



Semantic Roles of Adverbial Participial Clauses

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Adverbial participial clauses are often considered semantically indeterminate. Nevertheless, their semantic roles may be determined jointly by semantic and pragmatic factors. Four types of participial clauses (with/without an overt subject, with/without a subordinator) will be examined with respect to their degree of integration into the superordinate clause, and to the position on a scale of "informativeness" for semantic relations. The "more informative" the semantic role of the adjunct is, the stronger its syntactic ties to the superordinate clause are. The subordinators introducing subjectless clauses differ from those introducing absolutes in the way they contribute to the semantic and syntactic ties.

In the present article we would like to focus on the semantic roles performed by four types of participial adverbial clauses: subjectless clauses either without a subordinator, i.e. non-augmented (ex. 1), or introduced by a subordinator (ex. 2), and absolutes – non-augmented (ex. 3) or introduced by the subordinators *with* and *without* (ex. 4).

- [1] He sat in the office *having a cup of tea*. (EA0,1971)
- [2] ... they can acquire new characteristics *if infected by a plasmid*. (AE7,391)
- [3] ... *women being the most important resource that men have*, a system for exchanging women always underlies the social control of marriage. (CMA,1121)
- [4] *With the challenge to the extra-legal procedures having failed in the English courts*, the matter was referred to Strasbourg ... (ASB,926)

The approaches to the possibility of determining the semantic role performed by a participial adverbial clause may be represented here by two extremes. Quintero claims that out of nonfinite adverbial clauses only those introduced by subordinators may be studied because "ascribing a function to an asyndetic adverbial clause can only be based on a possible implied relationship between the entities represented in the clauses and suggested by the context in which they appear. [...] this type of constructions should be analysed, not as adverbial

clauses, but as chains of events presented iconically and, therefore, they should be excluded from a study of adverbial clauses" (Quintero 2002: 82). The stand taken here is closer to Kortmann's, according to whom "the range of interpretations that the addressee views as being available to a given free adjunct/absolute is restricted and identical with the set of interpretations that emerges when all instances of intersubjective variation for this adjunct/absolute are taken together" (Kortmann 1991: 116).

The extent of semantic indeterminacy that subjectless participial clauses and absolutes display thus seems to be subject to certain constraints. The first of them is constituted by the degree of integration of the adverbial clause into the sentence. Like other forms of the adverbial, participial clauses may be either integrated into the clause on the same level as other clause elements – as obligatory complements of the verb or as optional adjuncts – or peripheral to the clause. Being peripheral entails primarily not being semantically integrated in the sentence, having a scope that extends over the sentence as a whole. Non-integrated adverbial clauses introduce into the sentence the speaker/writer's comment on the style and form or content of what he is saying (disjuncts, ex. 5), on his point of view (viewpoint subjuncts, ex. 6), or on the way the text is organised ((near-)conjuncts, ex. 7).

- [5] *Generally speaking*, organisms in warm, shallow seas ... have been relatively vulnerable to extinction, ... (CMA,556)
- [6] The importance of looks becomes even more pronounced *when considering the types of occupations to which girls, often unrealistically, aspire...* (B17,1415)
- [7] *Having reviewed the main kinds of social-deictic information that are grammaticalized by different languages*, we may now consider where in grammatical systems such distinctions are encoded. (J2K,828)

The great majority (about 95 per cent) of participial adverbial clauses are integrated in sentence structure. These adjuncts may perform a variety of semantic roles. According to Kortmann (1991: 119), "the process of identifying some logical role(s) for a given free adjunct/absolute is essentially determined by a scale on which the semantic relations in principle available to these construction types can be arranged according to their informativeness or, alternatively, specificity" (cf. Figure 1). In Kortmann's terminology semantic relations are "more informative" if they require more co-/contextually substantiated evidence or general knowledge on the part of the reader to be identified as the semantic relation obtaining between the proposition of the matrix clause and the proposition denoted by the adjunct. The position of the adjunct on the scale may be determined, or the range of interpretive options narrowed down, jointly by semantic and pragmatic factors, which include (a) the semantic class of the predicate verb of the participial and the matrix clause and its form, (b) the question whether the super- and subordinate clause refer to the same event, (c) the temporal relation between the propositions of the matrix and the adverbial clause, (d) the position of the adjunct with respect to the superordinate clause, (e) the presence of adverbials and subordinators, as well as (f) more general factors of shared background knowledge.

