

***And* as an aspectual connective in the event structure of pseudo-coordinative constructions**

Mark de Vos

Abstract

Semantic “events” – usually encoded by a syntactic structure akin to a verb phrase – are complex constructs. They include a variety of aspectual information such as agentivity, duration, boundedness, perfectivity etc. While some languages utilize specific aspectual markers to encode this information, other languages, like English, do not have the same set of morphological resources to do so. It is argued that English can use connectives to encode subtle aspectual meanings within complex events. I draw parallels between the connecting element in English pseudo-coordinative constructions and reduplicative coordination, arguing that these constructions can shed light on the nature of the aspectual system in English. The implication is that certain strategies to create cohesion can also be used at a semantic and syntactic level to combine and order parts of event structure.

1 Connecting events

Communication through language inherently involves breaking world knowledge into organized chunks of information. Connectives are a valuable means of organizing these chunks, identifying their interrelationships and encoding coherence (Braunwald 1985). In doing so, isolated sentences are transformed into a text. Connectives can also occur within sentences as part of grammatical cohesive strategies.¹ This paper will argue that the English connective *and* is used to encode coherence within event structure and bring out nuances in its meaning.

The English conjunctive connective *and* is highly under-specified with respect to its function. Connectives in general, and *and* in particular are used as markers of cohesion (Halliday and Hasan 1976, Martin 1992, Schiffrin 1987; 2001). In the following examples, coordination assists in encoding a temporal relationship between events.

- (1) a. John fell down the stairs and John broke his leg
- b. John fell down the stairs and he broke his leg
- c. John fell down the stairs and – broke his leg

Example (1a) illustrates one of the most fundamental functions of the connective *and*: the additive function. The sentence simply consists of two independent propositions. There is no relationship of ordering or causality between the conjuncts.

Interestingly, the greater the level of syntactic cohesion, the greater the sense of temporal ordering and causality. Example (1b) has a stronger sense of cohesion (assisted by the pronoun) and the sense of temporal ordering is quite pronounced. Finally, example (1c) has a subject gap in the second conjunct (another indicator of cohesion) and the sense of temporal ordering is extremely distinct. It is not possible to construe (1c) as involving separate, unrelated events. In other words,

this example involves a complex event consisting of two sub-stages of the main event. Here *and* assists in encoding a complex event. The temporal dependency is supported by the fact that the two conjuncts are non-commutable.

Examples (1b,c) illustrate a second function of *and*, namely segment ordering (Evers-Vermeul 2005, Sanders 1992). Importantly, additive connectives such as *and* are often compatible with, and supportive of, a causal function although they do not necessarily encode causality in and of themselves (Evers-Vermeul 2005:14).

1.1 *Connectives and pseudo-coordination*

The examples in (2) are instances of ‘ordinary’, boolean coordination. The presence of a subject in both conjuncts demonstrates that each conjunct is at least an IP. The events referred to in each conjunct are distinct from each other. For example, in (2a), there is a literal event of Caesar going across the Rubicon and another, independent event of Caesar conquering Gaul. The temporal ordering of the conjuncts is irrelevant and is not necessarily reflected in the ordering of the conjuncts.

- (2) a. Caesar went across the Rubicon and he conquered Gaul
b. Caesar sat in his chair and he read the parchment

Pseudo-coordination in English typically involves a lexical verb, the connective *and* and a verb such as *go* or *sit* (3a,b).² I would also like to consider instances of reduplicative coordination (3c) under the rubric of pseudo-coordination (De Vos 2004).³

- (3) a. Caesar went and read the parchment!
b. Caesar sat and read the parchment
c. Caesar read and read in his tent all night

The coordination in these types of examples are quite distinct from those in (2). The coordinated verbs and the connective are superficially contiguous and there is no overt subject in the second conjunct. In addition, there are syntactic and semantic differences between (2) and (3) that will be explored in the following sections. These properties have led many researchers to analyze *and* in this context as a subordinative connective (among others Carden and Pesetsky 1977, Gleitman 1965, Johannessen 1998, Wiklund 2004; 1996).

1.2 *Structure of this paper*

Section 2 explains why examples like (3) can be considered pseudo-coordinative in nature. It is argued that the subset of English pseudo-coordinative structures illustrated by (3) can be analyzed as complex predicate heads. This opens up ways of exploring the aspectual meanings associated with pseudo-coordination in section 3. This leads to a discussion of the *Aktionsart* properties of pseudo-coordination and section 4 develops the idea that pseudo-coordination plays a connective role within the event structure of the complex predicate.

2 Pseudo-coordination

The following section briefly outlines arguments to show that examples like those in (3) are considered pseudo-coordinative in nature.

