

The topic situation¹

1 What it is about

1.1

Is the following sentence, when uttered on some occasion, true or false?

(1) **It was snowing.**

The sentence is easy to understand, if you know English. But even if you know when, where and by whom the sentence is uttered, and also what the weather is like at any time and any place, you will not be able to answer the question. You must also know about which situation the speaker is talking. If, for example, the assertion is meant to be about Jan. 25, 2005, in Riva Faraldi, then it is false, and if it is about Jan. 25, 2005, in Bergen, it is true. If it is about Jan. 29, 2005, in Riva Faraldi, it is fake, and if it is about Jan. 29, 2005, in Bergen, it is also false. In all four cases, the situation talked about or TOPIC SITUATION, as I will say, is different, and accordingly, the truth value of 1 may vary. Now, reasonable communication does not necessarily require that the interlocutor be able to determine the truth of what he understands. He simply can believe it, or not believe it, and in fact, this is probably the normal case (otherwise, communication would not be very informative). But even then, the speaker's belief is relative to some situation about which he assumes the sentence is, and 1 could be about many different situations. How does he or she know?

All of this is, of course, not only true for sentences like 1, which contain no lexical argument, let alone a specific argument, but for all sentences:

- (2) a. **The light was on.**
b. **John left early.**
c. **(Headline:) Dog bitten by man.**

Sentence 2a could be true with respect to the kitchen, but not to the bathroom, at a given time, sentence 2b could be true with respect to John Barleycorn but false with respect to John H., ungerbühler at a given time and a given place, and 2c could be true with respect to Fido but fake with respect to Melac.

1 In March 2007, at a workshop on second language acquisition in Bergamo, Norbert Dittmar and his group presented some findings and raised some problems on the role of the „topic“ in learner language, but also in fully-fledged languages. This discussion left me in deep thought about this difficult notion, its definition, the way in which it is marked, and which role it might play in the structure of human language. The present paper is an attempt to make these thoughts a bit clearer. I am afraid it is longer than what we had agreed to write for this Festschrift. But after all, we have now been friends for 38 years - and half a page per year is by far not enough! - I wish to thank the members of the project „Information structure in language acquisition“ at the MPI for Psycholinguistics (Nijmegen) for most helpful comments.

In what follows, I shall sometime use the term **SENTENCE BASE**. This is the non-finite component of a full sentence, for example [be snowing], [the light be on], etc. In general, such a sentence base consists of a (non-finite) verb and an appropriate filling of its argument slots; it can be enriched by other elements, notably adverbials, particles etc., as in [the light be on yesterday in the kitchen] or [the light be most likely on yesterday from 2 - 4]. Such a sentence base has a certain descriptive information which comes from the lexical meaning of the words and the way in which they are put together. I will refer to this information as the „descriptive content" or „lexical content" of the sentence base. In English, as in many other languages, a sentence base can normally not be used as an utterance; it must be transformed into a finite sentence. The word **SITUATION** is used as an overall term for events, processes, activities, states (Comrie 1978). Thus, a situation is a spatio-temporal constellation which may be long or short, bound to a specific place or not, and involve various persons and objects - in short, any type of entity that can be described by a declarative sentence.

In an utterance, a sentence base and a situation are brought together, and this is what happens when the sentence is made finite. By uttering 1, for example, the speaker asserts that a situation X has the properties [be snowing]. He or she **ASSERTS** something about X. In questions, the speaker challenges the interlocutor to assert something with respect to such an X, and in commands, he instructs the interlocutor to do something with respect to X. In what follows, I will be mainly concerned with assertions; but most considerations apply analogously to other types of speech acts. I will not examine subordinate clauses; they raise problems beyond the scope of this paper.

If the interlocutor is to understand what the assertion is, he must understand the sentence base. But he must also know what the situation talked about? Somehow, this must be indicated, either by information which comes from beyond the sentence, for example from communicative context, or from information which is comes from the sentence itself. Consider 3:

- (3) a. I aimed on Jan. 29th in Bergen. It was snowing.
 b. On Jan. 29th in Bergen, it was snowing.

In 3a, the topic situation of the second sentence is inferred from the first sentence: the assertion is confined to the time and the place at which the speaker arrived. In 3b, the two initial adverbials serve the same function. In both cases, the topic situation is „It was on Jan. 29th in Bergen."; this spatio-temporal constellation is then assigned further properties, here [be snowing].

I shall call these two possibilities „external topic situation identification" and „internal topic situation identification", respectively. The main aim of this paper is to discuss these two notions and to show that they might help us to get a better understanding of some aspects of information structure.

1.2

The topic situation (henceforth often abbreviated TS) is a spatio-temporal constellation about which something is said. Such a constellation can be „very large". Thus, the speaker might want to say something that holds for any „any time and any place in any imaginable world". Mathematical statements are such a case:

(4) a. **4011 is a prime number.**

In 4a, there is no explicit marking that the TS is so broad. It naturally results from the type of statement, and any restriction would be odd:

b. **In Idaho, 4011 is a prime number.**

c. **Yesterday at five, 4011 was a prime number.**

But note that contexts are imaginable in which such a restriction would make sense, for example in *Where I come from, 4011 is a prime number.*

Typically, however, the speaker has a more restricted spatio-temporal constellation in mind. This is most likely the case in 1; it is not very likely that the speaker wants to say by uttering 1 that it is snowing in all worlds at any place in the past. But it is not excluded, and if the speaker wants to avoid potential misunderstandings, he or she has to make this restriction explicit, for example by adverbials, as in 3b. In this example, two characteristics of the topic situation of 1 were considered to be crucial:

- the „topic time", for example Jan. 25, 2005 vs Jan. 29, 2005;
- the „topic place", for example Riva Faraldi vs Bergen.

