On the Properties of a Semantics-Pragmatics Interface Pattern in the Expression of Manner

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The aim of this paper is to describe the interface properties of a cross-linguistic pattern in the expression of Manner as instantiated in English and Spanish. I claim that these properties are motivated in the interdependence between lexical semantics and pragmatic principles. Certain semantics classes of verbs do not encode Manner, which is nonetheless communicated in utterances by R-implicating it using prototypical information regarding events and participants. Finally, I also show that there is a systematic linkage between the overt expression of Manner and the Information Structure Configuration of sentences containing verbs semantically underspecified for Manner.

The meaning of causative verbs has been described in terms of semantic representations containing two subeventuality variables –or predicates that can be interpreted as event denoting functions- (inter alia Dowty (1979), Levin and Rappaport (1998, 2001)). For example, sentence (1) involves (external) causality as a relation between a causing eventuality and a caused event (i.e. change of state) or Effect.

(1) The hunter killed the deer.

The semantics of this class of verbs have been represented in the lexicon as a structure involving two eventualities (i.e. e_1 and e_2) related by a causal relationship.

(2) CAUSE (**do'**(x,e_1), (BECOME **dead'**$(y,s_1),e_2)$, e)

This representation makes apparent an asymmetric weight of information in the lexical entries of (most) causative verbs in English and Spanish (as opposed to, for example, Mandarin (cf. VanValin and LaPolla 1997)). In particular, the Result state –i.e. the final state of the Effect- is specified in relation to a property of its participant whereas the causing eventuality is not. According to (2), the verb 'kill' contains the presence of 'i' a Participant involved in an eventuality e_1 that causes a change of state (i.e. a killer/Agent); 'ii', a change of state e_2 in another Participant (i.e. killee or Patient); and, 'iii' a final state s_1 or Result such that the Patient is dead. This property assigned to the Patient in the Result is an independent specification that is not predictable solely from the thematic relation of Patient (i.e. being a Patient does not entail being dead). In contrast, no property of the causing eventuality is specified beyond the thematic relation of the participant; crucially, there are different ways in which this eventuality could have taken place but this is left undetermined. Let's include this information under the large category Means, a subcategory of Manner, which denotes overlapping events in the same causal chain. Hence, causative' verbs are typically vague in relation to Manner/Means.

I argue that the asymmetric treatment of Manner and Effect is not an accident, but rather follows from a pattern that is consistent with the principle of Minimization

(Levinson 1987). In short, I argue that Manner in (1) is not said because it is nevertheless communicated; that is, 'kill' in (1) really means (3):

(3) The hunter killed the deer by shooting it.

More specifically, my claim is that Means/Manner is an R-based implicature (Horn 1984) or I-implicature (Levinson 1987, 2000). Horn (1984) and Levinson (2000) have shown that entities that are entailed but left unspecified are filled in with prototypes/defaults. This general principle applies to (1); the existence of a causing event is entailed but unspecified and, thus, interpreted as a prototype in the following way: 'shooting' is the prototypical way in which 'hunters' kill animals and is not an atypical way of 'killing a deer'.

The interplay between lexical encoding and communicated information represented by (most) causative verbs such as the one in (1) is rather restricted in English (Talmy 1985, 2000). Moving away from causality into Locative Motion, English behave differently since it tends to encode Means/Manner lexically; what is left unspecified is the final state, which may be introduced by a prepositional adjunct.

(4).John walked into his office.

Sentence (4) entails a Theme/Figure moving along a bounded Path in a specific way. The semantic contribution of the verb is restricted to the thematic relation of the participant, a (un)bounded Path and the Motion relation plus the Manner in which this motion took place (i.e. rising and moving forward synchronically one foot after the other). Therefore, Manner cannot be an implicature in (4) since it is lexically encoded. In contrast, the same event is represented differently by the subtype 'Complement' of the Spanish Gerund Construction (SGC_C) illustrated in (5).

(5)   Juan entró a su oficina.
        Juan entered to his office
        'Juan walked into his office'

The main verb *entrar* conveys a Figure, a bounded Path ending in an enclosure of some sort, and a Motion relation. There is no explicit information about Manner of Motion; however, it is meant that Juan walked via an R-based implicature drawn from the following premises: 'i' Human Locative Motion typically involves walking and 'ii' Juan is human. In consequence, (5) really means (6).

