («the rules for combining expression elements into complex expressions») instead of one syntax that combines signs. A theory of language that has no place for syntax or has to operate with two syntaxes, has a major shortcoming.

Now, of course expression and content can be considered *separately*, abstracted from its companion. We may be interested in the *pronunciation* or *spelling* of a word or in its *meaning*, or in the meaning of a sentence or a whole text. But we should not forget that neither of them occurs in isolation, but always together in signs. So if we call the expression and the content «sides» or «levels», we must also recognize a *third and basic level*: the *sign* or *lexicogrammatical* level, where the units are signs of various types, from morphemes to sentences. As Langacker’s «content requirement» [23] (p. 53–54) underlines, the linguistic sign means that there are *three* kinds of linguistic units: *expression units*, such as sounds or letters; *content units*, i.e. meanings or parts of meanings (semantic factors), and *signs*, which consist of the first two. And there must be a level for each of them.

## 8. Neither Languages nor Texts Consist of Expression and Content

The fact that *signs* consist of expression and content doesn’t mean that also *languages* and *texts* do, because neither languages nor texts are signs. Languages are *sign systems* and consist of *signs*, not expression and content. More precisely of signs organized in *subsystems* such as lexicon and grammar, which makes it possible to combine minimal signs into complex ones and construct an unlimited number of signs. In addition, there usually is an independent *expression system* like the sound system or the alphabet. Only *minimal* signs, i.e. *morphemes*, consist of expression and content. Complex signs like complex words (derivations or compounds), complex word forms (e.g. inflections) and syntagms like sentences or prepositional phrases consist of *smaller signs*, often hierarchically, and must be analyzed in *constituents* at multiple levels, as is usually done in grammatical analysis.

Texts cannot be signs because they are *individual* products and follow only “regulative” or *functional* conventions – pragmatic, stilistic, rhetorical etc. – that govern the *use* of language, how to be eloquent or a good communicator. They cannot be right or wrong, only good or bad (e.g. incomprehensible or incoherent), and are not what we learn when we learn a language. It would simply be wrong, and probably impossible, to analyze a text, e.g. this one, in expression and content. Texts consist of *parts* defined by their content, most clearly marked in certain written texts: chapters, sections and subsections, paragraphs, periods and utterances – the *minimal text* and the *maximal unit of grammar*.

However, each *utterance* in a text (mostly sentences) could be called a sign – usually a *complex* sign, consisting of smaller signs. Though also utterances are individual products, they follow “constitutive” or *structural* linguistic conventions – graphological or phonological, lexical and grammatical – which may be broken (e.g. by spelling mistakes), resulting in a faulty or “ungrammatical” utterance. So utterances could be regarded as the *maximal sign*, and must be analyzed hierarchically in *smaller signs* (constituents), not in expression and content.

What the readers can see in written utterances such as these, is the *expression* – letters and other characters. Using a language as sender means producing the expression of the chosen signs (and choosing the utterance type, e.g. a statement). But knowing the sign system that is used – here: standard written English – readers recognize the expression units as *expressions of signs* that they know, connected to meanings: morphemes and word forms separated by spaces (e.g. *see* or *sign-s*), and sentences or other utterances marked by punctuation, and can hopefully understand both each utterance and the semantic connection between them, i.e. the text as a whole.

## 9. Conclusion

The conclusion is that spoken language, alphabetical written language and gestural language consist of two main systems: a *sign* system and an *expression* system – the «double articulation». The sign system consists of a *lexicon* that, according to Dixon [7] (p. 22), «classifies things», and a *grammatical system* that «organizes things». The lexicon consists of two main classes: an open class of *lexical* words and a closed class of *grammatical* words, both of which can be subdivided. For instance, nouns can be divided into *mass* nouns and *countable* nouns, and the latter into *proper* nouns naming individuals and *common* nouns naming classes.

In verbal language the «things» organized by grammar are *words* and *word forms*, and grammar can be divided into two systems: a *morphological* system that *classifies words* (in word classes), makes *complex words* (stems) by compounding and derivation and in many languages *inflected word forms* by inflection, and a *syntactic* system for combining word forms hierarchically in *syntagms* of various types (constructions) such as prepositional phrases or sentences. So also grammar classifies, e.g. words or constructions. However, lexicon and grammar *overlap* since there are *grammatical words* and *word classes* are regarded as grammatical organization and treated in morphology. Moreover, *fixed expressions* with a syntactic structure but a holistic meaning, e.g. *figure out* or *put up with*, must be regarded as both grammatical and lexical units.

In recent linguistic theory grammar, especially (in generative grammar, exclusively) syntax, has received most attention. But among ordinary speakers, it's rather *words* that matter, as Dixon [7] (p. 20) points out: «All over the world, speakers conceive of a language as consisting of its vocabulary, with little regard paid to grammar». The speakers may have a point here. Since both morphology and syntax concern word forms, words can be considered the basic part of language and the *prerequisite* for grammar: Plural markers presuppose countable nouns, auxiliary verbs presuppose lexical verbs, etc. According to Boye and Harder [4] (p. 6–7), grammatical units have «...an ancillary communicative purpose as secondary or background elements». They presuppose the words they organize.

Additionally, grammatical units *arise* from lexical units through grammaticalization of lexical words and syntagms (like English *going to* + verb) and the combination of word forms into constructions. So language must have started with words, and grammar came later, when there were enough words and words of *different classes*, at least nouns and verbs, which could be combined meaningfully. We can imagine a language with limited grammar (like pidgin languages), but not one without a lexicon. Such a language would also lack grammar because there would be nothing for grammar to organize. The importance of words in communication is shown by the difficulties we all experience, especially in old age, with «finding the right word» to express what we want to say. Grammar is seldom a problem for healthy people, but

words often are. And without words, grammar is useless.

## Author Contributions

Eric Papazian is the sole author. The author read and approved the final manuscript.

## Conflicts of Interest

The author declares no conflicts of interest.

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