Metaphorically speaking, the combination of these two characteristics, be it by adverbials or via inference from context, defines the „canvas", on which the „assertion proper", here expressed by *It was snowing*, paints certain descriptive properties. But many others features of a situation may be used to define the „canvas":

- the „topic entity", for example the agent (which would not make sense in 1, but in 2a)
 - the „topic world", for example the „real world" or the world created by a novel.
- These four features seem to be particularly important for TS identification, and they are often encoded by special devices. But the topic situation may also be characterised by many other types of information:
- the TS may be a „consequence situation", as in *Therefore, John left early*;
 - it may be a „first time situation", as in *For the first time, John left early*;
 - it may be an „example-situation", as in *For example, the light was on*;
 - it may be the continuation of some other situation, as in *Noch war das Licht an*.

In fact, almost all types of expressions can be used to characterise the situation talked about; bare prepositions or modal particles such as (in German) *wohl, doch, ja* might be exceptions.

1.3

The term „topic situation" is, of course, reminiscent of the notion „topic" - one of the key notions of information structure (see Lambrecht 1994, Krifka 2004; Schwabe and Winkler 2007). As has often been noted, this term is not one of the best-defined in linguistic theory (see, e.g., Büring 1999). We find purely structural as well as functional definitions. A typical example for the former is: „the first major constituent in a clause"; this idea also underlies the notion of „topicalisation", i.e., a process which moves some element in „topic position". Functional definitions typically use one of the two main dichotomies of information structure, the „from known to unknown" dichotomy, as introduced by Henri Weil (1844), and the „psychological subject - psychological predicate" dichotomy, as introduced by Georg von der Gabelentz (1869). The notion of „topic" is then defined as that constituent which encodes „given/old/maintained" information, or else as that part „about which" something is said. Very often, both characteristics go hand in hand. I will not try here to examine these and other definitions found in the literature - this would require a paper on its own -, but draw attention to some points which I believe are different under the present approach.

Under this approach, the „topic" is not a person or an object - it is always a SITUATION. This makes it different from all other approaches I am aware of. The topic is the situation about which the sentence says something. In declarative sentences, it is the situation to which the speaker's assertion is confined; in questions, it is the situation about which the addressee is asked to say something (this will be relativized in section 2.4), and in a command, it is the situation which the addressee is asked or forbidden to make real. Sentence 5, for example, is not just „about John", nor must *John* express given information - it is about a situation which involves John as an agent. The constituent *John* may be marked in a special way as contributing to IDENTIFY the topic situation, and that's why John is called a „topic entity", just as *At five* helps to identify the time of the topic situation in 5, and *To the left* helps to identify the place of the topic situation in 6:

(5) **At five, John had left.**

(6) **To the left, there was a red sign post.**

In both cases, the initial adverbial in itself does not suffice to identify the TS - but it narrows the options down. In 5, the assertion is explicitly confined to situations whose time is five o'clock (and which are preceded by a time at which John left). In 6, the assertion is explicitly confined to situations whose place is „to the right".

Under this view, seemingly „topic-less" sentences such as 1 also have a topic - that is, they have a topic situation to which the assertion is confined.² This

2 Matty 1884, in his discussion ofthetic sentences, also assigns a „psychologisches Subjekt" to these: „Das psychologische Subj. ist also in dem Satze *es brennt* [nicht] ausgedrückt. Aber man darf sich dadurch nicht zu der Ansicht verleiten lassen, dass überhaupt keins vorhanden ist. Auch hier findet eine Verknüpfung zweier Vorstellungen statt. Auf der einen Seite steht die Wahrnehmung einer konkreten Erscheinung [also das psych.Subjekt], auf der anderen die

becomes particularly clear when we look at the negation of 1, i.e., the sentence *It was not snowing*. Ever since the antiquity, it has been assumed that this sentence is true when 1 is false, and vice versa. But this is only correct when the topic situation of both sentences is the same. If 1 is about Bergen at a given time, and the negative counterpart is about Riva Faraldi at the same time, then there is no need to assume that both utterances are mutually exclusive.

How is the notion of topic situation related to the given-new dichotomy, which is also often used to tell „topic" apart from other elements of a sentence? The interlocutor must be able to identify TS. This is the case if TS is „known", because it is maintained or can be derived from earlier discourse or general context. Therefore, elements in a sentence which help to describe TS often contain given information. In other words, there is a natural connection between „givenness" and „topic elements". But this connection is in no way mandatory. In 6, for example, the expression *to the left* indicates the topic place - but this information need not be maintained. If this sentence is used as an answer to the question *And what is to the left?*, it is maintained. If it shows up as a part of larger text, for example a picture description, it is probably not maintained.

