

Synthetic versus analytic comparatives in Ukrainian

Asya Vyshnevskaya¹ & Jeroen van Craenenbroeck^{1,2} & Stef Grondelaers²

¹KU Leuven & ²Meertens Institute

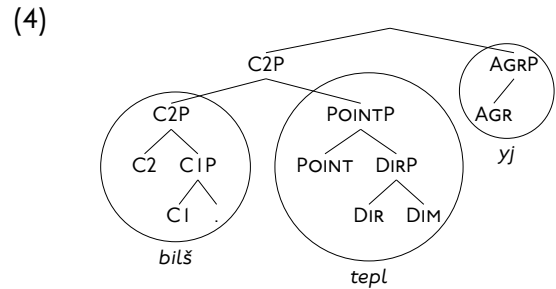
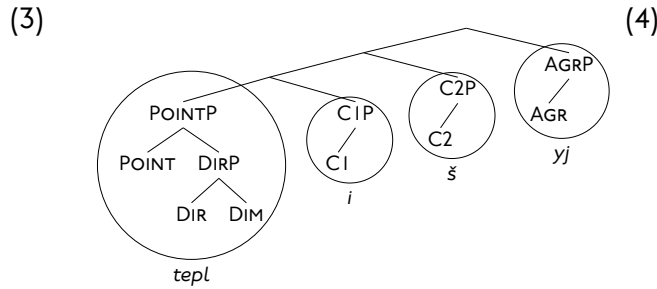
OUTLINE In this paper we explore to what extent the Lexicalization Algorithm (LA) can be used to predict markedness patterns in lexicalization. The main idea is that choosing a non-optimal option in the LA can lead to a lexicalization that is not outright ungrammatical, but that exists as an alternative, marked lexicalization next to the optimal outcome. We test this hypothesis experimentally on the basis of adjectival comparative formation in Ukrainian.

THE DATA Ukrainian comparative adjectives come in two forms: synthetic (1) and analytic (2). Synthetic comparatives are derived with the comparative suffix *-iš* (1a) or *-š* (1b), while analytic ones are derived with the marker *biljš* and the positive degree adjective (2).

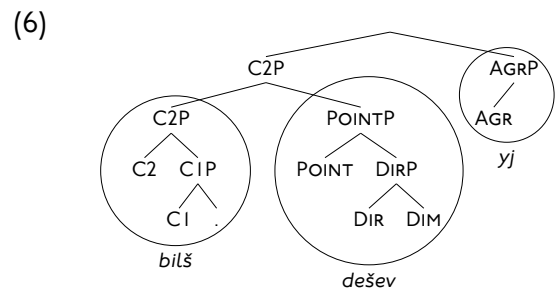
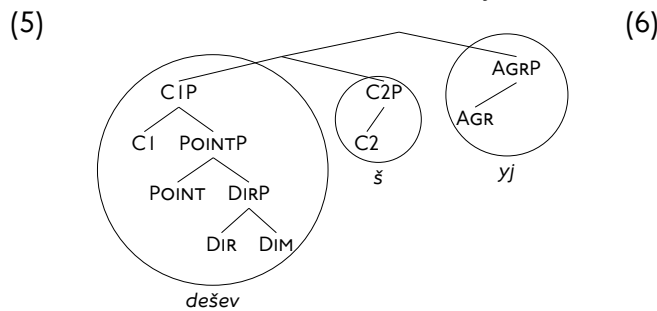
- (1) a. *tepl-iš-yj*
warm-CMPR-AGR
'warmer'
b. *dešev-š-yj*
cheap-CMPR-AGR
'cheaper'

- (2) a. *biljš tepl-yj*
more warm-AGR
'warmer'
b. *biljš dešev-yj*
more cheap-AGR
'cheaper'

We take a compositional approach to adjectives. Following Vanden Wyngaerd et al. (2020), we propose that AP is comprised of three different projections: (1) Dimension (DIM), such as velocity, size, or color, (2) Direction (DIR), which introduces a scale, and (3) Point (POINT), which introduces the contextual standard. In turn, the comparative head is comprised of two heads: C1 and C2 (Caha et al. 2019). In synthetic comparatives, comparative suffixes lexicalize the comparative heads (3),(5), while in analytic ones they are lexicalized by *biljš* (4), (6). In both adjectival forms, the (internally complex) agreement head is realized by the agreement marker *-yj*.



