

## Evaluating the Tolerance Principle: Overgeneralization of ablaut preterit inflection in Swedish-speaking children aged six to ten

Swedish is commonly described as having four verbal conjugations. The preterit forms of the first, second and third conjugations all take a dental suffix realized as *-de*, *-dde* or *-te*, predictable on a phonological basis. The fourth conjugation consists of the Swedish strong verbs, which typically have vowel shift and no preterit suffix (see table 1 for an overview).

The first conjugation, comprising all verbs with stem final *a*, is often the only class ascribed productive status. Novel verbs adhere to the first conjugation pattern, because novel verbs are formed by suffixing *-a*: *Google* becomes *googla* ‘google’, preterit *googlade* ‘googled’. The other conjugations, including the fourth with vowel shift preterits, have been productive historically when non-novel verbs have changed class (Lundberg, 1921; Strik, 2015; Wessén, 1965).

Previous studies on verb inflection in child language (Veres, 2004 for Swedish; Bleses et al., 2011 for a comparison to other Scandinavian languages) suggest that while preterit overgeneralization errors produced by Swedish-speaking children are mainly weak dental suffix forms, overgeneralizations of strong ablaut forms also occur, increasing from age four to eight. This type of overgeneralization poses the question of whether Swedish ablaut preterits may, under certain structural conditions, be the rule rather than the exception.

In this talk, I present some conditions under which overgeneralization of strong inflection may be productive, based on a study of 99 L1-speakers of Swedish aged six to ten who inflect verbs and nonsense verbs for past tense in two elicitation tasks. Additionally, I evaluate whether the Tolerance Principle (Yang, 2016, see figure 1), a theory of the numeric conditions under which language learners form productive rules rather than list forms individually in the lexicon, holds for explaining this seemingly productive strong preterit inflection.

Preliminary results from the elicitation tasks indicates that while the dental suffix is the main source for overgeneralization errors and for production of nonsense forms for all age groups, children also produce strong ablaut forms for weak verbs and for nonsense verbs, increasing with age. The use of vowel shift from /i:/ → /e:/ and from /y:/ or /ɥ:/ → /ø:/ is observed at least once for approximately 44 % and 35 % of participants respectively for verbs that have a stem final dental, where the expected weak inflection would result in vowel shortening. I will argue that strong inflection for verbs with these stem structural properties also has high enough type frequency to warrant forming a productive rule according to the Tolerance Principle.

## References

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## Tables & figures

Table 1: Swedish stems and preterit forms by conjugation.

Conjugation	Stem	Present	Preterit
<b>1st</b>	<i>hoppa</i> 'jump'	<i>hoppar</i>	<i>hoppade</i>
<b>2nd</b>	<i>ring</i> 'call'	<i>ringer</i>	<i>ringde</i>
	<i>lås</i> 'lock'	<i>låser</i>	<i>läste</i>
<b>3rd</b>	<i>tro</i> 'believe'	<i>tror</i>	<i>trodde</i>
<b>4th</b>	<i>gråt</i> 'cry'	<i>gråter</i>	<i>grät</i>
(examples of some patterns)	<i>rid</i> 'ride'	<i>rider</i>	<i>red</i>
	<i>flyg</i> 'fly'	<i>flyger</i>	<i>flög</i>

Figure 1: The Tolerance Principle (Yang, 2016)

Let a rule  $R$  be defined over a set of  $N$  items.  $R$  is productive if and only if  $e$ , the number of items not supporting  $R$ , does not exceed  $\theta N$ :

$$e \leq \theta N = N/\ln N$$