1.4

At this point, one might ask: „Isn't the topic situation just the situation described by the sentence?" But which situation is described by the sentence? A sentence as simple as 1 can be about infinitely many different spatio-temporal constellations. In one way or the other, it must be fixed which one of those constellations the sentence is about Unless this is the case, the speaker will not be able to judge whether the sentence is true or not; and if he just believes it to be true, he does not know of which situation he believes the assertion to be true.

Compare the following three sentences:

- (7) a. **At five, John left.**
- b. **At five, John was leaving.**
- c. **At five, John had left.**

They all involve a situation which can be described by *John leave*, and they all link it to a temporal interval described by *at five*. But for 7a to be true, John must achieve to leave within this interval, whereas in 7b, the assertion made by the speaker is confined to some subinterval of John's leaving - in fact, the speaker is not committed to the claim that John indeed left (he may have had a heart attack). And in 7c, the assertion is confined to a time, and thus a situation, which is *after* John's leaving. In 7a, the „leaving-situation" includes the topic situation, in 7b, the topic situation is included in the leaving-situation, and in 7c, the topic situation is after the leaving-situation. So, we have a clear difference between the „topic situation" and „the situation proper", i.e., the situation which is described by the descriptive content of the sentence.

schon in der Seele ruhende Vorstellung von Brennen und Feuer, unter welche sich die betreffende Wahrnehmung unterordnen lässt. (§91)" (cit. Krifka 2004: p. 3).

In each of these cases, TS is characterised by the initial adverbial *at five*, that is, by the specification of a time. Note that this time is not the topic - it is a property of the topic, that is, of TS. Does TS also involve John, or is John only a component of the „situation proper"? This is not an easy question, but it is at least partly answered by familiar life-time effects, as in 8:

(8) Einstein has visited Princeton.

This sentence, when uttered now, is odd for those who know that Einstein is not alive right now. The topic time is „right now", as indicated by the present tense form *bas*. The oddness is easily explained if we assume that the topic situation also involves Einstein - the assertion is about a „Einstein-right-now situation". But there is no such situation, because Einstein is dead. The effect does not occur if the topic time is not „right now":

(9) Einstein had visited Princeton.

But it re-appears, when the topic time is in the past but a time at which Einstein is dead (and this is known to the speaker):

(10) In 1998, Einstein had visited Princeton.

In English and many other languages, the „time talked about" is grammaticalised by tense, and in these cases, clashes between the „situation proper" and the topic situation are very salient

Compare now the sentences in 11:

(11) a. It was snowing.

b. In Bergen, it was snowing.

Both sentences describe a „snowing-situation". If 11a is true, is then 11b true, as well, and vice versa? This question cannot be answered, unless we do know which place 11a relates to. The context might make clear that it is Bergen, as well, and then, their topic situation is the same (barring other sources of variation). So, both sentences describe the same situation, but in 11b, it is made clear that this description relates to a „Bergen-situation", whereas in 11a, this is left open. The crucial issue is therefore not whether the „topic situation" and the „situation described by the sentence" are the same or not, but how it is made clear which situation the sentence is about.³

3 Note that just as one and the same sentence can be about many different situations, one and the same situation can be described at varying degrees of explicitness: *He left - John left - John left London. - John left London yesterday. - John left London yesterday at five - John Barleycorn left London yesterday at five by train -...* - they all can be used to talk about the same topic situation. I am sorry to mention this triviality here. But if we say that „the situation" is what the sentence describes, then this may easily lead into confusion, because the descriptions provided by these sentences are clearly not the same.

2 Topic situation identification

2.1

The speaker may have a very clear idea about the TS. But how does the interlocutor know? How can he identify the TS? He must know *what* is asserted, and he must know *in relation to which situation* it is asserted. But all he hears or reads is a sentence with a certain descriptive content, which results from the lexical meaning of the words and they way in which they are put together. There are two ways to solve this problem:

- (a) the „topic situation identification" is sentence-external, i.e., information sources different from what the sentence itself provides are used;
- (b) the descriptive content of the sentence is somehow split between parts which help to identify TS, and parts which do not serve this function.

This split, I believe, is what underlies the fundamental dichotomy which is traditionally covered by oppositions such as „psychological subject vs psychological predicate", „topic vs comment", „presupposition vs focus", „background vs focus", and similar ones. It is related to, but in principle independent of, the distinction between „given" information and „new" information.

Typically, external and internal topic situation identification (henceforth abbreviated TSI_e and TSI_i, respectively) interact in a given communicative situation. In this and the next section, I will consider some aspects of TSI_e, and then turn to TSI_i.

2.2

TSI_e may come from situational information, text structure principles, and explicit setting of TS by a question. Here are some examples.

(a) *Situational identification*

- (12) a. [Event on soccer field] **Offside!**
b. [Sudden silence] **The refrigerator has turned off.**

This external identification can but need not be supported by sentence-internal information. A typical case are pointing gestures (sentence-external) with or without a demonstrative pronoun (sentence-internal). Such gestures are often used as external topic-identifiers, although they are not restricted to this function („And the murderer is - HE!").