(6) Juan entró a su oficina caminando.
        Juan entered to his office walking
        'Juan walked into his office'

Therefore, the following generalizations can be drawn from an analysis of (1) and (5):

(7) a. In different languages, some semantic classes (e.g. causative and Motion) of verbs may contain events that are largely unspecified in relation to Manner.

b. Those entries can constitute two kinds of expressions: weak expressions -such as (1) and (5)- that leave the unspecified eventuality as it comes from the lexicon, and stronger ones -like (3) and (6)- that describe Manner by adding lexical material through syntactic means. The latter are stronger because they unilaterally entail the former ones and, in consequence, (3) and (6) constitute stronger assertions.

(i) The hunter killed the deer by shooting it. _The hunter killed the deer

    (ii)   Juan entró a su oficina caminando.   _ Juan entró a su oficina.
            Juan entered to his office walking   Juan entered to his office
            'Juan walked into his office'   'Juan walked into his office'

c. The weaker assertions –i.e. (1) and (5)- R-implicates the stronger ones, respectively, through a prototypical reading of the event description in the weaker expressions.

    In addition, Manner is only expressed in this pattern if it cancels out the R-based implicature; that is, if the event was not performed as expected given the relevant background knowledge. For example, sentence (8) is perfectly natural.

    (8)   Juan entró a la habitación gateando.
              Juan entered to the room crawling
              'Juan crawled into the room'

    In this paper I try to make a further claim: I argue that there are semantic conditions in what information can be R-implicated. Resultative Constructions (RC) – for example the English RC- share structural and semantic properties with SGC_C. Structurally, both constructions are Secondary Predicate structures; semantically, each construction contains two predicative expressions associated with different subeventualities that constitute a complex event. However, the secondary predicate in RC does not cancel out an implicature, there is not a prototypical outcome for the main event (there may be a 'natural' outcome Wechsler 1997). For example, in sentence (9) below, there is no implication about the final state of the animal.

    (9) The hunter shot the deer.

The speaker who utters (9) does not implicate that the animal is dead and, consequently, the predicate 'dead' in (10) does not cancel out an implicature.

    (10) The hunter shot the deer dead.

Despite their structural similarities, there is a clear semantic distinction between (1) or (5) and (9). Sentence (1) and (5) specify the Result and are vague in relation to Means/Manner; in contrast, (9) specifies Means/Manner and leaves the Result unspecified. This distinction has a pragmatic correlate: only Means/Manner but not Result can be implicated. I argue that this different pragmatic behavior is motivated in the fact that Manner involves a event overlap relationship, whereas Result involves event contiguity (the resulting state is added contiguous to the causing event). In Means/Manner two events – e.g. the entering event e_M and the walking event e_G in (6)- that share a subevent e_Z such that e_Z is a subpart of e_M and e_G. Hence, Means does not add a new 'link' to the causal chain –which was already introduced by e_M-, whereas Result does. In consequence, I conclude that overlap is a relation between events that allows for implicatures, whereas event contiguity does not.

    I should make clear that the claim is not that every event description with a causative verb is associated with a Manner implicature. For example, in sentence (11)

    (11) Peter broke the glass.

there is no prototypical behavior associated with John in relation to a breaking-a-glass event that we can use as a Manner implicature. The description presented so far, however, only presents what makes an Implicature 'possible' (as opposed to 'necessary').

The interface pattern in the expression of Means/Manner contains also systematic correlations with Information Structure (Roth 1996, Lambrecht 1994). The basic fact is that a constituent expressing Manner in those instances is the unmarked Focus of the sentence. 'Focus sensitive' operators such as 'negation' and event quantifiers -standard tests for Focus- can attest to that intuition.

(12) Juan no entró a su oficina gateando.
    Juan not entered to his office crawling
    'Juan didn't crawl into his office'

The interpretation of sentence (12) –with an unmarked intonation- is that 'Juan' did enter his office, but he didn't crawl into it; thus, what is negated is the gerund phrase (GP) rather than the main verb phrase. Since negation has scope over Focus, this is the status that corresponds to GP. The same conclusion is attained by looking at the interpretation of the universal event quantifier in (13), which takes the presupposition as Restriction –which is, hence, affected with universal force- and the Focus as Scope.

(13)   Juan siempre entra a su oficina gateando.
    Juan always enters to his office crawling
    'Juan always crawls into his office'

The main verb phrase is affected with universal force; namely, every event of Juan entering his office is part of the assertion, whereas not necessarily every crawling event by Juan is. Therefore, the interpretation of (12) and (13) are predicted if it is assumed that GP is the (default) Focus of the sentence.

