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# The construal of simultaneity in English with special reference to *as*-clauses\*

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This paper investigates how simultaneity between two events, a main clause event and a subordinate clause event, is coded in English. It focuses on *as*-clauses but also contrasts them with *while*-clauses. It argues that *as*-clauses evoke path events, i.e. events susceptible to change. It also points out that *as*-clauses define a family resemblance network in that different, though related, variants can be recognised. *While*-clauses are argued to generally evoke larger and more stable temporal configurations, e.g. properties. The different behaviour of *as*-clauses and *while*-clauses is related to the different lexical status of *as* vs. *while*. The former is analysed as a subordinator unspecified for temporality whereas the latter is regarded as a temporal subordinator by default. Finally, the use of progressive aspect is discussed. It is argued to function as a “slow motion” marker in *as*-clauses and/or to signal a contrast between the temporal expanses of the main and *as*-clauses. By contrast, it takes on a transience-highlighting function in *while*-clauses.

**Keywords:** simultaneity, *as*-clause, *while*-clause, path event, property, progressive

## 1. Simultaneity clauses

Various explicit devices can be used to code simultaneity, i.e. total or partial temporal overlap, between two events (for an overview see Schmiedtová, 2004, Chapters 2 and 3 in particular). English can employ, for example, subordinators *as*, *while* and *when* (examples (1a-b) are from the British National Corpus, BNC for short, and are reported in Biber *et al.* 1999):<sup>1</sup>

- (1) a. An armed robber was mugged of his loot *as* he made his getaway. (BNC)
- b. She said that the pain was a little better after the pethidine she had been given and she was able to rest quietly *while* she waited to be taken to theatre. (BNC)

- c. **When** he was in the airforce he flew Tornado jets. (LDCE)

Simultaneity (or temporal) *as* and *while*-clauses are often compatible with additional semantic roles, see Biber *et al.* (1999, pp. 846–850). *As*-clauses can express cause as well as simultaneity, see (2a), and *while*-clauses can convey contrast as well as temporal overlap between two events, see (2b).

- (2) a. She kept her head down **as** she spotted the newsmen. (BNC)  
 b. Schools in the north tend to be better equipped, **while** those in the south are relatively poor. (BNC)

Very little non-formal research has been done on temporal, let alone simultaneity, clauses in English or other languages. Notable exceptions for English are Edgren (1971), Heinämäki (1978), Silva (1991), Morris (1996), and Declerck (1997). The present study aims to start filling this gap by concentrating primarily on *as*-clauses. Since, however, the behaviour of any linguistic item is better understood within a systemic view of grammar (see, for example, Taylor, 2004), *while*-clauses in particular will also be taken into consideration.

The paper is organised as follows. Section 2 shows that the most recent theoretical account of *as*-clauses, which relies on the distinction between monophase and multiphase events, i.e. Morris (1996), cannot be maintained. Consequently, Section 3 offers an alternative explanation. The behaviour of *as*-clauses, which is analysed alongside that of *while*-clauses, is accounted for by postulating different lexical semantics for the subordinators *as* and *while*. The latter, unlike the former, is regarded as an explicitly temporal subordinator (Section 3.1). This implies that verbal events found in *as*-clauses can be classified as paths, i.e. events susceptible to change, rather than properties (Section 3.2). By contrast, *while*-clauses evoke more stable temporal configurations. Section 4 suggests that *as*-clauses can also be analysed as outwards projecting backgrounds, i.e. backgrounds out of which main clause events are extracted. Section 5 further motivates the “path” label adopted for the description of events evoked by *as*-clauses. It shows that motion and change verbs are the most frequent verb types used in *as*-clauses. Further, it is argued that *as*-clauses define a network of schemas linked via family resemblance. Section 6 studies the occurrence of the progressive marker *-ing* in relation to *as*-clauses and *while*-clauses and points out that the different semantics for subordinators *as* and *while* correlate with different uses of the progressive. Progressive aspect in *as*-clauses is employed to “slow down” *as*-events, thus increasing imperfectivity, and/or to signal a contrast in temporal duration between the *as*-event and the main clause event. By contrast, the progressive marker is recruited to highlight transience in *while*-clauses. Finally, Section 7 draws the conclusions.

## 2. Negating the distinction between monophase and multiphase events

As Morris (1996) notes, among the interesting properties of *as*-clauses is the fact that if the *as*-event, i.e. the event denoted by the *as*-clause, is negated then the *as*-clause is interpreted exclusively in causal fashion. Example (3) below, based on Morris (1996), is not interpreted temporally but is taken to express just a causal relation between the event of Mary's not being at work and the event of Mary's reading books.

- (3) As she wasn't working, Mary spent most of her days reading books.  
(causal interpretation only)

*As*-clauses contrast in this respect with temporal *while*-clauses, which allow negation:

- (4) While she wasn't working, she spent most of her days reading books.  
(temporal interpretation possible)

Morris (1996) claims that the impossibility of negating temporal *as*-clauses follows from the distinction between "multiphase" and "monophase" events. A multiphase event is evoked when two successive instants of the event in question refer to different configurations (e.g. *As she grew older...*). A monophase event is one where two successive instants of the event (e.g. the event denoted by the posture verb *lie*)<sup>2</sup> evoke the same unchanging configuration. According to Morris, the temporal interpretation for *as*-clauses obtains if and only if a multiphase event is evoked (Morris, 1996, p. 420; see also Silva, 1991, p. 648 for a similar claim). If a monophase event is evoked, a causal reading ensues. Since not being at work in (3) does not obviously imply any opposition between two instances of the evoked event, we correctly expect only a causal interpretation to be possible for the relevant *as*-clause.

Although the notion of change will figure prominently in the rest of our discussion, it can be shown that Morris's explanation is not watertight. She explicitly states that temporal *as* "does not occur when the verbal event in its clause is of a static nature" (Morris, 1996, p. 419) and offers the following impossible examples (the examples contain no main clauses in Morris, 1996, hence the dots following each *as*-clause in (5)):

- (5) a. As you are here...  
b. As you know...  
c. As he wore a red sweater...

In fact, temporal *as* clauses do occur with stative events, as the following examples extracted from various sources (see the References section for details) show:

- (6) The wind whips round us **as we stand** on the seafront. (Morrall, 2003, p. 281)
- (7) He says it in a whisper, with his eyes upon her, **as she sits** at the window bent over her work. (Waters, 2002, p. 237)
- (8) The company commander then moves in **as Iman lies** wounded and helpless. (*The Guardian*, 24.11.2004, p. 2)
- (9) The bottle of Sylvaner from the cellar was cool and sweet. It reminded him even more of Heidi. [...] Her slow smile **as she watched** him. The quivering strength of her grip **as she held** him to her. (Millar, 2004, p. 197).
- (10) ... a day after eight blinging pieces of jewellery were snatched from his bedroom **as he slept** with his wife, Sharon, in their Buckinghamshire mansion. (*The Guardian*, 24.11.2004, p.3)
- (11) He pictured her laying on her bed back then, he sitting beside her, rubbing her belly **as she wore** panties and a cut off sleep shirt.  
([www.novelguides.com/ClassicNotes/Titles/wutheringheights/wwwboard/messages/2123.html](http://www.novelguides.com/ClassicNotes/Titles/wutheringheights/wwwboard/messages/2123.html))
- (12) My pager went off **as I was** on the train on Nov. 3.  
([www.suntimes.com/special\\_sections/transplant/cst-nws-liverone26.html](http://www.suntimes.com/special_sections/transplant/cst-nws-liverone26.html))

The verbs of posture *stand*, *sit* and *lie*, the verbs *watch*, *hold*, *sleep* and even *wear* are attested. They refer to static situations, i.e. they evoke monophasic events in Morris's terminology.<sup>3</sup> Further, stative *be* (*on the train*), see (12), is also possible, contrary to what one might expect on the basis of (5a). Admittedly, the more common pattern with *be on the train* has either a directional prepositional phrase immediately following the preposition's object (e.g. *That thought occurred to me again a couple days later as I was on the train to Hungary*) or a gerund plus directional phrase (e.g. *As I was on the train heading toward Highbury and Islington...*). It is debatable whether such examples with prepositional phrases count as genuine stative instantiations because of the presence of an explicitly directional component which implies change (see also the discussion of *walk* below). Further, the directional component may not be present in the syntax but still be active (to some degree) in the speaker's mind (see Lambrecht, 1994 for an overview of the notion of activation). After all, the very noun *train* may contribute to making the notion of motion (at least partially) salient. We conclude therefore that, perhaps with the exception of (12), there is no obvious sense in which the *as*-events above should be regarded as multiphasic. Despite this, they are compatible with a temporal interpretation, contrary to what Morris's theory predicts.<sup>4</sup> Of course, it remains to be explained why the examples in (5), if uttered out of the blue, may be difficult or even impossible to be interpreted temporally (especially in the case of (5a) and

(5b)). This issue, together with the impossibility of negative temporal *as*-clauses, is taken up again in Section 3.1 below.

An additional problem arises when we analyse examples like (13) and (14):

- (13) An embarrassment of produce becomes available to Caroline **as** she **walks** towards *The Mother's Finest* [...]. (Faber, 2003, p. 22)
- (14) 'Could it be William's?' she says **as** they **walk** up the Rackham path together. (Faber, 2003, p. 187)

(13) and (14) contain the same verb, *walk*, in their *as*-clauses. Nevertheless, the *as*-clause in (13) can be interpreted both temporally and causally while (14) seems to be amenable only to a temporal reading. The *as*-events could be classified as multiphase since two successive instants of those events imply different spatial positions for the subject referent. But if this is so, then only a temporal interpretation should obtain. According to Morris's theory, a causal interpretation requires a monophasic event. Alternatively, we could perhaps argue that the event alluded to by *walk* is, at least to some degree, monophasic since the verb, rather than the complex made up by the verb and the directional phrase, does not designate any change of position *per se*. The change-of-position reading is contributed to by the prepositional phrase (i.e. *towards The Mother's Finest* and *up the Rackham path* in (13) and (14)), see also the discussion of (12) above. But if this is so, then a causal reading should obtain for both (13) and (14). We conclude that the distinction between multiphase and monophasic events does not explain the contrast between presence vs. lack of causality in (13) and (14), respectively. The difference between (13) and (14) can easily be justified if one takes into consideration the interaction between the *as*-event and the main clause event. It is difficult to envisage a causal link between an event of saying and an event of walking if both events are simultaneous; hence, the implausibility of a causal reading for (14).