(b) *Identification by text structure principles*

- (13) **We arrived around 10. Mary opened the kitchen door. The light was on.**

Here, the two first sentences „set the stage" for the third sentence: the interlocutor will understand that the topic time of this sentence is around ten, and the topic place is the kitchen.

(c) Identification by explicit question

The fact that questions determine the distinction between „psychological subject“ („topic“) and „psychological predicate“ („comment/focus“) was already noted by Gabelentz (1868) and illustrated by Paul (1880), and wh-questions are still often used as a method to determine the information structure of the answer. Under the present view, such questions fix a situation about which something is to be said by the interlocutor. This function can be served by wh-questions as well as by yes-no-questions:

- (14) a. **What did you notice? - The light was on.**
 b. **Was the light on? - Yes, the light was on.**

In this case, the TS of the question and of the answer is the same. This need not be the case, however. The question often functions rather as a more global stage setter, which has to be resumed and further processed by the answer. We will examine this in more detail in section 2.3.

Possibility (b) can be seen as a special case of (a), if we assume that questions can be answered by a full text, rather than by a single sentence. The question can be explicit but also only implied. So, texts should be seen as an answer to a „Quaestio“ which can be explicitly asked by some interlocutor or even by the speaker of the text, or which the speaker just imagines to have been asked (Klein and von Stutterheim 1987). Under this view, a single sentence answer is just a borderline case of a full text answer.

2.3

The pragmatic function of a question is something like: „Tell me something about xyz!“, where the „something“ as well as the „xyz“ can be more or less restricted. The speaker can comply in various ways with this challenge, for example by not answering at all. But if he is not evasive, then there are various ways to deal with what the question is about - that is, the topic situation. As was just said, he may decide to distribute the answer over several sentences, and to this end, he has to split up the TS, as set by the question, in several sub-TS. He may also choose to answer in a single sentence (or even a reduced sentence). In this case, there are still various possibilities:

(a) *TS is taken over as is:*

- (15) **[Who won the cup final last year?] - Pontefract won the cup final last year.**

(b) *TS is narrowed down:*

- (16) **[Who won the cup final?] - Last year, Pontefract won the cup final.**

Note that in this case, the question may already relate to the „last-year-cup-final situation“, although this is not made explicit. In this case, there is an immediate take-over of TS. If the question is meant to be more general - as a question about „cup-final situations“ in general⁴ - then, it is narrowed down. In this case, the

4 Throughout this paper, I will not look at the possibility that a sentence is not about a single

answer often leads to a text answer *and the year before, Pontefract won the cup final, as well or and 1999, Surbiton won the cup final.*

Such an explicit narrowing down of TS introduces a sort of contrast: I, the speaker, now confine my claim to that particular topic situation, and in a later sentence, I (or someone else) may say something about a different (but related) topic situation. There is no such flavour of contrast, if the answer just takes over the topic situation, as set by the question.

(c) *The speaker may explicitly mark elements as belonging to TS which are already introduced as such by the question:*

In 17, there are three ways to answer the question in a full sentence (it can, of course, also be answered by elliptic *um vier*):

- (17) [Wann hat er angerufen] - a. Er hat er um vier angerufen.
 b. Um vier hat er angerufen.
 c. Angerufen hat er um vier.

How do these possibilities differ? In each case, the answer is about the TS set by the question; in each of them, *um mer-* the part which fills the missing information - is intonationally highlighted; it is „focussed". But there is a salient difference between 17a, b on the one hand, and 17c, on the other: 17c somehow **EXPLICITLY** marks that the claim is only about a „anrufen-situation"; thus, it creates the impression that there is a different TS about which one could or should say something. Neither 17a nor 17b invoke this impression. In 17a, it could be created by a special accent (rise within *er*) - thus giving rise to what has sometimes be called „contrastive topic" (Büring 1997). In 17b, the adverbial, albeit in initial position, is marked by falling intonation as information which does not serve to identify the topic; everything else is de-stressed and therefore somewhat neutral with respect to its status as a topic-marking part of the utterance.

Let us now look at four possible answers to a yes-no-question (here, too, we could have a maximally elliptic answer - bare *ja*):

- (18) [Hat er angerufen?] - a. Ja, er hat angerufen.
 b. Ja, angerufen hat er.
 c. Ja, angerufen.
 d. Ja, er.

Of these, only 18a lacks a contrastive flavour⁵. In 18b, the speaker indicates that his assertion is confined to an „angerufen-TS", in contrast to the possibility that the claim is about some, for example, a „writing-TS" of the same person. Note, however, that 18b can come with (at least) two intonational patterns. There may be

topic situation but about a set of topic situations. As a rule, such a set can be construed as a single „big topic situation", which extends over a larger time, involves a larger place, or a group of people.

5 I am ignoring here various intonational realisations of this sentence; it is possible, for example, to highlight the finite element *hat*, but the most natural intonation is just as if there were no preceding yes-no-question at all. This, incidentally, shows that prosody does not just reflect the distribution of new and old information (in particular as regards the „focus constituent").

a main accent on *hat* (possibly accompanied by a rise in *angerufen*) and a final fall afterwards, or else, there may be already a final fall in *angerufen*, with everything else being de-accented. The impression that the speaker wants to confine the claim to an „angerufen-situation" shows up only in the former case. Exactly the same is also the particular flavour of 18c; the other intonation and impression is not possible here. Sentence 18d, finally, is contrastive in the same way as 18c. Gott, ist das verwickelt.

