Correlation of Semantic and Syntactic Structure in Material Process Sentences

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Summary

In terms of semantics, every proposition describes an event or state in which a number of participants are involved. The Process is central to any proposition. The Process needs a participant causing it to happen. The participant causing a process to happen is called the Agent. Most propositions also include other units of information. Some contain one or more participants which are directly or indirectly affected by the process. These are called the Affected Participants. Some propositions contain units of information serving to describe a participant. These are called Attributes. Finally, some propositions contain units of information serving to give information about the Circumstances in which the Process is happening.

The Structure of the sentence can also be described in terms of the Predicate, the Subject, the Objective Complement, the Attributive Adjunct and the Adverbial Adjunct, which are syntactic functions. The most important syntactic function is the Predicate. The Predicate is the principal part of the sentence and its structural centre to which the Subject, the Objective Complement and the Adverbial Adjuncts are linked. Only the Attributive Adjunct is not directly linked to the Predicate. Typically the Process corresponds to the Clause, the Agent to the Subject, the Affected Participant to the Objective Complement, and the Circumstances to the Adverbial Adjunct.

The aim of the research under discussion is to discuss how semantic functions can map onto different syntactic functions. To reach the aim the descriptive method was used. Examples were drawn from British National Corpus.

The analysis of the material process sentences showed that usually there is no complete one-to one correspondence between the semantic structure and the syntactic structure of the same sentence or between the Agent and the Subject, the Affected Patient and the Objective Complement, the Circumstances and the Adverbial Adjunct.. Semantic functions can map onto different syntactic functions.

Keywords: semantic functions, process, participant, the agent, the affected, the effected, the recipient, the beneficiary, the locative.

Santrauka


The semantic sentence level is responsible for the generation of sentence meaning which is a combination of appropriate semantic functions. The syntactic level organizes the semantic components into a sentence.

In terms of semantics, every proposition describes an event or state in which a number of participants (one, two or three) are involved. Central to any proposition is the unit of information encoding the situation – the Process (Halliday, 1985, 106–7).

Naturally, the Process cannot occur on its own. The Process needs a participant causing it to happen. The participants or participant roles are variously called functional roles, case roles, deep cases, or thematic roles (Cruse, 2004, 293). The participant causing a process to happen is called the Agent. All propositions then, must have a participant and a Process.

Most propositions also include other units of information. Some contain one or more participants which are directly or indirectly affected by the process. These are called the Affected Participants. Some propositions contain units of information serving to describe a participant. These are called Attributes. Finally, some propositions contain units of information serving to give information about the Circumstances in which the Process is happening. Circumstances or circumstantial roles are optional to the process. Agent, Process, Affected Patient, Circumstances are semantic terms, i.e. they relate to meaning.

The Structure of the sentence can also be described in terms of the Predicate, the Subject, the Objective Complement, the Attributive Adjunct and the Adverbial Adjunct, which are syntactic functions. The syntactic function of a word is identified by its syntactic relations with other words in the sentence. The most important syntactic function is the Predicate. The Predicate is the principal part of the sentence and its structural centre to which the Subject, the Objective Complement and the Adverbial Adjuncts are linked. Only the Attributive Adjunct is not directly linked to the Predicate. Typically the Process corresponds to the Clause, the Agent to the Subject, the Affected Participant to the Objective Complement, the Circumstances to the Adverbial Adjunct.

The aim of the article is to discuss how semantic functions can map onto different syntactic functions. The object of our research was material process sentences. The objectives were as follows:

1) To discuss the obligatory semantic functions in English material process sentences.
2) To establish some general tendencies in the mapping of semantic functions in material process sentences onto syntactic functions.

The examples to illustrate the statements were drawn from British National Corpus. To reach the aim the descriptive method was used.

Material processes can involve the participants which are coherent or obligatory to the process: Agent, Affected, Effected, Recipient and Beneficiary, Instrument, Circumstances and others which are incoherent or optional to the process. Following Cruse (Cruse, 2004, 293) material process sentences contain functional roles and circumstantial roles.

THE AGENT is the cause or initiator of an event (Dowty, 1991, 547–619). The word comes from the present participle agens, agentis (“the one doing”) of the Latin verb agere, “to do” or “make”. For example, in the sentence “Mary is making dinner”, Mary is the Agent. The notion of agency is easy to grasp intuitively but notoriously difficult to define: typically the Agent has volition, is sentient or perceives, causes a change of state, or moves. Dowty included these qualities in his definition of a Proto-Agent, and proposed that the nominal with the most elements of the Proto-Agent and the fewest elements of the Proto-Patient tends to be treated as the Agent in a sentence (Dawty, 1991, 547–619). For example, in the sentence His energy surprised everyone, His energy is the Agent, even though it does not have most of the typical agent-like qualities such as perception, movement, or volition.

