Simple Language

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But let your communication be, Yea, yea; Nay, nay; for whatsoever is more than these cometh of evil.

Matthew 5:37

One language can be considered simpler than another and three different concepts of such simplicity are here discussed. The extreme simplicity of learner languages is noted in some detail and a number of principles are demonstrated which underlie communications in elementary learner languages.

A naive and extremely widespread idea of natural language and how it functions is the 'container-model' (Lakoff and Johnson 1981). A person, the speaker, takes something out of his head (his thoughts, feelings or intentions) and puts it into an appropriate container (the linguistic expression); this container is carried to another person, the listener, who in turn takes the content of the container and puts it in his own head.

Two Metaphors of the Functioning of Language

This metaphor underlies not only naive understanding of natural language, but also many, if not most, existing linguistic theories. It would not be couched in these terms, of course, the expression 'something which is in the head' would be replaced by 'message' or 'meaning', the expression 'to put into the container' by 'to encode' the expression 'appropriate container' by 'syntactically well-formed expression', and so on. Although the single components may be given a form that allows for empirical investigation, the basic metaphor remains the same.

One cannot really argue that this metaphor is false. However, one can say that in various respects it is totally misleading. In particular, it does not account for the fact that a great deal of what is understood is simply not expressed. A straightforward example is ellipsis, that is, utterances which are grammatically incomplete, but clearly understandable in a given context. Thus, everyone who knows English interprets the utterance 'Karl maria' as meaning 'Karl married Maria.' when it follows the question 'Who married whom?', but as meaning 'Weber's Christian name is "Karl Maria" ' in the context of a quiz, for example, where Weber's Christian name was required.

Natural language abounds with this and other types of 'context-dependency'; we shall return to some aspects of this below. So, we might replace the container metaphor by a different one, one that speaks of stakes planted in a stream; they change its course - for a time and to some extent. The stream is the individual's 'stream of consciousness', fed, on the one hand, by his (or her) sensory perception and, on the other, by what he takes from his memory. The stakes are the utterances to which he is exposed at a given moment. They may be meant for him in particular, or they may be ones he happens upon, such as utterances overheard in a streetcar conversation, traces of chalk-writings on a wall, or love letters not sent to us.

We may rephrase this metaphor and say that all communication is based on two sources of information:

- Textual information, or utterance information, that is, what is explicitly stated in the utterance and what a listener who knows the language in question may derive from the expression by applying the rules of that language.
- Contextual information, that is, all the concomitant knowledge which the listener derives from other sources. These sources include (a) what has been said before (contextual information in the narrower sense); (b) what is seen and heard in a given situation (situational knowledge, which enables us to understand deictic terms, such as 'here', T, and 'you', and (c) what the listener knows in general about the physical or social world, about what is normal and can be taken for granted and what is unusual and needs to be made explicit, and so on.

This comprises factual knowledge, where 'knowledge' - as in all of these cases - also includes beliefs and assumptions. This picture is clearly oversimplified; for example, it is often not the listener's concomitant knowledge that counts but what the speaker is entitled to assume with respect to the listener's concomitant knowledge. We will not try to refine this idea: What

matters in the present context is the notion that the functioning of language is always based on an intricate interplay of different types of information, and the extent to which contextual information is shared may vary considerably.

Why be Simple when it's so Easy to be Awkward?

In very many languages, including English, French, German, Russian and Latin, almost every sentence must carry a reference to time, simply because the verb cannot be left in the infinitive but must be tense-marked: whatever content may be expressed, it must be related to the past, the present or the future, or perhaps to all times. In the latter case the form used generally corresponds to that of the present tense (such as in 'two plus two equals four').

Now, there is little doubt that this temporal information is often highly important; after all, it makes a difference whether a house was built, is built, or will be built. But this is not always so; there is no reason, for example, why the present text should not be in the infinite throughout rather than being consistently tense-marked. And if the content in question is indeed to be situated in time - for example, if someone reports some event that happened some time ago - then tense-marking is largely superfluous, too.