If the speaker chooses to answer the question (or the abstract „*quaestio*") in a series of sentences, then this may lead to complex patterns. The initial TS, as set by the question, may be interpreted as a FRAME which the speaker divides up in various ways; for example by talking successively about a different time, different places, or different entities. It may also serve as a POINT OF DEPARTURE, which is used as the starting point of a series of topic situations. The speaker may interrupt any such flow by utterances which do not directly take up the question but give all sorts of background material, thus giving rise to the distinction between the „main structure" of the text and various „side structures", etc. This is not the place to elaborate on these possibilities, see, e.g., Klein and von Stutterheim 1987, or von Stutterheim 1997.

2.4

The question sets a TS which the speaker has to take up in the answer. In the simplest case, the TS is exactly taken over. There is an immediate consequence: the TS of the answer is GIVEN/MAINTAINED/OLD INFORMATION. Under a somewhat broader interpretation of „given/maintained/old", this is also true in cases in which TS is not exactly taken over but somehow elaborated on. This just like in an anaphoric sequence such as *John left early. He was fed up* versus *John left early - his brother stayed for a while*; in the latter case, the subject as such is not maintained but a part of its descriptive content is. In this broader sense, an externally identified TS is always given/maintained/old. This does not imply, however, that some part of the descriptive content of a sentence has to be given/maintained/old. Consider the following two sentences:

(19) (What do you expect to happen?) - Many countries will be overflooded.

(20) [Why did John leave early?] - There was a storm warning on the radio.

In 19, the interlocutor is supposed to say something about the future; hence, the topic situation must be AFTER the moment of speech. The answer takes up this topic situation - but no lexical element in the answer expresses maintained information. The answer relates to that topic situation, and thus its tense form is future. But this form is not maintained from the question. In 20, the TS is a „cause-of-John leave-early situation". The answer makes an assertion about this TS - but again, no element is maintained. The tense is past in both sentences, but note that the time of John's leaving is not the time of the storm warning.

In other words, we must clearly distinguish between maintenance of the topic situation, on the one hand, and maintenance of some part of the sentence's

descriptive content, on the other. This is important when we look at the way in which elements are marked as „given/maintained/old", and at the way in which elements in a sentence are marked as the „topic situation identifiers".

The difference between „maintained topic situation" and „maintained descriptive content" has interesting consequences. Just one example:

- (21) a. What did you notice, when you came in? - The **LIGHT** was on.
 (neutral answer; stress on *on* would be contrastive.)
 b. Was the light on, when you came in? - Yes, the light was **ON**.
 (neutral answer; stress on *tight* would be contrastive).

The difference is clearly that in 21b, the entire lexical content is maintained, whereas in 21a, it is entirely new.

So far about external TSI. Before turning to internal TSI in more detail, we will have a brief look at the notion of presupposition.

3 Topic situation and presupposition

3.1

There is an apparent relation between „presupposition" and what is called here „topic situation". This relation surfaces, for example, in early work on information structure in generative linguistics, see Akmajian 1970, as well as in more recent treatments of focus (Geurts and van der Sandt 2004). In this work, a distinction is made between the „presupposition" and the „focus" of sentence. The latter is normally the constituent which carries the main accent, the former is the remainder under existential closure. Consider 22:

- (22) Surbiton won the cup final.

Here, the (normal) focus is *the cup final*, and the presupposition is: „There is an x such that Surbiton won x." This is crudely simplified but sufficient in the present context, in which I will only briefly discuss the question of whether one could not try to reconstruct the notion of topic situation in terms of the well-established notion of presupposition. I do not think that this is possible. Quite apart from the fact that this notion itself is anything but clear (see, e.g., Seuren 1993), the mere fact that a sentence has a certain presupposition does not necessarily mean that the speaker wants to make a claim about the situation described by that presupposition. And on the other hand, the fact that a speaker wants to say something about a topic situation does not mean that this situation is presupposed (at least under the most common definition of „presupposition" - i.e., A is a presupposition of B, if A follows from B as well as from non-B).

3.2

Wh-questions set the TS of the answer (in the sense described in section 2). It is often assumed that a wh-question carries a presupposition defined by existential closure of the wh-word: *Who killed Davey Moore?* carries the presupposition „There

is an x such that x killed Davey Moore." It is arguable whether this is really the case, but if it is, it often leads to strange results. Consider the following examples:

- (23) **What is a prime number?** - **Presupposition: A prime number is something.** (Note that the question - in its normal reading⁶ - does not ask for the subject but for the predicate.)
- (24) **Where have you been yesterday?** - **Presupposition: You have been somewhere yesterday.**
- (25) **Who is your father?** - **Presupposition: Your father is someone.**

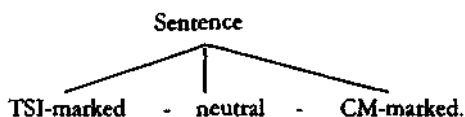
In all of these cases, the presupposition is not very telling, and one does not have the impression that it has much to do with the external TS identification.