### 3. Impossible patterns and lexical semantics

#### 3.1 The lexical meaning of *as* and *while*

The previous section has shown that the distinction between multiphase and monophasic events, though pointing at the importance of the notion of change, is questionable as an overarching explanatory principle. A continuum of temporal *as*-clauses should be recognised. At one end of the continuum are *as*-clauses with truly dynamic (i.e. change) verbs (e.g. *As she grew older...*). At the other end lie *as*-clauses with stative verbs (e.g. verbs of posture). In between we find cases like (13) and (14), where the verb does not evoke change *per se* but does so in combination

with a directional component (which might not necessarily be expressed in the syntax). Finally, the plausibility of the causal and temporal interpretations seems to originate from the “pragmatic fit” between the *as*-event and the main clause event. For example, the stative event of standing in (6), repeated here below,

- (6) The wind whips round us **as** we **stand** on the seafront. (Morrall, 2003, p. 281)

is also interpreted causally (i.e. in addition to being interpreted temporally) because of the “pragmatic fit” between the event of standing on the seafront as a cause and the event of being whipped by the wind as an effect. Similarly, we can explain the different behaviour of stative *wear* in (5c), *As he wore a red sweater...*, and (11), [...] *rubbing her belly as she wore panties and a cut off sleep shirt*, on pragmatic grounds. It may be difficult to think of a main clause event which is simultaneous with an event of wearing something, but (11) shows that this is not impossible.

Of course, we must still explain why (5a), *As you are here...*, and (5b), *As you know...*, do not allow for temporal readings. Interestingly, the use of *while* in place of *as* in (5a) is felicitous vis-à-vis temporality: The clause *While you are here...* can be interpreted temporally. On the other hand, a temporal reading does not obtain if *while* is used in (5b). The nature of these contrasts deserves further scrutiny.

Both temporal *as* and *while*-clauses refer to temporary configurations. Since knowledge, as expressed by the verb *know* for example, is usually conceptualised as permanent (cf. *She knows Latin* vs. \**She is knowing Latin*), the impossibility of temporal clauses like \**As she knows Latin...* and \**While she knows Latin...* is easily accounted for. The permanence evoked by *know* clashes with the transitoriness coded by *as* and *while*-clauses.

Moving on to the combination of the verb *be* with *as* and *while*-clauses, we observe that *while*-clauses do not pose special problems for the use of stative *be*. As Silva (1991, p. 648) points out, in a sentence like (15)

- (15) **While** he was senator, Jones served on a number of committees.

*while* “can be changed to *when*, but not to *as* without triggering a causal rather than a temporal reading”.<sup>5</sup> Indeed, *be* seems to occur in *as*-clauses only if some residual notion of motion (or change) is present, see also Section 2 above. Three more examples obtained from the books used for the present study make this point clear:

- (16) When items are arranged in this way, most of the 1s will appear as a peak at the bottom of the scale and there will be a gradual decrease in frequency as the attributes **are** less and less possible in human performance. (Hatch and Lazaraton, 1991, p. 204)

- (17) That made me pause **as** I was halfway across the building's front plaza.  
(Connelly, 2003, p. 80)
- (18) **As** I was crouched, preparing myself for a quick raid on the locker, a series of waves got me thinking. (Martel, 2002, p. 169)

Although the *as*-clause in (16) has a causal flavour, it also denotes simultaneity: the decrease in frequency unfolds together with the decrease in the likelihood of the attributes. Crucially, the verb *be* occurs in a dynamic *as*-clause as the repetition of the comparative form *less* makes clear. Similarly, the *as*-clause in (17) does not depict a stative situation but rather a point along a path, i.e. it is dynamic in character. Finally, the verb phrase in (18), *was crouched*, refers to a static configuration but the immediately following gerund, i.e. *preparing*, makes it explicit that the static configuration is to be understood as evolving dynamically in time. The subject referent was preparing to leave the position in which he was at the moment. Further, *crouched* evokes a specific posture and posture verbs are indeed found in *as*-clauses (see Section 2).

Examples like (15) above seem therefore to suggest that *while*-clauses do not involve the same kind of simultaneity as *as*-clauses. Although no systematic quantitative analysis has been conducted yet, it is worth observing that a preliminary investigation of little more than the first half of Faber's novel *The Crimson Petal and the White* (443 pages out of a total of 833 pages) has revealed that not only is *while* used much less than *as* (at least by Faber)<sup>6</sup> but, perhaps more importantly, *while*-clauses occur in contexts where either a (relatively) long action is evoked or states/properties, expressed through the verb *be* (or a modal verb), are profiled. I will say that the temporal frame construed by the *while*-clause is extended, i.e. it designates a relatively stable temporal expanse. Leaving aside the gerundive use of *while*, which does not have an *as*-clause counterpart (e.g. "[...] the gardener yelled 'Hello, Miss Sophie!' while peering up at a window on the first floor [...]", p. 343), and adversative *while*-clauses (which outnumber all other instances amounting to 37 out of a total of 64), I have counted 19 cases where a stable temporal frame is evoked. (8 more cases were difficult to categorise and it should also be pointed out that it is sometimes difficult to disentangle an adversative reading from a non-adversative one. Therefore, the present figures should be taken with a pinch of salt.) Some representative examples are:

- (19) '[...] Besides, I occupied myself quite usefully **while** I was waiting.' (p. 117)
- (20) Instead, he eats his sausage **while** it's still warm. (p. 133)
- (21) 'Because I must do *something* **while** I still **can**. [...]' (p. 182)

- (22) Nor, **while we're** on the subject of her disadvantages, does she consider herself ugly. (p. 209)
- (23) She would write her novel to a thrilling conclusion **while** birds **sang** in the trees. (p. 286)
- (24) **While** the bath is **filling**, Sugar ferrets about for something to eat. (p. 374)
- (25) Is she expected to sit by the seashore for weeks on end, **while** her complexion **darkens** and her supply of medicine **dwindles** to nothing? (p. 442)

Observe, for example, that temporal *while*-clauses are compatible with modals, see (21). By contrast, a temporal reading is excluded for *as*-clauses containing modals:

- (26) \*Because I must do something **as** I still can. (temporal reading)

I propose that the compatibility of *while* with such extended frames may be motivated on the basis of the different *lexical* entries for the subordinators *while* and *as* in the conceptualiser's mind, that is how the subordinators are represented at a maximally schematic level or, in mainstream parlance, "independently" of the constructions in which they occur.<sup>7</sup> Whereas the lexical item *as* is unspecified as to its value (it can be used in temporal clauses, causal clauses, comparative structures, and parenthetical patterns, see Sections 4 for more details), *while* evokes temporality by default (possibly also because it is identical to the temporal noun *while*) and hence it is compatible with a larger spectrum of possible scenarios. Consider for example the case of properties (see also the next subsection for a more detailed analysis of this concept), as is schematised informally in (27) for *as it is warm* vs. *while it is warm*, see (20) ((5a), *As you are here...*, can of course be accounted for in identical fashion):<sup>8</sup>

- (20) Instead, he eats his sausage **while** it's still warm.

(27)	<i>temporality</i>	<i>temporality</i>
a.	as	it is warm
	[unspecified]	[stative]
b.	while	it is warm
	[+temporal]	[stative]

In the impossible *as*-clause, temporality is evoked by neither *as* nor *be warm*, assuming that the lexical representation for the latter is a schema depicting stativity (i.e. absence of change). By contrast, the *while*-clause evokes temporality by default thanks to the subordinator *while*, which is specified as [+temporal] in our mental lexicon; hence, there is no need for an explicit change event in the verbal slot as would be the case with an *as*-clause (see also Section 3.2 below). The proposed

analysis is tantamount to saying that in the processing of *as*-constructions on the part of the hearer temporality is construed on-line by relying on various clues such as context and use of change verbs. By contrast, temporality is probably assumed by default in *while*-clauses by speakers. Of course, psycholinguistic experiments are needed to corroborate this proposal but the very organization of dictionary entries for *as* and *while* may offer a good indication of how we prototypically categorize *as* and *while* vis-à-vis temporality. For example, the quantity (e.g. comparative) and quality (e.g. manner) uses of *as* rank first and second, respectively, in the *Shorter Oxford English Dictionary* (SOED) whereas its temporal use is only in third position and is also dealt with very succinctly, i.e. “At or during the time that; when, while; whenever” (note that no distinction is drawn between the three subordinators). On the other hand, the first three uses (out of a total of five) assigned to *while* are temporal.<sup>9</sup>

We can now also account for the impossibility of negative temporal *as*-clauses, which was the starting point for our discussion of *as*-clauses, see example (3) in Section 2 above. Negative *as*-clauses, as well as *as*-clauses evoking potential situations, are like properties in that they obviously do not specify temporality, i.e. make any claims about the temporal nature of the evoked event. Since temporality cannot be recovered from *as* either, such patterns are expected to be impossible. By contrast, *while*-clauses are also compatible with negation:

- (28) **While** staffers were **not** sending out their curricula vitae over the White House fax machines, they were sticking pins in the already deflated reputations of Bush’s former chiefs of staff. (FROWN)<sup>10</sup>

Although the negative pattern observed in (28) may not be common — only this example has been found in the FROWN Corpus — its existence accords well with the lexical characterisation of *while* advanced here. The temporal interpretation for (28) is guaranteed by *while*, which is by default specified as [+temporal] in our mental lexicon.

### 3.2 Temporal *as*-clauses as paths

Although stative, i.e. monophasic, verbs occur in *as*-clauses, it is remarkable that the static verb par excellence, i.e. *be*, seems to occur only in examples where some residual notion of motion (or change) is present. Morris (1996) is in a sense on the right track when she argues that the *as*-event must be dynamic (or “multiphase” in her terminology). However, this does not mean that the event in question necessarily signals change (i.e. it is multiphase), as the occurrence of *lie*, *watch*, *hold* and *wear* in *as*-clauses demonstrates. As was argued in the previous subsection, some notion of change must be retrievable from the *as*-event since *as* is not specified for

temporality on its own. Consequently, the *as*-event must be one which either is dynamic (e.g. *to grow old*, *to be less and less possible*) or would take the progressive form in a main clause anyway (e.g. *We are standing on the seafront*) or is obviously linked to motion (e.g. *to be on the train*, which can stand metonymically for “to go somewhere”). To the best of my knowledge, I do not know of any satisfactory label that can be used to capture the commonality of these event types. For example, Langacker’s (1991) label “perfective”, as opposed to “imperfective”, is used for processes which change through time. It is intuitively difficult, however, to see how this definition could be applied to events expressed by verbs of posture, for example. More promising is perhaps the notion of “susceptibility to change” introduced by Williams (2002) in his analysis of progressive and non-progressive aspect in main clauses. Indeed, with the exception of the (relatively) dynamic *be* patterns mentioned above, the verbs we are dealing with would (usually) all take the progressive in a main clause (in the present tense). Williams (2002) argues that “the use of the progressive form implies that the situation referred to in the verb may be susceptible to change in some way, while the use of the non-progressive form suggests that we are not interested in underlying that the situation referred to in the verb may be susceptible to change” (*ibid.*, p. 87). I will extend the notion of “susceptibility to change” from the (non-)progressive construction to the event types conveyed by verbs in general and say that *sit*, *stand*, and *lie*, for example, have a high degree of susceptibility to change or high potential for change (when they apply to animate referents). Since they can describe activities performed by animate entities and since change is intimately connected to animacy, it is easy to conceptualise the events evoked by such verbs as pointing at “unstable equilibrium” states (using a metaphor based on physics), that is a high potential for change. *Sit*, *stand* and *lie* describe temporary states in our daily routine, in which we move from one to the other(s) frequently and/or repeatedly.