Suppose someone tells a story and begins with 'Well, this happened 600 years ago in Heidelberg,' then, it is totally clear that the event was in the past, and it is also clear where it occurred. There is no reason to repeat this information time and again, and it would be enough to indicate when time reference changes from past to present, or to future, and when the place changes to New York or Wiesloch. This is indeed what happens for place, since reference to place is optional. It is left to the judgement of the speaker to repeat or to introduce spatial information, whereas languages such as English, by their very structure, force us to indicate again and again, sentence after sentence, that the event related is in the past, for example. It would be so simple to apply the device used for spatial reference to time as well.

Looking more closely at the introductory sentence 'This happened 600 years ago in Heidelberg' - where temporal reference is indeed reasonable and even necessary - we note that reference to the past is made twice: first the suffix '-ed' indicates globally that the event in question was in the past, and second, the adverbial '600 years ago' again indicates that it is past (ago), and more precisely, how far back this was in the past (600 years). Obviously, the first marking by the suffix is totally redundant; no information would be lost if it were omitted; but it is precisely this marking which the structure of English (and other languages) imposes on us, whereas the sufficient and more precise '600 years ago' is left to the speaker's will.

Would it not be wise for a language to dispense with this type of obligatory inflection for marking time reference, to use adverbials when necessary, and to have a somewhat global particle (say, 'over') in order to indicate that something is in the past when this is not otherwise clear? Indeed, there are languages which do precisely this, and we shall come to them. But let us stay for a moment with English-type languages.

Granting inflectional marking of tense, we must admit that just adding '-ed' is actually a quite simple technique. So we are not surprised that English (and not just English) found a way of messing things up a bit by saying 'caught' rather than 'catched', 'went' instead of 'goed' and 'swam' instead of the straightforward 'swimmed' - in brief, by using irregular verbs.

One of the more noted discoveries of first-language acquisition research has been that children actually use these forms at about the same time at which they use regular forms such as 'laughed' or 'danced'; but then, intelligent as they are and always willing to impress the world around them, they start using forms such as 'catched' 'goed' and 'swimmed' for a while (see Cazden 1968). Researchers interpret this as an erroneous 'overgeneralisation' of a rule - namely the rule 'mark past reference by adding "-ed" to the verb!' - and this is indeed what it is. But it is more: It is an attempt to make things simple which could be simple. Most children give up after a while and adopt the erratic forms 'caught' 'went' and 'swam', and the few who do not run with the pack are considered to be retarded or handicapped.

Children are not the only ones to be exposed to these idiosyncrasies. The reader will remember the difficulties he or she had learning the irregular verbs of French, German, Latin or whatever language in school. He may remember other intricacies as well, such as the weird system of case marking in German; even if one accepts the general idea that noun phrases must be marked for case, it is still a mystery why this should be done in twenty different ways, depending on the specific noun. Why must each noun have a gender? Or take the position of the object in French. This differs depending on whether it is a full noun phrase, a stressed or an unstressed personal pronoun. It is easy to find more examples, but we will not go into them here. The case of temporal reference should have made our case sufficiently clear, and no structural constraints forces us to repeat this point again and again: Languages could be much simpler than they are.

This raises a number of questions, such as

- Why is this so?
- What do we really mean when we say that a language is simple or simpler?
- How does a simple language work, compared with a more complex one?
- Are simple languages really functionally equivalent?

In what follows, we shall leave out the first question and discuss - and partly answer - the remaining three. The 'why'-question is probably the most interesting one, but it may belong to the category of questions which Kant says (or said?) you can neither refute nor answer. We gladly leave the reader to pursue this one on his own.

What is a 'Simple Language'?

There are at least three ways in which the term 'simple language' can be used. First of all, we may talk about different natural languages such as English, German and Chinese, and then compare them with respect to their structure. English is often considered to be much simpler in structure than German, and hence easier to learn; Chinese, on the other hand, is generally viewed as a particularly difficult language. We shall come back to these claims. Secondly, we may refer to a special way of expressing things within a language; most people feel that the language of Shakespeare is more difficult than that of Agatha Christie. And thirdly, there are often 'simplified registers' within a given language, such as pidginised varieties of a language, telegraphic speech, or so called 'learner varieties' one of which we shall discuss extensively below, in the section on form and function in a learner variety.

