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Introspection and Computer Corpora: The Meaning and Complementation of start and begin

1. Introduction

My concern is a two-fold problem which has for a long time been of interest to both lexicographers and grammarians: the semantic difference between the verbs *start* and *begin* and the difference in the meaning and use of the *to* V(=TO) and the *V-ing* (=ING) complements to these aspectual verbs. The two issues are especially problematic for foreign learners of English and this is why many dictionaries (e.g. LDCE, ³OALD, ⁴OALD) have included usage notes on the alleged synonymy of the two verbs and on the meanings of the two complements. Some dictionaries mention the fact that *begin* is more formal than *start* and that *start* occurs more frequently in informal conversation (e.g. ⁴OALD). Of course, grammar text books (e.g. Quirk et al. 1985, Lamprecht⁴1986) also give advice on the significance of the TO and ING complements. Among the linguists who have tackled the problem are Jochems (1976), Freed (1979) and Wierzbicka (1988).

It seems, then, that quite a few distinguished scholars have already dealt with the issues at hand, and therefore one may wonder why more should be said on the subject and, of all people, by a German linguist. My motive for choosing to work on this topic is not so much that I believe I might be able to unravel some relevant factors that have so far been overlooked or to put forward some revolutionary original ideas. The reason for my choice has rather been a certain dissatisfaction with the methods used in most of the previous work, with the extent to which the difference between spoken and written English has been taken into consideration, and with the way the results have been presented and summarized.

Only the studies by Jochems (1976) and Freed (1979) are based on empirical data of written English, taken from novels. Both of them make an effort at integrating aspects of spoken English, but by means of different strategies: Freed checks her examples against the intuition of native speakers and Jochems distinguishes between narrative passages and dialogues, regarding the dialogues as examples of spoken English. Reasonable as both these approaches are, they also suffer from obvious shortcomings. Tested with sentences or utterances, native speaker intuition is notoriously fallible, especially when such minute semantic differences as between near-synonyms or such closely-related syntactic constructions as the TO and ING complement are involved. Thus, based on my own abortive attempts to elicit information on the difference between start + TO/ING and begin + TO/ING from unbiased native speakers of English, I am rather sceptical of Freed's claim that "native speakers appear to have no difficulty in selecting one form over the other" (1979: 68). Using data from fictional dialogues (Jochem's method), the linguist is always at the mercy of the imaginative powers and linguistic skill of the author, and this is dangerous when, as in the case of Jochems, only five different authors are used. It seems to be highly questionable whether such data can be regarded as representing authentic everyday conversation, and this view can be substantiated by reference to the remarkable difference between dialogues in novels and transcriptions of real conversations.

Wierzbicka's account is based on introspection. Her main concern is the semantics of the ING and TO complements in relation to verbs of beginning and other aspectuals, but her account also includes some remarks on the semantic difference between *start* and *begin*. As far as I can see, Wierzbicka does not explicitly mention whether she is concerned with written or spoken language.

In sum, the studies on the semantic differences between *start* and *begin* and TO and ING can be criticised on the grounds that they are not based on controlled empirical data of both spoken and written English. Furthermore, apart from Jochems' article, the studies I have referred to are clearly not suitable for use as a basis for dictionary entries or usage notes, because they are too theoretical in nature and do not provide tangible summaries.

The aim of this paper is to redress these shortcomings by a systematic discussion of data from corpora of both spoken and written English and by providing an easily digestible summary of the results. The three main goals are:

- to set up a systematic analytical framework for the description of the intricate relationship between the meaning of the aspectual verbs and their complements.
- to analyse the differences between the use of the four possible combinations of *start/begin* and TO/ING in the spoken and the written medium on the basis of controlled corpora.
- to summarize the results of the present empirical study in a form suitable for a language learner consulting a dictionary.

2. A characterization of the approach: lexicographic, production-oriented, cognitive

Since the theoretical problems that are at stake have already been dealt with in some depth by other linguists, I will focus on practical questions and approach the matter from a lexicographic point of view. Dictionaries are generally intended as reference works that help people to find out the meanings of words. However, only rarely will native speakers or even language learners consult a dictionary as language recipients, i.e. to find out the semantic nuances of a given combination of *start/begin* + ING/TO that they have encountered. In most cases they will be content with a rough interpretation of the gross meaning which will usually be clear enough. The real problem, especially for learners, emerges when, for example in writing a piece of prose, one has a certain scene in mind, and is searching for the appropriate lexical (begin or start) and grammatical means (ING or TO) of expressing it in English. Therefore, the perspective that is adopted here is that of a writer/speaker rather than a reader/hearer. So essentially my approach is the same as the one pursued in the new Longman Language Activator (Summers 1993), which also addresses the productive end of the communication process.