4 Internal topic situation identification

4.1

If a speaker should be able to evaluate the truth of a sentence, she must understand (a) what is asserted and (b) in relation to which situation it is asserted. The latter is at least partly done by external topic situation identification; but to the extent, to which this is not done, part of the sentence base itself must be used to this end. This is what I call „internal TSI", and it is this part of the sentence which underlies the conventional notion of „topic".

In principle, any bit of sentence base can be used to identify TS. The result is always a partitioning of the sentence in a part which is TSI-marked and a part which is not TSI-marked. The latter part is either neutral, so it could belong to TSI, but this is not made explicit; or else it is explicitly marked as „not-TSI"; in accordance with a familiar terminology, I will say that it is „comment-marked (CM-marked)". I indeed believe that there is such a marking; but this is not really crucial to the argument. For present purposes, it would be enough to say: it is explicitly marked as „non-TSI". Hence, the entire lexical content of a sentence linked to a topic situation has three parts:



Languages use many devices for TSI-marking, the most important of which are briefly discussed here. Four points should be kept in mind. First, most devices serve other functions than TSI-marking, as well. Word order, for example, is also used to indicate scope, and intonation may indicate the illocutionary role. Second, we often find a strong interaction between various devices. Third, we are talking here about what which elements of the lexical content are MARKED as contributing to TSI. This does not preclude that other elements also describe the TS; they are just not marked as TS-identifiers. And fourth, languages vary in all of these respects.

⁶ The normal answer would be: „A prime number is a number which cannot be divided ...", rather than „Seven is a prime number."

The following considerations are meant to illustrate the functioning of internal TSI marking; they are neither exhaustive, not worked out in any detail, and much of what is said here is speculative; but it may suffice to render the nature of TSI_i and its interaction with TSI_e clear.

4.2 Word order

4.2.1

In many languages, there seems to be a general principle which can be stated as follows:

(26) Unless marked otherwise, TSI-elements came first

Thus, the interlocutor regularly interprets the initial part of an utterance as TSI-elements.⁷ The following points, however, should be noted:

(a) The principle is a default - it can be overruled by other explicit markers. In other words, the first constituent often belongs to TSI_i; but it need not, on the one hand, and TSI_i can also come at the end of a sentence; but then, this must be explicitly marked, for example by de-stressing.

(b) The TSI-part need not be a constituent - it can be any series of constituents.

(c) The principle does not say where the TSI-string ends. It could be very short, it could be very long. It is an interesting question whether it can include the entire lexical content of the utterance.

(d) It can include GIVEN as well as NEW information. If the TS is already identified due to external TSI, then it is still open whether certain bits of the lexical content are maintained from the preceding utterances (see previous section).

(e) If an element of the lexical content describes a TS which is introduced before (and thus externally identified), then this does not necessarily mean that this element belongs to TSI_i. Consider 27:

(27) Who won? - Liverpool won.

In this sentence, the predicate *won* is maintained from the question, and it serves to describe the situation about which the claim is to be made. But it is not MARKED AS AN IDENTIFIER OF TS - neither by position nor by intonation nor by any other device. If anything is TSI-marked in 27, then it is the subject (according to 26). But even this need not be the case. The default principle stated in 26 does not preclude that there is no TSI-marker at all. I believe in fact that in 27, the initial constituent is CM-marked by intonation, and thus, there is no TSI-marked component in 27 at all.

It may be useful to reconsider interrogatives here (cf. 18):

7 This, I believe, is very much in agreement with the Prague School notion of communicative dynamism, see, e.g., Sgall et al 1973.

(28) **Hat er angerufen.** -

(a) **Ja. Er hat angerufen.**

(b) **Ja. Angerufen hat er.**

In both answers, the entire lexical content is maintained information. Moreover, the entire lexical content is used to describe the situation talked about. But this does not necessarily mean that it serves to identify TS in 28 itself. In 28a, *er* is normally interpreted as belonging to TS, and so is *angerufen* in 28b. But at least in the latter case, this marking is primarily done by intonation (rise), and in 28a, we also have two intonational patterns, one of which leaves *er* neutral and one which marks it as TSI element.⁸

This gives a natural answer to an old puzzle: Is the maintained (and often elided) part in an answer its „topic“, and the „answer part proper“ is its „focus“? The answer is „yes and no“. It is „topic“ due to TSI_e - it describes a part of the situation which is EXTERNALLY identified as the topic situation. It is not „topic“ due to INTERNAL TSI: in other words, it does not belong to the TSI of the answer, unless, of course, it is marked as such by an appropriate device.

4.2.2

In German, there is a complex interaction between TSI and the finite component of the verb (= FIN). Roughly speaking, the TSI-part is „around FIN“ (in declarative clauses). Now, this is already covered by 26. But it could be that the END of the TSI-part is indicated by FIN, or, alternatively, that the „weak position“ after FIN at the same time is the final part of what is TSI-marked.