Before we turn to these three usages of 'simple language', two remarks are in order. We must be careful not to confound simplicity or complexity of language with simplicity or complexity of content. If we have problems in understanding something, it may simply be that the subject matter is difficult and no way of putting it can make it simple. A sentence such as 'A subset of a topological space is compact if every open cover of it is reducible to a finite cover' is actually quite simple in structure but unintelligible for most people. The distinction between difficulty of content and difficulty of expression seems trivial; but in other domains such as philosophy or sociology, it becomes sticky, since there is often no criterion and hence no agreement about whether the content is the same when the wording is changed. We shall come back to this point briefly in the section on simple ways of saying things. The other remark concerns the term 'simple', which is a comparative rather than a classificatory term; therefore, it would often be more appropriate to speak of 'simpler languages' rather than 'simple languages'. For simplicity's sake, however, we shall ignore this.

Comparing English, German, and Chinese

It is a common view that English is much simpler than German, and consequently, that it is easier to learn. Learning Chinese, on the other hand, is said to be difficult and cumbersome, and we admire those who manage it. Linguists, when confronted with these and other commonly held views of a similar nature, tend to point out that there is no reason to assume that one language is more difficult than another, one argument being that Chinese children apparently have no problem in learning Chinese, nor do English or American children master their language faster or with greater ease than German children. In part, the commonly held views may be due to 'familiarity effects'; Chinese is exotic, at least for the average member of Western society, and it is therefore less accessible than something which is more familiar. The views of the man in the street would seem to have a weak basis.

On the other hand, one cannot simply deny that it makes life simpler if there is just one word, 'the', to mark definiteness for a fork, a spoon, or a knife, compared to the three different words used in German for the same function: *'die Gabel, der Löffel, das Messer.'* This also holds for at least two of the examples mentioned above: temporal reference by tense marking and nominal case marking. Here we have at least three features where English is much simpler than German:

- English has no gender distinction and apparently does not need any because the semantic function of the article - or whatever else may be marked for gender - is not affected by this noun-distinction.
- English has a much simpler system for verb inflection, although this point is debatable, since the complexity of the German system is partly due to the merging of person, number, tense, and mood markers in a single form; but this does not affect the general problem.
- Case marking is much simpler in English; if at all, it is done by no more than two prepositions, 'of and 'to' (barring some personal pronouns and the genetive '-s'), whereas German accomplishes the same with a baroque system of inflectional case markers with many different noun classes which is complexly distributed over articles, modifiers and nouns.

Excluding any linguistic assessment, this is why general opinion holds that English is much easier - at least in some salient aspect of language structure. But how about Chinese? Taking the same criteria, it clearly is the simplest language. It has no inflection at all. Time reference is marked only where needed, and this either by an adverb or a particle which makes clear that the event referred to is over. Case is marked by a type of preposition which is used only when necessary, and gender does not exist.

Actually, there is no article at all, which brings us to another side of the problem. Having a single word such as 'the' rather than *'der', 'die'* and *'das'* is simpler because it does the same job - it expresses definiteness, or whatever the precise function of the definite article is. Having no article at all makes the language simpler still, but what happens then to the function it serves? It either cannot be expressed or is shifted to some other device of the grammar, such as word order or intonation. There are two lessons to be learned

here. Comparing language with regard to simplicity is surely possible, but it makes sense only with respect to a certain function, such as the expression of temporality or definiteness, and the various ways in which this particular function is encoded in the different languages. It may well be that simplicity in one domain may be paid for by complexity in another, and thus it is often difficult to talk about the simplicity of a natural language in general. But this trade-off between different domains is by no means a necessary one: one could easily imagine a simpler version of German (see the features mentioned above) without either a loss of expressive power or an increase in complexity with regard to other features, such as the lexicon or syntax.

Simple ways of saying things

Within the same language, the same content may be expressed in different ways, and, depending on how this is done, the resulting text is more or less simple - that is, more or less easy to process. Taken in this way, simplicity of language does not relate directly to the structural means of a language, but to the processing properties of a text for a specific hearer or reader, because one and the same text may be easy for one listener and difficult for another. Since this issue is of great practical concern, considerable research effort has been devoted to it (for an excellent survey, see Ballstädt *et al.* 1981).