This means that, in contrast to the other studies that I have referred to and indeed to most grammar books, the starting-point here is not language and the question of what certain linguistic expressions and structures signify; instead the perspective is from-world-to-language, or more precisely, from-mind-to-language. It is assumed that the speaker/writer has formed a mental image of the situation that he or she wishes to describe, and this image is necessarily subjective in nature rather than objectively manifested in the real-world situation. Besides reflecting what a learner may expect from a dictionary this approach is also in line with current cognitive theories of language. For example, in terms of Langacker's Cognitive Grammar (1987), what our language user has in mind is a conceptual 'target' which is then more or less completely matched by a certain linguistic 'structure'.

3. The analytical and descriptive tools

When dealing with such a multi-facetted problem as the one at hand it is important to be precise about the terminology one uses. In accordance with the view of language that I find

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most promising I will approach the problem with notions derived from the recent work in cognitive linguistics (a basic introduction to the main issues can be found in Ungerer/ Schmid forthcoming). The interpretation of these rather general concepts for the present problem will be based on claims that I have found in the literature, especially in Freed (1979), Quirk et al. (1985) and Wierzbicka (1988).

On the most general level, I will refer to the cognitive representation of a situation that is being described by an utterance as the 'scene' or 'context'. These terms refer to two sides of the same coin: while the term 'scene' is closely related to the conceptual and perceptual aspect of a situation, the term 'context' is usually associated with the linguistic reflection of such a cognitive representation. Essentially, the two cannot be separated. Depending on which aspect is more important, either of the two terms can be used to denote the subjective conceptualization of a real-world situation. As far as the topic of this paper is concerned, the scene involves the initial phase of an event.

Planning an utterance which describes such a scene, the speaker/writer will probably have The first factor is the type of the event whose initial phase is described. Freed (1979:

a holistic image or gestalt in mind which he or she wants to relate to the hearer. For descriptive and analytical purposes, however, it is necessary to break this gestalt down into different components. Three factors can be distinguished on cognitive grounds. (It will turn out presently that the choice of these three cognitive factors is particularly plausible, because they provide the basis for the paradigmatic linguistic choices that are open to the speaker.) 25ff) discusses different types and structures of events in relation to aspectualizers, but her analysis is too refined to be used for practical purposes. Wierzbicka does not provide a systematic differentiation of this parameter. The types of events used in this paper have therefore been extracted from the well-known classification of situation types in Quirk et al. (1985: 200f). Essentially, the three possible types of events that must be considered in the context of a beginning are activities, processes and states. Thus, the speaker may want to describe the beginning of a human activity like eating, working or singing; the beginning of a process which is not directly caused by a human being like raining, improving, ripening; or the beginning of a state. Since we seem to show little interest in the beginning of concrete, visible states (cf. e.g. ?The lamp began to stand on the table.) the notion of state is in the present context largely confined to bodily, intellectual and emotive states of human beings. Examples of such "private states" (Quirk et al. 1985: 202f) are being ill, understanding, loving.

Second, even within the short initial phase of an event that we have in mind, we can point our mental spotlight at different-sized parts of the beginning. In other words, we can vary the temporal range of what we are particularly interested in. For example, watching the initial phase of an activity like a race we can either concentrate on the first, sudden moment caused by the shot of the umpire, or on the entire first part of the race when the runners have already left the starting blocks. In cognitive terms, we are able to 'focus our attention' either on the sudden onset or on the first part of an event (cf. Grosz 1981: 84ff, Langacker 1987: 115f). According to Wierzbicka (1988: 77f, based on Freed 1979: 71), the linguistic option for expressing these different foci of attention lies in the choice of the aspectual verb. Thus in the example above, *start* is used to refer to the sudden onset of the action and *begin* to the entire first part of the race. While the first factor, the type of event, is still fairly objective in nature, the focus of attention is highly subjective and it is exclusively up to the speaker which aspects of a scene he or she wants to focus on. This is even more true for the third factor, which can be called the 'perspective' on the scene, i.e. the way a speaker views a certain situation (cf. Grosz 1981: IOOff, Langacker 1987: 120ff). Applied to scenes involving the initial stage of an event, the perspective is largely a matter of how the speaker

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Table 1: Analytical grid for the discussion of the data