most informative relations	↑	concession	
		contrast	
		condition	
		instrument	purpose
		reason	result
		anteriority (time before)	posteriority (time after)
least informative relations	↓	manner	
		explanation (exemplification, specification)	
		simultaneity (same time)	
		accompanying circumstance	

Fig. 1 Scale of informativeness for semantic relations (Kortmann 1991: 121)

Not much needs to be presupposed to identify the relation obtaining between the proposition of the matrix clause and the adjunct as one of the “less informative” semantic relations. The first condition on propositions between which the relation of accompanying circumstance, the “least informative” relation, holds seems to be the unity of space and, particularly, time. The same condition, however, obtains for other relations: simultaneity, manner etc. What distinguishes accompanying circumstance from simultaneity is that the accompanying circumstance interpretation is more likely to be inferred if the verb in the adjunct clause is stative: cf. ex. 8 (accompanying circumstance) with the following ex. 9, whose interpretation is more likely to be one of temporal sequence. Accompanying circumstance may be understood as a state accompanying the event/state in the matrix clause with no clue being provided as to the specification of the relation between the two.

[8] She then went to bed *feeling more relaxed*, (B30,398)

[9] She climbed the stairs to her room, then undressed and went to bed, *wetting the pillow with her tears* (CB5,3324)

Presented with examples like 10 and 11, where the matrix clause and the adjunct predicates are dynamic and simultaneous, we have to apply another criterion concerned with the mutual relation of the two predicates – viz. whether they refer to the same action/event. The difference between a manner adjunct and a temporal simultaneity adjunct consists in the fact that the former refers to the same action as the matrix clause while the latter and its matrix clause describe two separate actions. Thus in ex. 10 the manner (content) of shouting is described, while in ex. 11 another action (i.e. searching through a tin of needles) happens simultaneously with speaking. The predicate verbs in the matrix clause and in the manner adjunct are typically in a relation of synonymy or hyponymy.

[10] They shouted from their car *telling him to cycle properly*. (ASB,357)

[11] ... so that I can say, *searching through a tin of needles for a number 9*, either: ... (J2K,722)

The semantic relation of hyponymy or synonymy between the predicates of the matrix clause and the adjunct is typical also of explanatory adjuncts. They provide an explanation of the matrix clause proposition or a part of it by rewording it, specifying it, or providing examples. According to Kortmann (1991: 167) “where the adjunct/absolute adds details to some event, this relation may sometimes be difficult to distinguish from manner.” Nevertheless, usually an expression like *that is, for example, namely, in particular* can be used to introduce the adjunct of explanation (the relation between the predicates of the matrix clause and the adjunct is

parallel to that between appositive noun phrases). The explanatory adjunct is often employed to clarify an unusual or ad hoc use of a term (ex. 12).

- [12] A number of feminists ... find it useful to subject words to a kind of archaeological excavation, *turning to the etymological dictionaries to find out where a particular word came from, what it meant and how it has changed.* (CGF,1294)

Another aspect of the relation between predicates of the matrix clause and the adjunct that helps determine the semantic role of the adjunct is their temporal relation. The relation may be indicated by the form of the participial predicate (ex. 13), and supported by adverbials and the mutual order of the clauses. This is particularly true about asyndetic participial clauses of posteriority (ex. 14), which are all placed in end-position with respect to the matrix clause.