There are some obvious factors which, as a rule, make a text less transparent for the normal reader. This involves the choice of unusual words, complex sentence embedding, ambiguity of terms or constructions, and so on. But the impact of these structural properties may be easily outweighed by others, such as the overall organisation of the text, the specific knowledge of the listener, and more generally, the way in which the presentation of information is adapted to the processing properties of the human mind. Take a sentence such as:

John is twice as old as Mary was when John was as old as Mary is. How old are they?

This sentence has no unusual word, the syntax is - contrary to our first impression - not particularly complicated, the subject matter is by no means unfamiliar (as opposed to the topology example above), and still it is almost impossible to answer the question without using pencil and paper because we are barely able to process the sentence itself. There are other, even simpler sentences which we systematically misunderstand because we cannot process them as they stand:

No brain injury is too trivial to be ignored.

We all think that brain injuries are a dangerous thing, and that we should take them seriously. This leads us to interpret it as 'Take all brain injuries, trivial as they may seem, seriously.' But it is our expectation, not the text itself, which leads us to this interpretation.

The sentence (as the reader may have noted by now) means: 'Ignore all brain injuries, trivial as they may look'. What this illustrates is the fact that the simplicity of a text - given a certain content - is not just a matter of simple structural properties, such as short words, short sentences, and 'regular' word order, rather, it depends on a complex interplay of its components:

- The structural properties of the language used.
- Adaptation to the way in which the human mind processes language.
- Nontextual knowledge on the part of the listener, that is, all information (including expectations, assumptions and the like) which the listener may have independent of what is said in the text. This will be called his 'contextual' information.

Successful communication is always based on a clear balance between textual and contextual information, and changing the linguistic means used to express the textual information always affects this balance - for better or for worse. Simple codes, which we shall consider in the following section, constitute a specific way of defining this balance.

Simple codes

If we take it that textual information, no matter in what language and by what specific structural means it is expressed, is but one component in the process of communication, we might think of reducing it to less than what is normally 'allowed' by that language. This leads us to the concept of 'simple codes'. One example of the more extreme end of such simple codes might be the language of some comic strips - *'boinnnng', 'wuppf, 'kraaacks'* - where the 'language' consists of words which are more or less isolated and onomatopoetic, but nevertheless partly conventional.

It is debatable whether the term 'simple code' is still appropriate here, since there is virtually no syntax, a feature which is generally considered as a defining criterion of human language, but this is probably a matter of terminology. What is interesting in the present context is the reason why this language functions: The extent of the contextual information, as given by the picture, is such that textual information can be virtually reduced to zero.

There are more interesting cases such as telegraphic speech, the language of advertisements or 'foreigner talk', that is, the peculiar language in which foreigners are sometimes addressed. Typically, these codes differ from the standard by the omission of certain words - especially function words such as the copula or the article - by the reduction or neglect of inflection, as well as by some changes in syntax, especially in word order. Actually, these varieties are not just 'reduced' forms of the standard: to some extent, they follow their own laws (see, for example, Ferguson and de Bose 1977; Brandstetter and Rath 1968).

The most interesting instance of 'simple codes', however, is the so-called 'learner varieties' - that is,

the language forms used by people who learn a second language in everyday interaction. (The term actually covers other varieties developed while learning a language, for instance in school, but these will not be considered here.) Depending on the social and interactive setting in which these varieties grow, they may reach a higher or lower state of development, and remain more or less stable. An extreme case are the co-called 'pidgins', simple codes which come into being whenever speakers of a socially, politically, or culturally subordinate language acquire some knowledge of a dominant language for specific purposes, like trade. Pidgins typically develop in a colonial setting; they may gain a certain stability and eventually even turn into a native language (a creole).

A related, but much more dynamic, case is the 'learner varieties' as developed by foreign workers who are forced to live in a country whose language they do not speak and have never been taught. For reasons of social survival, they acquire what is most urgently needed through everyday contact, and some even attain a certain fluency. But normally their acquisition slows down and even stops at a level that is still far from the language of their social environment. They have to communicate while still learning, and their success - and sometimes they are very successful - depends on how adept they are at using the means which they have at a given time. We may say that they pass through a series of 'learner varieties' which, lo and behold, eventually approach the target variety, the language of their social environment.