Principle 26 is a default. It could be overruled, for example, by certain syntactic constraints which disturb the elementary play of TSI_i marking. Suppose we have a „normal order“⁹ of the sentence base, for example *Hans Maria gestern angerufen haben*. Then, TSI-marking functions in the following steps:

1. The appropriate order according to 26 is achieved, i.e., TSI-elements come first
2. The topmost verbal element is made finite and placed after the first constituent (or into some other appropriate position). This grammatical process does not affect its status as TSI-marked elements. As a result, the lexical content of the verb may violate 26.

Under this assumption, the first constituent is not moved „in front of FIN“. Except for the finite verb itself, there is only movement within the sentence base, and this movement affects TSI-status (in interaction with intonational marking).

⁸ Note, incidentally, that cases like 28 - and they are not uncommon - cast doubt on the possibility to define the topicality in terms of „what is activated“, and similar ones. In 28a as well as in 28b, the entire sentence content is „activated“, but there is a clear difference between both word orders.

⁹ This order could result from preference principles such as „agent first“, „scope goes to the right“, and similar ones.

4.2.3

Another vexing problem is the role of „true expletives“, i.e., empty elements which occupy a structural position and which are not part of the argument structure, as defined by the verb. In other words, these elements do not belong to the sentence base - they are part of TSI_i. But what exactly is their function? Compare:

- (29) a. Jemand hat angerufen. - b. Es hat jemand angerufen.
 (30) a. Das Licht war an. - b. Es war das Licht an.

In 30b, the definite NP is slightly odd; but in general, the definiteness effect is much less strong in German than in English; thus, *Denn es war das Licht an.* is perfectly fine. The difference between 29a and 29b is hard to pin down. Historically, expletives are closely related to anaphors. They are not stressable - that is, they cannot neither be TSI-marked nor CM-marked by intonation - it is „neutral“. It could be, therefore, that *es* is a sort of anaphorical element which takes up an externally identified TS].

4.3 Intonation

Next to word order, intonation - and in particular pitch - is usually considered to be the most important topic marker. In fact, it is more often considered as a „focus marker“: elements which are intonationally highlighted are „focus“ and thus non-topic. This picture is clearly misleading, as has been shown by many authors (see, e.g., Klein and von Stechow 1982, Büring 1997). There is also something like „contrastive topic marking“.

4.3.1

Following Klein and von Stechow 1982, I assume that in German, there are three elementary rules. They all relate to the „pivot“ of a constituent, i.e., a distinct spot within the constituent around which major pitch changes are positioned¹⁰. Very roughly, we may say:

- (a) „Rise“ with respect to the pivot indicates TS-marking.
 (b) „Fall“ with respect to the pivot indicates CM-marking (or, if the term „comment“ is to be avoided, „non-TSI-marking“).¹¹
 (c) „Level“ with respect to the pivot is neutral.

Complications arise from two types of interaction. First, „given“ material is often de-stressed; this also seems to lead to Level. But it is surely not true that TS-neutral

10 In Klein and von Stechow (1982), this pivot is called „target point“: „Each constituent has a specific „target point“. In words, this is the syllable top (relative intensity center) of the lexically stressed syllable. In higher constituents, it is between elements, for example between DET and N.“

11 Rather than speaking of „comment-intonation“, it might be better to speak of „illocution intonation“, with assertion being a special case (assertion is characterised by a fall). But note that intonational falls also may have other reasons.

elements are always maintained information. Second, rises and falls have other functions, as well; in particular, they are related to the illocutionary role.

4.3.2

Intonation can overrule other principles of TSI. A particularly important case are answers in which the „answer constituent" is in initial position, as in 27. Here is a somewhat different example:

(31) Wen hat er angerufen? - Hans hat er angerufen.

Here, the question identifies TS. Some parts of the answer which describe this situation are maintained and de-stressed. Intonationally, they are neutral, and they are not marked as TSI by position, either (according to 26).¹² Only the initial part could be TSI; but exactly this part is marked as non-TSI by falling intonation. Hence, the answer in 31 has no (internally marked) TSI-elements at all. But it has a large component which resumes an external TSI. And, of course, it is marked as an assertion.

4.3.3

How is topic situation identification by intonation related to the familiar notion of „focus"? This depends on whether the notion of „focus" is defined: is it characterised in terms of prosodic highlighting („the element which bears the main stress", or the like), or is it also defined in terms of a specific semantic/pragmatic function (for example, „the element which expresses new information", or the like). I prefer to use it here in the first sense - it is just some part of the sentence which sticks out perceptually. Sharp pitch movements lead to such a highlighting¹³. But there are (at least) two possibilities for such a sharp pitch movement: „rise" and „fall" around the pivot; these two intonational foci have two totally different functions.¹⁴ Under a functional definition of term „focus" - for example „the constituent which names a particular alternative from those defined by the topic component" -, it is often seen as a counterpart to the „topic". But this is not the meaning in which „topic" is understood here.

4.4 Particles

Some languages use special segmental elements to mark TSI. The best-known case is probably Japanese *an*. Typically, it is associated with just one constituent - the „topic" in some conventional interpretations. But in fact, it can be attached to

¹²Note, incidentally, that answers of this sort would follow under the analysis of a „topic-last language", a claim sometimes found in the literature. Under the present approach, this assumption is not necessary.

