

THE SUBJECT-PREDICATE DEBATE X-RAYED

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1. *Incongruity of the subject-predicate distinction in logic, psychology and grammar*

Around 1840 a number of linguists and philosophers began to realize, in the wake of the great expansion of grammatical expertise achieved in eighteenth-century France, that very often sentence constituents that are grammatically marked as subject do not fit the semantic description of 'subject' provided in Aristotelian metaphysics. It was felt that sentences are often used in such a way that there is a discrepancy between the grammatical subject-predicate division and the way the sentence is understood. To take an example from Steinthal (1855:199), in a sentence like *The patient slept well* the grammatical subject is *the patient* and the grammatical predicate is *slept well*. However, if the sentence is simply interpreted as the attribution of the property of sleeping well to the individual here described as 'the patient' an important fact is overlooked, namely that often, 'what one wants to say is that the patient's sleep was good'. Therefore, an analysis is wanted, at a different level from surface grammar, in which *the patient's sleep* is the subject and the adverb *well* is the predicate. Steinthal, and many after him, thus realized that many uses of sentences are 'incongruous' in that the grammatical division between subject and predicate does not coincide with the corresponding semantic, or (psycho)logical, division, and that the same grammatical form may be used to express different semantic forms. If this idea is viable there will have to be two different levels of analysis, a surface grammatical analysis and a semantic, or, as the terminology went at the time, a logical or psychological, analysis, each with their own subject-predicate assignments. Jespersen aptly summarizes the problem as follows:

The subject is sometimes said to be the relatively familiar element, to which the predicate is added as something new. "The utterer throws into his subject all that he knows the receiver is already willing to grant him, and to this he adds in the predicate what constitutes the new information to be conveyed by the sentence ... In 'A is B' we say, 'I know that you know who A is, perhaps you don't know also that he is the same person as B'" (Baldwin's Dict. of Philosophy and Psychol.

1902, vol.2.364). This may be true of most sentences, but not of all, for if in answer to the question "Who said that?" we say "Peter said it," Peter is the new element, and yet it is undoubtedly the subject. (Jespersen 1924:145)

The emergence of the subject-predicate problem during this period was a direct consequence of a notional as well as terminological confusion about the term *subject* that goes back to Antiquity, and to the significant advances in grammatical expertise achieved during the eighteenth century. To investigate the former we must revert to classical Antiquity, and look in greater detail at the history of the terms *subject* and *predicate*.

2. *The terms subject and predicate in Aristotle*

The term *subject* is a Latin translation of the Greek *hypokeímenon*, which was introduced by Aristotle in connection with his theory of truth. For Aristotle, truth comes about when the facts of the world correspond with what is thought or said. In order to make this correspondence relation specific Aristotle has to resort to a double form of analysis. On the one hand, he has to analyse world facts, i.e. real or possible situations, and on the other he must analyse either what is thought or what is said. And since what is said is more amenable to analysis than what is thought, he opts for sentence analysis, leaving thought analysis in limbo.

For Aristotle, then, a situation or state of affairs, in so far as it is representable in an assertive sentence, consists of the fact that some thing or entity has a certain property. And a true assertion corresponds with the situation in that it contains a constituent called *predicate*, which assigns the property in question to the thing or entity in question. In a very general sense, therefore, Aristotle's notion of correspondence, as the defining characteristic of truth, consists in an isomorphic relation between thing versus property in the world and subject term versus predicate in the sentence. The thing or entity is called *hypokeímenon*. The property assigned (if it is an accidental and not a necessary property) is called *symbebēkós* (*accidens* in Latin). The sentence part expressing the property is called *katēgoróúmenon* or *katēgorēma*. No specific term, however, is created for the sentence part that refers to the *hypokeímenon*. Aristotle thus left a terminological gap.

