1 Introduction

This paper is part of a larger study, the aim of which is to find out how spatial (S) and temporal (T) adverbials of all possible realization types in connection with finite verb phrases (FVPs) express the spatio-temporal setting in authentic face-to-face conversation. My working definition of verbally expressed setting is as follows: the spatio-temporal setting is the notion that is mediated in a given clause by temporal and/or spatial adverbials together with verbal tenses and aspects about the time and place of a particular situation.¹

The present contribution, however, concentrates only on the analysis of spatial and temporal adverbials, with special regard to their realization types, syntactic obligatoriness, and semantic classification. From the very beginning it is necessary to state that only adverbials functioning as an A-element in the clause structure are taken into account.

2 Material

The material for the present inquiry are conversational texts taken from A Corpus of English Conversation edited by Jan Svartvik and Randolph Quirk.

¹ My delimitation of setting is different from that used within the theory of FSP. According to Firbas, “an adverbial is induced to perform one of three communicative (dynamic) functions in the act of communication”. One of them is to convey “a setting” (Firbas 1992.49). He states that the adverbials conveying “mere background information participate in laying the foundation upon which the core of the message is presented” and “if context-dependent, the adverbial serves as a setting. It does so irrespective of semantic character and sentence position” (1992.50).
in 1980\(^2\). Five texts, namely S.1.1, S.1.3, S.1.5, S.1.6, and S.1.8, all representing authentic face-to-face private conversation, have been chosen. Each text comprises 5,000 words, which means that the total size of text under investigation amounts to 25,000 words.

3 Classification

The present analysis of spatial and temporal adverbials deals with three main criteria:
1. grammatical function
2. semantic role
3. realization type

The criterion of the position of adverbials in the clause structure, although commonly applied to the analysis of adverbials (Lindquist 1986, 1989; Quirk 1984, 1995; Povolná 1998) and used in the above-mentioned study, has been considered subsidiary for the goal of the present investigation. This fact, however, does not mean that the applied criteria are considered superordinate to the position of adverbials. On the contrary, I believe that all four criteria are equally important and interdependent.

The first criterion, the grammatical function of adverbials, is based on the extent to which an adverbial element is incorporated in the clause structure. Accordingly, adverbials can be divided into four broad categories of grammatical function: adjuncts, subjuncts, disjuncts, and conjuncts (see Greenbaum 1969, Quirk 1984, Quirk et al. 1985). Since the present paper deals only with T and S adverbials, which can never fulfil the functions of disjuncts or conjuncts, these two categories are not taken into account at all.

The problem, however, remains whether to distinguish adjuncts and subjuncts from each other. All spatial adverbials and most temporal adverbials are classified as adjuncts. Since there is no strict borderline between temporal adjuncts and temporal subjuncts, some of the latter having “some of the character of adjuncts, especially when premodified or focused” (Quirk et al. 1985.582), adjuncts and subjuncts are treated as one category with regard to their grammatical function in the present analysis (for detailed exemplification, see Povolná 1998.87-94). Consequently, the only distinction drawn with regard to the grammatical function of adverbials is the difference between obligatory and optional adverbials\(^3\). Several tokens of both obligatory and optional adverbials, predicational or sentential, will be presented below.

\(^2\) This corpus is intended to represent spontaneous conversation among educated British speakers, mostly educated to university level. Most of them are academics or have some other kind of connection with University College London. They are native speakers of British English and speak fairly standard educated English. It is face-to-face everyday conversation, which was in the majority of cases surreptitiously recorded, i.e. without the prior knowledge of its participants. All the texts chosen for the present investigation were recorded in the 1960s.

\(^3\) This distinction is consistent with Quirk et al. 1985, although at first sight it is not evident. As
It must be emphasized that the term "adverbial" is used in the present paper to refer to what has been explained as adjuncts, either obligatory or optional, not only because they are the only category of adverbials under investigation, but also because, unlike the others, they can fulfil the function of an adverbial in the clause structure as distinct from the other sentence elements.

