# Ranking for cognitive salience of events and coding them into a sentence format

## Janusz Badio

# University of Łódź, Poland

#### Abstract

This article discusses the use of different syntactic options in the construal of events. The examples selected for presentation and analysis come from a study by Badio (2014). This work understood *construal* to be non-linguistic, mental or conceptual, i.e. related to thought, whereas the term *coding* was reserved for the use of form to signal aspects of a conceptualisation. The present work focuses on demonstrating that if they are prominent, events tend to be coded with finite verb forms (of the superordinate) clause, followed by participial and infinitive constructions. The former contain the full processual profiles when they are used to relate the main participants, the subject and object. Infinitives and participles tend to be less cognitively salient, whereas nominalisations and other nonverbal options background the processual profile of an event. As a consequence, events coded with them are less salient within a clause or a sentence.

**Key words:** construal, coding, event, clause, verb forms, nominalisation, cognitive prominence, salience

#### 1. Introduction

Relating conceptual structure to linguistic structure is termed *coding* (Langacker, 2008, p. 357). It is seldom straightforward. Badio (2014) reserves the term *construal* to conceptual structure, i.e., the structure of thought and advocates applying the term coding to the use of language form. This solution was also suggested, albeit indirectly perhaps, by cognitive linguists (cf. Croft & Cruse, 2004; Langacker, 1991; Talmy, 2000, 2007), who agree that an expression involves the semantic and phonological poles with correspondences between them. The semantic pole of an

<sup>&</sup>lt;sup>1</sup> The term *event*, i.e. "a segment of time at a given location perceived by an observer to have a beginning and end" (Zacks & Tversky, 2001:7) is in this work also applied to static states, situations and activities despite the observation that *states* are not bounded in time.

expression is also called its *conceptual structure*, whereas the phonological form is synonymous with the term *language form* in speech and/or writing.

Processes of construal are active, dynamic and depend on current goals as well as linguistic abilities of a language user. S/he recruits (often automatically and below the level of conscious awareness) linguistic structure selectively to instruct a language comprehender as regards variable levels of *cognitive prominence* of the aspects of the conceptual structure. The resulting elements of linguistic structure foreground or background the corresponding aspects of a conceptualisation.<sup>2</sup> Attention becomes a semantic feature of conceptual structure and language form (Barsalou, 1999). The ultimate goal of construal operations is proper ranking for salience of the elements of conceptual structure and adequate instructing about it with linguistic structure (the signalling system).

The description of linguistic coding options in relation to the amount of attention was undertaken by Talmy (2007, p. 264), who says that:

[...] language has an extensive system that assigns different degrees of salience to the parts of an expression or of its reference or of the context. In terms of the speech participants, the speaker employs this system in formulating the expression; the hearer, largely on the basis of such formulations, allocates his or her attention in a particular way over the material of these domains.

Relative to the choice of form, attention in language is either increased or decreased on the entity that the form designates with different factors working together rather than alone.

In general, attention tends to be more on meaning rather than form, more on the overall meaning than the meaning of individual words, more on the meaning as it arises in context than other possible interpretations. Also, attention in language operates in a similar way in which it works in other cognitive systems. For example, "greater magnitude along a cognitive parameter tends to attract greater attention to the entity manifesting it" (Talmy, 2007, p. 266). By way of example, a bigger object is more salient than a smaller object, and in language the former is coded as a reference point to locate a smaller object. Only sentence [1a (below)] is acceptable.

<sup>&</sup>lt;sup>2</sup> Such an explanation implies that even the smallest change of language form results in some change of meaning. Though this author generally agrees with this view, he thinks that Cognitive Grammar may be too idealistic in this respect. Real-life communication places variable requirements on language users as regards the amount of attention they pay to details of linguistic structure. Everyday conversations differ from, say, important job interviews. The latter require far more careful selection of linguistic structure than the former.

- 1) a) The bike is behind the house.
  - b) \*The house is behind the bike.

Previous research focussing on attentional effects in language involves the study of *focus* and *topic* (Lambrecht & Polinsky, 1997), *activation* (Chafe, 1994; Givon, 1992, 1994), *prototype effects* (e.g. Lakoff, 1987), *frames* (Fillmore, 1976, 1982), *active zone, profiling, figure/ground distinction, stage model, event chain, billiard ball model of event causality* (Langacker, 1987, 1991, 2008), *figure/ground distinction, windowing of attention, foregrounding/backgrounding* with closed class versus open class words, levels of attention on the whole scene rather than its components, verb vis a vis verb complements, attention as it is expressed by the subordinate rather than the main clause (Talmy, 2000).