Linguistically, the period before the beginning can be reflected in the causative meaning of			
<i>start,</i> for example, and in the aspect of the aspectual verbs. Thus, uses of <i>begin</i> in the progressive form usually perspectivize the initial phase as coming about slowly and gradually	cognitive aspect of the scene	type of event (after Quirk et al. 1985)*	focus of attention (after Wierzbicka 1988)
(e.g. <i>I'm beginning to doubt now</i> London-Lund Corpus). In the following I will not be dwelling much on this aspect of the perspective; the perspective on the period after the initial	linguistic options	type of verb needed to describe the event	meaning of the aspectu
ments TO or ING for the aspectual verbs.	paradigmatic	A. activitiy	I. begin
The difference between the TO and the ING complement has been described with the help of quite a number of concepts. Ouirk et al. (1985: 1192) use such abstract terms as "poten-	choices	[+agentive] [adynamic]	[first part]
tiality" (TO) vs. "performance" (ING) to capture the semantic difference. Freed distinguishes		B. process	II. start
iterative) one, a product of the <i>V</i> -ing form" (Freed 1979: 74). Thus there is an association of		[-agentive] [+dynamic]	[first moment] [sudden onset of action
the ING complement with the stretch-of-time meaning attributed to the progressive aspect,		C. private state	

between the "generic (or serial) reading, resulting from the to V form, and a durati iterative) one, a product of the V-ing form" (Freed 1979: 74). Thus there is an associat the ING complement with the stretch-of-time meaning attributed to the progressive which is usually described as durative and/or iterative and/or habitual. This relationship is also mentioned by Quirk et al. (1985: 1192) and Wierzbicka (1988: 84). Putting the relationship in chiastic order, Wierzbicka also claims that

conceptualizes the period leading up to the initial phase and the period after the initial phase.

the choice between a TO complement and an ING complement of an aspectual verb depends on whether the speaker is viewing the situation in terms of a constant possibility of change or in terms of expectations as to what might happen next. (Wierzbicka 1988: 89)

Translated into more familiar grammatical terms this means that the ING complement is restricted to dynamic contexts ('constant possibility of change') while the TO complement is related to Stative contexts ('expectation as to what might happen next'). Viewed in these terms, the relationship between the durative meaning of the progressive form and the restriction of ING to dynamic contexts certainly makes sense, which to my mind cannot be said of the somewhat elusive notion of 'constant possibility of change'.

Comparing the distinction between a dynamic and a stative perspective on the scene with the three event types mentioned above one can detect a close association between the perspective evoked by ING and activities and processes on the one hand, and of the TO complement and states on the other. Despite this obvious parallel, the notions of event type and of perspective have to be kept apart, because, as authentic examples from the corpora show, it is perfectly possible to impose a dynamic perspective on a basically stative event like an intellectual or emotional state (e.g. they've started feeling territorial in the London-Lund Corpus).

The three cognitive aspects inherent in a scene, the three linguistic options open to the speaker, and the paradigmatic choices with their respective meanings are summarized in table 1. This overview of the relevant factors will later serve as an analytical grid.

*Note: As the features indicate I regard agentivity as the crucial difference between activities and processes; conclusiveness and duration which are also mentioned by Quirk et al. are not taken into consideration here. Since, as mentioned above, concrete states and what Quirk et al. call 'stances' are very rare in cooccurrence with verbs of beginning they are also ignored. The term 'private state' is used by Quirk et al. to cover intellectual states, states of emotion or attitude, states of perception and states of bodily sensation. Since I think that especially perceptions (e.g. looking, listening) and mental processes (e.g. thinking, worrying) may sometimes be regarded as involving an agent, even if not a prototypical one, private states are characterized as [+/- agentive] in the table

4. The corpus data and their statistical distribution

4.1 The data from the corpus of written language

[+/- agentive]

[-dynamic]

For a standardized and accessible source of written English, the Lancaster-Oslo-Bergen corpus (LOB) was used in the machine-readable version. The total material from the LOB which includes all instances of the verbs start and begin with either a TO or an ING complement adds up to 372 examples, which were all retrieved accompanied by the whole sentence. The distribution of these 372 instances across the two verbs and the two types of complements is summarized in table 2.