For a linguist these learner varieties are an extremely interesting object of research. They not only tell us something about the process of untutored language acquisition, but they also represent different, but well-ordered types of balance between the use of linguistic means and contextual information in actual communication, and they can therefore tell us a lot about the functioning of language in general. Clearly, when compared to the language of Shakespeare or Kleist, the attempts of a foreign worker to relate personal experiences such as what happened to him when he went to the dentist look far from perfect. But as Plato *(Sophistes,* 227B) put it: "If a man prefers strategy to vermin killing as an example of the chase, the spirit of rational inquiry esteems his illustration not the more dignified of the two, but, as a rule, the more pretentious."

In the next section, we will consider an example of such a learner variety and see how it works in expressing temporality.

Form and Function in a Learner Variety

It may be helpful to begin with a short text sample from a learner variety:

> *Drei Monate ich nix arbeite. Warum* ?
> Three months, I no work. Why?
>
> *Nix meine Papiere gute.*
> No my papers good.

Ich Rathaus nix gut sprechen. Und dann nix Papiere.
I town hall no good speak. And then no papers.

What this means could be paraphrased as: 'For three months I didn't work because I hadn't the right papers (=work permit and so on). And I didn't get them when I went to the town hall because my German was not good enough."

Obviously, the learner's version is much shorter than the standard version; still, it is clearly understandable, at least to someone who is somewhat familiar with this kind of language. It also exhibits a number of typical features of this language. Most salient is perhaps the lack of inflection. More generally, simple codes - and learner varieties at a medium level - are characterised by features such as:

* Little or no inflection.
* Relatively rigid word order.
* Few function words.
* No copula, no article.
* A relatively simple system of anaphoric reference (pronouns are mostly deictic: T and 'you' exist, but not 'he', 'she' or 'it').
* Tense, mood, and aspect are expressed by lexical means, by adverbials or particles, for example.
* Limited vocabulary.

This list, which is based on Corder (1977), is typical of many early descriptions of simple codes. It is also quite correct from an observational point of view. But it fails to explain how such a form of language is internally organised and how it can function in communication. It gives the ingredients, but not the cake.

Investigations into the inherent systematics of learner varieties are fairly recent. They require a detailed study of 'language at work'. We must look at the various linguistic means available to the learner at a given point in time and how they are applied to solve a certain communicative task - such as applying for a work permit, asking the way, participating in an argument, telling a joke, and so on. In what follows, we shall have a look at how a learner solves the task of telling a personal narrative, that is, reporting about something that happened to him in the past. The particular aspect considered here is the way in which temporality is expressed. As has been shown above, temporal reference is quite intricate in languages such as English or German. On the other hand, telling a story by necessity requires the expression of various temporal relations:

* The whole event must be situated in respect to the speech time.
* The temporal relations between individual sub-events which constitute the total event must be made clear - what came after what, what at the same time as what, and so on.
* Subsidiary information which does not directly belong to the plot but is still felt to be important

must be temporally linked to the other components of the event (for example, information such as 'now, he had never tried that before', 'later, he often regretted this decision').

Depending on the kind of plot in question, this may turn out to be very complex. Let us, by way of contrast, take a look at a piece of text which illustrates how the telling of a—in this case fictitious—complex event may look in a perfectly mastered, fully-fledged language:

> With this handful of men, at nightfall of the third day, he attacked the castle, riding down the tollkeeper and gateman as they stood in conversation in the gateway, and while Herse, amid the sudden bursting into flames of all the barracks in the castle yard, raced up the winding stairs of the castle keep and with thrusts and blows fell upon the castellan and the steward, who were sitting undressed over a game, Kohlhaas dashed into the castle in search of the Junker Wenzel. (Heinrich von Kleist: *Kohlhaas;* transl. by M. Greenberg, New York 1978)

Kleist uses a whole series of means, such as tense, adverbials, subordinate clauses to express the parallel and sequential sub-events of the whole attack. There is another device which is less apparent but highly important - this is the sequential arrangement of clauses: by and large, the order of utterances corresponds to the order of events reported by them. The application of this 'principle of natural order' explains, in part at least, why Kleist's sentence, despite its apparent complexity, is comparatively transparent. Since this principle also plays an important role in learner varieties, we will state it explicitly here:

> *Principle of natural order (PNO):* Unless marked otherwise, the order in which events are mentioned corresponds to their chronological order.