2.1 Extraction

One of the defining characteristics of pseudo-coordination is that it freely allows extraction from the second conjunct. In other words, filler-gap dependencies can be formed by associating a fronted WH-word with a corresponding gap in non-subject position. This observation goes back at least to Ross (1967) who noted that pseudo-coordinative structures differed in this regard to ‘ordinary’ coordinative structures.

Coordinative structures are subject to the Coordinate Structure Constraint (CSC) and the Across-the-Board (ATB) exception to it (Ross 1967, Williams 1978).

- (4) a. **CSC:** In a coordinate structure, no conjunct may be moved, nor may any element contained in a conjunct be moved out of that conjunct (Ross 1967:89).
b. **ATB:** In a coordinate structure, the same constituent may be extracted from within all the conjuncts simultaneously (Ross 1967, Williams 1978).⁴

In the following illustrations of the CSC, example (5a) is the base sentence. In subsequent examples the gap is marked by *t*. Examples (5b,c) contain coordinated clauses, from which an NP has been extracted from the first and second conjuncts respectively. The result is ungrammatical and is an example of a CSC violation. Example (5c) shows that when the same constituent is extracted from both conjuncts, the result is grammatical. This is an example of the ATB exception to the CSC.

- (5) a. Elizabeth admired Sir Robert and Paris had the hots for Helen
b. *Who did Elizabeth admire *t* and Paris have the hots for Helen? [CSC]
c. *Who did Elizabeth admire Sir Robert and Paris have the hots for *t*? [CSC]
d. Who did Elizabeth admire *t* and Paris have the hots for *t*? [ATB]

Pseudo-coordinative constructions are different in this respect. It has often been noted that pseudo-coordinative constructions in English and other languages license extraction in non-ATB fashion (among others Carden and Pesetsky 1977, De Vos 2004, Gleitman 1965, Goldsmith 1985, Lakoff 1986, Ross 1967, Schmerling 1975, Wiklund 1996).

- (6) a. What was the parchment that Caesar went and read *t*?
b. What was the parchment that Caesar sat and read *t*?
c. What was the parchment that Caesar read and read *t* all night?

It is important to note that in subsequent examples, extraction of this type will be used to filter out the unwanted ‘ordinary’ coordinative readings and ensure pseudo-coordinative readings.⁵

2.2 *Coordinator substitution*

Another indicator of pseudo-coordination is the inability to substitute the coordinator *and* with another such as *or* (Schmerling 1975). Ordinary coordination allows one coordinator to be substituted for another and retain grammaticality (at the expense of a semantic change).

- (7) a. John both ate some cake and drank some tea
- b. John either ate some cake or drank some tea

Coordinator substitution is not possible with pseudo-coordination as the following contrasts indicate.

- (8) a. What was the parchment that Caesar went and read *t*?
- b. *What was the parchment that Caesar went or read *t*?
- (9) a. What was the parchment that Caesar sat and read *t*?
- b. *What was the parchment that Caesar sat or read *t*?
- (10) a. What was the parchment that Caesar read and read *t*?
- b. *What was the parchment that Caesar read or read *t*?

2.3 *Distributivity*

Ordinary coordination can support *both* modification of the coordinated verbs. Since *both* is a distributive operator over two separate events, it is not at odds with ordinary coordination where two independent propositions are coordinated.

- (11) John both ate some cake and drank some tea

Pseudo-coordination constructions do not permit modification by *both*. Example (12a) is an ordinary coordination construction that superficially looks like pseudo-coordination. However, examples (12b,c) show, that when extraction is used to force a pseudo-coordination reading, then modification by *both* is not possible.

- (12) a. John both went and read the book
- b. *What did John both go and read *t*?

Intuitively, the reason for this is that pseudo-coordination instantiates only a single event. Since *both* requires distribution over two events, it is not able to occur in pseudo-coordinative contexts.

2.4 *A morphological argument*

Morphological facts also suggest that the pseudo-coordinative examples like (3) are different to ordinary coordination. In cases of ordinary coordination, verbs with different morphological forms can be coordinated. Example (13) shows that a clause with a participle can be coordinated with a clause containing a future modal.

- (13) Caesar has eaten some carpaccio and he will probably feel ill tomorrow

However, in pseudo-coordinative structures such as (3), the morphological specifications of both verbs must be identical in accordance with the following generalization (see also Pullum 1990).

- (14) **Morphological ‘Sameness’ Condition (MSC):** Both verbs of a pseudo-coordinative construction must have the same *d* type of morphological specification i.e. both verbs must be either bare or morphologically marked with present, past, participle or similar.

This is illustrated with respect to the past tense in the following examples. The same point can be demonstrated with the present tense as well as with participle and future forms (De Vos 2005).