As to the second criterion, the semantic role of adverbials, the basic distinction is between spatial and temporal adverbials. Since they frequently co-occur with one FVP in the same clause, the category of spatio-temporal amplification has been recognized as distinct from the other two semantic roles whenever relevant. Consequently, there are three basic semantic roles under investigation, spatial, temporal, and spatio-temporal. Some further classification will be applied to the analysis of single adverbials, either spatial or temporal, with special regard to their realization types.

The term "amplification" is used in the present inquiry to refer to any type of spatial and/or temporal specification expressed by an adverbial, either a phrase or a clause, of the corresponding semantic role, occurring with one FVP in the same clause. Accordingly, the study deals with spatial, temporal, or spatio-temporal amplification.

As far as the third criterion, the realization type of adverbials, is concerned, the basic distinction is between phrasal and clausal amplification, depending on whether a particular adverbial is expressed by a phrase, viz. adverb phrase (headed either by a closed-class adverb or by an open-class adverb), noun phrase, or prepositional phrase, or whether it is expressed by a clause.

4 Analysis

From five conversational texts, described in Part 2 above and amounting to 25,000 words, 938 adverbials have been excerpted. They comprise both phrasal and clausal amplification, illustrated respectively by the two examples that follow:

Example 1:
I'll be stuck until about the twentieth (S.1.1.108);

discussed in Povolná 1998, sentential adjuncts are inherently optional and that is the reason why optional adjuncts comprise both optional predicational and optional sentential adjuncts. On the other hand, obligatory adjuncts are always predicational. It is important to stress, however, that only syntactic obligatoriness is taken into consideration here.

In the present inquiry the term "amplification" has been preferred to the term "specification", used by Crystal (1966) when dealing with the relationship between verbs and temporal adverbials, in order to distinguish them from each other because the former, as used in this analysis, includes both spatial and temporal specification of verbs, whereas the latter, as used by Crystal, implies temporal specification only.

It is worth mentioning that the overall very low frequency of non-finite clauses, having only 4 occurrences in the analysed data and all being used by the same speaker, together with the zero frequency of occurrence of verbless clauses are the reasons why the category of clausal amplification has not been further subdivided into finite, non-finite, and verbless clauses in the present inquiry.
Example 2:
you should wait until the man is ready (S.1.1.507).

Table 1
Proportions between Phrasal and Clausal Amplification
(All Semantic Roles Together)

<table>
<thead>
<tr>
<th>Type of Amplification</th>
<th>All Amplified FVPs</th>
<th>Phrasal Amplification</th>
<th>Clausal Amplification</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.1.1</td>
<td>186</td>
<td>173</td>
<td>13</td>
</tr>
<tr>
<td>S.1.3</td>
<td>184</td>
<td>165</td>
<td>19</td>
</tr>
<tr>
<td>S.1.5</td>
<td>221</td>
<td>200</td>
<td>21</td>
</tr>
<tr>
<td>S.1.6</td>
<td>179</td>
<td>157</td>
<td>22</td>
</tr>
<tr>
<td>S.1.8</td>
<td>168</td>
<td>133</td>
<td>35</td>
</tr>
<tr>
<td>All texts (No.)</td>
<td>938</td>
<td>828</td>
<td>110</td>
</tr>
<tr>
<td>All texts (%)</td>
<td>100.0</td>
<td>88.2</td>
<td>11.8</td>
</tr>
</tbody>
</table>

Table 1 indicates that in the examined material the overall proportion between phrasal and clausal amplification is approximately 88% versus 12%, with phrasal amplification being unambiguously dominant in all analysed texts, even when taken separately. My results, indicating that subordinate clauses of T or S are not frequent, may lend further support to Urbanová's statement (1984.14) that "in conversation the total frequency of subordinate clauses is low, the typical syntactic structure being simple and compound sentences and a characteristic feature what we call loose coordination".

4.1 Phrasal and Clausal Amplification with Regard to Semantic Roles of Adverbials

Let me now comment on the differences between phrasal and clausal amplification with regard to their semantic roles. The details connected with the former and those connected with the latter can be drawn from Table 2 and Table 3 below respectively. These tables indicate that temporal amplification is dominant within both phrasal and clausal amplification. It represents 48% of all phrasal amplification and as many as 73% of all clausal amplification.