3. *Confusion around the term 'subject'*

This gap became the source of a persistent confusion, which lasted for many centuries, between the subject as referent, the thing the sentence is about, on the one hand, and the sentence constituent we now recognize as subject on

the other. The second century AD Greek grammarian Apollonius Dyscolus still uses the term *hypokeimenon* in the original Aristotelian sense of the entity in the real or a possible world that the sentence is about. Thus we read, for example:

When we look for the identity (hýpaxin) of some underlying entity (hypokeiménou) we say ‘Who is moving?’ or ‘Who is walking?’ or ‘Who is speaking?’, when it is clear that there is (an event of) movement, walking, or speaking, but unclear who the person is that does these things. (Book. I, ch. 31; Householder 1981:28-29)

But as from the fifth century AD authors begin to use the term *hypokeimenon* also for the grammatical subject term of a sentence. A clear example (despite the not so clear style of writing) is found in Ammonius’ fifth-century commentary on Aristotle’s *De Interpretatione*, where Ammonius produces the following somewhat overextended sentence:

[S]ince some propositions are composed of only two simple words, one being the subject and the other the predicate, as when I say ‘Socrates walks’ (here the word *Socrates* is called the subject term (hypokeiménos hóros) and the word *walks* the predicate, because in every predicative utterance one part is that about which the utterance is and the other part what is said about it, and because that about which the utterance is, i.e. the word *Socrates*, is called the subject as it receives what is predicated of it, while that which is said about it, i.e. the word *walks*, is the predicate as it is said about the subject), since, then, as we were saying, some propositions are composed of just the subject and the predicate, but others may have a third part added to them, as when I say ‘Socrates is righteous’ (here the subject is the word *Socrates* and the predicate is the word *righteous*, and *is* is simply added), while others again may have a modality added to them, signifying in what way the predicate assigns a property to the subject, e.g. that it is necessary, or impossible, or possible, or well, or clearly, or justly, as when I say ‘Socrates may be musical’ or ‘Socrates explains clearly’, and since it is impossible to think of more terms than these that could be combined with each other to form a proposition, the second chapter of the book tells us about the simplest propositions, that is about assertive propositions consisting solely of subject and predicate, the third chapter about the more complex ones that have an extra part [i.e. copula] added to them so that these assertive propositions consist of a subject, a predicate and a third added part, and the fourth about propositions with a modality. (Busse 1897:7-8)

In the sixth century we find Boethius, also in a commentary on Aristotle’s *De Interpretatione* (prima editio, 5 (77, 5-15)):

Now he [i.e. Aristotle] explains what a simple and what a complex proposition is. A simple proposition is one that is composed of two terms. The terms are noun and verb. The latter we predicate in a simple proposition, such as ‘Socrates debates’, where *Socrates* and *debates* are the terms. The lesser term in the utterance, i.e. *Socrates*, is called the subject (subiectus) term and has to come first. The major term, i.e. *debates*, is predicated and comes second. Thus, a proposition that is

composed of one subject (*subiecto*) and of one predicate is called a simple utterance.

This may well be the first occurrence in the extant Latin sources of the term *terminus subjectus* in the meaning of 'subject term', as distinct from the other main sentence constituent, the predicate. The Greek term *hypokeimenon*, or, more precisely, *hypokeimenos hōros*, had already been used in that sense by Ammonius, as we have just seen.

In roughly the same period the Latin grammarian Priscian writes (Book 17, ch. 23), translating the passage quoted above from Apollonius Dyscolus:

When we look for the reality (*substantiam*) of some underlying entity (*suppositi*) we say 'Who is moving?' or 'Who is walking?' or 'Who is speaking?', when it is clear that there is (an event of) movement, walking, or speaking, but unclear who the person is that does these things.

Priscian then goes on, still translating Apollonius:

Therefore, nominative 'subjections' (*subiectiones*) are made of either proper names or common nouns, the latter conveying also a general reality (*substantiam*). For we reply 'A man is walking', or 'A horse', or 'Trypho', where it is understood that Trypho is a man. Or a word may be put in (*subicitur*) which is understood as standing for a noun, a common noun, that is, a pronoun, as when we say 'I [am walking]'.