Introducing a new terminology, I will say that the events found in *as*-clauses are construed as (*evolutionary*) *path events*, i.e. events that can easily be conceptualised as either evolving through time or having a high potential for change (or “susceptibility to change”). Path events are therefore to be contrasted with *properties*, which (see also Williams, 2002, p. 20 on the related notion of state) describe attributes of their subject referents, e.g. having the property of being warm, possessing a certain piece of knowledge, being able to do something. Crucially, properties can be divided into (relatively) *permanent* ones (e.g. *to know something*) and (relatively) *transient* (or temporary) ones (e.g. *to be in a certain location*). Of course, such distinctions are not absolute but are a matter of conceptualisation and depend on a variety of factors like context and use of specific lexical elements. For example, I have commented on the difficulties in categorising the event expressed as *to be on the train*. Similarly, consider the difference between *to lie on the grass*

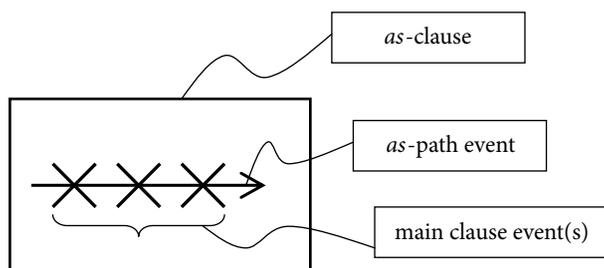


Figure 1. *As*-clauses as paths

and *to be on the grass*. The former is classified here as a path event and the latter as a property (vis-à-vis their use in *as*-clauses; the former is perfect in an *as*-clause, the latter is not). Clearly, the choice of the verb bears on the categorisation of the two verb phrases. First, note that *on the grass* (unlike *on the train*) evokes a static configuration. Next, observe that *lie* can easily be related to agentivity, which is naturally associated with transience (see above), whereas this is not the case with the verb *be*. Hence, the potential for change or susceptibility to change greatly differs in the two cases. In other words, temporary, or unstable equilibrium, states (i.e. path events of the *lie* type) are different from transient properties (e.g. those introduced by the copula *be*) because these two notions take into account the type of verb used.

In sum, the path in a temporal *as*-clause can either change (e.g. *to grow old*) or remain constant but hint at impending change (e.g. *to lie*, *to watch*). Further, other events can occur along both types of path, just as when we walk along a road we become aware of objects and/or events which were not previously perceptually salient or when, while walking, we perform some other activity (e.g. we sing while walking). The path metaphor also easily captures the relation between temporal *as* and causal *as*. (We will see below that its not being inherent in *while*-clauses motivates the lack of a purely causal meaning for *while* as opposed to *as*.) The perception of objects and events does not only occur at the same time as we move along a path (e.g. a road) but is also made possible by the very fact that we move along the path. Figure 1 visualises the semantic import of the notion of path in relation to *as*-clauses. The crosses along the evolutionary path represent events which are expressed by the main clause.

#### 4. Temporal *as*-clauses as outwards projecting background profilers

Although the impossibility of a purely temporal interpretation for negative *as*-clauses, see (3) above, can be accounted for on the basis of the lexical analysis sketched out in the previous section, I will now offer an (apparently redundant)

alternative analysis. This analysis is not intended to replace the lexical solution of Section 3.1 but, rather, to complement it, so as to shed more light on the nature of *as*-clauses (in general). In other words, we should avoid running into the omnipresent exclusionary fallacy (“one analysis, motivation, categorization, cause, function, or explanation for a linguistic phenomenon necessarily precludes another”, Langacker, 1987, p. 28) and recognise the importance of converging analyses in the study of linguistic phenomena.

It is worth remarking that the lack of purely temporal negative *as*-clauses has a striking parallel with the (apparent) impossibility of negating parenthetical *as*, as opposed to appositive *which*:

- (29) a. John left for Australia last month, as Sarah and Chris (\*don't) know.  
 b. John left for Australia last month, which Sarah and Chris (don't) know.

The contrast in (29) has recently been discussed by Potts (2002). Since I side against the formalist enterprise on which Potts's analysis rests, I must resort to an alternative explanation for the data in (29) and, possibly by extension, the impossibility of the temporal reading for (3). My suggestion is that temporal *as*-clauses make explicit the background *out of which*, so to speak, main clause events emerge, see the arrow projecting outwards in the diagram in Figure 2. (Figure 2 can be regarded as the three-dimensional equivalent of Figure 1. The ball in Figure 2 stands for one of the crosses of Figure 1.) For example, the main clause event of saying something as one walks, see (14) above, can be regarded in an obvious, intuitive sense as specifying the *as*-event in fuller detail or, to put it differently, as emerging out of the *as*-event as one of its constitutive parts. I will refer to such a conceptual configuration by saying that the *as*-clause functions as an *outwards projecting background profiler*. The *as*-clause functions as a background out of which the main clause event is extracted.

Importantly, since temporal *as*-clauses profile outwards projecting backgrounds, such backgrounds must be presupposed to exist. The visual analogy

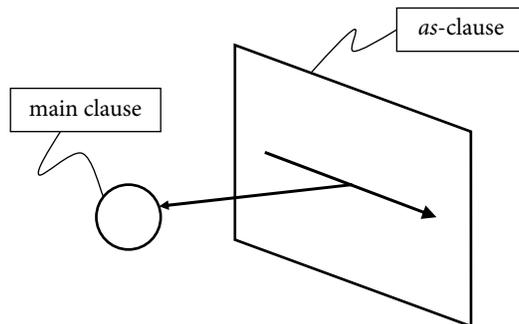


Figure 2. The *as*-clause as an outwards projecting background profiler

depicted in Figure 2 makes this point clear. In order to extract an object out of a background, we must, rather trivially, have a background in the first place. Now, if we project a main clause out of a temporal *as*-clause, i.e. we interpret the two events as being simultaneous, the *as*-event must exist in the first place. Obviously, an event cannot be simultaneous with a non-existing event.

Interestingly, the characterisation of temporal *as*-clauses as outwards projecting background profilers can be regarded as the schematic meaning of (almost) all types of *as*-clause.<sup>11</sup> That is, an *as*-clause (almost) always activates a background out of which the main clause content is extracted. This analysis easily explains the contrast in (29), without the need for any of the sophisticated formal machinery set up by Potts (2002). The impossibility of the negative pattern in (29a) stems from the implausibility of projecting the main clause out of a non-existent background. Note, however, that I have used the word “implausibility” rather than “impossibility” to refer to the relation between main clause and *as*-clause. In fact, we do find (admittedly few)<sup>12</sup> negative examples, *pace* Potts (2002):

- (30) [...] I'm starting abroad to-night and have already dallied too long."  
 "Abroad!" "My sister," said Townes, "as perhaps you **don't know**, wedded a  
 foreigner — Willy [...]" (www.gutenberg.org/etext06/7cmcr10.txt)

It is worth pointing out that the *as*-clause in (30) contains the epistemic conjunct *perhaps*. Without it, the sentence would sound at least awkward. The speaker uses *perhaps* in order to evaluate the plausibility of extracting the main clause content out of the knowledge repertoire attributed to the addressee. It follows that, whereas the existential requirement cannot probably be violated in (purely) temporal *as*-examples, parenthetical *as*-constructions are compatible with negation provided that they satisfy “special” discourse needs, such as assessing the listener’s knowledge repertoire in (30) vis-à-vis the main clause content. The paucity of such examples may be due to the fact that, by default, projecting out of a background requires an existent background. The negative examples are conceptually more complex in that they involve the construal of a negative background as a relevant (and hence, by extension, existent) background for the main clause. We can therefore observe a cline in the difficulty with which a negative *as*-clause can be construed as the relevant background for the extraction of the main clause content. At one end of the continuum are negative temporal *as*-clauses, which are (probably) impossible because temporal coextension between two events requires that both events be existent. Incidentally, this line of reasoning also applies to the incompatibility between *as*-clauses and epistemic modal auxiliaries (which is duly remarked upon by Morris, 1996, p. 420), since they convey potential rather than actual events. A clause like *As they might come early, ...* can only be interpreted causally. Next on the continuum are negative parenthetical *as*-clauses, which can be used under

special circumstances (such as those triggered by epistemic conjuncts like *perhaps*). At the other end of the cline lie negative causal *as*-clauses, which do not pose any special problems. Whereas the clause *As they might come early* does not trigger a temporal interpretation, causality obtains naturally because there is no contradiction in viewing a potential or non-existent event as the cause (i.e. the outwards projecting background) for another. From this follows the plausibility of the causal (and only) interpretation of (3) (*As she wasn't working, she spent most of her days reading books*), too.

Of course, we must still try to motivate why no existential requirement seems to play a role in the use of appositive *which*, see (29). Rather tentatively, I would suggest that the cognitive operation underlying appositive *which* does not consist in extracting entities out of backgrounds but rather in projecting entities onto backgrounds, see the directionality of the projection arrow in Figure 3 below (for the sake of simplicity I have opted for a two-dimensional representation). In other words, the conceptualiser (i.e. the speaker) singles out the main clause event (i.e. John's having left for Australia in the case at hand) and relates it to the set comprising all pieces of knowledge shared by Sarah and Chris. The appearance of the negation in (29) signals that the projection of the main clause content onto Sarah and Chris's knowledge repertoire has not been successful. Hence, the projection operation goes hand in hand with our ability for categorization, i.e. our ability to establish a relation of inclusion/exclusion between (sets of) entities. This means that, in an outward projection, we need to extract some piece of information from a given knowledge repertoire (i.e. the background), whereas, in an inward projection, we simply comment on some piece of information vis-à-vis the speech act participants' knowledge. No operation of extraction takes place in the latter case.