- (15) a. I wonder what Caesar went and ate *t*?
b. *I wonder how Caesar went and eats *t*?
c. *I wonder what Caesar goes and ate *t*?
- (16) a. I wonder what Caesar sat and ate *t*?
b. *I wonder what Caesar sat and eats *t*?
c. *I wonder what Caesar sits and ate *t*?
- (17) a. I wonder how long Caesar ate and ate for *t*?
b. *I wonder how long Caesar ate and eats for *t*?
c. *I wonder how long Caesar eats and ate *t*?

2.5 *Summary*

This section outlined some arguments showing that pseudo-coordination is distinct from ordinary coordination. Evidence included the ability to extract a constituent in non-ATB fashion from the second conjunct, inability to substitute the coordinator with another, ungrammaticality of distributive operators, and the fact that the morphological specifications of the verbs must be identical. These data also illustrated that pseudo-coordinative constructions with *sit* and *go* behave identically to reduplicative coordination.

3 Towards a circumscription of the meaning of pseudo-coordination

Having discussed some of the syntactic properties of pseudo-coordination, the following section explores the meaning of different types of pseudo-coordinative constructions. Three main points will be made. First, the pseudo-coordinative verb often appears to be semantically bleached. Second, it appears that each pseudo-coordinative construction has a specific ‘flavour’ of meaning which are contributed by the properties of *go*, *sit* etc. respectively. These ‘flavours’ are determined by the properties of these verbs independently of their occurrence in pseudo-coordinative contexts. Third, the pseudo-coordinative verb focusses on internal sub-stages of the event.

3.1 Semantic bleaching of the pseudo-coordinative verb

The meaning of pseudo-coordinative structures like those in (3a,b) is quite subtle. First of all, it seems that the first verb (i.e. *go* or *sit*) does not necessarily contribute a literal semantic interpretation. This is illustrated by example (18) where a weather verb occurs in a pseudo-coordinative context. Clearly there is no literal interpretation of *go*.

(18) It went and rained

Similarly, in the following example, it appears that the verb *sit* does not contribute a literal meaning of *sitting* insofar as the helicopter is hovering in the air. In this context, *sit* implies a sense of location with corresponding ‘lack of dynamicity’ (Koops 2004) on the part of the subject.

(19) These helicopters are piloted with “a computer control panel” which enables them to “fly and sit and hover,” Fischel tells MassNews. “I didn’t believe it until I saw it myself,” he says
(http://www.massnews.com/2002_editions/12_Dec/122302_mn_uss_constell.shtml (14.07.2004))

The fact that the posture verb is bleached is driven home with the following contrast from Koops (2004:20). The negation of a pseudo-coordinative construction serves to negate the lexical verb and not the posture verb.

(20) a. I’m not going to sit and read *War and Peace* if I can rent the movie!
b. ??I’m not going to sit and read *War and Peace* if I can stand and read it! (Koops 2004:20)

Importantly, semantic bleaching is not a necessary property of pseudo-coordinative structures. This is illustrated quite simply with a reduplicative example like (3c) reprinted here.

(21) Caesar read and read in his tent all night

Since *read* is a lexical verb, it is not particularly grammaticalized. In this example, it contributes its full lexical meaning. Similarly, many pseudo-coordinative constructions with *go* and *sit* are compatible with literal interpretations when the context is consistent with such a reading.

3.2 *Sit: focus on lack of dynamicity*

Pseudo-coordination with true posture verbs such as *sit* and *stand* tends to focus on the lack of dynamicity of the action involved (Koops 2004).

- (22) a. Why did you stand and watch while the thugs beat up the old lady?
b. Why did you sit and watch while the thugs beat up the old lady?

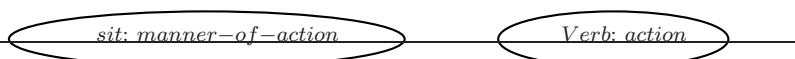
In this example, the focus is not necessarily on whether the observer actually *stood* or *sat* while the lady was attacked. Instead, it is a question about why the observer was *passive* during the confrontation. Such an interpretation is consistent with cross-linguistic correlations between posture verbs.

Cross-linguistically, posture verbs instantiate a cline of activeness and potential power independently of their occurrence in pseudo-coordinative constructions (Newman and Rice 2001). Thus, *lie* can be seen as a position of very low power and is associated with passivity, sickness, death etc. In contrast, *stand* is a posture of relatively more power, although it still encodes lack of dynamicity.

- (23) $lie \rightarrow sit \rightarrow stand$
LESS ACTIVE ————— MORE ACTIVE

This cline can also be seen in non-pseudo-coordinative contexts (Newman and Rice 2001). Thus, it is not pseudo-coordination *per se* that is responsible for this ‘passive’ interpretation, but rather the posture verb. In effect, posture verbs encode relative lack of dynamicity; let us refer to this as their having a [DYNAMICITY] feature.