The last three passages are interesting, especially in conjunction with the text quoted above from Boethius, as they show a tendency in Latin authors to disambiguate the Greek term *hypokeimenon*. About the sixth century a convention apparently began to take hold to translate *hypokeimenon* in the original sense of 'reference object' as *suppositum*, but in the meaning of 'subject term' as *subiectum*. This convention, however, was not universally adopted. In the Middle Ages, although *suppositio* standardly meant 'reference', and the *suppositum* was the reference object, Thomas of Erfurt uses the terms *suppositum* and *subiectum* the opposite way. As regards the Renaissance, Percival quotes an Italian grammarian of the fourteenth or fifteenth century, Giovanni da San Ginesio:

What is the subject (*suppositum*)? It is that about which we speak or (vel) whatever precedes the main verb or (vel) is understood to precede it. (Percival 1976:240-241)

The use of the word *vel* for 'or' shows that this author saw the two meanings of the term *suppositum* as freely interchangeable alternatives. In the seventeenth century, however, *subiectum* became the generally accepted term for the sentence constituent denoted by it.

4. *No semantics for quantified subject terms*

Besides the terminological confusion, there were other problems as well with regard to both the notion and the term *subject*. As has been said, in Aristotle's original definition, a subject is the entity to which a property is assigned by the predicate of a sentence. This metaphysical or semantic definition applies to assertions with a definite subject term, such as *The man is ill*. Here, the person referred to by the phrase *the man* is assigned the property of being ill by means of the predicate *ill*, and such an assignment may be true or false. But this definition fails to apply to sentences with a quantified subject term.

Now Aristotle's logic is explicitly restricted to sentences that contain a subject term quantified by the standard quantifiers *all* or *some*. Sentences with a proper name or a definite noun phrase like *the man* or *the men* as subject term are excluded from his logic (ostensibly because they lack metaphysical interest, but in reality because they mean trouble in a strictly bivalent logical system). There is therefore a problem regarding the semantics of subject terms like *all men*, *every man*, *some man*, or *some men*. They do not stand for a specific entity, and what they do stand for remained unclear to Aristotle and later generations of logicians. The great master thus had neither an ontology nor a semantics that would define a reference object for a quantified subject term. Yet his theory of truth demanded such a reference object. Aristotle, therefore, also left a semantic gap.

Neither Aristotle nor later ancient and medieval philosophers were able to solve this problem. It remained unsolved until the advent of modern quantification theory, with its quantifiers and variables. In light of the above it is easy to see what motivated medieval philosophers to seek a solution in finely grained theories of reference, the well-known medieval *theories of supposition*, with their distinctions between various forms of reference or supposition: personal, simple, material, discrete, communal, determined, confused, distributive, mobile, or immobile, etc. (cp. De Rijk 1967). These theories were, on the whole, unsuccessful owing to the lack of mathematical and formal sophistication. But they show that the medieval philosophical world was well aware of the unsolved problem of the semantics of quantified (subject) terms.

5. *No semantics for subject terms generally*

By the middle of the nineteenth century, as formal grammar had become more sophisticated and linguists had developed a keener sense of the realities of language and speech, a further problem was noticed by a number of linguists and philosophers. They observed that if the Aristotelian semantic definition of

‘subject’, to the extent that it applies at all, is applied to sentences, very often what should be the subject according to the definition is not the subject recognized in grammatical analysis, and likewise for the predicate. Steinthal, for example, observed:

One should not be misled by the similarity of the terms. Both logic and grammar speak of subject and predicate, but only rarely do the logician and the grammarian speak of the same word as either the subject or the predicate. ... Consider the sentence *Coffee grows in Africa*. There can be no doubt where the grammarian will locate subject and predicate. But the logician? I do not think the logician could say anything but that ‘Africa’ contains the concept that should be connected with ‘coffee grows’. Logically one should say, therefore, ‘the growth of coffee is in Africa’. ... Grammatical form is therefore a completely free, subjective product of the popular spirit. (Steinthal 1860:101-102)

Steinthal is obviously the victim of the widespread misconception that the subject-predicate distinction originated in Aristotle’s logic, whereas we know that it originated in his theory of truth. But apart from that, if we apply his definition to the sentence quoted the prepositional phrase *in Africa* should or may well be considered the predicate since it assigns a locative property to the growing of coffee.

