THE CONCEPTUALIZATION OF PERCEPTUAL PHENOMENA: GRAMMATICALIZATION OF ASPECTUAL MARKERS AND ACTIONALITY IN SPANISH

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1. Introduction

As it will be farther argued, non verbal representations seem to be structured around the following systems: mechanic and physics of solids and fluids, their structure and function; relationships of force and motion –dynamic, a subset of mechanics-; and deictic, anaphoric, and causal relations. The difficulty of categorizing actionality makes it advisable to shift the focus toward a categorization of aspectual grams in terms of the cognitive domains that govern them, namely, time and space. A new set of semantic features of actionality and tense and aspect, consonant with a conceptualization of space as construed by the perception of states of motion and rest, may offer a clearer understanding of the grammaticalization of tense and aspect grams.

Typological studies assume, more often than not, that the lexical semantics of words, its conceptual mapping, in a group of closely related languages applies equally to the words of any other unrelated language. Equally, studies in conceptual metaphor are guided by an understanding of univocal correlations between concepts and lexicon. Typological and metaphor studies seem confused between objects or concepts and our representation of them, thus granting language a unique status in cognition. Gregg Murphy's The Big Book of Concepts (2002) surveys a great body of research in prototype and exemplar theories. Murphy argues that typological and metaphor studies fail to describe human knowledge representation. In order to describe it, we would need to

answer two fundamental questions: what is the nature of human knowledge?, and how do we represent it?

If we hypothesized that linguistic structures are based on and come about through motoric maps into the symbolic system, then we would need a neurological based linguistic theory that explains the mechanisms that could possibly link motor activation and language. In the absence of such theory, no empirical data can support any Cognitive Linguistic account on how motor activation creates language. Thus, the claims that Cognitive Linguistics can make about meaning need to be solely about the processes that underlie meaning during language production. Instead of talking about semantic primitives in the abstract, we need to be talking about exactly how these presupossed primitives are used in language and how they can be observed without any interference from other competing accounts.

The processes that take place in language use are due not only to the experience of language itself as an object, but to all the underlying cognitive processes associated with the conceptualization that shape Language: inference, comparison, or analogy, to name a few. Grammaticalization takes shape in the pragmatic routines that supply the cognitive processes of communicative perception. In other words, grammaticalization takes place in language use. The fact that Aymara and Catalan, and possibly some other languages, construct their past as being ahead, and in the case of Aymara the future as being behind, says nothing about their perceptual system. We must not infer the existence of a phenomenon on the conceptual layer from the perceived existence of a corresponding grammatical form.

In order to explore how learners encode the lexical system we need to shift our attention from the characteristics of the members of a category to the more basic question of its purpose within the conceptual frame to which they belong, we must consider the inherent and fundamental connection between meaning and lexical categories – in which the grammatical system is encoded-[1] in broader cognitive terms. Within this theoretical

frame, I claim for a compositional model of actionality rooted in non verbal modalities of cognition.

2. Cognitive Linguistics and the Conceptual Metaphor Theory

In cognitive linguistics metaphor is traditionally defined as a cross domain mapping between *source domains* and *target domains*. Within the field of CL, the framework sometimes referred to as Conceptual Metaphor Theory (CMT), with its origins in Lakoff & Johnson (1980), is one of the central areas of research. While the CMT posits relationships between pairs of mental representations, Conceptual Blending Theory (CBT) proposed by Fauconnier and Turner (1996, 1998), allows for a four-space model. These spaces include two input spaces, the source and target domains of the metaphor, a *generic* space, which represents the conceptual structure shared by both inputs, and the *blend* space, where material from the three other spaces combine and interact. The fact that blends may move away from conventional patterns of metaphorical conceptualization suggests that the processes involved in their production and interpretation are basic cognitive processes.