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	perspective (after Freed 1979 and Wierzbicka 1988)
al verb	type of complementation
on]	1. TO [stative] [generic] 2. ING [dynamic] [durative] and/or [habitual] and/or [iterative]

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Table 3: Overview of the distribution of examples in LOB across the twelve possible patterns

1. Type of combination; example sentence	2. Frequency
A. Activity	193
A.I.1.	96
She began to talk.	26
A.II.1.	21
She started to talk.	50
A.I.2.	
She began talking.	
A.II.2.	
She started talking	
B. Process	73
BII	59
Things began to improve	10
B ILL	2
Things started to improve.	2
B.I.2.	
Things began improving.	
B.II.2.	
Things started improving.	
C. Private state	106
CLI	101
He began to understand.	1
C.II.I.	1
He started to understand.	3
C.I.2.	
He began understanding.	
C.II.2.	
He started understanding.	

The most straightforward score is the one for private states, whose initial phases are almost exclusively described with the combination *begin* + TO. The choice of *begin* is not surprising at all because in the initial phase of private states, a sudden first moment usually cannot be isolated. Perceptually the initial stages of private states are unobtrusive, and often they cannot be perceived at all. So a focus on this first moment as evoked by the verb *start* is practically ruled out. As for the choice of complement, the stative nature of these events is usually combined with a stative perspective or in Wierzbicka's words with the expectation "more of this will happen" (1988: 82).

Table 2: Overview of the data extracted from LOB

	be	egin	st	art	total		
	frequency	percentage	e frequency percentage		frequency	percentage	
то	256	91.4	39	42.4	295	79.3	
ING	24	8.6	53	57.6	77	20.7	
total	280	100	92	100	372	100	

As the table shows, the statistical pattern of the combination of *begin* and *start* with the TO and ING complements is quite clear. *Begin* exhibits a very pronounced tendency to occur with the TO complement, while *start* is more often complemented by verbs in the ING form. It is also worth noting that *begin* (280) occurs three times as often as *start* (59).

Our main interest now of course is to see the statistical distribution of the examples across event types, foci of attention and perspectives. Table 3 gives an overview of the scores based on the analytical grid introduced in table 1 above. To facilitate the recognition of the twelve possible combinations of event types, foci and perspectives they are illustrated with sentences using the typical complement verbs *eat* (activity), *improve* (process) and *understand* (private state). The material is arranged from the viewpoint of event types, because this is where our hypothetical learner will presumably set out from. (Note that both the tense and the aspect of the verbs *start* and *begin* which are of course also subject to variation, have been ignored to keep the problem in manageable dimensions.)

In the second column in table 3 the absolute frequency of occurrence of the combinations is indicated. The third column gives the relative share of these scores of the total score of the respective event type. This means that the third column answers the question "Wishing to describe an activity (or process or private state), what is the relative frequency of occurrence of a given combination?".

Without going into details yet, I would just like to single out a few of the scores in the third column and discuss whether they can be interpreted with the analytical framework introduced above.

3. % of type of situation
100%
49.7%
13.5%
10.9%
25.9%
100%
80.8%
13.7%
2.7%
2.7%
100%
05 3%
0.9%
0.9%
2.8%

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Since the initial phases of processes are not caused by a human agent, they are often also of a gradual kind and perceptually not very salient. This explains the fact that in 80% of the processes the verb *begin* is used. What does come as a surprise, however, is the statistical result that almost all instances of the event type process are complemented by the TO form. Since by definition processes are dynamic events, along the lines of the framework introduced above this would mean that all these scenes are seen from a stative or a generic rather than a durative perspective. As both of these explanations are rather implausible more must be said about this result when we have had a look at the data from spoken language.

In descriptions of initial phases of activities, all combinations of foci (sudden or gradual) and perspectives (generic, durative, iterative, habitual) are basically possible. This greater freedom of combination is also reflected in the greater variance of the scores. A general tendency seems to be that *begin* is more naturally combined with TO and *start* with ING.

4.2 The data from the corpora of spoken language

The material of spoken language is taken from two sources. The bulk of the material was extracted from the machine-readable version of the London-Lund Corpus of Spoken English on CD-ROM (LL). The examples were retrieved with the pattern matching software Lexa Pat (Hickey 1993). By including wildcards in the target patterns (beg*n, be*gan, be*gan, be*gun, and st*rt) care was taken that the prosodic information included in the corpus did not interfere with the retrieval procedure. Nominal uses of beginning and start, examples of start and begin which were not complemented by a verb, and all irrelevant finds such as begging or Stuart were manually excluded from the material. The total number of relevant examples found in the 500,000 words collected in LL was 105 of start and 58 of begin.