Moreover, Ukrainian adjectives come in different sizes (Vyshnevskaya 2025). Smaller roots, like *tepl* in (3) lexicalize the structure up to POINT, while bigger roots like *dešev* in (5) lexicalize the structure up to CIP. As a result, adjectives take different comparative markers.



LEXICALIZATION & MARKEDNESS The derivations in (3)–(6) raise questions for the Lexicalization Algorithm. Both analytic and synthetic comparatives lexicalize CIP, but while the former make use of complex left branch formation, the latter involve evacuation movement. Since the LA works strictly deterministically, this would seem to suggest that the analytic forms should be ruled out: they represent a later step in the LA than the synthetic forms and so should never surface, contrary to fact. However, under the hypothesis explored in this paper that such 'step-skipping' in the LA can lead to marked lexicalizations,

we make a different prediction, namely that analytic comparatives should be marked in Ukrainian compared to their synthetic counterparts:

(7) **Prediction #1: synthetic vs. analytic comparatives**

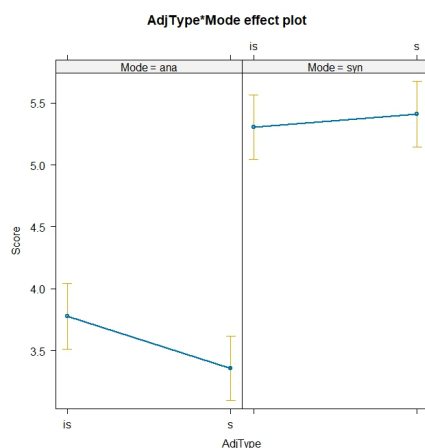
Analytic comparatives are judged less acceptable by native speakers of Ukrainian than their corresponding synthetic comparatives.

Moreover, the two structures in (4) and (6) differ in the degree to which they go against the LA. Adjectives like *teplyj* ‘warm’ can only lexicalize the structure up to POINTP, while *deševyj* ‘cheap’ can also realize CIP. This means that at the point when the complex left branch is introduced, the derivation in (4) skips only one step, while the one in (6) skips two: it foregoes both wholesale lexicalization of CIP and evacuation movement of POINTP. If this difference is reflected in the degree of markedness of the resulting lexicalization, we thus predict:

(8) **Prediction #2: -š- vs. -iš-adjectives**

Analytic comparatives based on -š-adjectives are judged less acceptable by native speakers of Ukrainian than analytic comparatives based on -iš-adjectives.

EXPERIMENT We conducted an acceptability judgment task in which 162 respondents from across Ukraine rated 64 critical stimuli on a 7-point Likert scale. We tested the effects of Mode (synthetic vs. analytic), Adjective Type (-š vs. -iš), and their interaction.



The results are provided in Fig. 1. We saw a robust main effect of Mode ($\beta = 1.52$, $SE = 0.16$, $t = 9.46$, $p < .001$), indicating significantly higher acceptability scores in the synthetic condition. The main effect of Adjective Type was also significant ($\beta = -0.42$, $SE = 0.16$, $t = -2.63$, $p = .009$), with -š-class adjectives judged less acceptable than -iš-class adjectives. Crucially, the interaction between Adjective Type and Mode was significant ($\beta = 0.53$, $SE = 0.24$, $t = 2.17$, $p = .03$), indicating that the reduced acceptability of š-class adjectives is specific to analytic constructions.

Figure 1: Two-way interaction between Adjective Type and Mode

CONCLUSIONS This study has argued that the coexistence of synthetic and analytic comparatives in Ukrainian can be naturally accounted for within Nanosyntax. Both comparative types can be derived by the Lexicalization Algorithm, but because analytic comparatives represent a non-optimal path in the LA, they are more marked. This approach also correctly predicts that analytic comparatives based on -š-class adjectives are even more marked than those based on -iš-class adjectives.

References

- Caha, Pavel, Karen De Clercq, and Guido Vanden Wyngaerd. 2019. The fine structure of the comparative. *Studia Linguistica* 73:470–521.
- Vanden Wyngaerd, Guido, Michal Starke, Karen De Clercq, and Pavel Caha. 2020. How to be positive. *Glossa* 5:1–34.
- Vyshnevskia, Anastasiia. 2025. Comparative morphology across categories: Ukrainian adjectives, adverbs, and deadjectival verbs. Doctoral Dissertation, KU Leuven.