In keeping with Murphy (2002), Fauconnier and Turner (2006) explain that sentence meaning is attained by combining the mapping of the mental descriptions associated to each word in it. As Murphy notices, typological and metaphor studies fail to describe human knowledge representation since they seem confused between objects and our conceptualization of them:

> "…referential semantics is extremely popular in linguistics, but it is not acceptable as a psychological theory. […] The Psychological approach assumes […] that people has some sort of mental description that allows them to pick out examples of the word and to understand it when they hear it." (Murphy 2002: 387)

Murphy's and Facounnier and Turner's positions seem consonant with Rosh's account of Prototype Theory:

> "Concepts occur only in actual situations in which they function as participating parts of the situation rather than either as representations or as mechanisms for identifying" (Rosch 1999: 61)

This is to say that objects are not conceptualized but in their relationships to other objects. Differentiating the objects of our perception is an instance of a functional process, a multilayered sensorial experience. This stresses the non-linearity between the linguistic sign, conceptual structures, and language change: linguistic data are in fact phenomena, not true objects. Grammatical structures are representational and their meaning more abstract than the structures reveal (Bertolucci Papi 2003)

3. Concepts Outside Grammar

Linguistic phenomena often appears explained from within and without considering the rules governing linguistic output as supervened by cognitive processes of representation that have nothing to do with the grammaticalization of language (Peeters 2001). Natural languages accommodate all possible categories of thought and relate them to all possible experiences. Grammaticalization takes place in the shifting relationship between such categories and their symbolization; shifting because, as it was noticed before in the case of Aymara and Catalan, the grammatical layer does not preclude the existence of an experience in the conceptual layer. Paradoxically, the grammatical layer always underscores a conceptual layer. In order to unveil the ontological nature of language, the cognitive linguist faces the epistemological problem of explaining the properties of grammar in terms of concepts and phenomena outside of grammar, and the metaphysical problem of securing the nature of such concepts and phenomena. In explaining the underlying phenomenology of language, its neural underpinnings, neither synchronic nor diachronic studies provide the necessary tools to distinguish processes of grammaticalization whose origin

lies outside language from those whose origin lies within language. From the perspective of the speaker, language can be treated as a constant, a given precondition, because its changes in response to the group activity are usually insignificant in interaction with the variables under scrutiny in diachronic studies. In synchronic studies, what we encounter is the phenomenological variation in the manner in which our habits of mind, our distinctive experiential strategies, symbolize concepts. Thus, typological definitions are inherently linguist-specific, and as such the typological concepts of different linguists are bound to be different.

4. Non-Verbal Modalities of Cognition and Aspectual Semantic Primitives.

In order to identify the behavior of different grams applied to a verb, Tatevosov (2002) proposes a cross-categorization of actionality –assigning a label from the actional domain- and aspect –assigning a label from the aspectual domain. Conversely, Durst- Anderson (1994:84), as quoted by Tatevosov (2002: 335), rightly points out to the fact that an action type "is a construct" and as such "with no counterpart in reality."

This poses the need to reevaluate the inventory of actional labels. I propose a cross categorization between two actional categories -event and processes-, and aspect. These two actional categories are identified as belonging to non-verbal modalities of cognition, i.e. semantic primitives, encoded in the verbal system:

> "Human cognition is unique in that it has become specialized for dealing simultaneously with language and with nonverbal objects and events. Moreover, the language system is peculiar in that it deals directly with linguistic input and output (in the form of speech or writing) while at the same time serving a symbolic function with respect to nonverbal objects, events, and behaviors. Any representational theory must accommodate this dual functionality." (Paivio 1986: 53).

Cognition is at the origin of grammar. As Croft argues, "in order to understand why grammar exits, we must turn to the verbalization of experience" (2007: 376). What follows is not an attempt to decipher any evolutionary mechanism that could explain language, but an attempt to look at the possible cognitive map available to humans previous to language. Extracting from Edelman (2006),[2] it can be argued that non-verbal mental representations are organized around the following structuring systems:

- Mechanic and physics of solids and fluids: structure and function
- Dynamic – a subset of mechanics-: relationships of force and motion
- Deictic and Anaphoric relations
- Causal relations

Classical mechanics is concerned with the physical laws governing motion of objects. Dynamics is the branch of classical mechanics that is concerned with the effects of forces on the motion of objects. Thus, an object is in static equilibrium when the position of the objects does not vary over time; an object is in motion when its position changes over time. The construction of the aspectual system involves the mapping of the domains of mechanics and dynamics, as it will be argued in the following section. In this regard, Gibbs establishes a significant link between movement and lexicon based on his Embodiment Premise (2006) –image schematic approach to metaphor- according to which movement contains a specific time comprehension.