For a second source of spoken language the transcribed tape recordings provided in the appendix of Cheepen & Monaghan (1990) (=CM) were used. The material was searched conventionally by reading. In the roughly 100 pages only 7 examples of start and 1 of begin were found.

An overview of the whole material from spoken language and the distribution across the two types of complements is given in table 4. To facilitate comparison, the scores from LOB are repeated in this table.

Table 4: Overview of the data extracted from LL/CM contrasted with LOB (cf. table 2 above)

	begin			start				total					
	LL/CM		LC	LOB		LL/CM		LOB		LL/CM		LOB	
	n	%	n	%	n	%	n	%	n	%	n	%	
то	56	94.9	256	91.4	28	25.0	39	42.4	84	49.1	295	79.3	
ING	3	5.1	24	8.6	84	75.0	53	57.6	87	50.9	77	20.7	
total	59	100	280	100	112	100	92	100	171	100	372	100	

Table 4 reveals a number of interesting results concerning the difference between spoken and written language. If we first consider the vertical dimension of the table, the scores for begin indicate that for this verb, there is no significant difference in the use of the TO and the ING complement between spoken and written English. Clearly the alliance between begin and TO also holds true for spoken English. The same stability certainly cannot be claimed for the verb start, where in the spoken corpora the preference for the combination with the ING complement is much more marked than in LOB.

In the horizontal dimension attention should be drawn to the bottom row, which gives the total number of occurrences. While in the written corpus the ratio of examples of begin and start is 280:92=3.04, in the spoken material it has diminished to 59:112=0.52. If one assumes at least a mild degree of representativity of the two corpora for the English language in general, one may conclude that begin occurs half as often as start in spoken language and three times as often in written language. These ratios strongly confirm the claim mentioned in the introduction that begin is more formal and start more frequently used in informal conversation

A more detailed account of what lies behind these differences between speech and writing can be obtained when we analyse the LL/CM material in the same way as the LOB data. Table 5 reproduces the scores given in table 3 relating them to the results of the LOB analysis. (To facilitate later reference to them, the scores in the third column are marked by capital letters.)

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Table 5: Contrastive overview of the distribution of examples in LL/CM and LOB across the twelve possible patterns

1. Type of combination; example sentence	2. Free	luency	3. % of type	of situation	
	LL/CM	LOB	LL/CM	LOB	
A. Activity	110	193	100%	100%	
A.I.1. She began to talk.	22	96	A) 20.0%	M) 49.7%	
A.II.1. She started to talk.	16	26	B) 14.5%	N) 13.5%	
A.1.2. She began talking.	3	21	C) 2.7%	O) 10.9%	
A.II.2. She started talking	69	50	D) 62.7%	P) 25.9%	
B. Process	29	73	100%	100%	
B.I.1. Things began to improve.	13	59	E) 44.8%	Q) 80.8%	
B.II.1. Things started to improve.	9	10	F) 31.0%	R) 13.7%	
B.I.2. Things began improving.	0	2	G) 0	S) 2.7%	
B.II.2. Things started improving.	7	2	H) 24.1%	T) 2.7%	
C. Private state	32	106	100%	100%	
C.I.1. He began to understand.	21	101	I) 65.6%	U) 95.3%	
C.II.I. He started to understand.	3	1	J) 9.4%	V) 0.9%	
C.I.2. He began understanding.	0	1	K) 0	W) 0.9%	
C.II.2. He started understanding.	8	3	L) 25.0%	X) 2.8%	

Before moving on to a general discussion of the results I would like to say a few words about the event type process which yielded such astonishing results in the written corpus. Even in the spoken data, the stative or generic perspective evoked by the TO complement prevails for the initial phases of processes. So the idea that since processes are dynamic events, the aspectual verb will be complemented by the ING rather than the TO form is again called into question. How can these results be explained?

Using Wierzbicka's framework, one can argue that since the aspectuals are not complemented by the ING form, the processes are not conceptualized dynamically i.e. as involving a constant possibility of change. Instead, their further development is perspectivized as being rather predictable and stable. And indeed this is a very plausible explanation. Perceptually, typical processes like *raining, ripening, improving, happening* or *getting older* appear to enter their initial phase without an external cause, and the same applies as they move into later phases. Everything seems to happen by itself as it were. Although from a logical point of view, processes are dynamic events, they can easily be conceptualized as being similar to states in that they are assumed to continue the same way they have begun. This means that strong expectations as to how the event will develop are involved.