From the very beginning it must be stated that for the results connected with semantic roles, adverbials are counted according to the number of FVPs which they complement. Therefore, when two or more adverbials co-occur with one FVP, they are considered as one occurrence of some type of spatial and/or temporal amplification, as in Example 3, which comprises two prepositional phrases, one expressing T and the other expressing S, listed in Table 2 as phrasal amplification in the column under "Time & Space".
Some notes on realization types of spatial and temporal adverbials...

Example 3:
after seven years they ought to chuck her out in the world (S.1.3.290-1).

Table 2
Phrasal Amplification according to Semantic Roles of Adverbials

<table>
<thead>
<tr>
<th>Semantic Role</th>
<th>Time</th>
<th>Space</th>
<th>Time &amp; Space</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.1.1</td>
<td>84</td>
<td>64</td>
<td>25</td>
<td>173</td>
</tr>
<tr>
<td>S.1.3</td>
<td>82</td>
<td>63</td>
<td>20</td>
<td>165</td>
</tr>
<tr>
<td>S.1.5</td>
<td>111</td>
<td>68</td>
<td>21</td>
<td>200</td>
</tr>
<tr>
<td>S.1.6</td>
<td>68</td>
<td>63</td>
<td>26</td>
<td>157</td>
</tr>
<tr>
<td>S.1.8</td>
<td>55</td>
<td>67</td>
<td>11</td>
<td>133</td>
</tr>
<tr>
<td>Total (No.)</td>
<td>400</td>
<td>325</td>
<td>103</td>
<td>828</td>
</tr>
<tr>
<td>Total (%)</td>
<td>48.0</td>
<td>39.0</td>
<td>13.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 2 indicates that with phrasal amplification there is a greater balance in the frequency of occurrence between adverbials of T (48%) and those of S (39%) than there is with clausal amplification (compare with Table 3 below). Co-occurrences of T and S adverbials, amounting only to 13% of all phrasal amplification under investigation, are represented mainly by two adverbials, one of T and one of S, as in Example 3 above. More complicated structures, comprising, for instance, three adverbials are not exceptional in the examined material at all, as can be seen from the following example:

Example 4:
and then I happily sat in college for two years (S.1.5.939).

The overwhelming majority of temporal amplification is particularly visible within the individual semantic roles of clausal amplification because, as indicated in Table 3 below, subordinate clauses of S are very rare, their total amount in the examined data of 25,000 words being only four clauses, one of which is shown below:

Example 5:
he took Sam and I back to his to where he was living (S.1.6.89).

Moreover, in text S.1.8 not a single occurrence of an adverbial clause of S has been found.

The above result that holds for spatial amplification realized by clauses is in sharp contrast to 106 subordinate clauses of T, 80 occurrences being listed under the label "Time" and 26 under the label "Time & Space" in Table 3. The two last-mentioned cases are illustrated below respectively:
Example 6:
*he couldn't graduate *till he was twenty-one* (S.1.6.60-1);

Example 7:
*he came here when* he was *just after forty* (S.1.6.615-616).

Table 3
Clausal Amplification according to Semantic Roles of Adverbials

<table>
<thead>
<tr>
<th>Semantic Role</th>
<th>Time</th>
<th>Space</th>
<th>Time &amp; Space</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.1.1</td>
<td>10</td>
<td>1</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>S.1.3</td>
<td>12</td>
<td>1</td>
<td>6</td>
<td>19</td>
</tr>
<tr>
<td>S.1.5</td>
<td>15</td>
<td>1</td>
<td>5</td>
<td>21</td>
</tr>
<tr>
<td>S.1.6</td>
<td>15</td>
<td>1</td>
<td>6</td>
<td>22</td>
</tr>
<tr>
<td>S.1.8</td>
<td>28</td>
<td>0</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td><strong>Total (No.)</strong></td>
<td><strong>80</strong></td>
<td><strong>4</strong></td>
<td><strong>26</strong></td>
<td><strong>110</strong></td>
</tr>
<tr>
<td><strong>Total (%)</strong></td>
<td><strong>73.0</strong></td>
<td><strong>4.0</strong></td>
<td><strong>23.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

