

Aspectual composition in Modern Greek

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Abstract

The rich aspectual system in Modern Greek involves both morphologically expressed grammatical aspect and eventuality types. Particular emphasis is paid to the interaction between grammatical aspect and eventuality types, since it is due to this interaction that the verbal predicate acquires distinct meanings. The main aim of this paper is to explain potential changes in the meaning of the eventualities caused by the interaction with grammatical aspect and provide a formal analysis of this interaction. I propose an analysis within Head-Driven Phrase Structure Grammar (HPSG), using Minimal Recursion Semantics (MRS) for the semantic representations. I argue that grammatical aspect is a function which takes as arguments particular eventualities. When the arguments are different from the required ones, then there are instances of reinterpretations, which are not instances of ungrammaticality. This can be explained with the introduction of subeventual templates, where grammatical aspect combines with eventuality types and selects eventualities or subeventualities appropriate to its selection restrictions, using information that is already there in the denotation of the eventualities.

Introduction

Aspectual composition occurs when grammatical aspect (perfective and imperfective) and eventuality types (accomplishments, achievements, processes, states) carried by the verb along with its arguments combine to trigger particular meanings. This aspectual composition may change the denotation of the eventuality type resulting to aspectual shifts. (Moens and Steedman 1988, Jackendoff 1990, Pustejovsky 1995, Krifka 1998, de Swart 1998, Giannakidou 2002, Egg 2002, Michaelis 2004).

An instance of this phenomenon is found in Modern Greek (M.G.) where there is a contrast between perfective and imperfective aspect, being overt in the morphology of the verb. The information, grammatical aspect presents, is affected by the eventuality type it combines with, which is implicit in the meaning of the verb phrase.

In (1) there is a process eventuality, which denotes a situation where *Giannis loves Anna* but is not clear when this loving situation starts and when and whether it finishes. When this eventuality occurs with imperfective aspect in (1a), it gets the default meaning of the eventuality, where no culmination point is denoted and no visible endpoints. In (1b) the same eventuality combines with perfective aspect, which may focus either on the

initial stages of the eventuality in which case it acquires an inchoative reading or simply adds both endpoints, in which case we get a bounded reading.

(1a) O Giannis agapous -e tin Anna.
 the Giannis love.imperf -past.3sg the Anna
 `Giannis was loving Anna' / `Giannis used to love Anna`

(1b) O Giannis agapis -e tin Anna.
 the Giannis love.perf -past.3sg the Anna
 `Giannis loved Anna (and does not love her any more)'(bounded)
 `Giannis fell in love with Anna' (inchoative)

The aspectual shifts involved are subtypes of type shifts, which in the literature are formalised with the usage of a functor argument relation: $f(a)$, where f is the functor and a the argument. In the case of aspectual shifts, there is a functor-argument relation between grammatical aspect and eventuality types (2a). Aspect is further instantiated into the imperfective functor which combines with processes and states (2b).

- (2a) aspect (eventuality type)
 (2b) imperfective(process \vee state)

There are cases where the argument is not the appropriate input for the functor as in (1b). However, there is no ungrammaticality involved but just re-interpretations occur, which remedy the conflict.

An explanation for these re-interpretations lies in the sphere of extralinguistic knowledge. The general relation $f(Op(a))$ is used, where the operator Op added, is given by pragmatic context. A major drawback of these approaches is that these operators can not be appropriately constrained, so that they occur only where and when needed.

Following Michaelis (2004) and Pustejovsky (1995), we provide an alternative, where we develop a highly constructed inventory of eventuality types, which consists of eventualities as well as their subeventualities. These interact with grammatical aspect, which adds or selects the whole or subparts of the eventualities according to its selection restrictions.

The Analysis

The analysis proposed follows the framework of Head-Driven Phrase Structure Grammar (HPSG) (Pollard and Sag 1994), using Minimal Recursion Semantics (MRS) for the semantic representations (Copestake et al. 2000). Following (MRS) architecture, we introduce a number of relations, which represent both the grammatical aspect functor and the eventuality type argument given in (2a).

The *aspect-rel* has the features L(a)B(e)L and BINDS as indicated in (3). The LBL identifies the relation and shows its scopal connection with the other relations whereas the BINDS feature shows the eventuality the *aspect-rel* has to bind with. The *aspect-rel* combines with an eventuality through the BINDS feature and gives back the same or a different eventuality through the EVENT-STR(ucture) feature.

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|-------------------------|----------------------------------|
| (3) [<i>aspect-rel</i> | (4) [<i>eventuality-rel</i> |
| LBL <i>handle</i> | LBL <i>handle</i> |
| EVENT-STR | EVENT-STR [EVENT1 <i>process</i> |
| <i>event-str</i> | EVENT2 <i>state</i> |
| BINDS <i>event-str</i> | RESTR 1 < 2]] |

The eventualities are decomposed into subparts so as grammatical aspect to be able to select the appropriate subpart in each case. Following Pustejovsky (1995), we support that each *eventuality-rel* has an event structure (EVENT-STR), whose value is a feature structure, that consists of different subeventualities indicated by the features EVENT1 and EVENT2.

The *eventuality-rel* in (4) introduces apart from the attributes LBL, the attribute EVENT-STR, which has two subeventualities: An EVENT1 with value a *process* type and an EVENT2 with value the *state* type. Their temporal ordering is guaranteed through the RESTR(iction) attribute, which states that there is a precedence temporal relation between EVENT1 and EVENT2.

Following Michaelis 2004, we support that as in the Romance languages, imperfective aspect in M.G. is a type-selecting operator, which reflects the eventuality type of its arguments. It modulates when it is necessary the aspectual properties of its argument and denotes eventuality types and place constraints upon the types it combines with. This kind of combination is guaranteed by the *Aktionsart preservation principle*, where no extra material is needed intervene in the functor argument relation.

Hence, the imperfective functor takes as argument particular eventualities and when the argument is not the appropriate input, the functor selects or adds a subpart to the eventuality it combines with. It selects process eventualities and returns an output of the same eventuality as the input as in (5a). When it combines with transition eventualities, it selects only the process subeventuality which is appropriate for its selection type as it is shown in (5b), where when the input is a transition then the output is just the process subeventuality.

- (5) $F_{\text{imperf}}(X, Y) = Z$
 (5b) if $Y = [\text{EVENT1 } \textit{process}]$, then $Z = Y [\text{EVENT1 } \textit{process}]$
 (5c) if $Y = [\text{EVENT1 } \textit{process}$
 $\text{EVENT2 } \textit{state}]$, then $Z = [\text{EVENT1 } \textit{process}]$

Conclusion

Through the account provided we have shown that eventualities consist of subeventual templates and grammatical aspect selects each time an appropriate subeventuality as input according to its selectional restrictions. Particular meanings are inferred which are already there in the denotation of the eventuality and they just need to be picked up by grammatical aspect.

Acknowledgements

I would like to thank my PhD supervisor Prof. Louisa Sadler and Dr. Doug Arnold. This research was supported by ESRC funding. Contact details: maria.flouraki@gmail.com

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