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If we accept such an adapted interpretation of Wierzbicka's claims, this also has consequences for her notion of 'constant possibility of change', because the dynamic element can no longer be taken as the defining feature. Instead, what seems to be the element that is responsible for a possibility of change is an intentionally acting person, because it is such an agent that can bring about a change in the course of an event.

Related to the statistical results, this would explain why in the written data the unmarked complement for both *start* and *begin* is TO. The reason is that processes are non-agentive. When the marked complement ING is used in process contexts the special effect of an agentive perspective is presumably intended. Unfortunately the LOB includes only four examples of this type, but three of them can certainly be seen as cases in point:

(1) it causes the fantail to start revolving

(2) the perculator started making bubbling noises

(3) a voice in my head began whining

It seems, then, that in writing the unmarked choice for the description of the initial stages of processes is the combination *begin* + TO. However, even in the written corpus 13.7% of the process examples are instances of *start* complemented by TO. To see in what way these uses of *start* differ from *begin* consider the following list of examples.

(12)

(13)

start

(4) the volcanic disturbance which started to (10)

- shake (11)
- (5) the lake started to become dappled with rain
- (6) the boat had started to fill up
- (7) Trelawny [=a horse] is left out [...] because it (14) takes almost 2 1/4 miles before he starts to (15) warm up
 (16)
- (8) her bow [=the ship's] started to lift
- (9) [I see an aeroplane hovering in the sky.] Sud-
- denly it starts to fire at me

Looking at the examples, my intuition, which is confirmed by my British colleagues, tells me that the examples of *start* involve a higher degree of concreteness. A perceptible process involving concrete objects, as opposed to the mostly abstract processes in the right-hand column, is involved in the examples of *start*. In examples (7) and (8) an animal and a ship are in subject position and, as I conceptualize these scenes both are almost rendered as personified agents. Of course, this impression is supported by the perfectly normal use of the personal pronouns *he* for a horse and the possessive pronoun *her* for a ship, but this may substantiate my point rather than refute it. In example (9) the human agent, who is clearly necessary for the act of shooting, has been replaced by the generic pronoun *it*. Another interesting example is (11), where the topicalization of the more or less abstract subject *the scene* in combination with the verb *begin* evokes a much more detached viewpoint on the situation than the possible alternative *Wolves started to fill the scene*.

The claim I would like to put forward here is that writers use the verb *start* in reference to processes when they envisage the scene as being set in a concrete and real environment and as involving an organism or object like an animal, a vehicle or a machine which is seen as behaving like a human agent. More generally, I would claim that the verb *start* entails an

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begin

the task should begin to take shape the scene began to fill with wolves

the market begins to reach a saturation point things began to improve

(14) home carpentry may begin to show itself
(15) implications begin to writhe to the surface
(16) her brain began to fade

agentive meaning component which distinguishes it from *begin*. The same point was already made by Jochems (1976). Even if some of his rather categorical statements are not reflected in my data, to a large extent his analysis of examples taken from novels is compatible with the analysis presented here, and this underlines the importance of empirical work. Further support for an agentive meaning component of the verb start is provided in Schmid (1993: 246ff), and the next section will include some further arguments to this end.

5. Discussion of the results

5.1 A set of general rules

We have seen that in addition to event type, focus of attention and perspective, the medium seems to be a factor that influences the choice between *start* and *begin* and TO and ING. Agentivity may also play its part. Since problems that involve four or even five factors tend to be hard to conceptualize it is essential to proceed in a step-by-step fashion. Therefore, taking the more predictable results of this study first. I will start by rephrasing the relevant scores in table 5 as generally as possible using in the form of default rules and then go on to discuss the restraints that work on these rules. The rules rely on the concept of default choice, which is an essentially frequency-based variant of the more complex notion of *prototype* (see Ungerer & Schmid forthcoming: ch. 1 for an extensive discussion):

- 1) In written language, the default choice of aspectual verb for all event types is begin (cf. scores M, Q and U in table 5).
- 2) In spoken language, the default choice for describing the initial phase of activities is start (scores B and D).
- 3) In written language, for initial phases of processes *begin* is chosen as the unmarked verb (score Q), while *start* is used especially for concrete scenes and quasi-agentive organisms and objects (score R).
- 4) In written and spoken language, *begin* is the default verb for the description of the initial phase of private states (scores I and U).
- 5) The default complement for the verb *begin* is TO in both spoken and written language (scores A, E, I, M, Q, U). For start the default choice of complement seems to be ING (scores D, L and P).