Of course, this analysis should deserve more attention in future research. Nevertheless, the view of *as*-clauses as outwards projecting background profilers seems to be on the right track. Not only does it account for (prototypical) temporal

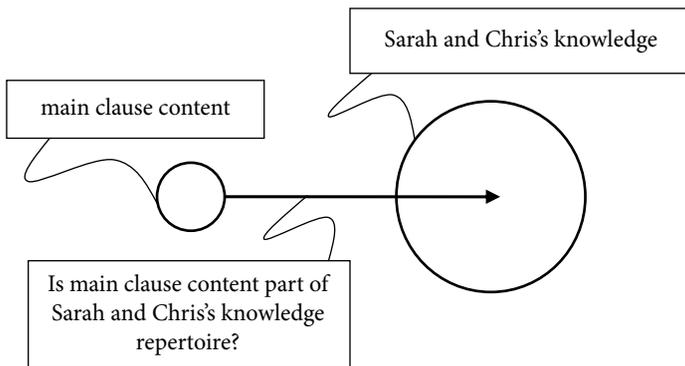


Figure 3. A cognitive analysis of appositive *which* in (29)

*as*-clauses but also motivates the peculiar behaviour of negative parenthetical *as* and the unproblematic nature of negative causal *as*-clauses. In fact, it may also extend to comparative *as* (e.g. *She's as tall as me*; *She did it in the same way as me*; etc.), which by definition requires a standard of comparison, i.e. an outwards projecting background in the terminology introduced above.<sup>13</sup> For this reason, I believe it is important to retain both the lexical analysis offered in Section 3, which is relevant only to temporal *as*-clauses, and the outwards projecting background profiler analysis sketched out here, which applies more generally to all types of *as*-clause. Further, the contrast between *as*-clauses as outwards projecting background profilers and appositive *which*-clauses as involving projection onto a background can also provide us with a better understanding of *while*-clauses. As was shown in the previous section, *while*-clauses evoke temporal frames which can be more stable than those evoked by *as*-clauses and thus easily accommodate properties. In terms of their schematic/cognitive analysis, it could be assumed that *while*-clauses are similar to appositive *which*-clauses. In other words, they may involve the projection of the main clause content *onto*, rather than *out of*, the temporal expanse evoked by the verbal event. The use of negation is not problematic in *while*-clauses, see (28), not only because of the lexical specification of *while* as a temporal subordinator but also because of the inwards directionality of the projection operation. The use of the negation amounts to an instruction to construe a (set of) event(s) which is/are the complement of the one denoted by the positive form of the verb phrase. The main clause content is projected onto such (set of) event(s) and is included within it/them.

To sum up, the present investigation has so far shown that temporal *as*-clauses evoke path backgrounds whereas *while* clauses evoke extended stable frames.<sup>14</sup> Of course, the difference between the two may be a matter of construal and therefore it may sometimes be difficult to distinguish between the two uses. Nevertheless, the intuition that two different construals are involved can profitably be linked to differences in the behaviour of the two subordinators. For example, the contrastive (or adversative) temporal use of *as*-clauses in Faber's novel is very limited. Only two occurrences have been found and both of them are preceded by *just*.<sup>15</sup>

- (31) By sheer chance, **just as** the door of Agnes's bedroom is opened, the main door downstairs is slammed shut, [...]. (p. 156)
- (32) **Just as** he's found the key and is on the point of inserting it successfully in the key-hole, the door swings open, [...] (p. 299)

Further, *while*-examples never trigger a purely causal interpretation, unlike *as*-examples. On the one hand, the lack of temporal adversative *as*-clauses (excluding cases where *as* is preceded by *just*, of course, and the causative adversative cases

mentioned in note 15) can be motivated on the basis of their profiling outwards projecting backgrounds. Since the main clause is projected out of a background, we do not generally expect any contrast between the two to obtain: The main clause foregrounds an event which is part and parcel of the scenario evoked by the *as*-clause. On the other hand, the lack of a purely causal interpretation for *while*-clauses probably derives from the lack of an intrinsic path component. As we saw above, the motion analogue of the conceptual notion of path easily explains the emergence of the causal meaning (i.e. our perception of objects and events is made possible by motion itself). That is, the intrinsically dynamic character of *as*-clauses easily lends itself to a causal construal. The visual analogue can also be used to motivate the lack of an independent causal meaning for *while*-clauses. We can compare the use of *while*-clauses to the perception of external reality in the absence of motion (e.g. when we look out of a window). Even if we do not move, we can still observe the occurrence of events and the position of surrounding objects but the fact that we are motionless is not necessarily construable as a cause for their perception. Rather, the impossibility of motion can obstruct our visual field. Further, immobility enhances the potential for an adversative construal. We compare our position to that of surrounding objects and we cannot help *contrasting* our position to that of those objects, impossible as it is for us to reach them. This characterization does not contradict the view of *while*-clauses as backgrounds onto which main clause events are projected (see above). The adversative use of *while*-clauses (e.g. *Chris was having a sandwich while Sally was reading a book*) still involves the projection of the main clause event onto the *while*-event. Crucially, this projection is used not only to evoke simultaneity but also to establish a contrast (remember also that projecting onto backgrounds involves the categorization ability, that is judging whether a relation of inclusion/exclusion holds).

## 5. Verb classes and schematic variations

The characterization of *as*-clauses as “paths” is also meant to suggest that the majority of verbs found in *as*-clauses refers to the notion of change. Admittedly, with the exception of truly stative instances (e.g. *know*), *as*-clauses occur with verbs from the entire transitivity spectrum (in the sense of Halliday, 1994). Table 1 reproduces the findings based on some of the novels used for this study.<sup>16</sup>

The details of the breakdown of the various verb types into different categories are not of crucial importance here. What really matters is to observe the most frequent pattern(s) emerging from the data. Table 1 shows indeed that the great majority of verbs occurring in *as*-clauses refers to changes of state/position (see also Edgren, 1971, p. 220 on this point). This should be expected since we are naturally

Table 1. Verb types in *as*-clauses in selected novels

	<i>An Irish Solution</i>	<i>Being Dead</i>	<i>Lost light</i>	<i>Brick Lane</i>	<i>Astonishing Splashes of Colour</i>	<i>The Amber Cat</i>	<i>Girls in Love</i>
change of position verbs (including transitive examples)	21 (60%)	29 (63%)	79 (57%)	51 (54%)	84 (67%)	9 (50%)	14 (70%)
change of state verbs	4 (11%)	10 (22%)	16 (12%)	8 (9%)	10 (8%)	2 (11%)	2 (10%)
vision verbs	3 (9%)		8 (6%)	4 (4%)	6 (5%)	4 (3%)	
verbs of eating and drinking	1 (3%)			3 (3%)	4 (3%)		1 (5%)
energy flow verbs	2 (6%)	2 (4%)	7 (5%)	9 (10%)	4 (3%)	2 (11%)	1 (5%)
verbs of saying	1 (3%)	2 (4%)	8 (6%)	10 (11%)	5 (4%)	1 (6%)	
verbs of listening			1 (1%)				
stative verbs (including wait)	1 (3%)	1 (2%)	5 (4%)	3 (3%)	4 (3%)		
bodily activity verbs (excluding verbs of eating/drinking, including verbs of emission of sounds out of inanimate entities such as sirens)	1 (3%)			2 (2%)	2 (2%)		1 (5%)
verbs of finding (including intellectual findings)		2 (4%)			3 (2%)		
<i>read/play/write</i>			5 (4%)		3 (2%)		
<i>think/imagine/try to remember</i>			7 (5%)				1 (5%)
<i>do</i>			2 (1%)	1 (1%)			
others	1 (3%)			3 (3%)	1 (1%)		

Table 2. Verb types in *as*-clauses in written news reporting

Date	Headline	Text
change of position/state verbs (ordered as intransitive, transitive, passive)		
30.07.03	Hunt for arsonists <b>as</b> forest fires <b>sweep</b> across south of France	
01.08.03		“No more war, we want peace,” Liberians chanted as the first west African peacekeeping troops <b>arrived</b> in the country’s capital, Monrovia.
15.08.03	Cheers <b>as</b> US troops deploy in Liberia	
15.08.03	Joy <b>as</b> marines <b>enter</b> Monrovia	
15.08.03	Delight <b>as</b> marines <b>move in</b> ( <i>Telegraph</i> )	
07.08.03		“In the town of Bitunia, a screaming protester was wrestled to the ground by police <b>as</b> a Palestinian calmly <b>descended</b> from a bus and kissed the ground with a papal flourish,” the paper [i.e. The Telegraph] reports.
15.08.03		“[...] His chin hit me on top of the head,” Agnes Gwynne told the Sun. “Luckily a Frenchman caught me <b>as</b> I was <b>dropping</b> [...]”
11.08.03	Bookies lose <b>as</b> record <b>tumbles</b>	
18.08.03	Singles decline <b>as</b> album sales boom	
18.08.03	UK house prices stall <b>as</b> bubble effect <b>fades</b> ( <i>Financial Times</i> )	
27.08.03	Even the optimists are losing heart <b>as</b> Iraq <b>goes</b> from bad to worse	
02.09.03		[...] but the paper says they put aside their differences <b>as</b> his health <b>faded</b> .
28.08.03	Postal strike looms <b>as</b> talks over pay <b>collapse</b> ( <i>Times</i> )	
28.08.03		“ <b>As</b> it <b>got</b> dark you could almost feel the atmosphere,” said 24-year-old Cathy Evans of Dagenham, mysteriously.
01.09.03	Bread sales dip <b>as</b> mass of Britons <b>turn</b> to Atkins	
04.08.03	Nothing to get excited about <b>as</b> Edinburgh <b>opens</b> with a really quiet start ( <i>Times</i> )	
04.08.03		“[...] and making sure the government’s ticking over and deal with problems <b>as</b> they <b>arise</b> .”
06.08.03		Service sector companies increased output in July for the fourth month in a row, the paper reports, while new business also picked up “ <b>as</b> clients <b>became</b> more confident about the geopolitical environment.”
11.08.03	Angry Arsenal lose the plot <b>as</b> Howard’s way <b>prevails</b>	