It is worth mentioning that the semantic role represented by the combination of T & S adverbials in the above table, amounting to 26 occurrences, is realized in each case by a subordinate clause of T having some spatial amplification expressed by a phrase, occurring either in the superordinate clause on which a subordinate clause of T is dependent, as in Example 7 above, or in the subordinate clause of T itself, as the following example suggests:

Example 8:
*when you come somewhere like here you want to be sort of recognized* (S.1.5.994-997).

The results presented in Table 3 are in agreement with the aforementioned tendency that the frequency of occurrence of subordinate clauses in conversation is very low (Urbanová 1984.14). It emerges from the above table that when subordinate clauses of T or S occur in authentic face-to-face conversation, then clauses of time are more frequent than clauses of space. It is argued that the higher frequency of occurrence of temporal clauses is due to the fact that for spatial amplification the most convenient and therefore most frequent realization type of all is the prepositional phrase, particularly because many different spatial notions can be clearly specified through the respective prepositional meanings. This issue will be discussed below.

Table 4 presents the overall proportions between phrasal and clausal amplification within the individual semantic roles under investigation. My results in this table are indicated only in percentages in order to show them as clearly as possible. Moreover, all the analysed texts are taken as a whole because their proportions between phrasal and clausal amplification are similar.
Table 4
Overall Proportions between Phrasal and Clausal Amplification with Regard to Semantic Roles of Adverbials

<table>
<thead>
<tr>
<th>Type of Amplification</th>
<th>Phrasal A</th>
<th>Clausal A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>83%</td>
<td>17%</td>
</tr>
<tr>
<td>Space</td>
<td>99%</td>
<td>1%</td>
</tr>
<tr>
<td>Time &amp; Space</td>
<td>80%</td>
<td>20%</td>
</tr>
</tbody>
</table>

To summarize, phrasal amplification is preferred to clausal amplification above all with adverbials of space, where the frequency of occurrence is as high as 99%. This result is due to the fact that spatial clauses are almost nonexistent in the examined texts.

4.2 Obligatory and Optional Adverbials with Regard to Their Semantic Roles

Let me now turn to the distinction between syntactically obligatory and syntactically optional adverbials. It must be emphasized that this distinction has been applied to phrasal amplification only, because in the analysed texts not a single occurrence of a temporal or spatial clause functioning as obligatory complementation of a FVP has been found. This fact is due to the overall very low frequency of adverbial clauses of S, as indicated in Table 3 above. However, such a result does not hold for the frequency of occurrence of spatial amplification expressed by phrases, which is much higher and its occurrence as obligatory complementation of verbs can be illustrated by the following examples:

Example 9:
I'm on the top of the range (S.1.1.410);

Example 10:
I mean I refused to go to university (S.1.5.1003).

As to temporal amplification, which is generally more common than spatial amplification in my data, the frequency of its occurrence as obligatory complementation is rather low, even with phrases. One token of such an adverbial is presented below:

Example 11:
it may take a hell of long time to come (S.1.1.83).

The above examples illustrate what is understood by syntactic obligation of adverbials. However, syntactically obligatory adverbials can occur as obligatory complementation only with certain semantic types of verbs, for instance, certain verbs of movement require certain adverbials of space (see Example 10) or certain verbs of duration require certain adverbials of time...
(see Example 11), otherwise the clause in which these verbs occur is incomplete and grammatically unacceptable, as would be the case with the above-mentioned examples.

To put it briefly, certain verbs, when used in the relevant sense, such as the verb *to take* in Example 11 above, require some complementation by adverbials. These adverbials are considered obligatory because they are needed for the clause structure in order to be grammatically acceptable.