Some of the more obvious restraints on these rules can easily be explained on the basis of the analytical framework set up in section 3 above:

- 1) In spoken language, the initial phase of activities can be described with the verb begin when the focus is on the entire first part of the activity and not just on the first moment (score A). This extended focus represents a more gradual beginning of the activity and as a consequence *begin* occurs often in the progressive form e.g. in
- (17) and they're beginning to talk (LL)
- (18) Miteff [is] beginning to cover up again (LL)
- (19) and now they're [the boxers] beginning to go out (LL)

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2) Referring to the initial phases of activities in written language, *begin* can be combined with the ING complement when the scene is viewed as implying a durative, iterative or habitual perspective (score O). Especially in the case of a habitual perspective, begin in this context occurs frequently in the past tense and is accompanied by a time-position adjunct. Examples in LOB are:

(20) Rodriguez [...] began boxing as a professional in 1956 ... (21) The Polish soldier who began training as a potter at the age of 52 ... (22) later [...] he began selling left-handed teacups to a gullible public ...

3) Referring to the initial phases of activities in written language, start can be used when the speaker wants to focus on the first sudden moment of the initial phase rather than on the first part of the event (scores N and P). In this case the choice of the complements depends on the perspective on the scene. As with begin, the ING complement is associated with the durative, iterative and habitual meaning of the progressive form while the TO form evokes a generic perspective. This is the reason why scenes where the further development of an event is interrupted after a sudden onset can only be described by the combination start + T O. For an illustration consider the following four examples given by Freed (1979: 72):

She started to sneeze but then she didn't sneeze. ³She began to sneeze but then she didn't sneeze. *She started sneezing but then she didn't sneeze. *She began sneezing but then she didn't sneeze.

If we disregard scores below 3% in the third column of table 5 as idiosyncrasies and doubtful instances, this leaves us with the scores F, H, and L. In other words, this means that what still remains to be explained is the use of *start* in spoken language in reference to contexts involving processes and private states (F, H, J and L). In addition, a few words need to be said about the semantics behind the choice of aspectual in spoken descriptions of processes, which turned out to be balanced between start and begin in spoken language (scores E, F, H).

5.2 Start used for private states in spoken language

Taking the event type 'private state' first, the default case in the written medium is the combination begin + TO and this is clearly confirmed by the 93.5% in LOB. In spoken language, however, a quarter of the private state examples are instances of start + I N G and an eighth are instances of *start* + TO. Consider these 11 examples:

start + private state + TO

- (23) I started to feel rather morbid (LL)
- (24) now I suppose mummy will start to worry about me (LL)
- (25) you must start to rearrange your estimate (LL)

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35 if it [the signal] starts to go down again

36 it [the signal] starts to just recede again

39 when it [the market] starts to fall

37 as soon as it [the signal] starts to go down

38 we started to clear ourselves of their troubles

with TO complement

thing

34 it's starting to rain again

start + private state + ING

- (26) then I'll start thinking of some slight diversion (LL)
- (27) at the same time you, you start thinking (LL)
- (28) I started getting suspicious (LL)
- (29) I started thinking about it (LL)
- (30) and then people start thinking (LL)
- (31) they've started feeling territorial (LL)
- (32) they started worrying about the blood pressure (CM)
- (33) before I started worrying (CM)

It can be seen that the verb *think* occurs four times and the verb *worry* three times in these eleven examples. I would like to argue that, in cases when these two verbs occur in the INGform the human subject is not conceptualized as the passive experiencer, which would be typical of private state verbs, but as an intentionally acting person, i.e. as some sort of agent. This would then mean that when the verb *start* is used in combination with private states in spoken language it refers not so much to a mental or emotional state, but to a mental activity. (Note that according to Quirk et al. (1985: 204f) depending on the context a number of private state verbs such as *feel* or *smell* can also function as perception verbs which involve an agent.) Even though no outwardly perceptible activity takes place, such mental activities are imagined as involving an agent and the presence of such an agent allows the speaker to focus on the first moment of this private experience and use the verb start. So the involvement of a conceptualized agent is at least partly responsible for the choice of start in the contexts where we would expect begin to occur.

