

Variability in Greek multiword compound nouns in the form of Adjective (Adjective) Noun

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WG1-WG2-WG3

Introduction

Study and processing of morphosyntactic variability in Modern Greek multiword compound nouns in the form of Adjective (Adjective) Noun.

Morphosyntactic variants of adjective-noun compounds:

- Substantivation.
- Deletion of the adjective.
- Substantivation and deletion of the adjective in the same compound noun.
- Morphosyntactic variants of adjective-adjective-noun compounds:
 - Conversion into an adjective+noun compound due to deletion of a constituent.
 - Conversion into a simple noun due to deletion of one or more constituents and substantivation of the adjective.
 - Conversion of the same adjective+adjective+noun compound either into an adjective+noun compound or into a simple noun.

Compound noun AN	Gender & number of the compound noun	Substantivated adjective	Gender & number of the derived simple noun
διότιμο διδασκαλίας lesson	Gender: neutral Number: singular	διότιμο/didaktikó	Gender: neutral Number: singular
πενήνταξιμο λέξιων word	Gender: feminine Number: singular	πενήνταξιμο/lexikó	Gender: neutral Number: singular
πυρροτόμο βιοπροσώπων substance	Gender: feminine Number: singular	πυρροτόμο/bioproswopikó	Gender: neutral Number: plural
αυτομότομο ομιλοσυντακτικό semi-final	Gender: masculine Number: singular	α) αυτομότομο/semi-final β) αυτομότομο/semi-final	α) Gender: masculine Number: plural β) Gender: neutral Number: plural
αεροπορικό έτος/traveling expenses	Gender: neutral Number: plural	αεροπορικό/traveling expenses	Gender: neutral Number: plural

Table 1. Examples of substantivated adjectives

Compound noun AN	Variant	Remarks
αυτομάτομο μηχανήματα/automatic machines	αυτομάτομο μηχανήματα/automatic machines	Deletion of the adjective and conversion into a simple noun
αυτομάτομο μηχανήματα/automatic machines	αυτομάτομο μηχανήματα/automatic machines	Deletion of the 2 nd adjective and conversion of the AN compound noun into an AN compound
αυτομάτομο μηχανήματα/automatic machines	αυτομάτομο μηχανήματα/automatic machines	Deletion of the 1 st adjective and conversion of the AN compound noun into a simple noun

Table 2. Examples of compound nouns with deletion of the adjective

Compound noun AN	Variant	Remarks
Εθνική Μετεωρολογική Υπηρεσία/National Meteorological Service	Εθνική Μετεωρολογική Υπηρεσία/Meteorological Service	Deletion of the 1 st adjective and conversion of the AN compound noun into an AN compound
εξαιρετικό ομορφιάς νεύρα	εξαιρετικό ομορφιάς νεύρα	Deletion of the 2 nd adjective and conversion of the AN compound noun into an AN compound
απόλυτο υπερβέβαιος/absolute superlative degree	απόλυτο υπερβέβαιος/absolute superlative degree	Deletion of the noun, substantivation of the 2 nd adjective and conversion of the AN compound noun into an AN compound
απόλυτο ομορφιάς/absolute superlative degree	απόλυτο ομορφιάς/absolute superlative degree	Deletion of the 2 nd and 3 rd constituents, substantivation of the 1 st adjective and conversion of the compound noun into a simple noun
Πολυκλαδικό Λύκειο/Multisectoral Lyceum	α) Πολυκλαδικό Λύκειο/Multisectoral Lyceum β) Πολυκλαδικό/Μultisectoral	α) Deletion of the 1 st adjective and conversion of the AN compound noun into an AN compound β) Deletion of the 1 st adjective and the noun, substantivation of the 2 nd adjective and conversion of the AN compound noun to a simple noun
Νέα Ελληνικά/Modern Greek language	α) νέα Ελληνικά/Modern Greek β) νέα Ελληνικά/Modern Greek	α) Deletion of the noun, substantivation of the 2 nd adjective and conversion of the AN compound noun into an AN feminine singular compound β) Deletion of the noun, substantivation of the 2 nd adjective and conversion of the AN compound noun into an AN neutral plural compound

Table 3. Examples of general of adjective-adjective-noun compounds

Aim

- Automatic inflection of multiword compound nouns.
- Automatic generation of variants of compound nouns.
- Automatic inflection of variants.

Method

- Multiflex, a cross-language morphosyntactic generator of multiword units (A. Savary, 2005a/b/c, 2007).
- Multiflex has been integrated in the Unixex processor (Paumier 2012).
- Multiflex supports finite-state transducers that can model a number of combining conditions.

Inflection graphs

Adjective+Noun compounds



Fig 1. Inflection graph for adjective+noun compounds without variants



Fig 2. Inflection graph for adjective+noun compounds with deletion of the adjective, e.g. διότιμο μηχανήματα/automatic machines



Fig 3. Inflection graph for adjective+noun compounds with deletion of the noun and substantivation of the adjective, e.g. ομορφιάς μηχανήματα/automatic machines



Fig 4. Inflection graph for adjective+noun compounds with deletion of the noun and substantivation of the adjective, with a split. Example: αυτομάτομο μηχανήματα/automatic machines

Adjective+Adjective+Noun compounds

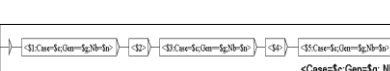


Fig 5. Inflection graph for adjective+adjective+noun compounds, e.g. απόλυτο υπερβέβαιος/absolute superlative degree



Fig 6. Inflection graph for adjective+adjective+noun compounds with deletion of the noun and conversion into an adjective+noun compound, e.g. Νέα Ελληνικά/Modern Greek language

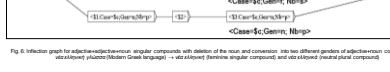


Fig 7. Inflection graph for adjective+adjective+noun compounds with deletion of the noun and conversion into an adjective+noun compound with a split. Example: Νέα Ελληνικά/Modern Greek language

Results

Inflection of the adjective+noun compound διότιμο μηχανήματα

Inflection of the adjective+noun compound ομορφιάς μηχανήματα

Inflection of the adjective+noun compound αυτομάτομο μηχανήματα

Inflection of the adjective+adjective+noun compound απόλυτο υπερβέβαιος

Inflection of the adjective+adjective+noun compound απόλυτο ομορφιάς

Inflection of the adjective+adjective+noun compound Νέα Ελληνικά

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Conclusion

- Morphosyntactic variability is a frequent phenomenon in Modern Greek adjective (adjective) noun compounds.
- Construction of 30 inflection graphs for the adjective (adjective) noun compounds and their variants.

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