Likewise, we find Meyer-Lübke, who also believes that the term *subject* sprang from logic, observing:

I want to stress that ‘subject’ is used here in a purely grammatical sense, and designates, therefore, the agent of the action. Admittedly, this goes against the original meaning of this term, which, as one knows, originated in logic. From the point of view of logic there can be no doubt that in the sentence *il arrive deux étrangers* [‘two foreigners arrive’] the subject is *il arrive* while *deux étrangers* is the predicate, as A. Tobler (Beiträge I, 191) rightly observes. But from the point of view of grammar the relation between Noun and Verb remains unchanged, no matter which comes first in the sentence. (Meyer-Lübke 1899:352)

6. *Subject and predicate as discourse-related notions*

Around 1900 the distinction between subject and predicate was widely used to account for the way the information contained in an uttered sentence is presented in an ongoing discourse. Thus, elements under contrastive accent, as in *SCOTT wrote Ivanhoe*, as against *Scott wrote IVANHOE*, are considered ‘logical’ predicates by authors like Wegener, Lipps, Stout or Gardiner, and the uncontrasted parts are, correspondingly, the ‘logical’ subject. Von der Gabelenz and Paul make the same distinction but use the term *psychological* instead of *logical*.

Georg von der Gabelentz was the first to use a tripartite terminology. For him, the ‘logical’ subject does what it is supposed to do: it represents the thing that the logical predicate says something about. The grammatical subject represents the logical subject and manifests this function by assuming the nominative case. The psychological subject is the representation (‘Vorstellung’) which comes to mind first:

What does one wish to achieve when one speaks to another person? The answer is that one wants to arouse a thought in him. In my view this implies two aspects: first, one has to direct the interlocutor’s attention (his thinking) to something, and secondly, one makes him think this or that about it. I call that of or about which I want my addressee to think the *psychological subject*, and that which he should think about it the *psychological predicate*. In the sequel it will become clear how much these categories often deviate from their grammatical counterparts. (Von der Gabelentz 1869:378)

Thus, in a sentence like *Mit Speck fängt man Mäuse* (‘with bacon one catches mice’; Von der Gabelentz 1901:370) the logical subject, expressed through the grammatical subject, is *man* (‘one’), but the psychological subject is *mit Speck* (‘with bacon’). Von der Gabelentz does, however, signal the difficulty of observational support for his thesis:

But if one wants to give the inductive proof for all this, one has to be careful with examples. For the phenomena to do with positions in the sentences of different languages are not unambiguous or equivalent. (Von der Gabelentz 1901²:370)

From here it is only a small step to get to the notion of subject and predicate as linked up with a ‘context of situation’. The first to bring this to the fore was Philipp Wegener:

It is the function of the subject [‘die Exposition’] to state the position [‘die Situation klar zu stellen’], so that the logical predicate becomes intelligible. (Wegener 1885:21)

Likewise for the German philosopher-psychologist Theodor Lipps, for whom, however, logical and psychological subject-and-predicate are identical, while grammar goes its own way. He takes Wegener’s view further to a position which may be called the *discourse notion of subject and predicate*:

The grammatical subject and predicate of a sentence now agree now do not agree with those of the judgement. When they do not, the German language has intonation as a means of marking the predicate of the judgement. The subject and predicate of the associated judgement are best recognized when we bring to mind the question to which the sentence is an answer. That which the full and unambiguous question is about is the subject, while the information required is the predicate. The same sentence can, accordingly, serve to express different judgements, and hence different subjects and predicates. (Lipps 1893:40)

In much the same vein we read the Cambridge philosopher George Stout, who, following the lines set out by Von der Gabelenz, Wegener and Lipps, describes how specific thoughts arise out of and fit in with ongoing mental activity. We read (Stout 1909, vol.2:212-214):

The subject is that product of previous thinking which forms the immediate basis and starting-point of further development. The further development is the predicate. Sentences are in the process of thinking what steps are in the process of walking. The foot on which the weight of the body rests corresponds to the subject. The foot which is moved forward in order to occupy new ground corresponds to the predicate. ...

All answers to questions are, as such, predicates, and all predicates may be regarded as answers to possible questions. If the statement, "I am hungry" be a reply to the question, "Who is hungry?" then "I" is the predicate. If it be the answer to the question, "Is there anything amiss with you?" then "hungry" is the predicate. If the question is, "Are you really hungry?" then "am" is the predicate. Every fresh step in a train of thought may be regarded as an answer to a question. The subject is, so to speak, the formulation of the question; the predicate is the answer.

