

Under featural analyses, features are typically assigned a binary value from the set {+, -}, which are then bundled to form segments. The feature values can then be manipulated by constraints or rules to undergo phonological processes. {0} is also commonly included in the set of featural values. Including a 0 value accounts for situations where a feature is not relevant to a given segment, such as a combination of the segment /t/ and the feature [ATR]. Secondly, and relevant to the current analysis, including 0 allows for a theoretical account of underspecification. For example, Catalan nasals are variably specified for PLACE. /m/, /n/, and /ɲ/, but the coronal /n/ does not have a PLACE node (Avery & Rice, 1989). Underspecification of the coronal node explains assimilatory processes of Catalan nasals, where /n/ is the only nasal that assimilates to place of a following consonant.

Despite the seemingly clear usefulness of underspecification at the representational level in Catalan, Nelson & Baković (2024a) proposes that this formalism leads to under- and overgeneralization. By referring solely to computational knowledge, the types of operations computed over phonological elements, they find that underspecification at the representational level becomes epiphenomenal. They propose an Underspecification Map with the following conditions:

- a. The map will define input-output conditions for the “underspecified feature”.
- b. Any underspecification map will include a 1-nested conditional BMRS term.
- c. Both the upper conditional P and lower conditional Q will determine a truth value based on the antecedent of the redundancy rule that fills in the “underspecified feature”.
- d. P partitions the set of targets while Q partitions the set of triggers.

So far, the hypothesis proposed by Nelson and Baković (2024a), that underspecified representations are epiphenomenal and that the types of phonological processes where they are regularly employed implicate only computational knowledge, has been tested against voicing in

Catalan, Russian, and Turkish (Nelson & Baković, 2024a), as well as English place underspecification (Nelson & Baković, 2024b) with positive results.

The current work will test the Underspecification Map against related phonological processes that have been analyzed through representational underspecification in Romance, namely Spanish spirantization (Colina, 2020) and Galician geadá (Colina, 2013). Furthermore, although not traditionally analyzed through underspecification, a similar spirantization process occurs in Tuscan Italian, *gorgia Toscana*, which will be considered under the same analysis (Marotta, 2008). These phonological processes have been targeted for the current analysis due to their similarities across the three languages, namely the alternation between stops and fricatives/spirants.

The analysis will be formalized using Boolean Monadic Recursive Schemes (BMRS; Chandee & Jardine, 2021). Within this formalism, the phonological processes that have traditionally been analyzed with representational underspecification may instead be seen as conforming to a shared computational structure, without appealing to featural representational choices.

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