This article will analyse and discuss selected sentential patterns of a small corpus of written video cartoon descriptions by Polish advanced students of English (Badio, 2014, pp. 181–217). The syntactic choices involving simple clauses, coordinate and subordinate sentences, both finite and non-finite used in written accounts (stories) of the video cartoon will be discussed in relation to the variable cognitive prominence of their components that code particular aspects of corresponding events.

## 2. The task and data set

As mentioned earlier, the present analysis uses mostly examples from Badio's (2014, pp. 181–217) work on construal and coding of events in language. The task in that study instructed advanced, Polish students of English as a foreign language at the University of Łódź (n=30) to retell the content of a children's cartoon (video or pictures) in either Polish-native or English-foreign language. Hence, there were two independent variables, language (native vs. non-native) and mode of presentation (pictures vs. video) to research their influence on the kind and number of events coded in the students' written retellings of the children's cartoon story *Bolek and Lolek*. The corpus contains 461 clauses arranged in a dBase of Microsoft Access according to the above presented conditions.

This analysis focuses on how information about events is arranged in different sentence formats. The corpus of sentences classified into simple, subordinate, coordinate or complex turned out to be useful. However, the original study was not interested in variable attention levels represented by different syntactic solutions (e.g. finite verb forms, non-finite verb forms, nominalisations). As a result, the dBase contains no tags to identify variable forms to signal an event, scene or situation that this chapter will discuss.

# 3. Narrowing the focus

The writers had to watch a video twice or view a sequence of pictures to write a story. They were told that their memories were not being tested, but that the focus was on the way the events of the cartoon story would be framed and coded in language.

The presentation and discussion of variable types of sentences recounting events will first deal with the simple clause in section 3.1, followed by the discussion of appropriate examples of subordinate sentences in section 3.2. Coordinate sentences will not be discussed as they contain clauses with equally salient and important processual concepts expressed by their finite verbs. Example sentences from both English-foreign and Polish-native sub-corpus will be analysed.

## 3.1. Events in the simple clause

The concept of the so-called *basic sentence patterns* (Quirk, Greenbaum & Leech, 1992) serves as a convenient departure point for the discussion of how language is used to code scenes that are basic to human experience (Goldberg, 1995). The patterns of a simple clause in English involve the following schemas:

SV	The dog is barking.
SVO	The film fascinated me.
SVC	Your homework seems difficult.
SVA	My school is in the other district.
SVOO	They should give their money to the poor.
SVOC	Most teachers have found her quite hardworking.
SVOA	You can put the bag in the corner. <sup>3</sup> (Badio 2014, p. 191)

The above schemas code scenes involving one participant (SV, SVC, SVA), two participants (SVO, SVOC, SVOA) or three participants (SVOO) with accompanying complements and adverbials. The finite schematic verb category codes relations between the participants. The SV pattern designates a situation in which a participant performs<sup>4</sup> an activity that does not act on another participant or patient. The same is true of SVA, where the A (adverbial) is used to code information about a circumstance of some activity, e.g., *in the morning, at school*. In SVC, the letter C stands for the subject complement as in *The old man seemed* 

<sup>&</sup>lt;sup>3</sup> S – subject; V – main, finite verb; O – object; C – complement; A – adverbial

<sup>&</sup>lt;sup>4</sup> Certainly the grammatical schemas such as these are not grounded in time, and so they are not marked for any particular tense.

sad (BNC). The SVO pattern involves two participants (human, non-human and abstract) that interact. For example:

- 2) Fear of Russia preoccupied British politics (BNC) SVO
- 3) A falling apple hit John SVO

Example [2] involves two abstract participants, namely *fear of Russia* and *British politics*, whereas example [3] uses the verb *hit*, which codes a physical event to bind object-person participants: *apple* and *John*. The participant coded in the subject position attracts the highest attention. Cognitive psychology (Köhler, 1929; Koffka, 1935; Neisser, 1967, 1976; Tomlin, 1995; Maruszewski, 1996) identifies it with the *figure* of a scene. Cognitive Grammar (cf. Langacker, 1991) uses the term *trajector* in a similar vein. Both terms, *figure* and *trajector*, designate the focused participant of an event.<sup>5</sup> Two participants are also selected by SVOC and SVOA. The former pattern has two participants with a complement that provides indispensable information about the participant coded in the object position, whereas the latter pattern provides information coded by an adverbial about circumstances of the event.

As already mentioned, the silent input video *Bolek and Lolek* was used. The main characters wished to go on holiday but had no money. Collecting scrap metal turned out to be a bad idea, but a little good luck helped them. The owner of a very old car decided to dispose of the vehicle, which made the boys very happy. They tried to start the engine, drive a little, made some plans to travel, but when the banger broke again, they sold it at a scrap metal collection point and were able to afford a holiday.