All these authors distinguish between two kinds of subject-predicate division, one that is mostly called 'grammatical' but sometimes also 'logical', and another that is variously called 'logical' or 'psychological'. The opposition is thus between 'grammatical' and 'psychological', with logic straddling the fence, depending on the view the author in question takes of logic.

7. *Logic seen as a cognitive faculty: the art of correct reasoning*

The uncertain status of the term *logical* is probably due to a widely prevailing uncertainty at the time about the status of logic. The fact that logic is by definition a calculus was not widely appreciated. Only some, more mathematically minded logicians, like Boole, De Morgan, Frege, Russell, realized that. For the majority, however, mostly consisting of philosophers and interested linguists, logic was the study of the processes of correct thinking, and hence closely connected with the study of the mind, which was then beginning to be called psychology. These scholars were unaware that Aristotle had grafted his logic on the *verbal* notion of truth, consisting in correspondence between what is *said* and what is the case, and not on the *cognitive* version where correspondence is required between what is *thought* and what is the case (cp. Stegmüller 1957:16-17). Modern logic has followed Aristotle in this respect and is now explicitly non-psychological. But in the nineteenth century matters were less clear. Those who set off a 'logical' subject-predicate division from a grammatical one were, apparently, not troubled by the fact that there was no

logical machinery corresponding to their 'logical' subject-predicate division. In this respect, those who preferred the term 'psychological' certainly had good reasons.

8. *Wundt wants to create order*

Wilhelm Wundt proposed a reversal to one single subject-predicate division, thereby re-establishing terminological order. He argued that there was no compelling reason for distinguishing between a grammatical and a logical notion of subject and predicate. Why not just follow grammar, he argued, and take the nominal constituent in the nominative case as the subject not only for grammatical but also for logical purposes? What objection is there to consider the grammatical subject of a passive sentence to be also the logical subject? The passive subject simply takes a different predicate from the corresponding active sentence (the fact that the two are, roughly speaking, synonymous should presumably be accounted for by independent principles). And the way information is 'packaged' for presentation should be ascribed to a separate psychological system of 'foregrounding' which interacts with the logico-grammatical distinction between subject and predicate in various ways. Let us listen to him in some detail:

Among the less palatable consequences of the mixing up of logical, grammatical and psychological points of view there is hardly one that is more damaging to an adequate view of the facts of language than the transfer of the logical elements of the judgement to the linguistic analysis of the sentence. The fact that the judgement consists of subject and predicate results from an analysis of judgements, and this is an insight that has rightly passed untrammelled from Aristotelian logic (even if present-day scientific thought has otherwise grown out of it) into the more modern forms of logic. The subject is the thing the proposition is about, that which forms the basis, ὑποκείμενον; the predicate is the content of the proposition, the κατηγορημα, as Aristotle called it. ...

But ... what is the mutual relation of these sentence constituents when the sentence has undergone certain linguistic transformations that do not affect their meaning? Suppose I transform the sentence *Caesar crossed the Rubicon* into *The Rubicon was crossed by Caesar*, does that mean that the subject *Caesar* has become a remote object, and has, conversely, the original object *the Rubicon* now become the subject? And when I say *The crossing of the Rubicon was achieved by Caesar*, has now the original predicate become the subject?

These are the questions that have led, in our new linguistics, to a kind of distinction that has found a rather widespread acceptance, but which, in my eyes, has increased rather than solved the confusion resulting from the mixing of logic, grammar and psychology. If we are to believe G. von der Gabelentz we should distinguish between a logical, a grammatical, and a psychological subject and predicate. The logical subject and predicate keep the function they have in logic.

The psychological subject is seen as “the representational complex that occurs first in the consciousness of speaker and hearer”, while “the content that is added to this prior representation” should be the predicate. Or, as v.d. Gabelentz formulates it from the teleological point of view, the psychological subject is “that about which the speaker wants the hearer to think, to which he wants to direct his attention, while the psychological predicate consists of that which the hearer should think about the subject”. ...