The speaker of a learner variety, at an intermediate level, typically has no inflection, no auxiliaries, only a few adverbials and almost no subordinate clauses. How then can he tell a story which involves many sub-events? Let us look at an example. (The following text is from an Italian worker. The original transcription is phonetic, but since we are not interested here in details of his pronunciation, a somewhat normalized orthographic version is given for ease of reference; all clauses - if we may speak of clauses here - are denoted by (a), (b), and so on; '+' marks a short pause:

(a) *Eine Woche krank*
    One week sick
(b) *komme Doktor*
    come doctor
(c) *diese* (pointing to his arm) *bissele kaputt*
    this   a bit 'kaputt'
(d) *dottore verstehn ander*
    doctor understand other
(e) *nix richtig*
    not right
(f) *mache Creme*
    make cream
(g) *Creme viel kalde, viel kalde* (that is, *caldo*)
    cream much hot, much hot
(h) *alles rot*
    everything red
(i) *fertig dies + müsse komme Doktor geh*
    ready this + must come doctor go
(j) *bissele kaputt*
    a bit 'kaputt'
(k) *besser + Massage + nix Creme + Massage*
    better + massage + not cream + massage

Obviously, the informant's linguistic means are extremely restricted; nevertheless, he gets the essentials of his story across, even if some things remain unclear. We cannot analyse his language use as displayed in this story in full detail. This brief look at some of his utterances will concentrate on the way in which temporality is expressed. In what follows we shall use the term 'event' as shorthand for the content of a clause, although it might often be more appropriate to speak of a 'state' or a 'process'. The events expressed by the clauses (a)-(k) will be denoted by A-K, respectively. There can be different temporal relations between the times at which these events happen; for the present purposes, these can be listed as X BEFORE Y, X AFTER Y, and X SIM Y, where the latter includes total or partial simultaneity, X and Y referring to events. We may also consider the time of utterance, *TU,* as an event with a fixed time, such that A BEFORE TU means 'event A is before time of utterance' that is, in the past.

The first two clauses introduce the entire event; they could be paraphrased as 'One week, when I was sick, I went to a doctor' or 'One week, I was sick and went to a doctor.' There is no explicit time reference apart from 'eine *Woche',* which is quite vague; it roughly means 'once' or 'one time'. Theoretically, this time interval could also be in the future; but this is excluded by the whole context of the conversation which is about the informant's experiences in Germany.

Given that 'eine *Woche"* does not really help to identify a specific time BEFORE *TU* (as, for example, 'last October' or 'two years ago' would, although these are vague, too), of what use is it here? It seems to provide no real information. This is not the case, however: It says at least that what he is going to talk about happened at a specific time, which, due to contextual knowledge, must be in the past. From now on, it is clear that he is speaking about a specific, concrete event with a time structure given by real-world incidents, rather than about a generic or hypothetical event. Leaving out the adverbial 'eine *Woche'* would suggest - though not necessitate - an

interpretation such as 'whenever I am sick, I go to the doctor*.

Obviously, we cannot prove here that this is indeed a general feature of this and related learner varieties (but see Becker and Klein 1985) where the misinterpretation of such an initial marking by the German interlocutor is shown to lead to a classic series of misunderstandings. It may be helpful, however, to compare the two following expressions:

(1) One day (BEFORE *TU*), I sick + I go doctor
(2)   I sick + I go doctor

Clearly, we would be inclined to interpret (2) as a generic statement, while such an interpretation is excluded for (1). The vague temporal expression *'eine Woche'* thus serves an important function.

Let us now consider the temporal relation between the two events *A* and *B*, being sick and going to the doctor. This relation is not explicitly indicated, except by the linear sequence of the two clauses. Our general knowledge tells us, however, that the relation must be *A* SIM *B* (more precisely, *B* is contained in *A)*. The order could also be *A* BEFORE *B*, but this would imply that the event of being sick was finished before he went to the doctor. This, while not impossible, is so unlikely that only a very uncooperative interlocutor could come to this interpretation, and, hence, the relation *A* SIM *B* is clear without being marked.