- [13] *Having asked that she should not be disturbed* she had taken the overdose in her room. (B30,886)
 [14] They continued to provide both practical help with job hunting and emotional support until people were placed, *staying with them for up to a year afterwards when this was necessary.* (EA0,1711)

The position of the adjunct with respect to the superordinate clause narrows the interpretive possibilities not only for temporal adjuncts but also for other, "more informative" semantic relations. We can speak about the iconicity of clausal order in participial adjuncts which express the semantic relations of result (ex. 15) and purpose (ex. 16) – the adjunct is invariably placed in end-position. If participial conditional clauses are not introduced by subordinators, they prefer initial position (ex. 17).

- [15] Subaxial subluxation is a late development; it often affects several vertebrae, *leading to a "stepladder" deformity.* (EA0,101)
 [16] The bill would also add 1.3 million acres to Death Valley and 200,000 acres to Joshua Tree national monuments, *transforming both into more tightly controlled national parks.* (EAK,188)
 [17] *Viewed from inside the horizon* the external universe would appear equally strange. (H8K,1517)

Another factor may be mentioned in connection with conditional clauses: the form of the matrix clause predicate. The superordinate clause predicate comprises a past (or past perfective) modal if the condition is hypothetical.

The interpretation of ex. 15 as adverbial of reason is supported also by the choice of a particular verb as the participial predicate (*leading to*). The same applies in clauses of instrument (ex. 18), whose predicate is often formed by the verbs *using*, *applying* and synonyms, and contrast (ex. 19), with the verb *preferring*.

- [18] Now, *applying Kepler's third law to the pulsar orbit*, we obtain <formula> (H8K,1411)
 [19] One of these reasons is the growing popularity of a type of survey that does not attempt to study representative populations, *preferring to focus on the more "natural" peer groups or social networks which speakers establish.* (CGF,377)

Two obvious indicators of semantic roles have been neglected so far: the adverbials and subordinators. Their importance in subjectless adjuncts increases with the increasing degree of "informativeness": in the following example of a conditional-concessive participial clause the relation is signalled both by the subordinator *even if* and by the adverb *still* in the matrix clause.

- [20] *Even if displaced through three time zones eastwards*, it would still infer it was over the Atlantic, and home in the wrong direction. (GU8,817)

In subjectless adjuncts the role of subordinators is to narrow the search domain for interpretations of the particular adjunct. Accordingly, augmented free adjuncts are generally preferred to the non-augmented ones for the expression of the "more informative" semantic relations (where augmentation is optional). In absolutes, the role of the subordinator seems to be different, viz. that of providing a link between a matrix clause and an absolute semantically detached from it (another cohesive tie occurring in subjectless adjuncts – subject attachment – is not employed to the same extent in absolutes). Therefore augmentation is most likely to accompany the absolutes expressing the weakest semantic relations: about 35 per cent of augmented absolutes cannot be assigned a role "more informative" than accompanying circumstance (ex. 21).

- [21] In this case the treatment team may have to accept that the best it can offer is long-term support and encouragement, *with treatment sessions being non-contingent on repeats*. (B30,332)

Even if all the above factors are taken into consideration, differences between the interpretations of the participial adjunct by individual readers (or between several readings by the same person) may arise on the one hand due to the differences in background knowledge, and on the other due to the fact that although a reader may be aware of a possible "more informative" interpretation, he may still assign the adjunct a "less informative" role. Nevertheless, however paradoxical this may seem, it is the dependence on shared "world knowledge" necessary for the semantic role to be inferred that may account for the occurrence of free adjuncts and absolutes in academic writing, "a register often noted for the precision of its communication of information" (Biber 1999: 825). In contrast to other registers, the author of a scientific article or an academic book has a particular type of reader in mind, which makes it possible for the writer to presuppose a certain extent of shared knowledge in a relatively narrow field.