It is important to notice that the concept of Dynamics as a structuring system is unrelated to Talmy's Force Dynamics (1988a). Talmy coined the term as a semantic category that describes the way in which entities interact in reference to the notion of force. The proper cognitive domain of force dynamics is objects. This is metaphorically extended to the actual domains of intentions and mental states. Talmy implies that while the basic notions of force dynamics are expressed in a range of semantic fields, they originate in object mechanics, although "some of the most basic force dynamic con-

cepts-blocking and letting, resistance and overcoming-have no principled counterpart in physics" (1988a: 93). The position held in the present work is that aspectual grams are originated and have a counterpart in object mechanics.[3]

Although from a metaphorical perspective, Talmy makes the link between cognitive domains and linguistic categories. He illustrates the application of conceptual primitives from a source domain –cognition- onto a novel target domain –linguistic categories-. His "systematic application of force concepts to the organization of meaning in language" (1988a: 50) aims to demonstrate the pervasiveness of force-dynamics thinking. In a similar fashion, the present work aims to illustrate how primitives of space and time apply to aspectual and tense grams.

4.1 Processes and Events

Any conventional system of symbols is the expression of the cognitive domains that incorporates. Typological investigation of aspect presupposes that the predicate is structured around the inherent qualities of actionality of the verb –aktionsart-. Although aspectual categories may appear affected or even determined by aktionsart, the difficulty of categorizing actionality makes it advisable to shift the focus toward a categorization of aspectual grams in terms of the cognitive domains that govern them, namely, time and space. Space should be understood as the perception of the change in the coordinates that define the position of the object within the perceived temporal boundaries of the situation. Thus, a situation is either thought as a process, in which case is perceived to create a future state [-static], or as an event, not subject to change [+static].

Actional predicates have been traditionally categorized as a function of three basic semantic features: dynamicity, durativity -punctual vs. non-punctual predicates- and telicity. In Vendler's (1967) classification of predicates, states and activities are considered atelic, since they do not have an inherent end point. The other two categories in the classification, accomplishments

and achievements, are distinguished from the former two by their durativity. Telicity is defined as a semantic property that reflects the boundedness of events: predicates that denote bounded events are telic; those that denote unbounded events are atelic. Traditionally, telicity appears as the dominant feature in the selection of lexical aspects:

(1) *La conocí ayer*
I met her yesterday
(2) *La conocía muy bien*
I knew her very well

However, if telicity is defined as an inherent property of the predicate, regardless of its lexical aspect-perfectiveness-, consider the following sentences:

(3) *Corrí diez millas el sábado*
I run ten miles on Saturday
(4) *Corrí por el parque el sábado*
I run around the park on Saturday

The predicate in (3) is telic and perfective, while the predicate in (4) is atelic and perfective. Consequently, in the process of grammaticalization of aspect, whatever this process may be, telicity does not seem to play a dominant role.

In Vendler's semantic classification, activities, accomplishments and achievements are differentiated by virtue of their dynamicity from states. This means that a stative action does not have internal temporal structure. Klein (1994) argues for the non existence of punctual actions –achievements.[4] As a matter of fact, a predicate that lacks durativity cannot have an inherent end point or denote successive stages. If telicity does not play a role in the process of grammaticalization of aspectual markers, the semantic distinction between activities and accomplishments is blurred. Furthermore, continuing with Vendler's categories, the progressive test has been used as a key argument in the distinction between activities and states. However, in Spanish, as

in English, most *stative* verbs can be used with the progressive:

(5) *Me está gustando este libro*
I am liking this book

Consequently, traditional accounts of telicity and durativity not only fail to accurately distinguish achievements from states and accomplishments from activities, but also to explain the relationship between actional categories and aspect.

4.2 Perfectiveness

Although the concept of boundness also appears in the literature as a key feature of perfectivity, it is widely understood that perfectivity goes hand in hand with an understanding of completion within a temporal interval. If an event is internal to a temporal interval, the predicate is perfective. If the event is external, the predicate is imperfective.