Thus, given a particular event (indicated by the continuous time-line), the lexical verb indicates the type of action that characterizes the event. The pseudo-coordinative verb *sit*, in conjunction with pseudo-coordination places focus on a manner component within the event, emphasizing the relative lack of dynamicity involved in the action.

- (24) ————  ————

3.3 *Go: Focus on prospective nature of event*

The verb *go* brings another flavour to the constructions it occurs in. Examples like the following ones often encode a sense of counter-expectationality, surprise and agentivity.

- (25) a. The gladiator got killed
b. The gladiator went and got killed

The sentence in (25a) is a neutral statement about the murder of the gladiator. In contrast, (25b) implies that the gladiator was actively involved in the build-up to his death; that he perhaps did something (stupid) that resulted in his own death. While such a reading is of course consistent with a neutral sentence (25a), it is explicitly coded through pseudo-coordination in example (25b). Thus, pseudo-coordination seems to bring into focus, existing aspects of the event structure of the verb. In this case, it is the build-up to – the incipient nature of – the main part of the event which is brought into focus. Thus, in a pseudo-coordinative construction, while the lexical verb indicates the type of action characterizing the event, the verb *go*, in combination with pseudo-coordination, places focus on the build-up to the action.



In focussing on the incipient nature of the event, there is the implication that the subject brings the event into being; that the subject is an active agent in the initiation of that event. I will call this the pseudo-causative reading associated with *go*.

The reason why *go* has this property is that this verb can be characterized as having a [PROSPECTIVE] feature in its lexical specification. Evidence for a prospective feature associated with *go* is provided by the following example which is consistent with a reading where although everybody will eventually die, it is not the case that they have all already started dying. The sentence merely makes a claim about the prospect of eventually dying.

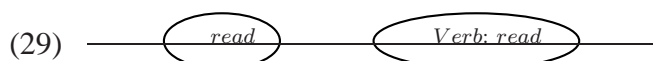
(27) It is a fact that everybody is going to die

3.4 Reduplicative coordination: focus on the event itself

Reduplicative coordination can be described in very similar terms to the previous examples. Like pseudo-coordination with *sit* and *go*, reduplicative coordination focusses sub-stages of event structure. In particular, it is the event itself that is brought into focus, yielding interpretations consistent with intensity and/or a protracted nature. In the following example, there is the reading that the event – in this case reading – is carried out to an excessive or intensive degree.

(28) Caesar read and read in his tent all night

In this case, the second verb indicates the type of action involved in the event i.e. it is a *reading* event. The first verb, in combination with pseudo-coordination places focus on that part of the event which is concerned with the actual *reading*. Thus, pseudo-coordination serves to focus the nature of the event itself.



3.5 Summary

The meanings associated with pseudo-coordination are subtle. In this section, these meanings have been described and explained. It has been suggested depending on which verb is involved, the interpretative ‘flavour’ of the construction is altered.

- *sit*: focus on manner: lack of dynamicity of the activity
- *go*: focus on the preparatory stage of the activity
- Reduplicative: focus on the activity itself (intensification)

It has also been shown that these ‘flavours’ are not a unique property of pseudo-coordination itself but follow from the general properties of the verbs involved. Instead, what is specific to pseudo-coordination is that the focus is placed on an sub-stage of the main event itself. In order to do so, pseudo-coordinative constructions necessarily require complex events with internal structure; by definition this is a durative event and pseudo-coordinative constructions are thus inherently aspectual.

4 Connecting *Aktionsarten*

The previous section explored the meanings encoded by pseudo-coordinative verbs. In the following section, I will focus on the nature of the connective itself. I will argue that the connective, *and*, can be analyzed as a true coordinator within the argument structure of the event. It will also be suggested that its role is remarkably similar to its function at discourse level, namely that it has additive and ordering functions that make the complex event cohesive and to place focus on sub-stages of that event.

4.1 *Aspect, Aktionsart and event structure*

Until this point, I have referred to the fact that pseudo-coordinative constructions are aspectual and focus various aspectual sub-stages of the complex predicate. Although aspect and *Aktionsart* are often referred to collectively as aspect, it is important to distinguish them. By the term ‘*Aktionsart*’, I refer to situation aspect (Smith 1997), an inherent property of verbs whereby they are specified as being bounded or unbounded. This reduces to the Vendlerian distinction between states, activities, achievements and accomplishments.