The simple clauses below contain one main verb and exemplify different events<sup>6</sup> of the story.

- 4) Bolek and Lolek had time to relax.
- 5) The man couldn't start the engine.
- 6) Bolek and Lolek came back from school.
- 7) The poster showed a boat.
- 8) They still needed many items.

The main verb in each of the above clauses codes one event and has the task of focusing attention on the details of the interaction between the different participants expressed by the subject and object.

<sup>&</sup>lt;sup>5</sup> The subject is also a default topic of a sentence. For example, the sentence *The lamp is over the table* is about the lamp, whereas the sentence *The table is under the lamp* is about the table.

<sup>&</sup>lt;sup>6</sup> The term *event* is used to refer to static scenes and complex situations.

Sometimes the frame of a simple clause suffices to code more than one event. The following sentence illustrates this.

9) Jednak samochód zepsuł się w drodze. Lit. 'However, car broke self in way [going].' However, the car broke on the way.

The prepositional expression *w drodze* 'in way' invokes the idea of motion but is a nominal. One can argue that example [9] codes two events: BROKE and GOING BY CAR. The former is expressed by a finite verb form and is maximally focused, whereas the processual profile of GOING BY CAR tends to be backgrounded by the nominal profile of *droga* 'way'. The next example [10] backgrounds the second event even more.

10) Materiałów jednak nie wystarczyło. Lit. 'Materials-GENITIVE though not suffice-PAST-PASSIVE'. However, there were not enough materials.

The marked word order [10] attracts attention to the word *materialów* 'materials' and the piece of new information coded by *nie wystarczylo* 'was not enough'. The main verb phrase *nie wystarczylo* foregrounds the idea that the boys did not find enough materials. However, the backgrounded event of LOOKING FOR MATERIALS needs to be activated as a base of the profile of *there wasn't enough of something*. In other words, the less salient concept of looking for something needs to be implicated (and so also present in the conceptualisation to a certain degree) if one wishes to understand *there was not enough of something*. In sum, this analysis argues that despite the presence of one finite verb form in this simple clause, there are two events participating in the resulting conceptualisation. The next example [11] is similar.

11) Nie pomogła wymiana oleju. Lit. Not helped-*feminine* change-*feminine* oil-*genitive* It did not help to change the oil.

The sentence inherits the processual profile of the verb *pomogla* 'helped', whereas the second event gets coded by the nominal expression *wymiana oleju* 'changing of the oil'. The processual profile of a nominal is less cognitively prominent than that of a finite verb's.

- 12) Bolek i Lolek byli zadowoleni z dotarcia na miejsce Lit. Bolek and Lolek were glad from getting (Nominal) on destination
- 13) They had money to buy backpacks and tickets

Interestingly, more examples of coding two events, one of which is nominalized, can be found in the sentences written in Polish-native language. The English sentences code the second, less prominent event by using a verb participle or infinitive.

- 14) I like listening to music. two events LIKE and LISTEN
- 15) Most car owners would hate to be without a car. two events HATE and BE

The main verb, subject and object in English can be complemented by a non-finite -ing clause or participle clause as in:

- 16) He wants to stay.
- 17) He wants us all to stay.
- 18) They like *staying up* late.
- 19) He made them *stand up*.

The problem with the analysis of the above examples is that one cannot easily decide whether they represent a single clause with a complement phrasal element or a complex clause consisting of the main clause followed by a non-finite infinitive or participle clause. Number [16] can be thought of as an elaboration of the structure *SVOC*, but the syntactic status of the complement is unclear. Is it a phrasal complement or a non-finite complement clause? Cognitive Grammar (Langacker, 1991) stresses that the borderline between phrasal and clausal elements is often fuzzy.

There are only two sentences written in English that code two events to be found in the corpus of story sentences.

- 20) They had enough money to buy backpacks and tickets.
- 21) Bolek started dreaming about their holidays.

Example [20] codes two events: the idea that they *had money* and that they wished (had an intention) to buy backpacks and tickets. However, example [21] is harder to analyse. It has two verb forms, *started* and *dreaming*, the first of which is finite and the other non-finite, which suggests that there is more attention on the concept of STARTING than on DREAMING. On the other hand, STARTING is too vague and can only be interpreted together with a compulsory participial

complement. Attention is drawn to the initial phase of the event designated by the word *dream*. Similarly, a sentence such as *He decided to go* communicates the idea that the character of the story hesitated but made up his mind and went. It is the decision-making process expressed by the finite verb form that seems to be more salient than the one expressed by the non-finite verb form.

