

XP- and X⁰-movement in the Latin verb: Evidence from mirroring and anti-mirroring

Appendix: Paradigm of *laud-* ‘praise’, with the forms analyzed

This appendix gives the paradigm of the sample verb *laud-* ‘praise’. Every form is segmented and translated, and for every morpheme, an indication is given of what syntactic or morphosyntactic terminal(s) it corresponds to on the analysis developed in the text: V, *v*, Voice, Asp, T, ϕ , *a*, *n*, Agr, K, or a portmanteau of two of the above. When one of these symbols is shown in gray, the relevant terminal is not realized overtly in the form at hand; thus, in *laudō* ‘I praise’ (the first form in the table), *v*, Asp, and T are null.

The purpose of this appendix is to enable any reader who is familiar with the XP/X⁰ Analysis (as laid out in Section 3) to see easily how particular forms are derived on that analysis.

Only the synthetic verb forms are shown here (not the analytic forms—e.g., *laudāta est* ‘she was praised, she has been praised’—on which see fn. 19 and fn. 32).

Whereas *-ri-s* ‘PASS-2SG’ is Voice + ϕ , the alternate form *-re* ‘PASS.2SG’ (not shown in the paradigm below) is a Voice/ ϕ portmanteau.

It is worth noting that, in many of the nonfinite and deverbal forms (the participles, the gerundive, the gerund, and the supine), the extended projection of V does not project all the way up to T; instead, it is adjectivalized or nominalized at a lower level (by the merging in of a categorizing head *a* or *n*). In these forms, *v*P moves to [Spec,*a*P] or [Spec,*n*P], not [Spec,TP].

Present Active Indicative

<p>laud V -<i>v</i> -Asp -T -ō ‘I praise’ -Voiceϕ</p>	<p>laud -ā V -<i>v</i> -Asp -T -mus ‘we praise’ -Voiceϕ</p>
<p>laud -ā V -<i>v</i> -Asp -T -s ‘you praise’ -Voiceϕ</p>	<p>laud -ā V -<i>v</i> -Asp -T -tis ‘you guys praise’ -Voiceϕ</p>
<p>laud -a V -<i>v</i> -Asp -T -t ‘he/she/it praises’ -Voiceϕ</p>	<p>laud -a V -<i>v</i> -Asp -T -nt ‘they praise’ Voiceϕ</p>

Present Passive Indicative

laud V -v -Asp -T 'I'm praised'	-o -φ	-r -Voice	laud -ā V -v -Asp -T 'we're praised'	-m -φ	-ur -Voice
laud -ā V -v -Asp -T 'you're praised'	-ri -Voice	-s -φ	laud -ā V -v -Asp -T 'you guys are praised'	-minī -Voice _φ	
laud -ā V -v -Asp -T 'he/she/it is praised'	-t -φ	-ur -Voice	laud -a V -v -Asp -T 'they're praised'	-nt -φ	-ur -Voice

Future Active Indicative

laud -ā V -v -Asp -T 'I'll praise'	-b -T	-ō -Voice _φ	laud -ā V -v -Asp -T 'we'll praise'	-bi -T	-mus -Voice _φ
laud -ā V -v -Asp -T 'you'll praise'	-bi -T	-s -Voice _φ	laud -ā V -v -Asp -T 'you guys will praise'	-bi -T	-tis -Voice _φ
laud -ā V -v -Asp -T 'he/she/it will praise'	-bi -T	-t -Voice _φ	laud -ā V -v -Asp -T 'they'll praise'	-bu -T	-nt -Voice _φ

Future Passive Indicative

laud -ā V -v -Asp -T 'I'll be praised'	-b -T	-o -φ	laud -ā V -v -Asp -T 'we'll be praised'	-bi -T	-m -φ	-ur -Voice
laud -ā V -v -Asp -T 'you'll be praised'	-be -T	-ri -Voice	laud -ā V -v -Asp -T 'you guys will be praised'	-bi -T	-minī -Voice _φ	
laud -ā V -v -Asp -T 'he/she/it will be praised'	-bi -T	-t -φ	laud -ā V -v -Asp -T 'they'll be praised'	-bu -T	-nt -φ	-ur -Voice

Imperfect Active Indicative

laud -ā -ba V -v -Asp+T ¹ 'I was praising'	-m -Voice _φ	laud -ā -bā V -v -Asp+T 'we were praising'	-mus -Voice _φ
laud -ā -bā V -v -Asp+T 'you were praising'	-s -Voice _φ	laud -ā -bā V -v -Asp+T 'you guys were praising'	-tis -Voice _φ
laud -ā -ba V -v -Asp+T 'he/she/it was praising'	-t -Voice _φ	laud -ā -ba V -v -Asp+T 'they were praising'	-nt -Voice _φ

