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**Grammaticalization without Feature Economy: Evidence from the Voice Cycle in Hungarian**

### Introduction

In my talk, I will discuss the Voice Cycle in Hungarian and claim that it constitutes a case where grammaticalization is not driven by Feature Economy (van Gelderen 2011) but rather, by reinterpretation based on the correlation of two seemingly unrelated grammatical markers. My claim is that while in the Old Hungarian period, middle voice was encoded in the morphosyntax through an inflectional suffix, in Modern Hungarian, it is encoded in the lexicon through a derivational suffix, and that this change can be mapped as a series of cyclical developments. Such a cycle spanning morphosyntax and the lexicon is unique: current theories typically assume that grammaticalization takes place within morphosyntax. I will also show that the derivational middle voice suffix of Hungarian has been grammaticalized from an originally frequentative suffix. While Feature Economy has been claimed to be the general mechanism of grammaticalization (van Gelderen 2011), I will show that the Voice Cycle in Hungarian cannot be described in its terms, since a morphosyntactic voice suffix and a frequentative derivational suffix do not share relevant abstract features. The Head Preference Principle and Late Merge also fail to apply as explanations for this reinterpretation.

Instead, I will claim that the mechanism at play in the Voice Cycle is reanalysis based on the correlation of seemingly unrelated grammatical markers. I will show that since middle voice and habitual / frequentative aspect are correlated, when the original morphosyntactic middle suffix weakened, the frequentative derivational suffixes were in prime position to be reinterpreted as markers of middle voice. Importantly, this reinterpretation is not based on shared abstract features, rather, it is based on the fact that due to a principled correlation between middle voice and habitual / frequentative aspect, language learners were exposed to a sample where middles were very likely to also carry a frequentative suffix. I will thus claim that beside Feature Economy, reinterpretation based on correlation between featurally independent grammatical markers should also be regarded as a mechanism of grammaticalization.

### Previous work

The *-ik* verbal paradigm (the modern-day remnant of the middle voice paradigm) has been widely discussed in traditional historical linguistics. Simonyi (1878) was the first to point out that certain derivational suffixes can encode functions associated with middles. In my analysis, I will broadly follow Bartos (1999) on the morphosyntax of Hungarian. Concerning the formal semantics of voice alternation, I will apply Alexiadou and Doron's (2012) approach with some modifications.

### Analysis

Cross-linguistically, languages vary significantly in terms of encoding active-middle voice alternation: via pronouns, clitics, inflectional suffixes or templates. Voice syncretism is also widely reported. In my talk, I will put forward the new claim that Old Hungarian encoded voice alternation morphosyntactically by means of a separate Voice head, and that it displayed voice syncretism across anticausatives, dispositional middles, reflexives, reciprocals and antipassives:

- (1) [VoiceP [AgrSP [AgrOP [MoodP [TenseP [ModP [VP ...]]]]]]]

The voice head was in feature syncretism with the AgrS subject agreement head, meaning that Old Hungarian in effect had two verbal paradigms: the active paradigm and the middle paradigm:

- (2) *az ostya három részre szeg-ik* (Érsekújvár Codex, 1529-31)  
the sacramental.bread three piece.into cut-3SG.MID  
'The communion bread got cut into three pieces. (anticausative)'

By the time of the earliest written sources, however, this system, while still functional, was already considerably weakened. The Voice head displayed feature syncretism: it was almost always spelled out together with the AgrS subject agreement head (2). Also, the middle paradigm was identical with the active paradigm except in a handful of moods and tenses. Feature syncretism (Faarlund 2008, Roberts

and Roussou 2003) and the lack of clear morpheme-function correspondence opened the way to the gradual reinterpretation of the Voice head first as a marker of unaccusativity, than as of intransitivity, until the Voice head was fully lost (affix to zero) with Voice+AgrS morphemes reinterpreted as irregular forms of the AgrS morpheme.

I will also show that as the original middle paradigm collapsed, the functional load of encoding voice alternation was taken over by a set of originally frequentative derivational suffixes.

(3)	<i>mos-d-ik</i>	→	<i>mos-d-ik</i>
	wash-FREQ-3SG.MID	→	wash-MID-3SG
	'washes herself frequently'	→	'washes herself'

This is an intriguing development: normally, if a grammatical marker is weakened/eliminated, one would expect renewal from an element with which it shares certain formal features. In the case of a voice suffix, renewal would be expected maybe from a reflexive pronoun. Instead, renewal comes from the realm of derivational suffixes, that is, the lexicon.

I will argue that this is related to the fact that cross-linguistically, middles are often associated with frequentative/habitual readings: especially antipassives where the theme argument (which could measure out the event) is demoted (cf. Polinsky 2017) and dispositional middles which ascribe a stable generic property to their argument. This meant that verbs in middle voice were very likely to carry these frequentative suffixes, and as the original middle voice inflectional suffix started to disappear, it was easy for language learners to reanalyze these frequentative suffixes as the markers of middle voice. (This can be related to the Least Effort Strategy of Clark and Roberts 1993.) This development does not appear to be unique to Hungarian, e.g. the middle suffix *-sk-* in Udmurt has also been claimed to be etymologically related to a frequentative suffix.

I will also argue that analogy may have played a role. Hungarian has a set of lexical suffixes which derive transitive or anticausative verbs from adjectival roots (*szép* 'beautiful' → *szép-ít* 'beautifies', *szép-ül* 'gets beautified'). Thus, in Old Hungarian, the argument structure of roots could be modified in both the lexicon (via deadjectival suffixes) and the morphosyntax (via the Voice head). The reinterpretation produced a more uniform system where all argument structure modification takes place in the lexicon.

In the new system, voice syncretism broke down: with the partial exception of anticausatives, where the *-ód-* suffix predominated, there was no one-to-one correspondence between flavours of middle voice and different middle suffixes, and a fragmented landscape of semi-productive middle suffixes emerged. I will show that some of these semi-productive suffixes were reinforced with the productive anticausative suffix *-ód-*, resulting in the rise of stacking (the combination of a semi-productive suffix and a productive suffix, cf. Polinsky 2017):

(4)	<i>lát-sz-ik</i>	→	<i>lát-sz-ód-ik</i>
	see-MID-3SG	→	see-MID-MID-3SG
	'it seems, it is visible'		'it seems, it is visible'

In terms of timing, the Voice Cycle was a slow and incremental process: the typical trajectory can be represented by looking at the old and new versions of the anticausative 'get loosened': *old-ik* (loosen-3SG.MID) vs. *old-ód-ik* (loosen-MID-3SG). The earliest sources such as the Károli Bible (1590) only have the old form, and the new form is first attested in the 18<sup>th</sup> century. The two forms then coexist for much of the 19<sup>th</sup> century but the old form gradually becomes archaic: in the 1908 modernizing revision of the Károli Bible, the old form is abandoned in favour of the new. In current usage, only the new form survives.

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