53 Start and begin used for processes in spoken language

Let us next consider the case of processes. To give the reader an opportunity to judge for himself, I will provide a list of all 15 examples of start and all 12 examples of begin used in LL/CM to describe the first phases of processes.

start

begin

40 things will be starting to be happening 41 it started to rain 42 it started to become a sort of big public with ING complement 43 what can be seen to have started happening

44 it [the status] sort of starts rubbing off 45 the new grant started coming through 46 the pound's started plummeting 47 until it [the pound] started getting sort of well below two dollars 48 the heat starts percolating through 49 once those cameras start flashing

Taking the frequency of occurrence as the first measure (start 15, begin 12), one can claim that the default verb for describing the initial phase of processes in spoken language is the verb start. That start is the unmarked choice in these contexts can be substantiated when one takes a closer look at the examples of begin. In 8 out of the 12 examples of begin in LL/CM the verb begin itself is used in the progressive form (cf. examples 50-61). This can be interpreted as an indication that, just as in the case of activities above, the initial phases of these processes are conceptualized as coming about in a very gradual way. In these examples, the verb begin is not just used to focus on the entire first part of the process, but it also has the function of emphasizing the slow and gradual development leading up to the initial phase. So the focus on the situation ranges from the stage immediately before the initial phase through the actual onset up to the first stage after the onset. The wish to portray a beginning as gradual is particularly noticeable in example (55) although begin does not even occur in the progressive form. Here a whole group of 'gradualizers' is employed, namely the progressive form allowing and the verbs begin, come to and get. Especially in writing, this sentence sounds very unnatural, but one can appreciate the speaker's intention to emphasize the 'gradualness' of the process.

All in all then, while *start* is the unmarked form for the description of initial phases of processes in speech, *begin* is chosen, frequently in the progressive form, when the initial phase of a process is conceptualized as being very slow and gradual and the focus includes the period leading up to the beginning.

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only with TO complement

boing

develop

50 the parish church is beginning to go boing

51 you're beginning to petrify a bit

52 this begins to involve questions of symbolism 53 we are beginning to diverge from this question 54 when the reason in mathematics begins to fail 55 you are not allowing yourself to begin to come to get in close contact with

56 a somewhat inflationary situation had begun to

57 it's beginning to make me unhappy 58 the crowd are beginning to boil up 59 you can see the heat just beginning to beat 60 and their eves were beginning to harden 61 the Union Jacks [were] just beginning to move in the breeze

6. Conclusion and summarizing representation

In this study of the meaning and use of *start/begin* and TO/ING I have deliberately not taken into consideration many factors that can influence the speaker's or writer's choice, for example the tense in which the aspectuals occur and the contribution of accompanying manner and time adverbials. In addition, there are of course many further linguistic options that are available for describing the beginnings of events. These concern both the choice of synonymous verbs in lieu of start and begin (e.g. commence, initialize, set out, launch, inaugurate, take up) and the use of competing syntactic construction, e.g. the complementation by a noun phrase *the began the lecture by saving* ...) or the intransitive use of *start* and begin (the hunt started).

Given the considerable degree of complexity the problem has attained even without taking these additional aspects into account, one may perhaps excuse these omissions in a limited paper. Furthermore, what most language learners need is not an in-depth account of all relevant aspects but a general picture which will help him or her to err on the side of caution. What counts in this context is avoiding mistakes and trying to sound as natural as possible.

In an attempt to present the necessary information as clearly and simply as possible I have summarized the relevant results of this study in a flowchart which is represented in figure 1 on the next page. This chart is conceived as a proposal for usage notes in dictionaries addressed to language learners and therefore formulated in everyday language. What I see as the main feature of the representation, besides the considerable simplification, is the incorporation of default choices both for the written and the spoken medium. These default choices are based on the statistical data from the two corpora and they reflect the fact that unless special semantic conditions hold, begin + TO seems to be the preferred variant in writing and *start* + ING in speech.

In order to provide a summary of my study for the linguistic expert, too, I have added another flowchart (cf. figure 2) which uses the relevant (meta)linguistic terms. In addition to the semantic background that lies behind the different choices, the diagram gives a final set of statistics derived from this study. The question which is answered by the scores in the four right-hand columns is "In descriptions of situations involving a beginning in writing/ speech, what is the relative frequency of a particular combination of start/begin and TO/ING-

I would like to conclude with a remark on the fit between the predictions made by introspective accounts and the results from the analysis of corpus material. All in all, it seems that the data from the written corpus can be explained on the basis of Freed (1979) and Wierzbicka (1988). For the spoken corpus, the results have been a little more surprising. They have shown that, although the semantic system largely remains intact, the default choice shifts from begin + TO in the written medium to start + ING in the spoken. As far as I can see, besides the empirical evidence put forward for this difference between the written and the spoken medium, the main contributions of this paper are the systematic descriptive framework in section 3 and the flowchart in figure 1 which is based on the notion of *default* choice.

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