¹³Additionally, a certain level of intensity may be required; there are also pitch movements under low intensity, which are not perceived as highlighting.

¹⁴This does not mean, of course, that there could not be other reasons for highlighting, nor does it mean that there could not be other ways to highlight something than sharp pitch movements.

several constituents each of which is considered topical. This particle seems to indicate the end of the TSI-part.¹⁵

4.5 Inflectional morphology

The TS can also be encoded in the morphological system. The clearest case is tense marking — the finite part of the verb indicates the topic time, no matter whether it is maintained or not. Note, however, that this marking is often very vague, both with respect to its position on the time axis and its duration: in the terminology of Klein 1994, it is never „duration-definite“, and it need not be „position-definite“. An explicit marking of the topic time comes from temporal adverbials which are marked by devices such as word order or intonation.

According to van Valin (p.c.), some languages also mark the focus constituent(s) by case, thus precluding these elements to be „topical“. In a way, this can be seen as an indirect TSI by inflectional morphology.

4.6 Topic drop

Elements which belong to TSI can often be „p-reduced“, i.e., the segmental information is elided. The best-known case here is what is traditionally described as „topic drop“:

(32) (Den) kenne ich nicht

(33) (He) was a nice chap.

As a rule, this concerns only elements in a certain position, and may also be restricted to words which express maintained information (normally - as we have seen - not a prerequisite of TSI-elements).

In German, topic drop is not uncommon. Note, however, that it is only possible before FIN; thus, the mere fact that some element serves to identify TS is not enough to license topic drop, because such elements can also be after FIN.

5 Problems and issue«

I believe there are three major problems with the present approach to grasp the difficult notion of topic:

1. *How is this in subordinate clauses?*

The main source of trouble is that in some respects, subordinate clauses behave as if they had a TSI-marking, and in other respects, they do not. Intonation is a good example. The intonational markings mentioned under 4.3 are also found in some subordinate clauses. There are differences, though, in e.g. causal clauses and relative clauses. A relative pronoun, for example, cannot have TSI-intonation (I believe), whereas this is possible for subordinate conjunctions.

15 There are many other segmental units which are usually not considered from this point-of-view, for example Chinese *shi*, which is often seen as a kind of copula. But it may well also have some TSI-function.

Subordinate clauses also have an underlying „sentence base“, and they describe a situation; hence, there is also the need for the interlocutor to identify this situation. But there is no illocutionary role, comparable to assertion, question, or command. If - as was briefly speculated above - the „comment marking“ is nothing but the marking of the illocutionary role, then subordinate clauses may have an internal topic situation identification — but nothing that compares to the „final fall“ or „final rise“ in main clauses. On the other hand, a subordinate clause is, of course, a constituent of its main clause, and as any other constituent, this one may be marked for TS or for CM of THIS MAIN CLAUSE. Consider 34:

- (34) a. When Mary began the ceremony, John was leaving.
 b. When Mary began the ceremony, John left
 c. When Mary began the ceremony, John had left.

In all of these cases, the initial temporal clause defines the topic time of the entire clause - which is a subinterval of John's leaving, includes John's leaving, or is after John's leaving (cf. exx. 7, in which are exactly parallel except that the topic time is described by the adverbial *at five*). Similarly, such a temporal clause could be in final position, and then, it might be CM-marked by intonation. So, a subordinate clause may carry two types of intonational topic situation identification - the one for the subordinate clause, and the one of the main clause, similarly for CM-marking.

The case is further complicated for non-finite predications. Compare the following two German constructions:

- (35) a. In dem bei Jena gelegenen Dorfe ...
 b. Das Dorf war bei Jena gelegen.

The expanded attribute in 35a also describes a full situation. Do such constructions also have a TSI_i-marked part?

2. *Is there something like „the scope of assertion marking“?*

Under a simple approach, one might argue that whatever is not TSI-marked belongs to the scope of assertion - unless marked otherwise. How does this relate to the fixed position of FIN, in particular to *the* role of FIN as a carrier of the illocutionary role?

3. *How does TSI interact with the marking of givenness vs newness?*

In principle, these two dimensions of information structure are independent, as was argued above. But there is a natural coalition between TSI-marked elements and givenness.¹⁶

6 A concluding remark

If human language were such that it is always clear about which situation a given sentence is, then the distinction between a „topic part“ and a „non-topic part“

16 Another interesting problem in this connection are echo-questions. How do they fit into the picture? They only express maintained information, and they end with a rise (+ Level).

were superfluous. But human language is not that way. Therefore, TSI is a fundamental trait of sentence structure, and therefore, we need information structure, or rather the „aboutness dimension" of information structure. The other main dimension of information structure is along the distinction between „given information" and „new information". Here, we are faced with the somewhat puzzling question why it should be important to signalize this distinction. After all, the interlocutor is not stupid and should therefore know anyway which information is new and which information is not. It is surely true that, if some referent is given in context, less descriptive information is needed in order to identify it. Therefore, we may say *he* rather than *my late uncle Richard's best friend in school*, when this person was talked about before. But there is little reason to assume that „givenness" or „newness" must be MARKED, unless the speaker has reason to assume that the addressee suffers from Alzheimer.

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