In order to illustrate the proportions between obligatory and optional adverbials as clearly as possible, my results in Table 5 below are presented both in actual numbers and in percentages of occurrence and all the analysed texts are taken as a whole. Moreover, the distinction between optional predicational and optional sentential adverbials has been applied, too (compare with Note 3 above).

It is evident that obligatory adverbials of S are unequivocally dominant in the examined material. They represent about 44% of all spatial amplification expressed by phrases. Their actual total amount, however, is even higher because in this inquiry in all the cases in which T and S adverbials co-occur and in which one of them functions as an obligatory sentence element, it is always the adverbial of S that represents obligatory complementation of a verb, whereas the adverbial of T is omissible in such a co-occurrence, as in:

**Example 12:**

*I haven't been in the academic world long enough or widely enough* (S.1.3.1182);

**Example 13:**

*I tried to go to America earlier this year* (S.1.5.1044).

Although the highest number of adverbial phrases express time (400 occurrences), the frequency of their obligatory occurrence in the analysed texts is very low (28 occurrences). Consequently, it can be stated that temporal adverbials in spite of being generally more frequent than spatial adverbials in my data do not frequently represent obligatory complementation of verbs. Viewed from a different standpoint, there are few verbs that require complementation by temporal adverbials when used in the relevant sense (e.g. *to be, to take, to spend, to last*).

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6 The verbs *to last* and *to take* are listed in Quirk et al. (1175ff) as “more exceptional cases of verbs with adverbial complementation, followed by an adverbial of measure (duration): *The haymaking took/lasted (for) a week.* In the case of *take* the duration adverbial is obligatory, since the verb entails the completion of the task. In the case of *last*, the adverbial is omissible in such examples as: *The hot weather won’t last.*”

7 According to Quirk et al. (541), “with some verbs, noun phrases as expressions of time duration can be treated as direct objects”, as in the following example: *The committee took (up/spent an hour on mere preliminaries*. In the present analysis, however, such cases are treated as obligatory adverbials (see Example 11).

8 It must be stressed, however, that it depends on the relevant co-text whether a particular adverbial functions as an obligatory sentence element. For instance, with a direct *wh*-question *when did you try to go to America*, a complete answer could be *I tried this year.*
This result is in contrast to spatial adverbials (325 occurrences), where the frequency of obligatory occurrence reaches as many as 44% of all spatial adverbials expressed by phrases (144 occurrences). In connection with some temporal notions, illustrated by Examples 12 and 13 above and represented in Table 5 under the label “Time & Space”, obligatory spatial adverbials are also considerably frequent, having 54 occurrences in the analysed material.

Table 5
Comparison between Obligatory and Optional Adverbials according to Their Semantic Roles

<table>
<thead>
<tr>
<th>Obligatoriness</th>
<th>Obligatory Adverbials</th>
<th>Optional Adverbials</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Predicational</td>
<td>Predicational</td>
<td>Sentential</td>
</tr>
<tr>
<td>Semantic Role</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Space</td>
<td>144</td>
<td>44.0</td>
<td>88</td>
</tr>
<tr>
<td>Time</td>
<td>28</td>
<td>7.0</td>
<td>56</td>
</tr>
<tr>
<td>Time &amp; Space</td>
<td>54</td>
<td>52.5</td>
<td>41</td>
</tr>
<tr>
<td>Total</td>
<td>226</td>
<td>27.3</td>
<td>185</td>
</tr>
</tbody>
</table>

The number of verbs requiring some spatial complementation is much higher (198 occurrences) than that of verbs requiring some temporal complementation (28 occurrences) in my data. Consequently, it can be concluded that there are many verbs the meaning of which is incomplete without a spatial adverbial. Such a result can be supported by the statement taken from Quirk et al. (1985.506) “the number of verbs having sufficient semantic weight in themselves to require no further complementation is quite small”. Moreover, it can be added that when spatial and temporal complementation is compared, the overwhelming majority of required adverbial complementation is represented by adverbials of space.