The range and distribution of semantic roles performed by participial clauses may be compared with that of finite adverbial clauses (Table 1). There is a general tendency to express "more informative" relations by finite clauses, where apart from a broader range of subordinators the interpretation of the semantic role is facilitated by the presence of the subject and the predicate finite verb, which can express the grammatical categories not available to participles. Approximately 80 per cent of finite clauses express "more informative" relations. "Less informative" relations are the domain of participial adjuncts (cf. Figure 2). However, there are differences between subjectless adjuncts and absolutes. While more than a half of subjectless adjuncts (whether augmented or not) express "more informative" semantic relations, the ratio between weaker and stronger roles is reversed for absolutes, which convey "less informative" types of meaning in more than 60 per cent of examples. As mentioned above, another difference between subjectless adjuncts and absolutes consists in the effect subordinators have on the semantic roles expressed by the participial adjunct.

From a more general point of view, it may be interesting to note here that the correlation observed between the placement of the adjunct on the scale of "informativeness" and its form seems to correspond to a more universal tendency valid cross-linguistically that "the closer the semantic relationship between two propositions is, the stronger the syntactic link joining them is. That is, the closeness of the semantic relationship between the units in a juncture is mirrored in the tightness of the syntactic relationship between them" (Van Valin, LaPolla 1997: 480).

Table 1 The distribution of semantic relations (in per cent) within five types of adjunct clauses. The percentage of clauses with a given type of predicate performing the particular function is also marked by degrees of grey colour according to the scale below.

0%	0.1-5.0 %	5.1-10.0 %	10.1-15.0 %	15.1-20.0 %	20.1-25.0 %	25.1-30.0 %	30.0% and above
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semantic relations		nonfinite participial clauses				finite clauses (967 clauses)
		subjectless (FA)		absolutes		
		non-augmented (372 clauses)	augmented (267 clauses)	non-augmented (65 clauses)	augmented (59 clauses)	
more informative	concession	1.9	12.4	0	0	11.8
	condition-concession	0.3	0.4	0	0	3.0
	contrast	1.9	1.9	9.2	6.7	5.1
	condition	5.6	9.0	4.6	1.6	23.5
	instrument	14.0	0	0	0	0
	purpose	1.6	0	0	0	2.4
	reason	12.8	0	9.2	8.7	18.1
	result	11.3	0	7.7	3.3	4.4
	time poster.	1.9	10.1	3.1	1.6	3.5
less informative	time anter.	7.8	28.8	4.6	3.3	8.8
	manner	9.7	2.2	0	8.7	3.8
	explanation	12.6	0		22.0	0
	time simult.	16.4		10.8	8.7	12.2
	accomp. circ.	2.2	0	18.5		0
not found in nf. clauses	respect	0	0	0	0	0.5
	place	0	0	0	0	3.2
total		100%	100%	100%	100%	100%

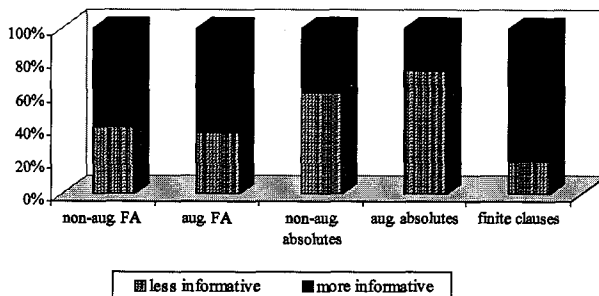


Fig. 2 "More informative" vs. "less informative" semantic relations expressed by adjuncts

Sources

The data cited herein have been extracted from the British National Corpus World Edition, December 2000 Release (CD), Published by the Humanities Computing Unit of Oxford University on behalf of the BNC Consortium. Sixteen texts from the written domain were selected for the analysis: texts assigned the value of 'natural and pure sciences', 'social science', and 'arts'. The bibliographic data following the examples refer to the code of the text in British National Corpus and the sentence number in the text.

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