Date	Headline	Text
11.08.03	United land first blow as Jeffers <b>boils over</b> ( <i>Independent</i> )	
08.08.03		The study analysed the medical records of “nearly 1.1m women who were cancer-free as they <b>entered</b> the national screening programme”.
31.07.03	Pollution still pays as firms <b>shrug off</b> fines	
04.08.03		But the Telegraph’s Derek Pringle feels that, after defeat against South Africa in the Second Test, “several figure-heads will become severed heads” as the new skipper “ <b>maps out</b> his vision to the selectors”.
13.08.03		hopes of an immediate peace following Charles Taylor’s departure were dashed as one group of rebels <b>renewed</b> their offensive.
14.08.03	Pass rate soars as pupils <b>chase</b> ‘easy’ A-levels ( <i>Times</i> )	
03.09.03		A parrot-fancying bank worker who defrauded elderly customers of GBP2.1m as he <b>built up</b> a collection of exotic birds, houses and luxury cars was yesterday jailed for nine years.
14.08.03		The bomb is thought to have been accidentally detonated as it was <b>being carried</b> to a town west of Kandahar, the Guardian reports.
20.08.03	20 die as UN is <b>dragged</b> into Iraq conflict	
13.08.03	Briton held as missile ploy <b>foiled</b>	
11.08.03		Meteorologists gave a muffled cheer as the record was <b>broken</b> .
03.09.03		They show how the prospect of a “humiliating end” to his career hung over him as he was still <b>being pursued</b> about his contacts with Andrew Gilligan.
verbs of finding		
22.08.03	Living proof as Chemical Ali is <b>captured</b>	
11.08.03		Indeed, says the Guardian, “the mood in Whitehall has darkened” as No 10 <b>realises</b> that the BBC has “won the propaganda battle” already — despite the best efforts of the Sun.
27.08.03		As McCarthy <b>finds</b> the voices of reason being drowned out in hardship, the Times reports on another inevitable “grim milestone”.
psychological verbs		
01.09.03		Hundreds of grieving Iraqis are pictured on the front pages of several of the broadsheets as Shias <b>mourned</b> the killing of Ayatollah Mohammed Baqir al-Hakim.
01.09.03	Sea of grief as Shia <b>mourn</b> their assassinated ayatollah ( <i>Independent</i> )	

Date	Headline	Text
ingressive verbs (including verbs of predictions)		
04.08.03	Tory fears as new MI6 head is <b>rumoured</b> to be 'Tony crony' ( <i>Times</i> )	
06.08.03	No respite as heatwave is <b>forecast</b> to last ( <i>Times</i> )	
13.08.03	Alao [sic] in today's <i>Wrap</i> : Briton arrested in New Jersey as he <b>tries</b> to sell a surface-to-air missile	The Briton of Indian descent was snared in New Jersey as he <b>tried</b> to close a deal to sell a shoulder-launched surface-to-air missile to a buyer he thought was a terrorist but turned out to be an FBI agent.
01.09.03		"[...] Suddenly, it was like some mad scene out of a gangster movie, with them holding me back as I <b>tried</b> to get to the gaffer."
19.08.03		A number of the papers have picked up on today's <i>Guardian</i> /ICM poll, which should make grim reading for Mr Campbell as he <b>prepares</b> to head off for the Royal Courts of Justice.
04.08.03		Most papers pick up on the news that Sir Richard will step down as C next August, agreeing broadly with the FT that this places "a question mark over the future leadership" of the secret service <b>just</b> as it is <b>facing</b> public scrutiny over the war.
other verbs		
14.08.03	Taliban blamed as Afghan bus bomb <b>kills</b> 15	
15.08.03		Mobile phones stopped working as anxious New Yorkers <b>called</b> friends and relatives.
01.09.03	Or, as the <i>Sun</i> puts it: "Go easy on killers and drugs says new DPP: Fury as 'crony' <b>raps</b> Blunkett".	
11.08.03		"Howard stood with arms outstretched in joy as his teammates <b>hugged</b> him in celebration," the paper says.
21.08.03		Raed Abdel Misk, a religious scholar, is pictured smiling as he <b>holds</b> his daughter and son.

interested in change events in narrative sequences. Similar results can be obtained by analysing verb classes used in *as*-clauses in newspapers, see Table 2. For the sake of completeness and since specific *as*-examples may be of particular interest to foreign learners of English, I have listed all the occurrences found in *The Wrap*, a daily paid-for news round-up e-mailed by *The Guardian* to its subscribers (*The Wrap* also includes quotations from newspapers other than *The Guardian*; if that is the case, the source, if not indicated in the text, is given in parentheses at the end of each relevant example in Table 2).<sup>17</sup> The data are divided into two columns according to whether the examples are found in either the headlines or the (short) texts that follow the headlines. I have also sorted the examples into different categories according to the type of event evoked (indicated in the grey-shaded rows), roughly

Table 3. *As*-clauses in Kate Fox's *Watching the English Change*

verb type	number of instances	specific verbs (number of instances = 1 unless specified otherwise)
motion	16 (transitive: 2)	<i>drive</i> (3), <i>lurch</i> , <i>go</i> (2), <i>stumble</i> , <i>alight</i> , <i>emerge</i> (2), <i>glide</i> , <i>rise</i> (metaphoric), <i>make one's way</i> , <i>shed</i> , <i>enter</i>
change of state	3	<i>mature</i> , <i>become</i> , <i>grow</i>
stative	2	<i>sit</i> , <i>wait</i>
ingressive and searching	4	<i>try</i> , <i>search</i> , <i>start</i> , <i>examine</i>
others	5	<i>respond</i> , <i>describe</i> , <i>accept</i> , <i>write</i> , <i>dither</i>

along the lines of the categories in Table 1. It should be noted that more often than not the examples in Table 2, alongside evoking simultaneity, have a causal flavour.

Table 2 confirms that stative verbs are found in *as*-clauses (e.g. *mourn*, see “psychological verbs”, and *hold*, see “other verbs”) and that the great majority involves the notion of change (of either position or state). Table 2 also shows that *as*-clauses are used not only to refer to ongoing actions but can also evoke ingressive (i.e. beginning) actions. One more example of an ingressive event is offered in (33), taken from the e-mail news round-up service provided by *The Independent* (called *The Paper Chase*), whereas (34) demonstrates that egressive (i.e. finishing) actions are also found in *as*-clauses:

- (33) “The first national identity cards will be issued within four years **as** people **start** renewing their passports,” *The Independent* reports. (*The Paper Chase*, 12.11.2003)
- (34) Thirty-one Elf executives and intermediaries were convicted yesterday **as** France's biggest corruption trial **came to an end**. (*The Wrap*, 13.11.03)

Confirmation of the high percentage of motion verbs in *as*-clauses can also be found in texts which are not novels. Consider for example, see Table 3, the occurrences of *as*-clauses in a popular science book like Kate Fox's sociological study *Watching the English Change*.

A pattern which does not emerge from Table 2 and is marginal in Fox's book but is of great interest involves punctual verbs of either the performative type (e.g. *declare*, *promise*, *give support to*, *reject*, *accept*; the last verb is found in Fox's book as indicated in Table 3), see (35)–(38), or the psychological type (e.g. *balk*), see (39):

- (35) The Telegraph highlights a row over the “Mission accomplished” banner which hung behind George Bush on May 1 **as** he **declared** victory from the USS Abraham Lincoln. (*The Wrap*, 30.10.03)

- (36) Five resign as police chiefs **promise** action against [sic] racism. (*The Wrap*, 23.10.03)
- (37) Tim Yeo became the latest senior Tory to rule himself out for the leadership today **as** party heavyweights **gave their support to** Michael Howard, who is expected to announce his candidacy this afternoon. (*The Wrap*, 30.10.03)
- (38) Praise for management **as** postal voters **reject** strike (*The Wrap*, 18.09.03)
- (39) Among the broadsheets, only the Independent chooses to lead with something other than the Hutton inquiry, [...] “Washington suffered a double blow in its plans for Iraq yesterday **as** France and Germany **balked at** proposals for an international force, [...]”. (*The Wrap*, 05.09.03)

(35), in particular, deserves closer scrutiny because the larger temporal frame is provided by the matrix clause rather than the *as*-clause. The event of declaring victory took place within the event of the banner hanging behind Gorge Bush. A similar example is (40):

- (40) The fog hung low on a brisk January dawn in 2001, **as** several dozen police agents silently rolled into position in the rugged hills around Mezzojuso, a sleepy town 40km south of Palermo. (*Time Magazine*, 2004, no.36, p.50)

Although the verb in the *as*-clause (*rolled*) belongs to the most frequent verb class for *as*-clauses, i.e. that of verbs of change (of position), the *as*-event is “inscribed” within the stative situation depicted by the main clause, just as in (35). Schematic representations for (36) (as well as (37)–(39)), (35) and (40) are offered in Figure 4 (which should be contrasted with Figure 1 and Figure 2).

At first sight, the examples diagrammed in Figure 4 seem to contradict the schematic characterisation of *as*-clauses as outwards projecting background profilers argued for in Section 2. However, adopting a cognitive view of categorisation (see Ungerer and Schmid, 1996 for an overview), the schemas in Figure 4 can be analysed as extensions of the background profiler schema offered in Figure 2 obtained via the principle of family resemblance. In other words, the background profiler schema in Figure 2 can be regarded as the prototype to which the schemas in Figure 4 are linked by virtue of the “modulation” of some of its conceptual components.