Let me now turn to some results drawn from the analysis of optional adverbials. As stated in Part 3 above, obligatory adverbials are always predicational, whereas optional adverbials comprise not only sentential, but also predicational adverbials. In order to distinguish between optional sentential and optional predicational adverbials, three criteria have been applied in this inquiry:

1. integration of an adverbial in the syntactic structure of the clause;
2. semantic scope of an adverbial;
3. mobility of an adverbial within the clause.

Table 5 indicates that within the category of optional spatial adverbials there is a considerable balance in the frequency of occurrence between adverbials that are predicational and those that are sentential, both illustrated by the examples that follow, respectively:
Example 14: 
_Mrs Dodgson will walk on my right_ (S.1.3.58); 

Example 15: 
_I wasn’t particularly scared at the interview_ (S.1.3.467). 

Since even obligatory temporal adverbials, being always predicational, are not frequent, it was highly predictable that _optional temporal adverbials with a predicational scope were not found to be frequent either_ (56 occurrences) and therefore less common than _optional temporal adverbials with a sentential scope_ (316 occurrences) in the examined texts. Two tokens of optional temporal adverbials follow, the first representing an adverbial with a predicational scope and the other an adverbial with a sentential scope: 

Example 16: 
_this chap was a little bit junior to me and was still the sixth form_ (S.1.6.302-304); 

Example 17: 
_I must have looked at him for some time_ (S.1.6.52). 

As for co-occurrences of T and S adverbials, Table 5 above indicates that _optional predicational adverbials are more frequent_ (41 occurrences) than _optional sentential adverbials_ (8 occurrences). _When there is a co-occurrence of optional adverbials of T and S in my data and when one of them has a predicational scope, it is usually the adverbial of S that is considered predicational, whereas the adverbial of T has a sentential scope in such a co-occurrence, as in Example 18 below. Such a case is counted as an optional predicational adverbial of T and S in Table 5 above in contrast to co-occurrences of exclusively optional sentential adverbials of T and S, shown in Example 19 below._ 

Example 18: 
_and one day I’m sure he’ll fall asleep on the platform_ (S.1.6.1072); 

Example 19: 
_I think don’t think women could take degrees until — as late as that — in Exton_ (S.1.3.946-7). 

Let me briefly comment on _the relationship between obligatory adverbials of all semantic roles and their realization types_, as presented in Table 6. All the realization types of phrasal amplification, as introduced in Part 3 above, occur as obligatory complementation of verbs in the examined material. Based on my analysis, it can be maintained that it is definitely the _prepositional phrase that ambiguously dominates_, reaching 64% of all obligatory adverbials of any semantic role. This result can be foreseen, because, as stated above, the most frequent obligatory adverbial complementation of verbs is expressed by _spatial adverbials_, which are in the majority of cases realized by prepositional phrases. 

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9 Although the present analysis does not draw any distinction between temporal adjuncts and temporal subjuncts. it is worth mentioning that not all adverbials that can be labelled as temporal subjuncts according to Quirk et al. (566-612) are necessarily predicational.
Table 6
Realization Types of Obligatory Adverbials with Regard to Their Semantic Roles

<table>
<thead>
<tr>
<th>Realization Type</th>
<th>Phrasal Amplification</th>
<th>Total No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semantic Role</td>
<td>Closed-Class Adverbs</td>
<td>Open-Class Adverbs</td>
</tr>
<tr>
<td>Space</td>
<td>39</td>
<td>1</td>
</tr>
<tr>
<td>Time</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Time &amp; Space</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>Total (No.)</td>
<td>56</td>
<td>5</td>
</tr>
<tr>
<td>Total (%)</td>
<td>25.0</td>
<td>20.0</td>
</tr>
</tbody>
</table>

4.3 Realization Types of Spatial and Temporal Adverbials with Regard to Their Semantic Classification

In accordance with some previous research on adverbials (Quirk 1984, 1995, Lindquist 1986), the present study distinguishes between spatial adverbials of position, direction, and distance, while temporal adverbials are further divided into those expressing position, duration & span, frequency, and relationship. Both sets will be exemplified below and related to their realization types.