There are cases, however, where such a marking is necessary. Consider clauses (h) and (i), which may be paraphrased as: 'everything got red' (or 'it got all red') and 'after this was over, I had to go to the doctor again'. The expression *'fertig dies'* explicitly marks that the preceding event - in this case, a state here - is over; without this marking, *H* and *I* could be interpreted as being SIM, an interpretation which is completely compatible with our factual knowledge. Actually, it is even more plausible than the opposite; hence, that *I* is AFTER *H* must be marked, if this indeed was the case (and if the speaker wants to avoid a false interpretation).

This illustrates an important principle of the informant's language: something is explicitly marked only if there is reason to assume that the interlocutor would otherwise reach a false interpretation, and, if this false interpretation matters. In terms of our stream metaphor: don't waste your stakes, if the stream would take that direction anyway. We could call this the 'principle of minimal guidance'. This principle implies, for example, that an explicit marking of completion, as in (h)-(i), is unnecessary if the nature of the event itself includes 'perfectivity'. This is typically the case when the event is denoted by a 'punctual' or a 'resultative' expression, such as 'He dropped the glass' or 'She shot a rabbit'. In the example above, the clause *'alles rot'* expresses a state of process, and it is neither punctual nor resultative; hence, its end must be marked in order to indicate sequentiality, rather than simultaneity.

Let us conclude these considerations with the sequence (*f*), (g), *(h)*. What they are meant to express

may be paraphrased as: "The doctor applied an ointment (=F). This ointment caused great heat (=G). Everything got red (=H).' According to the most plausible interpretation, the first event is resultative: the speaker is surely entitled to assume that *'mache Creme'* denotes an activity to which the average interlocutor, due to his factual knowledge, will assign an end. Hence, PNO, as stated above, leads to the interpretation *F* BEFORE *G* Less clear is the relation between *G* and *H*. The event *G* is referred to by *'kalde'* (which the informant, apparently due to a 'false friend', the Italian 'caldo', used to denote 'hot'). This does not seem to imply an end as it stands. Since factual knowledge admits both *G* SIM *H* and *G* BEFORE *H,* the informant has to mark the end explicitly, if he wants the latter interpretation: he has to guide the interlocutor here. On the other hand, it may be, of course, that he simply does not care, since he considers the distinction between *G* BEFORE *H* and *G* SIM *H* to be irrelevant for his present purposes.

Since in his language there are no structural constraints of the type discussed in the section on simplicity and awkwardness above, his decision as to how to put his words can be totally adapted to (a) what he wants to convey, and (b) what he can assume is known to the interlocutor from other sources. It is exactly this freedom which allows him to be highly efficient with the extremely limited means that are available to him at a given time. We have seen here some illustrations of how he uses this freedom. A closer examination would show that there is a whole series of techniques and principles which underlie his communicative behaviour. But this is beyond the scope of our present considerations. See, for example, Klein and Perdue 1985, Carroll and Dietrich 1985, Véronique 1984, von Stutterheim 1986, ESF-Project 1985.

On the Adequacy of Simple Codes

Our remarks above evoke a somewhat glorified picture of learner varieties in particular, and simple codes in general. They indeed have some advantages. They are much freer in the integration of textual and contextual information, they lack many of the occasionally poetic, but often cumbersome absurdities of fully-fledged languages, and the resulting utterances are often highly simple and economic. It would be false, however, to romanticise simple codes. Even in simple codes which are somewhat more elaborate than the learner variety of the Italian informant considered above - which is, it should be stressed, extremely limited - there are often unclear or totally uninterpretable utterances, although this is true of normal spoken language as well.

To take up our stake-and-stream metaphor again: simple codes allow only limited steps into the stream of consciousness. They are adequate as long as the stream takes a direction which is close to what can be expected. Or to put it more plainly: Simple codes

are appropriate for purposes and in situations in which the guidance of the listener by language can be minimal, that is, where the listener has sufficient information from other sources, and where the balance between textual and contextual information can therefore be shifted in favour of the latter.

Fully-fledged natural languages are much less dependent on the availability of contextual information although they are never independent of it. Part of their complexity is the price we have to pay for this freedom. But it is only one part. Most likely, the *'Critique of Pure Reason'* could not have been written in a learner variety; but it could have been written in a language simpler than Standard German.

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