Aspect is a linguistic concept used without a clear description of its relationship with and differences from tense. The treatment of perfect tenses as an aspect illustrates the inadequacy of durativity, i.e. the internal-external distinction, for separating aspect from tense. Perfect tenses, according to Comrie (1976), express a relation between two time-points, the time of the state resulting from a previous event and the time of such event. Comrie points out that the traditional division of aspect in perfective and imperfective does not make room for including perfect tenses as an aspect. In order to better understand the relationship of tense and aspect, the internal view of time as defining aspect needs to be corrected to include a view of time that makes reference to internal and external situations at once (Klein 1995). The intertwined of tense and aspect in perfect tenses questions whether tense and aspect exist as distinctively defining categories in explaining the grammaticalization of any verbal system and its categorization of verbs.

5. The Conceptualization of Tense and Aspect in the Spanish Verbal System

Verkuyl's Compositional Theory of Actionality (Verkuyl 1999) states that actional features of verbs within a language are not independent from the meaning of the verbal morphology of such language: actionality is the conceptual construction that results from the interaction of time and aspect. Although the view that the verb is the nucleus of the grammaticalization of this interaction may be too narrow to elucidate the true nature of the construction of actionaliy,[5] the Spanish verb system offers a paradigmatic example of the verb as the nucleus of the grammaticalization of time and aspect.

The claim that in Spanish the actional features of the verb are not independent of the meaning of its verbal morphology is made from a treatment of actionality and aspect that derives from the premises previously lay out. Namely, the perception of a mental space as essentially temporal, and the need of redefining tense and aspect as mutually interacting in the compositionality of the temporal limits of an action. The internal view of duration as defining aspect needs to include, as previously stated, a view of duration that refers to internal and external situations at once. That is, it needs to account for the conceptual blending of the internal structure of the situation –event or process- and the internal and external temporal structure of the situation with respect of the time of reference.[6] To such effect, I argue for a redefined set of semantic features of actionality consonant with a conceptualization of space as construed by the perception of states of motion and rest, which may offer a clearer understanding of the grammaticalization of tense and aspect grams. I illustrate this claim using examples from Spanish.

As it has been argued in the previous section, the aspectual system is structured around two values of actionality:

- Processes are [-static]: situation conceived to cause a future state. It has an internal time.
- Events are [+static:] situation not subject to change. It lacks internal time; there are no phases.

The two values of actionality, understood as a cognitive domain with a counterpart in the physical laws governing motion, distinguish progressive (6) from non progressive situations (7):

(6) *Estoy viviendo en Madrid*
I am living in Madrid
(7) *Vivo en San Antonio*
I live in San Antonio

Borrowing the internal/ external distinction of duration as a semantic feature of aspect, situations can be [+/- finite] depending on whether the situation is internal or external to the time of reference. A situation is internal [+ finite] when it is bounded by the perceived limits of the time of reference (S1< time of reference). This is the case for the indefinite past (8) and its progressive form (9):

(8) *Anoche llegamos tarde a casa*
Last night we arrived home late
(9) *Estuvieron hablando durante dos horas*
They were talking for two hours

A situation is defined as external [-finite] when it is not bounded by the perceived limits of the time of reference (S1> time of reference). Such are the cases of the imperfect past (10) and present simple (11):

(10) *En la universidad, era miembro del equipo de natación*
At the university, I used to be a member of the swimming team
(11) *Leo el periódico todas las mañanas*
I read the newspapers every morning

In the case of perfect tenses, we encounter situations that are internal and external at once:

- [+finite/ -finite]: situation (S1) internal to the time of reference and external to a future situation (S2) [(S2 < S1< time of reference)]. This is the case of the

Spanish *pretérito anterior*: [7]

(12) *Cuando hubo terminado de cenar* (S1), *se retiró del comedor* (S2)
Once he finished his dinner, he left the dining room

- [-finite/ + finite]: situation (S1) external to the time of reference and internal to a prior situation (S2) [(S2 > S1> time of reference)]. As found in present perfect (13) and pluperfect (14) forms:

(13) *Hoy hemos terminado más temprano*
Today we have finished earlier
(14) *Esa tarde habíamos terminado más temprano*
That evening we had finished earlier

Normally, when we talk about the future, we are either talking about a future time of reference, or stating a presupposition or a probability. As a direct consequence, a sentence that refers to the future will almost always differ also modally from a sentence with non-future time reference:

(15) *Habrá unas cuatro horas de diferencia*
There must be a difference of four hours
(16) *Para cuando llegues ya habré terminado*[8]
I will be finished when you arrive

This is the reason why the distinction between tense and mood is blurred when it comes to the future.[9] However, it seems fairly clear from the data presented in Dahl (1985) that the most typical uses of future morphological markers involve planned events. In such instances, the event is bounded by the time of reference:

(17) *Llegaré tarde a casa*
I will be arriving home late
(18) *Te estaré esperando hasta las ocho*
I will be waiting until eight o'clock

The interaction of aspect and tense in the actional features of the verb in Spanish supports Verkuyl's Compositional Theory of Actionality (1999). Namely, the meaning of the verbal morphology is not independent from the actional features of the language.[10] The interaction of time and aspect are as much part of the construction of actionality as it is the distinction between events and processes. The following chart summarizes the relationships between tense, actionality, and duration, as defined in these pages, in the Spanish verbal system:

Present	[+static]	[-finite]
Progressive	[-static]	[-finite]
Perfect	[+static]	[- finite / + finite]
Past Imperfect	[+static]	[-finite]
Progressive	[-static]	[-finite]
Perfect	[+static]	[- finite / + finite]
Past indefinite	[+static]	[+finite]
Progressive	[-static]	[+finite]
Perfect	[+static]	[+finite/ - finite]
Future	[+static]	[+finite]
Progressive	[-static]	[+finite]

Conclusions

Departing from non verbal representations of motion, as a function of time and space, we have structured the parameter of actionality around two actional categories: processes and events. Following Vendler's classification of actional predicates, we have shown that the semantic features that have been the basis for a traditional categorization of aspectual classes, telicity aand durativity, fail to adequately explain the seemingly complex interaction of tense and aspect or how they may play any role in the process of grammaticalization of the tense and aspect grams.

Along with the semantic value of the two actional categories [+/- static], situations are defined as [+/- finite] depending on whether they are internal or external to the time or event of reference, respectively. This cross

categorization of tense, aspect and action accounts for all major tense and aspect markers in the Spanish verbal system, and for the semantic values that possibly enter the process of grammaticalization of the system. Consequently, in the Spanish verbal system, present and past imperfect forms appear as unbounded, and past indefinite and future forms as bounded.

There is a correlation of tense and finiteness if we consider that the time of reference in the case of the past imperfect is compositional: it places the situation with respect of the time of the utterance and the time of a past co-occurring situation. For simple present forms the time of reference is the occurring situation. As for the parameter of actionality, only progressive forms have an internal time. They are situations conceived to cause a future state.

The relationship between tense and aspect in the construction of space and time, and its encoding in the verbal system bring about the need to revise previous assumptions regarding tense and aspect as distinctive categories, and the presupposed existence of inherent actional features of verbs.

WORKS CITED

BACHE, C. 1995. *The Study of Tense, Aspect and Action: Towards A Theory of the Semantics of Grammatical Categories*. Frankfurt am Main: Peter Lang

BERTUCCELLI PAPI, M. 2003. "Cognitive Complexity and the Lexicon". In L. Merlini (ed.) *Complexity In Language And In Text.* Pisa: Plus.

COMRIE, B. 1976. *Aspect.* Cambridge: Cambridge University Press

CROFT, W. 2007. "The Origins of Grammar in the Verbalization Of Experience". *Cognitive Linguistics* 18.339-82

DAHL, Ö. 1985. *Tense and Aspect Systems*. Oxford: Basil Blackwell.

DAHL, Ö. 1999. "Tense and Aspect". In R. Wilson, and F. Keil, (eds.) *The MIT Encyclopedia Of The Cognitive Science*. Cambridge: The MIT Press.

EDELMAN, G. 2006. *Second Nature.* New Haven: Yale University Press.