The Focus status of GP cannot merely be derived from the linking of Information Structure and a broad description of the syntactic properties of the constructions. Other adverbial-adjunct-optional clauses –e.g. Adverbial Temporal Construction (ATC)- display the opposite Information Structure configuration; namely, embedded adverbial clauses are typically presupposed whereas main clauses are Focus. In sentence (14), negation has scope over the main clause, but not over the embedded one (just the opposite pattern attested in (12)).

(14)   Juan no aborda el tren cuando hacen el primer llamado.
    Juan not board the train when do-they the first call
    'Juan doesn't board the train in the first call'

Further, the quantifier in sentence (15) affects with universal force the embedded clause (hence, Restriction), whereas the main clause is taken as Scope.

(15)   Juan siempre viene cuando su madre lo llama.
    Juan always comes when his mother him call
    'Juan always comes when his mother calls him'

Is there any motivation for this Information Structure Configuration in which GPs are Focus? I argue that three interrelated conditions induce this linkage:

'i' The information presented by GP is contrastive in that it cancels out an implicature and, hence, it is maximally informative (it modifies the knowledge state of the hearer).

'ii' Borgonovo and Edleman (2002) and Paris (2001, 2003) have treated GPs differently from typical adjunct clauses (e.g. when-clauses) in that GPs are reduced clause structures.

The extractions that GPs allow are not possible for adjunct clauses; it is typically assumed that only complement clauses allow structures like (16) and (17).

(16)   What did John come home singing?

(17)   Qué vino cantando Juan?
        What came singing Juan
        What did Juan come (home) singing?

As opposed to bi-clausal structure, this syntax allows the embedded phrase to be Focus.

'iii' Finally, the category Manner/Means as an event relation denotes two overlapping events (namely, the main event e_M and the embedded event e_G share the subevent e_Z) and an asymmetry condition on their respective event descriptions - (e_M) and (e_G)- such that (e_G) is more specific about the shared subevent e_Z than (e_M). In (8), (e_M) and (e_G) introduces the same Theme, Path, and Motion relation that correspond to the shared subevent e_Z. However, (e_G) specifies the Means of the Motion relation in e_Z and, hence, it is more specific since the only information in (e_M) that is absent (e_G) –namely, the boundary of the Path- does not describes e_Z.

I argue that the semantics-pragmatics interface is sensitive to this semantic asymmetry in information weight such that the more specific event description (i.e. the one that presents Manner) is associated with Focus whereas the other description with Presupposition; in consequence, we predict that GP is the unmarked Focus. A piece of evidence that supports this claim comes from the analysis of sentence (18) and (19) below.

(18)   El tenor canta gritando.
        The tenor sings screaming
        'The tenor scream when he sings'

(19)   # El tenor grita cantando.
        The tenor screams singing
        'The tenor screams when he sings' (intended meaning)

Both event descriptions denote a sound emission event; the singing event description left unspecified the loudness of the sound and this information is contributed by the screaming event description. From this we would intuitively predict that 'to sing screaming' is a way of singing but 'to scream singing' is not a way of screaming. This is confirmed by the semantic oddity of (19).

The linkage instantiated by (18) does not lie in a (broad) syntactic configuration. The same verbs under a comparable semantic relation has to be expressed with the reversed syntax just to maintain –I argue- the semantics-information structure mapping constant. Let's look at the 'when' ATC.

(20)   El tenor grita cuando canta.
        The tenor screams when sings
        'The tenor scream when he sings'

(21)   #El tenor canta cuando grita.
        The tenor sings when screams-he
        'The tenor scream when he sings'   (intended meaning)

As shown before in (14) and (15) the embedded clause in ATC –in contrast to SGC_C- is presupposed; hence, the more specific event description has to be expressed in the main clause in (20) in order to maintain the cross-constructional linkage 'more specific information-Focus'.

In conclusion, I have shown that Manner/Means is an R-based implicature in utterance containing verbs belonging to specific semantic classes; namely, verbs that contain a lexical semantics underspecified for Means/Manner. I have also shown that this Semantics-Pragmatics pattern depends upon the satisfaction of a semantic constraint requiring overlapping events. Finally, I have argued that this interface pattern is also characterized by a systematic link between Means and Focus.

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