The schema in Figure 4a arises from the compression of the path arrow of Figure 2 into a single time point. Some events (e.g. *resign*, *promise*) are naturally conceptualised as being instantaneous rather than extended. The outcome of temporal compression is the temporal equivalence between the backgrounded event (i.e. the event denoted by the *as*-clause, e.g. *promise*) and the foregrounded event (i.e. the event denoted by the main clause, e.g. *resign*). Note that this temporal equivalence

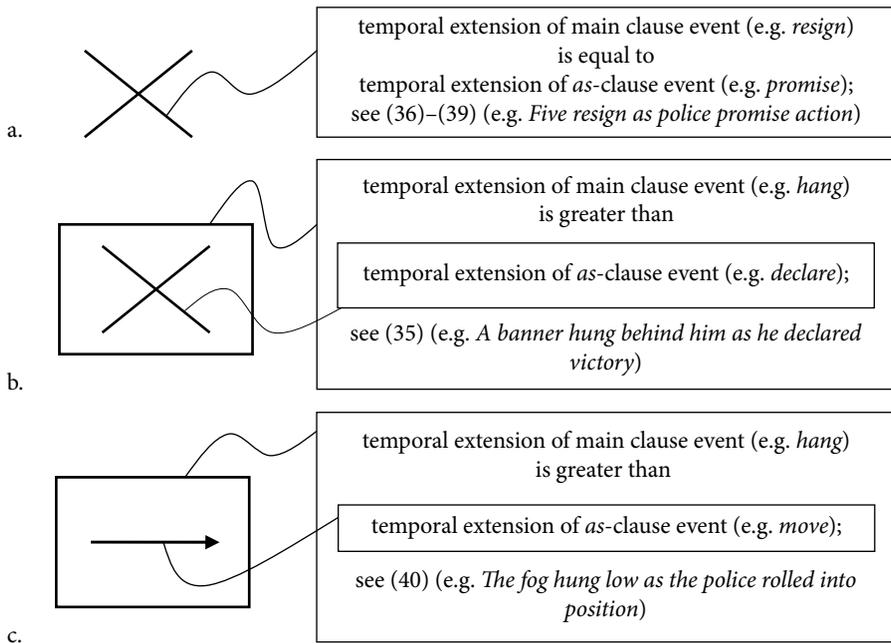


Figure 4. Three variants of the temporal *as*-clause

is not objective but, rather, construed. In “objective” time, the event of promising is antecedent to that of resigning (as well as the cause for the latter) but the two are construed as simultaneous within the temporal frame evoked by the headline (on the compressing function of headlines see also Broccias, 2004). To put it differently, the headline functions as a blend in the sense of Fauconnier and Turner (2002), i.e. a conceptual space where the two events of promising and resigning are fused together as if they coincided in time so as to give the reader “global insight, human-scale understanding, and new meaning” (Fauconnier and Turner, 2002, p. 92).

The schema in Figure 4b too involves compression of the path arrow of the prototype into a time point but also relies on figure/ground reversal. The backgrounding function prototypically assigned to the *as*-clause is carried out by the main clause for the obvious reason that a punctual event, the *as*-clause event (e.g. *declare*), cannot contain an extended event, i.e. the main clause event (e.g. a banner hanging behind someone). In effect, a form/meaning asymmetry ensues. In terms of form, the *as*-clause is a subordinate clause (or landmark) but, in terms of meaning, the *as*-clause cannot be equated with a background. Rather, the event evoked by it is the focus of attention (or trajector). George Bush’s declaration stands out against the background of the banner hanging behind him.<sup>18</sup>

The schema depicted in Figure 4c also involves figure/ground reversal, as does that of Figure 4b, but does not rely on path compression. The *as*-event (e.g. the

police agents moving in the hills) is not punctual and can be regarded as a trajector because motion is perceptually more salient than lack thereof.<sup>19</sup>

To conclude, this section has shown that the outwards projecting background profiler schema associated with *as*-clauses is in fact only one of the possible schemas relevant to the description of *as*-clauses. Three other types have been found which can be linked to the background profiler schema via family resemblance (provided, of course, that the background profiler schema is regarded as the prototype).

## 6. Aspect in simultaneity clauses

Since *as*-clauses are typically used in narrative texts and since writers more often than not employ the present or past simple rather than the present or past continuous for narrative purposes (see for example the data reported diagrammatically in Biber *et al.*, 1999, p. 461), it is not surprising that few examples of the progressive (or *-ing*) form have been found in *as*-clauses in the texts examined for this paper.<sup>20</sup> Still, in some cases (e.g. the verb of the main clause is in the progressive), we might expect a progressive form to be likely to also occur in the *as*-clause. But what we observe is again the paucity of progressive forms in the subordinate clause. Although a detailed statistical analysis lies outside the scope of this paper, which aims more modestly to provide a general cognitive framework for the analysis of simultaneous events, I believe that certain tendencies can nevertheless be observed even by considering a rather limited number of data. Consider the following examples:

- (41) Yuck, my knees **are** actually wobbling **as** I walk. (Wilson, 1998, p. 15)
- (42) But somehow my feet **are** going more and more s-l-o-w-l-y **as** they squeak along the newly polished corridor. (Wilson, 1998, p. 29)
- (43) **As** the two enjoy a new political lovefest [...], their trade and business relationship **is** also blossoming. (*Time Magazine*, 2004, no.42, p.53)
- (44) Millions more people have gained than lost in the social revolution that **was** taking place **as** I wrote. (Toynbee, 2003, p. 225)
- (45) **As** I write Mr and Mrs Ball **are** canoeing on the loch. (Townsend, 2002, p. 149)

Only two examples (out of a total of 20) were found in *Girls in Love* where the main clause was in the progressive and the subordinate clause was introduced by *as*, see (41) and (42).<sup>21</sup> Importantly, no progressive aspect marker is used in the subordinate clause in either case (nor is it used in any of the remaining 18 examples with

the exception of the one mentioned in note 21). The examples in (43)–(45), taken from other texts, exhibit the same behaviour. Of course, it is a brute fact of English that subordinate clauses often contain simpler verb forms than do matrix clauses, especially when there is a tight link between the matrix clause and the subordinate clause (e.g. relative clauses,<sup>22</sup> *when*-clauses as discussed by Declerck, 1997, *if*-clauses).<sup>23</sup> It could be argued that progressive aspect is in a sense redundant since the very schematic meaning of an *as*-clause (at least in its prototypical instantiations) already evokes transience, as does the progressive form. It is therefore important to examine those cases where the progressive aspect marker is employed in *as*-clauses. (46)–(52) below reproduce all the examples (7 out of 265) where a progressive form is used in *as*-clauses in little more than the first half of Faber's novel *The Crimson Petal and the White* (443 pages out of a total of 833 pages).

- (46) [...] a medical student once told her, **as he was pulling** on his trousers, that that was the way to catch pneumonia. (p. 7)
- (47) 'Nice cup of tea, was it?' says the tea-room proprietor sarcastically soon after, **as Sugar is paying** her pittance for the privilege of eavesdropping in comfort for an hour. (p. 356)
- (48) He fancies, **as Curlew is leaving**, that he spots a glimmer of humiliation in the doctor's face [...]. (p. 260)
- (49) For she — the woman Caroline — touched his hand **as he was leaving**, [...]. (p. 382)
- (50) Minutes later, **as he's stroking** her goodbye, she kisses his fingers, and says [...]. (p. 269)
- (51) **Even as Henry is fetching** the coins out of his trouser pocket, the truth is dawning on him: [...]. (p. 380)
- (52) **Even as Sugar is extracting** the coins, six, seven, eight, the woman begins to cringe away, licking her lips nervously. (p. 395)

Leaving the last two examples (where *as* is preceded by *even*) aside for the moment, we notice that none of the remaining six examples has a progressive form in the main clause. Indeed, as was the case with *Girls in Love*, when a progressive form is used in the main clause, the *as*-clause does not contain a progressive marker:<sup>24</sup>

- (53) Already they're **working** up a sweat, their only sweat for the day, **as they labour** to open their shops. (p. 22)
- (54) If the accounts of Rackham perfumeries are cruel drudgery for a man of his temperament, what must this girl, barely past adolescence, brimful of life and promise, **be suffering as she scribbles?** (p. 118)

- (55) [...] she's brightening the house with her angelic singing voice as she prepares to meet the Season. (p. 329)
- (56) Nor is her body the only childish thing about her: is she aware, Sugar wonders, that she's biting her lower lip as she walks? (p. 239)
- (57) [...] and even that toothless old beggar over there is smiling as she gums a saliva-covered apple. (p. 89)

The progressive marker seems to function as a “slow motion” or imperfectivizing marker in *as*-clauses. It serves to stretch (relatively) too short events like *pull*, *leave*, *pay* and *stroke*, see (46)–(50), for narrative purposes. This follows naturally from the characterization of the *-ing* morpheme offered, among many others, by Langacker (1991, pp. 23–27) for example. The progressive marker suspends any holistic construal of a given event and imposes an imperfectivizing/event-internal construal.<sup>25</sup>

Thus, the expanded temporal frame evoked by the use of the progressive marker in (46) easily accommodates the temporal extension of the event of saying predicated of the medical student. (51) and (52), where *as* is preceded by *even* (thus evoking an adversative meaning), also contain *as*-events that would perhaps be felt as being too short in the given context without the intervention of the progressive marker. It is interesting that the proportion of *-ing* examples is much higher with *even as* than with *as* (2 instances out of 10 in the former case vs. 5 instances out of 255 in the latter case). The very fact that a contrast is evoked may contribute to the use of the progressive marker (also note that in (51) we find the progressive both in the *as*-clause and the main clause). *Even as* forces us to concentrate on a portion of the event evoked by the subordinate clause and thus naturally requires a non-negligible temporal extension for the subordinate clause event.

Of course, the use of the progressive marker relies on our ability to construe a certain event in different ways and is therefore subject to variation. Consider the following examples:

- (58) The Germans were getting out of the city, blowing up bridges as they left. (Ondaatje, 1993, p. 60)
- (59) As I was leaving I saw a mirror tacked up high against the skin wall, ... (Ondaatje, 1993, p. 138)

(58) and (59) both contain the verb *leave* in their respective *as*-clauses but only in the latter is the progressive form used. We could motivate the author's choices by noting that in (58) the main clause already contains the progressive form and hence the “slow motion” effect which its use in the *as*-clause would bring about is perhaps felt redundant.<sup>26</sup> As for (59), the progressive form in the *as*-clause contrasts with the punctual nature of the event described by the main clause and, at

least intuitively, seems to be used to slow down the subordinate clause event.<sup>27</sup> More examples of such a contrastive pattern can be found, for example, in Zoë Heller's novel *Notes on a Scandal*. Here I have reproduced three of them out of a total of seven:

- (60) But **as** she **was introducing** herself she **was interrupted** by Michael Beale [...]. (Heller, 2003, p. 21)
- (61) Once, **as** they **were walking** down St Martin's Lane together [...] she **caught** a glimpse of their rippling reflection in a shop window. (*ibid.*, p. 118)
- (62) 'He's going off me!' she **wailed** one evening, **as** we **were leaving** school together. (*ibid.*, p. 171)

Two more examples, taken from other texts, are also worth mentioning:

- (63) A few miles down the road in Nashville, **as** John Adams **was being** accidentally executed, scores of paid and volunteer staff **bustled** inside Al Gore's national campaign headquarters. (Moore, 2002, p. 196)
- (64) **As** redcoats **were facing** angry crowds and hostile militiamen in Massachusetts, Thomas Pennant [...] **set off** on his travels in rough Albion [...] (Schama 2003, p. 13)

As was the case in the previous examples, the function of the progressive marker in (63) seems to be that of stretching the temporal dimension of the event denoted by the *as*-clause so as to make it a possible background for the "expanded" event of people's bustling inside Al Gore's headquarters.