FAUCONNIER, G. and M. Turner.1996. "Blending as a Central Process of Grammar". In A. Goldberg (ed.) *Conceptual Structure, Discourse, And Language*. Stanford: CSLI

FAUCONNIER, G. and M. Turner. 1998. "Conceptual Integration Networks" *Cognitive Science* 22:2.133-187.

FAUCONNIER, G. and M. Turner. 2006. "Rethinking Metaphor". In R. Gibbs (ed.) *Cambridge Handbook of Metaphor and Though*. Cambridge: Cambridge University Press.

GIBBS, R. 2006. *Embodiment and Cognitive Science.* Cambridge: Cambridge University Press.

KLEIN, W. 1994. *Time and Language* . London: Routledge

LAKOFF, G. and M. Johnson. 1980. *Metaphors We Live By*. Chicago: The University of Chicago Press

LANGACKER, R. 1988. "Conceptualization, Symbolization, and Grammar". In M Tomasello (ed.) *The New Psychology of Language.* New Jersey: Lawrence Erlbaum Asssociates.

MURPHY, G. 2002. *The Big Book of Concepts*. Cambridge: The MIT Press.

PAIVIO, A. 1986. *Mental Representations*. New York: Oxford University Press

PEETERS, B. 2001. "Does Cognitive Linguistics Live up to its Name?" In R. Dirven, B. Hawkins, E. Sandikciouglu (eds.) *Language and Ideology.* Vol I. Amsterdam: John Benjamins Publishing Company.

ROSCH, E. 1999. "Reclaiming Concepts". *Journal of Consciousness Studies* 6 11/12 61- 77. Berlin: Mouton de Gruyter.

SIMON, C. 1994. "Verbal Semantics in Functional Grammar". *Tense, Aspect, and Action.* In C. Bache, H. Basboll, and C.E. Lindberg (eds.). Berlin: Mouton de Gruyter.
TALMY, L. 1988a. "Force Dynamics in Language and Cognition". *Cognitive Science* 12: 49-100.
TALMY, L. 1988b. "The relation of Grammar to Cognition". In B. Rudzka-Ostyn (ed.) *Topics in Cognitive Linguistics.* Amsterdam: John Benjamins.
TATEVOSOV, S. 2002. "The Parameter of Actionality". *Linguistic Typology* 6-3: 317-401.
TOWNSEND, C. 1986. "Can Aspect Stand Prosperity?" In M. S. Flier and A. Timberlake (eds.) *The Scope of Slavic Aspect.* Columbus: Slavica, 286-95.
VERKUYL, H. 1999. *Aspectual Issues: Studies on Time and Quantity.* Stanford: CSLI.
VERKUYL, H. 1993. *A Theory of Aspectuality: The Interaction Between Temporal and Atemporal Structure.* Cambridge: Cambridge University Press
VENDLER, Z. 1967. "Verbs and Times". *The Philosophical Review* 66: 143-160.

NOTAS

[1] The lexical and grammatical systems are part of the same ontology: each denotative expression activates a system of inferences that allows categorize what is denoted

[2] Further support can be found in Talmy (1988b), and Langacker (1998). They argue for the existence of irreducible parameters of cognition around which language is structured.

[3] Dynamics is concerned with the variations in the relative position of objects over time. Accordingly, in our mental representations space and time appear not merely as a system of metaphorical relations but as a kind of substance

[4]Klein (1994) provides a time-relational characterization of the Russian verb instead of traditional aspectual values.

[5] Verkuyl (1993), Bache (1995), and Dahl (1999), among others, view aspect as a sentential category instead.

[6] The time of reference locates the action in a time with respect to the moment of speaking or to another action.

[7] The *pretérito anterior* makes reference to a prior situation to a past situation. This form differs from other perfect forms in that S2 is explicit in the situation.

[8] This form is epistemologically different from the perfect form of the past indefinite in that S2 not being experienced by the speaker, but presupposed.

[9] See Comrie (1976) and Townsend (1986) regarding the argument that imperfectivity also straddles between aspect and modality.

[10] Conditionals are not included. It has been generally accepted that they do not meet the conditions for being regarded as major TAM categories.