- (30) Caesar resembled Marcus Maximus [State]
- (31) Ben Hur won a race [Achievement]
- (32) Caesar sent the captives back home [Accomplishment]
- (33) Hannibal’s legions trudged through the snow for hours [Activity]

Every event may have a starting point, *initium*, a process, *cursus* or an ending point, *finis* (Dowty 1979, Tenny 1987, Vendler 1957, Verkuyl 1972; 1993). This is what Johanson (1996) calls the ‘Internal Phase Structure’ which reduces to the distinction between telic and atelic predicates. The *cursus* can be represented as a phase φ , a non-punctual stretch of time corresponding to Vendler’s [+PROCESS], and the *finis* can be represented as a *telos* τ , a point of punctual change corresponding to Vendler’s [+DEFINITE]. The resultant classification is basically that of Vendler (1957). φ can be subdivided into subparts whereas τ , being punctual, cannot be subdivided any further. States, having no apparent internal structure, cannot be subdivided either.

Table 1: Vendler Classes

Asp. Class	Vendler Class	Notation
States	-PROCESS,-DEFINITE	[–]
Achievements	-PROCESS,+DEFINITE	[τ]
Accomplishments	+PROCESS,+DEFINITE	[φ, τ]
Activities	+PROCESS,-DEFINITE	[φ]

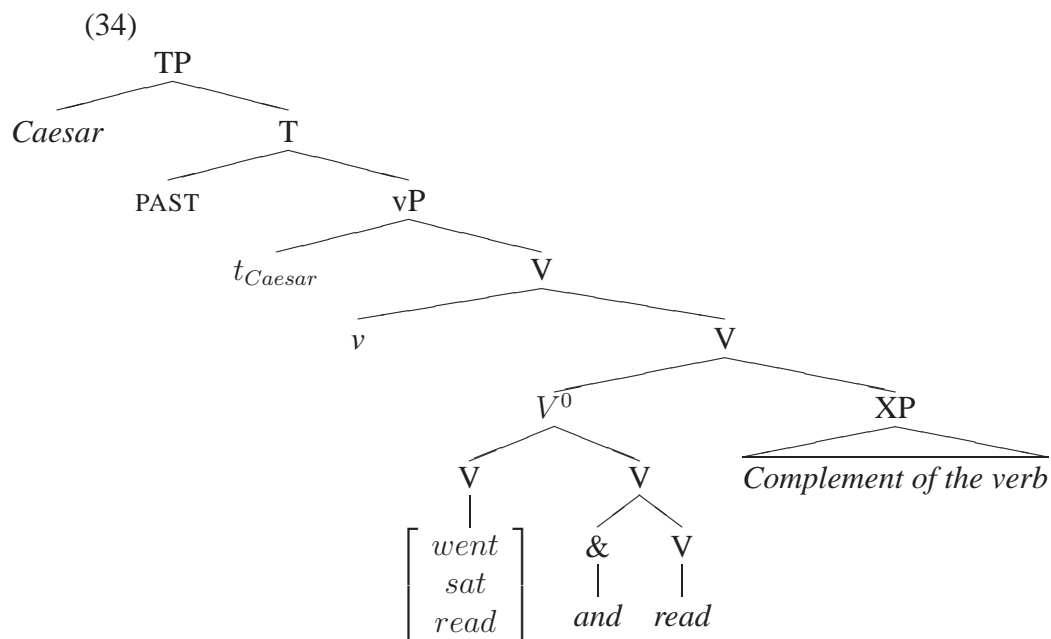
It is important to note that the *Aktionsart* of the verb is generally lexically specified and is not a property of clauses. It is simply a lexical fact that some verbs such as ‘wander’ are activities whereas other verbs such as ‘shoot’ are punctual. This is not to deny that there are interactions

between the lexical *Aktionsart* of a verb and other entities within the clause, such as the direct object. Thus, an unbounded activity verb can be provided with an endpoint by an appropriate DP.

Aktionsart should be contrasted with viewpoint aspect, which, although it has commonalities with *Aktionsart*, is an external view of an event as to whether it is starting, progressing, completed etc. regardless of its Vendlerian class (Comrie 1976). Henceforth, when the term ‘aspect’ is used, it refers to viewpoint aspect.

4.2 Coordination of heads and event structure

Given the preceding discussion that pseudo-coordination involves processes within event structure, I follow the intuitions of Cormack and Breheny (1994), Koops (2004), Pollock (1994), Postma (1995), Stefanowitsch (1999) in claiming that pseudo-coordination involves a complex head. This has been formalized by De Vos (2004), De Vos (2005) as involving ‘true’ coordination at the level of the head to form a complex predicate.⁶ The implication of this is that the so-called pseudo-coordinative connective *and*, is in fact, a true, coordinative connective within the event structure. Consequently, it is expected that it will display properties of coordination including additive and ordering functions in the service of the coherence of the event itself.



Since coordination is central to the following discussion it is necessary to outline some fundamental assumptions about the nature of coordination. Two sets of assumptions will be taken for granted: (i) the Coordinate Structure Constraint and (ii) the Law of Coordination of Likes.