The progressive form in (64) also stretches the temporal frame evoked by the subordinate clause event but also establishes a contrast with the punctual event denoted by the main clause, as was the case in (59)–(62). Observe that the event of facing someone is naturally interpreted as being of non-negligible temporal extension, unlike what was the case in the previous examples (with the exception of (61)). They also took the progressive form but, without the progressive marker, would have been interpreted as referring to punctual/short events. In other words, the "slow motion" or imperfectivizing effect can also take place with "long" events, as one more example shows:

- (65) **As** we **were driving** in an English car, he **relied** on me, the passenger, to tell him when it was safe to overtake. (Fox, 2004, p. 7)

The use of the progressive in (65) seems to serve the function of making it explicit that the driver relied on the narrator's help constantly. *Rely* is not to be interpreted punctually as was the case with *set off* in (64) and hence no contrast between an extended event and a punctual event can be established.

The observation that the progressive marker in *as*-clauses is rare because the schematic meaning of *as*-clauses implies transience by default may indeed turn out to be of some value if we also consider the behaviour of *while*-clauses. *While*-clauses, which are compatible with more stable configurations, seem more prone to take the progressive form. For example, out of the 14 instances of *while*-clauses denoting (relatively) long actions in little more than half of Faber's novel, four of them take the progressive (in total there were 5 *while*-clauses in the progressive out of 64 *while*-clauses of various types, which should be contrasted with the ratio of 7 *as*-clauses in the progressive to a total of 265 *as*-clauses):

- (66) '[...] Besides, I **occupied** myself quite usefully **while** I **was** waiting.' (p. 117)
- (67) Isn't it the idea of it that you ... ah ... *become* pure *while* you're taking the Orders? (p. 242; italics in the original)
- (68) **While** the bath is filling, Sugar **ferrets** about for something to eat. (p. 374)
- (69) What **can** she possibly get up to **while** she's sitting in a church service? (p. 417)

Significantly, when the progressive could be used in the main clause too, i.e. in (68), we observe that the progressive is only used in the subordinate clause. The progressive form seems here to be used to signal transience explicitly. *While* construes a relatively stable temporal frame and the progressive marker reminds us that the event depicted in the *while*-clause is temporary.<sup>28</sup>

Before concluding this section, a final note is needed regarding the observed tendency to the complementary distribution of progressive and simple verb forms. It was pointed out above that the progressive marker seems to be used in either the main clause or the *as*-clause but not in both. In fact, I have found three "exceptions" to this generalisation, which are reproduced in (70)–(72):

- (70) **As** we **were proceeding** down some darkened, narrow street, suddenly people **were stepping** out of the shadows and into the road, kicking doors and heaving whatever came to hand. (Bryson, 1998, p. 60)
- (71) Sheba had **been nodding** vigorously **as** I **was talking**. (Heller, 2003, p. 111)
- (72) **As** Lucas and the others **were leaving** Hurtfew Abbey, Stephen **was dressing** in his bed-chamber at the top of the house in Harley-street. (Clarke, 2004, p. 731)

Observe, however, that the adverb *suddenly* in (70) hints at the punctual nature of the event of our seeing the people moving *out of the shadows*. In a sense, the main clause may be taken to be elliptical for "suddenly we saw people stepping out of the shadows" and is therefore not dissimilar to (61) above, where a contrast between

the temporal extensions of the main and *as*-clauses obtains. Be that as it may, the progressive marker in the main clause is probably needed to indicate that the event of the people's moving out of the shadows went on for some time, that is it was not punctual. Similarly, the repetitive event of Sheba's nodding in (71) may motivate the use of the progressive aspect in the main clause. In (72), the fact that two relatively extended events are described as simultaneous may explain why the progressive form is used in the main clause. The fact that the author employs an *as*-clause rather than a *while*-clause (even if two extended temporal expanses are evoked, cf. *Chris was having a sandwich while Sally was reading a book*) may be due to the fact that a prototypical *as*-verb is used, i.e. *leave*, and that no contrast, unlike most *while*-uses, seems to obtain between the subordinate and main clause events.

To sum up, leaving aside adversative temporal examples (i.e. when *as* is preceded by *even*) as well as cases where *as* is preceded by *just*, the progressive marker seems (generally) to be found only in either the *as*-clause or the main clause. If it is used in the former, it functions as a "slow motion" marker. Alternatively and/or at the same time, the progressive form can also be used to highlight a contrast between the temporal extensions of the subordinate and main clause events. Further, progressive forms seem to be more common in *while*-clauses than in *as*-clauses because *while*-clauses depict more stable events. That is, the progressive marker in *while*-clauses is recruited to signal transience explicitly. The fact that the progressive marker seems to have two different functions in *as*-clauses and *while*-clauses, an imperfectivizing function in the former and a transience-marker function in the latter, is not problematic. The progressive construction, as is used in main clauses, can be regarded as having both functions although linguists usually focus on either (e.g. Langacker, 1991 stresses imperfectivity while Declerck, 1991 highlights transience). Crucially, either function can be foregrounded thanks to the interaction between the progressive marker and the type of construction in which it is used. Since *as*-clauses signal transience, i.e. evoke path events, the progressive marker can be recruited especially for its imperfectivizing/event-internal perspective function. By contrast, since *while*-clauses signal more stable configurations, the transience-highlighting function of the progressive marker becomes crucial.

## 7. Conclusion

Much remains to be done in the study of the conceptualisation of simultaneity.<sup>29</sup> This paper has tried to improve our understanding of how simultaneity is coded explicitly in English by focussing in particular on *as*-clauses. It has been argued that prototypical temporal *as*-clauses can be analysed as outwards projecting background profilers containing path events. The main clause denotes an event

(or events) which is (are) projected or extracted out of the background made up of an unfolding situation (i.e. the path event). It has also been shown that the verb which codes the path event need not be dynamic (e.g. a motion verb) but can also be static (e.g. a verb of posture can be employed). There is no contradiction in viewing static events as path events because the crucial requirement for a verb to occur in an *as*-clause is that the depicted event be construed as being susceptible to change (in the sense of Williams, 2002) or having a high potential for change. The appearance of static verbs in *as*-clauses is therefore analogous to the use of the progressive marker with such verbs in main clauses.<sup>30</sup>

The proposed characterisation of *as*-clauses as path backgrounds also goes hand in hand with the lexical difference postulated for the subordinators *as* and *while*. The subordinator *while* is regarded as evoking temporality by default whereas *as* is probably not specified as a temporal conjunction in our mental lexicon. Hence, *while*-clauses are also compatible with verbs which express properties (e.g. *to be in a location*) alongside paths. The temporal interpretation is guaranteed by the subordinator, which contributes a default temporal “exponent”. If an *as*-clause is used with a property, no temporal “exponent” can be retrieved from either *as* or the verb.

This means that the construal of simultaneity is not the same in *as*-clauses and *while*-clauses. *While*-clauses have been analysed as background profilers onto which, rather than out of which, events are projected. Further, *as*-clauses evoke transience whereas *while*-clauses often occur with more stable situations and longer events (and, in general, they seem more often than not to have an adversative meaning). It has been observed for example that the percentage of motion verbs and change-of-state verbs is indeed very high in *as*-clauses. Also, the progressive marker is used differently in the two constructions. It functions as a “slow motion” (i.e. imperfectivizing) and/or contrastive marker in *as*-clauses and as a transience marker in *while*-clauses. It could be hypothesised that *as*-clauses behave more similarly to other subordinate clauses (which usually contain simpler tense/aspect forms as compared to main clauses when “strong” links exist between the two) whereas *while*-clauses tend to be more similar to main clauses vis-à-vis the selection of aspectual forms.

Finally, it has been shown that the background profiler/path event characterization offered for *as*-clauses applies to prototypical instances alone. It has been argued that at least three more variants should be recognised which are linked to the prototype via family resemblances. That is, *as*-clauses define a network of simultaneity types whose prototypical characterisation may also be extended to non-temporal cases, such as parenthetical *as* and comparative *as*. This network in turn is to be related to *while*-clauses and *when*-clauses, thus defining a more general simultaneity network for English. This implies that simultaneity clauses

are a much richer and more intricate area of inquiry than the lumping together of subordinators *as*, *while* and *when* commonly found for example in dictionaries, even the (*Shorter*) *Oxford English Dictionary*, suggests.

## Notes

\* I am grateful to two anonymous reviewers for their comments. All remaining errors are mine, of course.

1. I will ignore subordinator *whilst* because it is rare and formal. I have only found it in one of the novels used for this paper, namely *The Secret Diary of Adrian Mole Aged 13¾*. This is not surprising since Adrian aspires to become a writer. The use of what he perceives as literary language markers may be expected because he may regard them as capable of enhancing the quality of his writing.

2. Morris (1996) does not offer this verb as an example of a monophasic event. Her example is the verb *wear*, see the text below.

3. Not all linguists agree on the classification of verbs of posture as stative. Declerck (1991, p. 52), for example, regards them as “fully nonstative”. I will not (even) try to settle this issue here (see Williams, 2002 among many others on this topic). Since I will use the term “stative” as a synonym of “monophasic”, verbs of posture can be taken to be stative for our present purposes.

4. As will be pointed out below, (6) has also causative nuances: the wind whips around us because we stand on the seafront. But this is irrelevant to the point made here since a temporal interpretation holds anyway. A similar observation applies to the event denoted by the second *as*-clause in (9). The event of Heidi’s holding the narrator is coextensive with the narrator’s feeling the strength of Heidi’s grip but is also what allows his sensation to come into existence.

5. Admittedly, actual data are more complex than Silva’s analysis suggests. Although infrequent, we may find examples like (i) below:

(i) Mark Hatfield of Oregon, who I worked with for seven years and saw how he took his evangelical Christian faith and applied it to his daily life as he was senator, ...  
([www.stnews.org/archives/2004\\_october/rlr\\_director\\_1004.html](http://www.stnews.org/archives/2004_october/rlr_director_1004.html))

The occurrence of *as* in (i) may probably be justified on the basis of the conceptualisation of one’s being a senator as one’s holding a temporary office (although one can be re-elected indefinitely, of course). Further, note that English speakers also have the shorter, verb-less option *as a senator* at their disposal:

(ii) As a senator, Jones served on a number of committees.

6. Excluding cases where *as* is preceded by *even* and *just* (9 and 2 occurrences respectively), the ratio is 255 *as*-clauses to 64 *while*-clauses.

7. Needless to say, the notion of independence (of a lexical item from the constructions in which it can occur) is just a useful abstraction. The schematic meaning referred to in the text

corresponds to the meaning the conceptualiser may abstract for the subordinators from a wide range of specific occurrences.