Agent – Subject. The most typical material processes are actions carried out by the Agent. Agents are generally Subjects in the syntactic structure of the sentence. However, the Agent should not be
confused with the Subject, as these two notions are quite distinct: the former is based explicitly on its relationship to the action or event expressed by the verb, whereas the latter is based on the flow of information, word order, and importance to the sentence. In a sentence such as The boy kicked the ball, “the boy” is the Agent and the Subject. However, when the sentence is rendered in the passive voice, “the boy” is still the Agent but “the ball” becomes the Subject of the sentence. Consider the examples:

1. Robert played a leading part in expelling the English from Scotland and in procuring the return of David II to the throne.
2. Abraham taught the men, while Sarah taught the women.

In these sentences Robert, Abraham, Sarah are Agents as they are animate, supply the energy for the action, and act deliberately.

Agent – Indirect Object. In the passive construction the Agent and the Subject do not coincide: the Agent performs the function of the Indirect Object. For example:

3. WABI was written by people that worked at the BIOS house Phoenix Technologies Ltd and later at Integrated Technologies Inc.

The Subject is WABI, people is the Agent or the instigator of the action

Agent – Direct Object. In causative material sentences the Agent maps on the Direct Object. In a causative sentence we have a situation when, as a result of the action by the Agent, a change in the object is effected. There is always a result. Consider:

4. I was walking Hector – Lady Merchiston’s dog, you know.
5. He marched the twins in the direction of the nearest station and prepared for a long, boring wait.

According to Lyons (1977), in these examples Hector – Lady Merchiston’s dog and the twins are agentic because I was walking the dog entails the dog was walking and He marched the twins entails that the twins were marching. As Cruse puts it “There are agent-like entities which do not really supply the energy for the action, although they do supply the will” (Cruse, 2004, 295), and this is the case in the examples above. According to Cruse I and He have to be called the Instigator.

THE AFFECTED is another obligatory participant in the material process sentences. In his case study Fillmore (1968, 24) uses the term Objective. Other terms which have been used for this function are Goal and Patient. Goal implies ‘directed at’ and Patient means one that ‘suffers’ or undergoes’ the process. Cruse (2004, 295) states that “A frequent division under this heading focuses on whether the affected entity is changed by the process or action, or not. An unchanged inanimate affected is a Theme, as in John put on his hat; a changed item is a patient, as in Mary minced the meat”. The Affected is described as semantically the most neutral case; it is applied to things which are affected by the action.

Affected – Direct Object. In the syntactic structure the Affected participant corresponds to the Direct Object. Consider examples:

6. After some minutes’ browsing, Bragg threw a document over to Morton.
7. Toby was drinking cider when Dominic sauntered into the Mess bar at six o’clock two days later.

To identify the Affected, we can ask ‘What happened to a document?’ ‘What was happening to cider?’

Affected – Subject. The Affected can be used in two patterns: in the active voice and in the passive voice: Ted kicked the ball vs. The ball was kicked by Ted. But in the passive voice sentence the syntactic function of the Affected changes: here we have the ball as the subject. Consider more examples:

8. Johnny was sitting with his back to the window reading when the door was kicked open.
9. But if potatoes were cooked with their skins on, steamed or microwaved, carrots were scrubbed rather than peeled, and fresh fruit and vegetables chosen, then nutritionally we would be more equipped for living.

However, in the active voice sentences the Affected can function as the Subject as well. Here we have to deal with ergative verbs. Ergative verbs can be divided into several categories:

Verbs suggesting a change of state: break, burst, form, heal, melt, tear, transform;
Verbs of cooking: bake, boil, cook, fry;
Verbs of movement: move, shake, sweep, turn, walk;
Verbs involving vehicles: drive, fly, reverse, run, sail.

Consider examples:

10. We know that the window broke because there is glass on the ground.
11. But bread with 5 per cent guar bakes well and tastes like ordinary bread.
12. The engine drives through a Hewland DGB box.

In these sentences the window did not brake by itself, somebody had to hit it; bread does not bake by
itself, only when it is being baked, the engine drives when being driven.

The significance of the ergative verb is that it enables a writer or speaker not only to suppress the identity of the Agent responsible for the particular process, but also to represent the Affected as in some way causing the action by which it is affected. This can be done neutrally when the Affected is an institution and the individual member responsible for the action (the Agent) is unimportant or wants to remain unknown in order to avoid assigning blame, for example:

(13) As soon as the offices and shops closed at noon, the square and all the streets leading off it were filled with bicycles, then as now the best way of getting about in Parma.