The previous discussion already touched on the subject of the Coordinate Structure Constraint (4a). In addition to this, coordination in natural language almost always coordinates (at least two) similar entities – an extension of the additive function.⁷ The level of similarity is not necessarily restricted to syntactic category but is also related to semantic function (Dik 1968, Haspelmath 2005, Munn 1993, Peterson 2004, Sag et al. 1985, Schachter 1977). In the literature, this property is known as the Law of Coordination of Likes. Notwithstanding a number of well-known exceptions to this principle (Bayer 1996, Dik 1968, Lakoff 1986, Postal 1998, Progovac 1998a;b, Sag et al.

1985, Zoerner 1995), I assume it to be operative and to be ultimately derived from a deep property of the additive function of coordination.

These conservative assumptions about coordination lead to two converging predictions. Given the preceding discussion coordination should potentially be able to coordinate *Aktionsart* features (i.e. φ and τ) present within the event structure of the predicate. By virtue of the Law of Coordination of Likes, such features must be equivalent.

- (35) a. **Prediction 1:** Pseudo-coordination interacts with *Aktionsarten*.
b. **Prediction 2:** Pseudo-coordination involves coordination of ‘like’ features.

4.3 *Pseudo-coordination as a system of Aktionsarten*

This section explores the types of verbs that pseudo-coordinative constructions can co-occur with. The following examples show that verbs like *go* are the least restricted in their distribution, occurring with Activities, Accomplishments and Achievements (examples (36) to (39)). *Sit* is more restricted, occurring only with Activities and Accomplishments (examples (40) to (43)). Reduplicative coordination has the most restricted distribution, occurring only with Activities (examples (44) to (47)).

Go:

- (36) *John went and resembled his father? [State]
(37) Which board-game did John go and win? [Achievement]
(38) Who did John go and drive back home in two hours? [Accomplishment]
(39) Which board-game did John go and play for hours? [Activity]

Sit:

- (40) *Who did John sit and resemble? [State]
(41) *?Which board-game did John sit and win? [Achievement]
(42) What did John sit and eat 43 of in only 30 minutes? [Accomplishment]
(43) Which board-game did John sit and play for hours? [Activity]

ReCo:

- (44) *John resembled and resembled his father [State]
(45) *John won and won the race [Achievement]
(46) *John ate and ate 46 hamburgers in only 2 hours [Accomplishment]
(47) John walked and walked for hours [Activity]

These examples show that the pseudo-coordinative constructions utilizing *go*, *sit* and reduplicative coordination form a gradually more restrictive system of meanings.⁸ These are tabulated in (48). Prediction one (35a) has been born out: it has been demonstrated that pseudo-coordination does interact with *Aktionsarten*. The other half of the prediction – that only ‘like’ *Aktionsart* features can be coordinated – will be discussed in the following section.

	STATE	ACHIEVE.	ACCOMPL.	ACTIVITY
(48) <i>go</i>	*	✓	✓	✓
<i>sit</i>	*	*	✓	✓
<i>verb & verb</i>	*	*	*	✓

4.4 *Aktionsarten and Coordination of Likes*

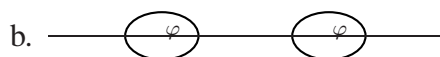
It has been proposed that pseudo-coordination involves coordination within event structure. Events can be decomposed into punctual occurrences τ and non-punctual stretches φ . τ are discrete and cannot be subdivided further, whereas φ can, by definition, be subdivided into smaller instances of φ . These are the fundamental units of event structure, and it can be demonstrated that it is precisely these units that are coordinated.

4.4.1 *Sit:*

The verb *sit* implies a static location, which is an activity of *sitting*, or being at a certain location. The verb *sit* thus has the *Aktionsart* specification of φ . Similarly, *play* is an activity: φ . When both these sub-stages of the *playing* event are coordinated, the LCL is satisfied. This is a corroboration of the second prediction in (35b).

- (49) a. *Which board-game did John sit and play for hours?*
 $[\varphi]$ and $[\varphi]$

[Activity]



The verb *eat* combines with a direct object to create an accomplishment: $[\varphi, \tau]$. Since there is still some part of the event that is in common with the specification of *sit*, coordination of φ can still satisfy the LCL. However, not all the *Aktionsart* features are within the scope of coordination.

- (50) a. *What did John sit and eat 43 of in only 30 minutes?*
 $[\varphi]$ and $[\varphi, \tau]$

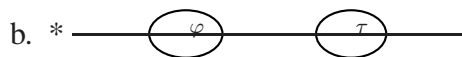
[Accomplishment]



It is, however, *not* possible for coordination of sub-stages to occur when the sub-stages are of a fundamentally different type. This would be a violation of the LCL. The fact that examples like (51a) are ungrammatical corroborates the idea that the LCL is indeed operative at sub-stage level. This is confirmation that pseudo-coordination really does involve true coordination.