8. Of course, the notion of change may also be evoked by *warm* in the context of the sentence at hand (we naturally expect sausages to go cold). But note that here we do not have any lexical element *directly* pointing at change as was the case with *train* in (10), *less and less* in (16) and *halfway across* in (17).

9. The proposal that *while*-clauses evoke a (relatively) stative frame, hence a frame which is extended rather than punctual, accords with Heinämäki's (1978) observation (see also Silva, 1991, p. 644) that *while*-events, unlike *when*-events, do not refer to points in time. That is, *when*-clauses seem to impose fewer restrictions on the types of events they combine with than do *while*-clauses. Although the proper elucidation of the schematic meaning of *when*-clauses lies outside the scope of this paper (see Declerck, 1997 for a detailed examination of *when*-clauses), I would contend that *when*-clauses are prototypically or schematically "temporal navigation" reference points. They serve to orientate the main clause with respect to some event, either potential or actual. They primarily signal a temporal relation between two events. Of course, overlaps between *while* and *when* uses should be expected since *while*-clauses are more specific than *when*-clauses (the former generally require an extended temporal frame. By contrast, extended temporal frames are compatible but not necessary with *when*-clauses).

10. FROWN (Freiburg-Brown) is a one million word corpus of written American English published in 1991 (more information can be found at <http://www.hit.uib.no/icame>).

11. We will see below that temporal *as*-clauses can involve figure/ground reversal, i.e. the event denoted by the *as*-clause can be the figure (rather than the ground). This point should not concern us here because, firstly, I am going to examine non-temporal cases and, secondly, the outwards projecting background profiler characterisation can be regarded as prototypical for temporal cases anyway.

12. Google returned only two hits for *as perhaps you don't know* on 30.11.2004.

13. Of course, it may be the case that, historically, the outwards projecting background profiler schema advanced for *as*-clauses originated from the comparative use of *as*.

14. The analysis of *as*-clauses as outward projecting background profilers justifies Silva's (1991, p. 648) observation that "the actions specified in the predicates of the two clauses [i.e. the main clause and the *as*-clause] [are] seen as an essentially unitary event". This is so because main clause events are (prototypically) extracted from *as*-clause events and, hence, are necessarily part of the latter. Further, the view of *as*-clauses as paths also motivates Silva's claim that the three simultaneity subordinators *when*, *while* and *as* can be arranged along the implicational hierarchy *when* > *while* > *as*, *when* being the most general and *as* the most specific (the hierarchy also seems to reflect their order of acquisition for narrative purposes). *When*-clauses can be analysed first and foremost as "temporal navigation" reference points (see note 9). *While*, on the other hand, codes transitoriness explicitly but does not require a path event as does *as*.

15. I have called this use both adversative and temporal in order to distinguish it from what can be called causal adversative *as*-clauses, which are not preceded by *just* and which require a causal relation to obtain as in the following example reported in Table 2 in Section 5:

(i) Singles decline as album sales boom.

(i) describes two simultaneous events which are related causally (or at least we, as readers, are expected to interpret the headline in that way) and contrastively (the increase in album sales contrasts with the decline in single sales).

16. The first number in each cell refers to the number of tokens per category. The sum of the corresponding percentages (in parentheses) per novel can be greater than 100% because the percentages have been rounded off. For this reason, the total percentage per novel, i.e. 100%, is not included in the bottom row.

17. All editions of *The Wrap* published between 30 July 2003 and 3 September 2003 have been analysed, i.e. 30.07.03, 31.07.03, 01.08.03, 04.08.03, 05.08.03, 06.08.03, 07.08.03, 08.08.03, 11.08.03, 12.08.03, 13.08.03, 14.08.03, 15.08.03, 18.08.03, 19.08.03, 20.08.03, 21.08.03, 22.08.03, 26.08.03, 27.08.03, 28.08.03, 29.08.03, 01.09.03, 02.09.03, 03.09.03.

18. It is worth remarking that form/meaning asymmetries are by no means special in language. A case in point are *there*-presentational sentences, e.g. *There's a cat in the garden*. Although *there* (as well as *a cat*) can be regarded as the subject of the sentence in formal terms, only *a cat* can be analysed as the focus of attention, i.e. can be defined a subject in semantic terms. The interested reader is referred to Broccias (2004, 2005) for more asymmetry examples.

19. It should be pointed out that figure/ground reversal can also affect the directionality of causation. All the examples amenable to a causal interpretation considered so far involve the construal of the *as*-event as the cause for the coming into existence of the main clause event. Still, one can also find (admittedly rare) examples like (i) below. (One more example analogous to (i) is (42) in Section 6 below, which also contains a sound emission verb in the *as*-clause.)

(i) Without speaking [...] the children hammer and gouge, yank and kick, as the sound echoes drily in the harsh air and the framework of the hansom judders on the cobblestones. (Faber 2003, p. 10)

In (i), it is the actions carried out by the children, which are described in the main clause, that cause *the sound* to exist. That is, the main clause event determines the *as*-clause event contrary to what is usually the case. Indeed, (i) is the only example of inverse causation I have come across in Faber's novel. Although this matter deserves further investigation, I would suggest that the paucity of inverse causation examples is probably due to the fact that a background is easier to construe as a causing event than as a caused event.

20. Interestingly, Biber *et al.* (1999) do not analyse possible differences in the use of aspectual markers in main vs. subordinate clauses.

21. I have discarded one more instance because *as* does not occur alone but is preceded by *just*.

22. *Collins Cobuild English Usage* (p. 267) notes, for example, that the simple present tense, rather than *will*, is used in a defining relative clause when the main clause clearly refers to a future event (e.g. *Any decision you make will need her approval*).

23. Linguists often treat the occurrence of such simpler forms as "special" cases. For example, Declerck (1997), as well as Langacker (1991), regards the use of the present simple in an *if/when*-clause, as opposed to a future construction in the main clause, as involving a shift in temporal

domains. The future temporal domain of the subordinate clause is “actualised” or construed as if it were a present one. However, an alternative explanation may not (necessarily) involve any temporal domain shift but, rather, the routinization of a specific diachronic change. Time reference marking is naturally to be expected in main clauses because they function as trajectors (i.e. focus of attention). Therefore, time reference marking may have appeared first in main clauses and not (always) have spread into subordinate clauses. Time reference was retrievable on the basis of main clause marking anyway. Further, the routinization of such patterns does not need to invoke any temporal frame shift mechanism precisely because the structural patterns marking time in main and subordinate clauses are accessed automatically. More generally, whatever explanation we choose, we should not confuse motivation (i.e. the diachronic development of a construction and/or the temporal shift mechanism here) with synchronic representation(s) in the speaker’s mind, see also Broccias and Hollmann (2005) on this important point.

24. I have excluded examples like (i):

(i) And he follows Letty hurriedly downstairs, buttoning his waistcoat as he goes. (p. 255)

where the main verb is not marked for progressive aspect but a participial form follows it. Similarly, I have ignored cases where the reverse situation obtains:

(ii) He’ll barely move for hours, so [...] you are likely to have a more interesting time with Janey and Sophie as they sit in the nursery, waiting for Beatrice to return. (p. 148)

(iii) *Not Sugar, you blackguard, you swine*, thinks William, as he stands squirming in the next room, [...]. (p. 164)

25. This formulation is not necessarily consonant with Langacker’s analysis. As one reviewer correctly points out, verbs in Cognitive Grammar designate processes scanned sequentially rather than “holistic” events. However, the very notion of (sequential) scanning, as applied to verbs, is controversial, see Broccias and Hollmann (2005) and Duffley (2005). Hence, I resort to an alternative formulation, whereby English verbs like *pull*, *leave*, *pay* and *stroke* are, rather traditionally, regarded as designating whole processes, i.e. perfective processes (see also Schiedtová 2004, p. 3 for a similar point). In any case, what is of crucial importance here is the imperfectivizing function taken on by the progressive marker in the examples at hand, irrespective of the mode of scanning for the verb stems.

26. Interestingly, in this novel too no occurrences of the progressive form can be found in the *as*-clause when the main clause is already marked for progressive aspect.

27. This example is the only occurrence of the progressive form in an *as*-clause in the novel under examination (out of 96 instances of temporal *as*-clauses).

28. The suggestion that the progressive marker serves to slow down or imperfectivize events in *as*-clauses and to signal transience in *while*-clauses has also been confirmed by the analysis of such clauses, when used in the progressive, in the LOB (Lancaster-Oslo-Bergen) Corpus (see <http://www.hit.uib.no/icame> for more information on this corpus). 11 instances of progressive *as*-clauses (out of 3376 *as*-clauses marked as subordinate clauses) and 21 instances of progressive *while*-clauses (out of 517 *while*-clauses marked as subordinate clauses) were found. The verbs found in the *as*-clauses belong to the types mentioned in the previous section. They can be divided into change of place verbs (*see (somebody to their car)*, *walk*, *leave*, *go*); natural change

verbs (*turn (into summer)*, *set* (predicated of the sun), *break* (predicated of the dawn)), stative verbs (*sit*); ingressive verbs (*prepare*); others (*put on (a hat)*, *screw* and *glue* (which occur in a conjoined structure)). The verbs found in *while*-clauses are speaking verbs (*chat*, *expound on*, *speak*, *talk*); *wait*; *search*; *write*; *live*; others (*bully*, *knit*, *undress*, *set*, *work*, *swim*, *dance*, *warm up*). That is, with the exception of *undress*, *warm up* and *set*, the verbs found in the *while*-clauses all evoke imperfective processes (rather than change events) by themselves. The progressive form can therefore be taken to mark such imperfective processes as being of a finite duration, much as is the case with main clauses.

29. Among possible topics for future research is for example the analysis of *as*-clause positioning and its interaction with progressive aspect selection. Incidentally, my data show that, contrary to what is reported in usage books like Swan (1995), initial positioning is not necessarily the favoured option (see Verstraete, 2004, among others, for a recent analysis of the position of adverbial clauses). For example, in Ondaatje's novel the ratio of preposed to postposed *as*-clauses is 21 to 75, in Millar's 18 to 22, in Crace's 10 to 37, in Connelly's 49 to 90, in Ali's 32 to 58, in Morrell's 22 to 103.

30. The contention (see for example Morris 1996) that stative verbs do not occur in *as*-clauses is reminiscent of the fact that "[i]t is sometimes supposed that the progressive aspect occurs only with dynamic verbs describing activities or events. However, the progressive can also be used with verbs that describe a static situation. In this case, the progressive expresses the meaning of a temporary state that exists for a period of time" (Biber *et al.*, 1999, p. 471).

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