(14) At the same time many working people have had their belts tightened for them as factories closed and unions accepted cutbacks.

In non-causative processes when the process is not extended to any other participant, the participant of an involuntary process is an Affected Subject. For example:

(15) One woman near me collapsed and other passengers lifted her out.

(16) He died a couple of years after the end of the project.

The participant, although animate, is neither controlling nor initiating the action. The participant on whom the action centres in such cases is, then Affected. It is found in involuntary transitional processes such as die, arrive, grow. Such verbs represent the passage from one state to another. They always have an animate participant. The Affected subject is also found in involuntary processes such as trip, stumble, slip, fall.

Affected subjects can also be used with cough, sneeze, yawn, blink, laugh, sigh, which are usually one-participant. They are considered as typically involuntary; Cf.:

(17) And she had a cold: she sneezed almost immediately after I came in.

She is the Affected subject since the process is involuntary.

There is a further type of Affected Subject. It occurs with certain processes (break, read, translate, polish, wash, fasten, lock, etc.) which are typically two-participant. Consider examples:

(18) When a glass cutter wants to cut glass, he does not bother to cut right through but makes a shallow scratch on the surface after which the glass breaks easily along the line of the scratch.

(19) There's a window at the back on the ground floor that doesn't close properly.

(20) Whatever his decision, this book of memoirs reads like his valedictory.

All these sentences express a characteristic property of the Subject and are used with an appropriate adjunct (easily, properly, like his valedictory). Although no Agent is mentioned, the possible activity of an Agent is implicit: we do not mean that glass breaks spontaneously (i.e. without the interference of an external force) or that the memoirs can be read without a reader. Semantically this type of construction is similar to the passive: they are sometimes called notional passives or pseudo-passives:

Glass breaks easily vs. Glass can be broken easily.

The term middle voice is sometimes used to refer to the verbs used without a passive construction, but in a meaning where the grammatical subject is understood as undergoing the action.

THE EFFECTED is what traditionally is called ‘the object of result’, i.e. such an object is the result of the action of the verb. Fillmore (1968, 24) calls it the Factitive, the case of the object or being resulted of the action or state identified by the verb, or understood as part of the meaning of the verb. But according to Cruse (2004, 295) the Factitive is not usually separated from the Patient. Halliday (1985, 104) calls this process ‘creative’ and the participant that results from the creative process is called GOAL. Consider examples:

(21) From memory he drew a picture of what he had seen and asked Mr Litmus if he knew what it was.

(22) One of the greatest modern historians, Herbert Butterfield, wrote a book 40 years ago called The Origins of Modern Science.

(23) Colonel Bullen Reynes, who fought for the king during the Civil War, built the house in the 1690s.

A picture, a book, the house are the Effecteds of these sentences. In the syntactic structure, the Effected participant is realized by the Direct Object in the active sentence and as Subject in the passive sentence. For example:

(24) The house is built on the site of a Saxon prison, which was still used in the twelfth century to incarcerate cattle rustlers.

THE RECIPIENT is the participant to whom the action is directed and who receives the ‘goods’. In processes of doing it is typically realized in the syntactic structure by the Indirect Object. It is typically animate and human. Processes of this type include: award, give, bring, buy, fetch, grant, hand, lend, offer, pass, pay, post, read, sell, show, take, teach, tell, write.
(25) Nevertheless, the Communist government had awarded him a life pension, so he had no worries.

In the passive voice the Recipient may become the Subject:
(26) For some of these rescues, he was awarded medals, including one from the Royal Humane Society.

THE BENEFICIARY is the optional, not inherent, participant for whom some service is done. To ‘beneficiary’ verbs belong: bake, bring, buy, cash, choose, cook, do, fetch, find, get, give, leave, make, mix, order, paint, play, pour, reach, save, spare, write.

All these verbs are primarily beneficiary verbs: they represent services which are done for people rather than actions for people. On a syntactic structure level, the Beneficiary is realized as optional Indirect Object.

(27) Marie bought me this huge jigsaw with millions of bits.

In the same way as the Recipient, the Beneficiary becomes the Subject of a passive sentence:
(28) Last year I was bought a tropical set-up as a present.