- (51) a. *?Which board-game will John sit and win?
 [φ] and [τ]

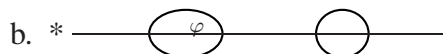
[Achievement]



States cannot occur in pseudo-coordinative contexts because states have no internal structure. In other words, there are neither τ nor φ to coordinate. Since there are no sub-stages, there can be no coordination of sub-stages.

- (52) a. *John will sit and resemble his father
 [φ] and [-]

[State]



4.4.2 Go:

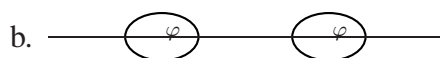
The verb *go* has the least restricted distribution of any of the pseudo-coordinative predicates. This is also because *go* is the most grammaticalized of the verbs under discussion. The following examples demonstrate that the specification of *go*, independently of pseudo-coordinative contexts, can be either φ or τ .

- (53) a. Alexander went to India for for 10 days [φ]
 b. Alexander went across the sea to India in 10 days [φ, τ]
 c. Alexander went ballistic [τ]

Example (53a) shows *go* as an activity: [φ]. However, *go* can also be construed as an accomplishment – a bounded activity (53b): [φ, τ]. Finally, it is also possible for *go* to imply a punctual change as in (53c): [τ]. Given the underspecified *Aktionsart* of *go*, it is expected that this affects the kinds of predicates it may be combined with. In the following example, the φ features of *go* allow it to combine with activities.

- (54) a. Which board-game did John go and play for hours?
 [φ] and [φ]

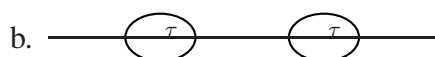
[Activity]



The verb *win* is an achievement specified as τ . The specification of *go* as τ enables it to combine with achievements.

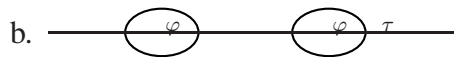
- (55) a. Which board-game did John go and win?
 [τ] and [τ]

[Achievement]



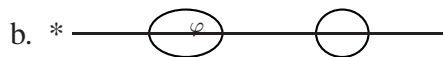
The verb *go* can also be combined with accomplishments in the same way that *sit* can. The Law of Coordination of Likes ensures that two features of the ‘same’ kind are coordinated, the remaining features remaining beyond the scope of coordination.

- (56) a. *Who did John go and drive back home in two hours?* [Accomplishment]
 $[\varphi]$ and $[\varphi, \tau]$



Finally, *go* cannot be combined with states for the same reason that *sit* cannot. States simply do not contain any internal structure which can be modified.

- (57) a. **John went and resembled his father*

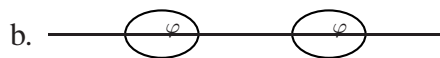


4.4.3 *ReCo*:

In reduplicative coordination, the same verb appears in both conjuncts. The role of the first verb is to determine the nature of the action carried out. The second verb determines what part of the event will be brought into focus. Since both verbs are identical, the effect is to place focus on the event itself.

A verb like *read* is an activity. Its event structure is thus composed of φ which, by definition, can be subdivided into further instances of φ . Since both verbs are identical, when sub-stages of the event are coordinated, φ is in both conjuncts. This is schematically illustrated. The LCL is respected.

- (58) a. *John read and read all day long*
 $[\varphi]$ and $[\varphi]$



It is also possible for reduplicative coordination to occur with punctual or bounded predicates as long as they are construed as being durative. A punctual predicate consists of τ which cannot be subdivided. There are three possible ways of construing a punctual predicate as being durative: by means of (i) an iterative interpretation, (ii) a serial interpretation and (iii) by coercion of the event structure. these will each be dealt with in turn.

Iterative readings: One way of construing a τ as a durative event is to interpret a sequence of punctual sub-stages of an event as being part of a larger durative event. This yields an iterative reading.

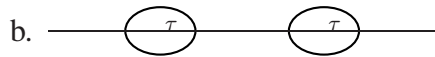
- (59) a. *John shot and shot at the rabbit*
 $[\tau]$ and $[\tau]$



Example (59) has a reading where John repeatedly, and excessively, pumps bullets into the rabbit. In other words, the punctual predicate *shoot* is interpreted as being a serial activity. In terms of the proposed structure, one verb determines what kind of event it is: an event of *shooting* with the internal structure τ . The second verb provides an additional τ , thus allowing an iterative reading with ordered sub-stages of τ . It is in this context that the temporal ordering function of the connective become apparent.

Serial readings: A second way of construing a punctual event as being durative is by means of a serial reading. A serial reading is frequently licensed by a plural subject and differs from the iterative reading insofar as a series of events are distributed across a plurality of subjects.