It must be stressed, however, that the results presented in Table 7 and Table 8 are based only on the analysis of single occurrences of either spatial or temporal adverbials expressed by phrases. This fact accounts for the differences between numbers of items listed in these tables on the one hand and those listed in Table 1 and Table 2 above on the other hand. Moreover, in order to indicate all the relationships as clearly as possible, all the analysed texts are considered as a whole.

Table 7
Realization Types of Spatial Adverbials with Regard to Their Semantic Classification (Position, Direction, and Distance)

<table>
<thead>
<tr>
<th>All Texts Together</th>
<th>Semantic Role</th>
<th>Total No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realization Type</td>
<td>Position</td>
<td>Direction</td>
</tr>
<tr>
<td>Closed-Class Adverbs</td>
<td>54</td>
<td>22</td>
</tr>
<tr>
<td>Open-Class Adverbs</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Noun Phrases</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Prepositional Phrases</td>
<td>136</td>
<td>85</td>
</tr>
<tr>
<td>Total (No.)</td>
<td>192</td>
<td>107</td>
</tr>
<tr>
<td>Total (%)</td>
<td>63.4</td>
<td>28.3</td>
</tr>
</tbody>
</table>
Table 7 shows that with spatial amplification it is definitely the prepositional phrase that dominates, having 221 occurrences, while open-class adverbs have zero occurrence\(^{10}\) and noun phrases are represented only by 4 occurrences in my data.

The high frequency of occurrence of prepositional phrases can be accounted for by the fact that a variety of different spatial notions can be conveniently specified through the respective prepositional meanings. This holds above all for the semantic category of — position (136 occurrences) and direction (85 occurrences), shown in the following examples, respectively:

**Example 20:**
*I think the hill's lovely behind the trees* (S.1.8.711-713);

**Example 21:**
*it'll it'll have to go through the council of course* (S.1.1.1003).

The semantic category of — position is frequently expressed also by closed-class adverbs (54 occurrences), which are otherwise commonly used to express direction (22 occurrences). The following examples show the two last-mentioned cases, respectively:

**Example 22:**
*they are probably teaching elsewhere* (S.1.5.781);

**Example 23:**
*I went upstairs* (S.1.5.844).

Distance, being expressed least frequently of all semantic classes of spatial adverbials, is realized either by noun phrases or by closed-class adverbs, the former being illustrated by the example that follows:

**Example 24:**
*and we walked the whole length of this vast dining-hall at this snail's pace with the president going ahead head up like this* (S.1.3.631-9).

In contrast to spatial amplification, there is more balance between the individual realization types of temporal amplification, with the relatively high frequency of occurrence of noun phrases (53 occurrences) and particularly that of closed-class adverbs (177 occurrences). The frequency of occurrence of closed-class adverbs expressing time is even higher than that of prepositional phrases (102 occurrences). Unlike to spatial amplification, temporal amplification has also been expressed by open-class adverbs, although in the examined data only in the minority of cases (27 occurrences).

Based on the fact that prepositional phrases can clearly and conveniently express different spatial meanings, notably position, it is predictable that also different temporal meanings, commonly expressed by figurative adaptation of

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\(^{10}\) It is argued that the zero frequency of open-class adverbs referring to space is due to the fact that hardly any open-class adverbs with a spatial meaning exist. Quirk et al. (516), when dealing with realization types of spatial adjuncts, mention only one adverb that can be considered as an open-class adverb, viz. *locally.*
spatial dimensions, are frequently realized by prepositional phrases. This is typical above all of — position (73 occurrences), as shown in the following example:

**Example 25:**
I should have started on the first of October (S.1.5.1070).

The semantic category of — position is also frequently expressed by open-class adverbs (18 occurrences), which are otherwise used to express frequency (8 occurrences), both being illustrated by the examples below, respectively:

**Example 26:**
he's recently moved I gather (S.1.6.110);  
**Example 27:**
and that's usually the clause analysis question (S.1.1.1091).