Against this we posit that subject and predicate are of themselves logical concepts, and therefore not originally part of grammar, and even less of psychology. One is better advised not to transfer them from their proper domain to different domains as long as no compelling reasons have been presented. This indeed is why some authors have, from time to time and not entirely without justification, objected to a simple identification of grammatical and logical predicate. Yet ... these objections do not apply. When one says that the two sentences *Caesar crossed the Rubicon* and *The Rubicon was crossed by Caesar* have the same logical subject but different grammatical subjects, one has already lost sight of the notion of subject in the Aristotelian sense, namely as that on which the assertion is based, and surreptitiously introduced a psychological consideration, namely that the subject must be an agent. Obviously, the agent in both sentences is Caesar. But only in the first sentence, and not in the second, is he the basis on which the proposition is grounded. The former is an assertion about Caesar, the latter about the Rubicon. ... The logical subject of the sentence ... may be foregrounded maximally but also relatively weakly. These are distinctions that must absolutely be denoted by different names, precisely because they always enter into a union with the logical distinctions that occur in thinking and often cut right through them. Or else there will be conceptual confusion. (Wundt 1922:266-271)

In one respect Wundt was clearly right. As long as no answer is provided to the question of what the logical, grammatical and psychological notions of subject and predicate have in common, there is no good reason for identifying or relating them by the use of a single set of terms. In a footnote to p.268 Wundt says it again: “This very confusion of nomenclature is a valid reason for insisting on unambiguous definitions for subject and predicate, and for using a different terminology when one is dealing with different concepts.” Wundt then proposes the term *dominant representation* (dominierende Vorstellung) for those elements in sentences that are maximally foregrounded in an information-structural sense, but this term never gained acceptance.

9. *Mathesius introduces Functional Sentence Perspective*

Around 1926 the Prague linguist Vilém Mathesius followed Wundt’s advice. He introduced (Mathesius 1928) the term pair *theme* and *emunciation* for what had been called psychological subject and predicate, respectively. The two together make up a *functional sentence perspective*, which should account

for the discourse-bound foregrounding phenomena mentioned by Von der Gabelentz, Wegener, Lipps, Stout, Wundt and others.

Contrary to Wundt's term *dominant representation*, Mathesius' term pair, anglicized as *theme-rheme*, has gained wide acceptance. Other term pairs were also introduced, more or less simultaneously, such as *topic-comment*, *topic-focus*, and the like, all fitting into the notion of functional sentence perspective. All theories of functional sentence perspective have in common the view that the subject-predicate division, which they regard as belonging to grammar and/or logic, is nothing to do with functional sentence perspective or information packaging, which is seen as belonging to an autonomous machinery of psychological discourse processing. In principle, subject and predicate have nothing in common with theme and rheme (topic and comment), though in practice it is often the grammatical subject that acts as theme (topic), and the grammatical predicate that acts as rheme (comment). Unfortunately, however, theories of functional sentence perspective have so far suffered from a crippling lack of formal precision and, as is to be expected, a concomitant variety of not always fully coherent notions and definitions.

10. *The debate becomes fruitless and stops*

Meanwhile the notions of subject and predicate did not become any clearer. We see, in the period in question, one author after another advancing his intuitive ideas about what subject and predicate should amount to. In the end the confusion was total. Around the turn of the century one witnesses a bewildering game of musical chairs, with authors fighting to occupy the three available chairs of grammar, logic and psychology, some trying to sit on two at the time. The whole debate was blighted by notional confusion and, above all, by a lack of empirical criteria. Even though one is often struck by the courage of and the acute observations made by the participants in this wild debate, the overall impression is that of a fundamental inability to come to terms with the issues. Sciences and theories were invoked that did not exist. Intuitions and sometimes flights of fancy took the place of sober reasoning.

In this context, one can easily understand Theodor Kalepky's exclamation (1928:20) "Such a confusion cries out for relief" (Eine derartige Wirrnis schreit förmlich nach Abhilfe). In fact, Kalepky, followed by a few others such as Sandmann (1954:78-81; 105-109), called for a linguistic theory without subject and predicate at all. This call, however, was not followed. The terms and notions of subject and predicate are now firmly established in linguistics, though their status is still unclear.