In sum, nominalisation and use of non-finite verb forms are two main ways of coding more than one event in a single clause. Their processual profiles are less cognitively salient than the processual profile of the finite verb.

## 3.2. Events in subordinate clauses and other complex structures

There are 138 subordinate sentences out of the total 461 dBase sentences in the corpus. The processual profile of the finite verb of the main clause is arguably the most prominent and the event coded by such a verb-form lends its profile to the whole sentence. The following example illustrates it.

22) Lolek decided to go alone.

As mentioned earlier, the category of *clause* is fuzzy. For example, is the complement *to go alone* only a verb phrase or should it be treated as a non-finite clause? Without trying to resolve the uncertainty, the focus here is on identifying two events coded by the finite verb form *decided* and the form *to go*.

Complex syntactic structures are especially well suited for coding more than only one event. Some sentences in the corpus code as many as four events. For example,

23) They tried to find and sell some old and unusual staff to earn some money.

The event that captures most attention is expressed by the finite verb form *tried*, whereas *find* and *sell*, *to earn (money)* as infinitives tend to be lower ranking in cognitive salience. The concept of TRYING is not a trivial one. Its understanding involves the activation of a complex cultural frame with information that getting in the possession of money involves (in this case) effort to collect scrap metal which can be sold to a special collection point. The next example codes three events, each with a finite verb form.

24) When he got off the bus, he noticed that Bolek was waiting for him.

The concept coded by *noticed* lends its profile to the whole sentence, so it is most salient. The remaining verb forms: *got off* and *was waiting*, though finite, code a circumstance and an object participant of the whole sentence (an event, scene coded by an object clause), i.e. the structure *that Bolek was waiting for him*.

As illustrated by the next example [25], the events coded in a sentence may be physical, mental, past, present, future or hypothetical.

25) The time when they arrived home, they realized that it cannot have happened.

The physical event ARRIVE is followed by the finite form of the main verb to code the concept REALISE and the verb of the object clause referring to the past is in irrealis mood. Most attention is on the verb form *realised*, whereas the other finite verbs used in the subordinate time and object clauses are not only structurally subordinate but also conceptually less salient. In other words, structural subordination leads to lesser cognitive prominence. A similar example of a sentence in Polish is provided below.

Zanim Lolek dojechał do Bolka, Bolek czekał na niego z informacją jak mogą spędzić fajnie wakacje.
Before Lolek reached Bolek, Bolek was waiting for him with information how they can spend nice holidays.

The verb forms and other constructions that are used in the above sentence to provide information about events are: dojechal 'arrived', czekal 'was waiting', z informacją 'with information, moga spędzić 'can spend'. The entire structure is (AdvCl-time) SVO (Non-finite wh-clause) (Object-Cl). The profile of the finite verb of the main clause (italics) is dominant, i.e. most salient, whereas the remaining events are either coded with finite verbs (came, was waiting, can spend) and the prepositional phrase z informacją 'with information'. This expression can be paraphrased as Bolek had information or Bolek had news. The subject of the main clause is *Bolek ... z informacją* 'Bolek ... with information', which is a metaphor. The concept of knowing about something is coded (and thought about) in terms of a person's proximity to a piece of news, as if it was a physical object. This metaphorical coding has a relational profile of a preposition z 'with' filled in by the nominal information. It can be rephrased as [...] Bolek with information (that ...) was waiting (for Lolek). As observed before, most attention is on the event expressed by the finite verb of the main clause, followed by finite verb forms of the subordinate clauses and non-finite, non-processual profiles of other forms (e.g. z informacją 'with information').

## 4. Conclusions

The writers' simple clauses, subordinate sentences, finite and non-finite verb forms as well as some other verbless constructions were analysed vis a vis their relative cognitive salience. The native-Polish writers tended to be more skilful at packaging more events into the format of a single clause than the Englishforeign writers, who used finite verb forms in separate clauses. The finite verb forms (of the main clause in case of subordinate syntactic structures) are the most cognitively salient followed by non-finite participles and infinitives and nonprocessual nominalisations or relational prepositional phrases (e.g. z informacją 'with information'). The use of language as a signalling system is directed at ranking for salience of entities of a conceptualisation. The chapter has only discussed selected examples and referred to the use of basic syntactic options in coding events, states and situations. However, construal processes, whose ultimate goal is attentional ranking (foregrounding and backgrounding) also apply to the selection of morphemes, words and phonetic (in the case of speech) or orthographic conventions. Further research can thus focus on a detailed analysis of these areas of language with appropriate experimental design in order to test the theoretical claims presented in this article and other cognitive linguistics studies.

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