THE LOCATIVE is the case which identifies the location or spatial orientation of the state or action identified by the process. According to Cruse (2004, 295), various subdivisions can be made of this case. One is a simple, static location, as in The Ighzui inhabit a remote island in the Pacific. Three dynamic subdivisions are possible (i.e. cases where motion is at least implied. First, we have SOURCE, as in The lamp emits heat; second, PATH, as in Mary crossed the street; and finally GOAL, as in We finally reached the igloo.

Locative – Adverbial Adjunct. In the surface structure, they generally function as adverbial adjuncts. Consider:
(29) Loretta shrugged, took the photograph from Bridget, and put it back in the drawer.

When circumstantial functions map onto adverbial adjuncts, we say that circumstantial constructions are used in their primary (congruent) function. When they map onto other syntactic functions, they are used in their secondary (non-congruent) function.

Locative – Subject. The analysis of the material showed that even Locatives can function as Subjects. Consider examples:
(30) Her eyes filled with tears — whether of shame, frustration, or grief it was difficult to tell.

There is a certain group of verbs that allow the subjectivization of the Locatives, they are live in, accommodate, inhabit, dwell, occupy, reside, sleep in generally described as:

(31) Hummingbird House sleeps eight.

(32) Despite their great size, the new cars only seated 56, although their massive platforms could accommodate many standing passengers.

There are certain restrictions imposed on the use of inhabit and live in. The said verbs generally denote a habitual process carried out by a generic participant. Cf.:

(33) The greater part of this sector on both sides of the frontier is inhabited by Kurds.

(34) The house is lived in now.

According to Bolinger, there is another restriction concerning the semantics of the Locative itself: only Locatives that can be Affected Patients can become Subjects. Thus, the sentence Chicago has been lived in by my brother is ungrammatical since Chicago is not conceived as a true patient, while Chicago in Chicago has been lived in by generations of immigrants is a true patient: a single agentive participant cannot have a great effect on the location (Bolinger, 1981, 54).

Locative – Direct Object. The analysis also revealed that locatives map onto the Direct Object. The process of objectivization of the Locative can be demonstrated by the example:
(35) As Mr Grovey searched the room for a suitable candidate to partner Brian this week, unhappily his eye fell on me.

(36) Outside the high stone walls that encircled the garden, tourists marched the cobbled streets, fought their way through the crowds to see Rome’s fabled attractions.

The process of objectivization also affects Locatives used in material transitive sentences:
(37) Going to the sink she filled the kettle with water and placed it on the gas.

Locative – Predicate. Locative elements were found to map onto predicates. According to Clark and Clark (1979, 767–811), Locative verbs are homophonous or nearly homophonous with the corresponding nouns. Lyons (1977, 532) and Sanders (1988, 155–175) argue that these verbs are generally derived from nouns through the process of conversion or zero derivation. As a rule, the verbalization process involves monosyllabic and disyllabic nouns, such as: to barge, to boat, to camp, to canoe, to caserole, to garden, to gown, to hothouse, to house, to hag, to bank, to barrel, to book, to bottle, to box, to centre, to jail, to kitchen, to place, to pocket, to pot, to sack, to swarm, to bed, to pod, to shell. Consider examples:
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(38) The Bishop waited until it was dark and then
    ferried across the river to Wouldham and made
    his way to Boxley Abbey for safety.
(39) Lee untwisted the wire that fastened the shed
    door and pocketed it.
(40) Gang leader Calton, 39, of no fixed address,
    was jailed for 25 years.

Locative – Attribute. Locatives can map onto
Attributes, e.g.:

(41) She flew up to Nashville for two weeks’ work
    and called Dennis from her hotel room exactly
    eight days after their wedding.

Here we deal with two-propositions: one proposition
is basic (matrix) and the other is non-basic. The
non-basic proposition is included in the basic for
reason of language economy (she called from the
room. The room was in the hotel).

Consider more examples:

(42) She wanted a church wedding with as many of
    the trimmings as they could possibly afford ← a
    wedding in a church.
(43) Take plane back to Stockholm with afternoon
    city tour including a visit to the incredible Wasa
    Museum ← a tour organized in the city.

Conclusions

The analysis of the material process sentences
showed that usually there is no complete one-to one
coincidence between the semantic structure and
the syntactic structure of the same sentence or between
the Agent and the Subject, the Affected Patient
and the Objective Complement, the Circumstances
and the Adverbial Adjunct. Semantic functions can
map onto different syntactic functions: the Agent was
found to function as the subject, the direct object, and
the indirect object; the Affected can function as the
direct object and the subject; the Effected can func-
tion as the direct object and the subject; the Recipient
can function as the indirect object and the subject;
the Beneficiary indirect object and the subject; the
Locative can function as adverbial adjunct, subject,
direct object, predicate, and attribute.

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