After 1930 the subject-predicate debate came to an inconclusive end. With the exception of the Prague School, *linguistic theorizing moved in other directions*. The lack of empirical support and the notional unclarity were taking their toll. Nowadays, most students of linguistics do not even know that there ever was a subject-predicate debate.

11. *Subject and predicate accepted but not understood in modern linguistics*

Linguists in the first half of the twentieth century have tended to explicate the notions of subject and predicate in the terms provided by Lipps and Stout, i.e. the subject as that which is up for discussion and the predicate as the new information added. Bloomfield, for example, in his 1914 textbook, explains the terms *subject*, *predicate*, and *attribute* as well, as follows:

The attention of an individual, – that is, apperception, – is a unified process: we can attend to but one thing at a time. Consequently the analysis of a total experience always proceeds by single binary divisions into a part for the time being focused and a remainder. In the primary division of an experience into two parts, the one focused is called the *subject* and the one left for later attention the *predicate*; the relation between them is called *predication*. If, after this first division, either subject or predicate or both receive further analysis, the elements in each case first singled out are again called subjects and the elements in relation to them, *attributes*. The subject is always the present thing, the known thing, or the concrete thing, the predicate or attribute, its quality, action, or relation or the thing to which it is like. Thus in the sentence *Lean horses run fast* the subject is *lean horses* and the horses' action, *run fast*, is the predicate. Within the subject there is the further analysis into a subject *horses* and its attribute *lean*, expressing the horses' quality. In the predicate *fast* is an attribute of the subject *run*. (Bloomfield 1914:60-61)

One sees that Bloomfield uses the term *subject* ambiguously: it is either the head of any noun phrase, modifiers being *attributes*, a usage that has now been abandoned, or what we call the subject term. Then, in his attempt to give a semantic definition for the terms *subject* (in the normal sense) and *predicate* he falls back on the discourse-related notions developed by Wegener, Lipps, Stout and others. which goes very much against Wundt, who explicitly refuses to apply the terms *subject* and *predicate* to what is given and what is new, respectively, in a proposition added to a given discourse.

Hockett clearly follows Bloomfield. Using Prague School terminology he says:

The most general characterization of predicative constructions is suggested by the terms 'topic' and 'comment' for their ICs [= immediate constituents]: the speaker announces a topic and then says something about it. Thus *John | ran away; That new book by Thomas Guernsey | I haven't read yet*. In English and the familiar

languages of Europe, topics are usually also subjects, and comments are predicates: so in *John | ran away*. But this identification fails sometimes in colloquial English, regularly in certain special situations in formal English, and more generally in some non-European languages. (Hockett 1958:201)

For Hockett the essence of predication is the addition of new information to a given topic. The division between topic and comment he considers to be of a structural nature, expressible in terms of immediate constituents, i.e. as a tree structure. At the same time, however, he makes a distinction between subject and predicate, a distinction that also has a structural counterpart in terms of tree structure. Since the subject-predicate division does not always coincide with the topic-comment division, the question arises as to the relation between the two kinds of tree structure assignment. This question is not answered by Hockett, which shows the embarrassment in modern linguistics regarding the terms *subject* and *predicate*, to say nothing of *topic* and *comment*.

It is only fair to admit that the issue has not so far been brought to a satisfactory conclusion. Linguists operate with the notion of subject (and also direct object and indirect object) without a sufficient basis and without clear notions about the relationship with topic-comment structure. It is now clear that the source of the confusion lies with Aristotle, who *defined* the notions of subject and predicate in terms that we now, with Lipps, Wegener and Stout, recognize as implying discourse-dependency, but who *used* the distinction in a way that we now recognize as grammatical. Aristotle's definition implies dependency on discourse or context as it defines a definite (non-quantified) subject term as denoting an entity that can only be identified with the help of context, including general world knowledge. In non-quantificational sentences the Aristotelian subject term is definite and denotes something *given*, to which the predicate will generally assign a *new* property not so far assigned to it in the discourse at hand. In the nineteenth century conscientious linguists and philosophers took Aristotle up on his words and found that the definition did not correspond with the use. Meanwhile, subject and predicate have become firmly established as syntactic notions. Their definition, however, is still largely up in the air.

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