Table 8
Realization Types of Temporal Adverbials with Regard to Their Semantic Classification (Position, Duration & Span, Frequency, and Relationship)

<table>
<thead>
<tr>
<th>Realization Type</th>
<th>Semantic Role</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Position</td>
<td></td>
</tr>
<tr>
<td>Closed-Class Adverbs</td>
<td>46</td>
<td>177</td>
</tr>
<tr>
<td>Open-Class Adverbs</td>
<td>18</td>
<td>27</td>
</tr>
<tr>
<td>Noun Phrases</td>
<td>35</td>
<td>53</td>
</tr>
<tr>
<td>Prepositional Phrases</td>
<td>73</td>
<td>102</td>
</tr>
<tr>
<td>Total (No.)</td>
<td>172</td>
<td>359</td>
</tr>
<tr>
<td>Total (%)</td>
<td>48.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

My results verify that closed-class adverbs can express a variety of different temporal meanings, as distinguished within the present semantic classification of temporal adverbials. The most frequently expressed temporal meaning realized by closed-class adverbs is that of relationship, having as many as 64 occurrences in my data and being represented by two tokens in the example below:

**Example 28:**
and then vanishes again quietly (S.1.5.776).

Of the remaining semantic roles of temporal adverbials realized by closed-class adverbs, both frequency (see Example 29) and — position (see Example 30) are common in the analysed texts.

**Example 29:**
and very often you get a student who . probably does understand the passage (S.1.1.982-3);
Example 30:
well. I'm [s] I'm singing tonight or something (S.1.5.312-213).

In contrast to spatial adverbials, noun phrases are considerably more frequent with temporal adverbials, reaching the highest frequency of occurrence with — position (35 occurrences), but being relatively frequent also with duration (15 occurrences). The examples that follow represent the two last-mentioned cases, respectively:

Example 31:
and one did work Saturdays (S.1.5.296);
Example 32:
cos it draws your eye all the time (S.1.8.715-716).

The relatively high frequency of noun phrases with temporal meanings (53 occurrences) in my data is in accordance with Quirk’s statement about the differences between spoken and written English (1995.127): “the somewhat higher than random proportion of noun-phrase adverbials in speech (1.5 to 1) corresponds to the intuition that while both (a) and (b) are fully acceptable, (b) is more colloquial in tone:

On the following day, he left America.
The following day, he left America.”

The highest number of noun phrases in my data express — position, as in Example 31 above.

5 Conclusions

It can now be stated that the three main criteria, grammatical function, semantic role, and realization type, used in the above investigation of adverbials are interdependent, which is reflected in the results drawn from their analysis.

The basic distinction within realization types of adverbials is that between phrasal and clausal amplification. With regard to their semantic roles there are striking differences: within phrasal amplification there is a considerable balance in the frequency of occurrence between phrases expressing temporal and those expressing spatial meanings, whereas clausal amplification is almost exclusively temporal, hardly any clauses of space occurring in the analysed texts. The reason is the high frequency of occurrence of prepositional phrases, capable of expressing a wide variety of notions through the respective prepositional meanings and thus being the main realization type of all, notably with spatial amplification.

Prepositional phrases are typically used to express — position and direction, the former being the most frequent semantic category of all spatial adverbials. They are commonly realized also by closed-class adverbs, which are otherwise typical of temporal adverbials, because they can realize all their possible semantic categories, particularly relationship and frequency. Unlike spatial adverbials, temporal adverbials are also frequently realized by noun phrases and
sometimes even by open-class adverbs, which are non-existent with spatial amplification in my data.

Temporal adverbials, although generally more frequent in the analysed texts, hardly ever represent obligatory complementation of verbs. On the contrary, many verbs requiring some adverbial complementation in order to be grammatically acceptable, combine with spatial adverbials, realized in this case above all by prepositional phrases. Obligatory adverbials, represented mostly by spatial adverbials, are always predicational. Consequently, when spatial and temporal adverbials are contrasted with regard to their semantic scope, it can be stated that temporal adverbials tend to have a sentential rather than predicational scope, which means that they are less embedded in the clause structure of conversational English.

Further research relating the above-applied criteria to the position of adverbials in the clause structure will throw more light upon the way in which spatial and temporal adverbials function in conversational discourse.

REFERENCES