(60) a. *The police shot and shot at the protesters*
 [τ] and [τ]



In example (60), a reading is possible whereby many shots were fired at the protesters, but each police officer need only have shot once. Thus, a series of *shooting* sub-stages of a larger, complex event of *riot control* are distributed across a plurality of subjects. In this way, a punctual predicate is conceived of as being durative.

Coerced readings: The third way of construing a bounded predicate as being durative is to coerce its *Aktionsart* properties. Not all verbs are able to be coerced and this is at best a marginal property. However, it does provide an intriguing insight into the way pragmatics can constrain syntactic structure (for a similar view, see Bickel 1997, Ward and Birner 2001).

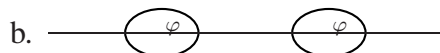
The verb *drown* is inherently an accomplishment insofar as it involves a cumulative process of drowning (φ) followed by a bounding point (τ) which necessarily implies the death, by drowning of the subject. Thus (61) necessarily implies that Shelly died by drowning.

(61) Shelly drowned

However, in the case that a subject is singular, there are a very limited number of cases where inherent endpoints can be deaccented in the context of reduplicative coordination.

(62) a. *And he just drowned and drowned and I saw his head go under*
 [φ, τ] and [φ, τ]

(<http://www.abc.net.au/austory/transcripts/s418748.htm> (14.07.04))



But note that the entailments of this example are very different to those of (61). Whereas (61) entails that Shelly necessarily dies by drowning, (62): (i) does not entail that death follows immediately after the first sub-stage of the drowning event or (ii) at all. Thus the only possible reading for (62) is that drowning is a durative event and that each *drown* is actually a sub-stage of the larger drowning event. It is not even necessary that the subject eventually dies in this example, in contrast to normal usage of this verb. Thus for (62) it would be perfectly felicitous to continue the dialogue in the following way.

(63) ... but suddenly a lifeguard put an arm around him and lifted him to safety

Thus, it is possible, depending on context, that the endpoint inherent in *drown* is deaccented. In other words, it is φ which is being coordinated in (62) at the expense of τ . This is compelling evidence for the LCL within the event structure as well as for the role of pragmatics in influencing syntactic structure.

5 Conclusion

This paper has provided a comprehensive account of the role of connectives in English pseudo-coordinative constructions. (i) Pseudo-coordination is shown to involve the manipulation of the internal structure of the event. (ii) It is shown that the subtle but precise meanings of pseudo-coordinative constructions are provided by the nature of the first verb, namely *sit* or *go* or a reduplicated verb. In each case, the meanings of these verbs independently of their occurrence in pseudo-coordinative constructions determine their behaviour in pseudo-coordinative contexts. (iii) The role of the connective is surprisingly quite similar to the connective functions of *and* in other contexts. In other words, *and* has an additive function and may serve to encode ordering of substages of events in a way that enhances the cohesion of the complex event.

Notes

¹This runs against a trend within the field that suggests that cohesive connectives primarily occur at a supra-syntactic, textual level (Halliday 1973, Schiffrin 1987) rather than grammatical cohesion at a syntactic level (Gutwinsky 1976, Martin 1992). This is what Martin (2001:36) refers to as ‘a territorial dispute over how much work the grammar is expected to do in discourse analysis’.

²There are also some instances of *come* being used fairly frequently, with other marginal usages with verbs like *lie* and *run* (Pullum 1990). In addition some authors include *try* in the same category (Carden and Pesetsky 1977, Stefanowitsch 1999). While *try* can indeed be regarded as pseudo-coordinative, there are very good reasons why pseudo-coordinative *try* constructions with *try* are quite distinct from those with *go* and *sit* (Pullum 1990). They will not be considered in this paper. In addition there is a subset of pseudo-coordinative constructions named Scene-setting coordination (De Vos 2005). For reasons of space, these will also not be considered in this paper, although they might conceivably be amenable to a similar treatment.

³Reduplicative coordination is also called augmentative coordination (Haspelmath 2005) and includes non-verbal examples like *up and up*, *more and more* and *higher and higher*. To claim that there are valid instances of pseudo-coordinative reduplicative coordination is not to deny the existence of sentences with coordinated IPs: *Caesar read and he read and he read!*.

⁴The extracted constituent must perform the same general semantic function in both conjuncts e.g. it must be a deep subject in both or an object in both etc.

⁵This is because coordinative structures can be ambiguous between ‘ordinary’ coordination and pseudo-coordination. In fact, it has been shown by De Vos (2005) that, in English, pseudo-coordination itself is not a unitary phenomenon, but can be subdivided into structures that allow extraction of any element and structures that only allow extraction of arguments. It is the former that are the primary focus of this paper.

⁶See De Vos (2005) for a detailed discussion.

⁷Dik (1968) traces this concept back to antiquity.

⁸See Wulff (2005) for a corpus study of constructions with *go* which corroborates the findings for this verb.

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