Imperfect Passive Indicative

laud -ā -ba V -v -Asp+T 'I was being praised'	-r -Voice _φ	laud -ā -bā V -v -Asp+T 'we were being praised'	-m -φ	-ur -Voice
laud -ā -bā V -v -Asp+T 'you were being praised'	-ri -Voice	laud -ā -bā V -v -Asp+T 'you guys were being praised'	-minī -Voice _φ	
laud -ā -bā V -v -Asp+T 'he/she/it was being praised'	-t -φ	laud -ā -ba V -v -Asp+T 'they were being praised'	-nt -φ	-ur -Voice

¹ Contra Calabrese (2019, §3.4.4.2.1), who analyzes *-b* as T and the *-ā/-a* immediately following it as a (second) theme vowel.

Perfect Active Indicative

laud	-ā	-v	-i	-:	laud	-ā	-v	-i	-mus
V	-v	-Asp	-T	-Voice _φ	V	-v	-Asp	-T	-Voice _φ
'I (have) praised' (→ <i>laudāvī</i>)					'we (have) praised'				
laud	-ā	-v	-i	-stī	laud	-ā	-v	-i	-stis
V	-v	-Asp	-T	-Voice _φ	V	-v	-Asp	-T	-Voice _φ
'you (have) praised'					'you guys (have) praised'				
laud	-ā	-v	-i	-t	laud	-ā	-v	-ēru	-nt
V	-v	-Asp	-T	-Voice _φ	V	-v	-Asp	-T	-Voice _φ
'he/she/it (has) praised'					'they (have) praised'				

Pluperfect Active Indicative

laud	-ā	-v	-era	-m	laud	-ā	-v	-erā	-mus
V	-v	-Asp	-T	-Voice _φ	V	-v	-Asp	-T	-Voice _φ
'I had praised'					'we had praised'				
laud	-ā	-v	-erā	-s	laud	-ā	-v	-erā	-tis
V	-v	-Asp	-T	-Voice _φ	V	-v	-Asp	-T	-Voice _φ
'you had praised'					'you guys had praised'				
laud	-ā	-v	-era	-t	laud	-ā	-v	-era	-nt
V	-v	-Asp	-T	-Voice _φ	V	-v	-Asp	-T	-Voice _φ
'he/she/it had praised'					'they had praised'				

Future Perfect Active Indicative

laud	-ā	-v	-er	-ō	laud	-ā	-v	-eri	-mus
V	-v	-Asp	-T	-Voice _φ	V	-v	-Asp	-T	-Voice _φ
'I'll have praised'					'we'll have praised'				
laud	-ā	-v	-eri	-s	laud	-ā	-v	-eri	-tis
V	-v	-Asp	-T	-Voice _φ	V	-v	-Asp	-T	-Voice _φ
'you'll have praised'					'you guys will have praised'				
laud	-ā	-v	-eri	-t	laud	-ā	-v	-eri	-nt
V	-v	-Asp	-T	-Voice _φ	V	-v	-Asp	-T	-Voice _φ
'he/she/it will have praised'					'they'll have praised'				

Present Active Subjunctive

laud			-e	-m	laud			-ē	-mus
V	-v	-Asp	-T	-Voice _φ	V	-v	-Asp	-T	-Voice _φ
'(that) I may praise'					'(that) we may praise'				
laud			-ē	-s	laud			-ē	-tis
V	-v	-Asp	-T	-Voice _φ	V	-v	-Asp	-T	-Voice _φ
'(that) you may praise'					'(that) you guys may praise'				
laud			-e	-t	laud			-e	-nt
V	-v	-Asp	-T	-Voice _φ	V	-v	-Asp	-T	-Voice _φ
'(that) he/she/it may praise'					'(that) they may praise'				

Present Passive Subjunctive

laud			-e	-r	laud			-ē	-m	-ur	
V	-v	-Asp	-T	-Voice _φ	V	-v	-Asp	-T	-φ	-Voice	
'(that) I may be praised'						'(that) we may be praised'					
laud			-ē	-ri	-s	laud			-ē	-minī	
V	-v	-Asp	-T	-Voice	-φ	V	-v	-Asp	-T	-Voice _φ	
'(that) you may be praised'						'(that) you guys may be praised'					
laud			-ē	-t	-ur	laud			-e	-nt	-ur
V	-v	-Asp	-T	-φ	-Voice	V	-v	-Asp	-T	-φ	-Voice
'(that) he/she/it may be praised'						'(that) they may be praised'					

Imperfect Active Subjunctive

laud -ā -re V -v -Asp+T '(that) I might praise'	-m -Voice _φ	laud -ā -rē V -v -Asp+T '(that) we might praise'	-mus -Voice _φ
laud -ā -rē V -v -Asp+T '(that) you might praise'	-s -Voice _φ	laud -ā -rē V -v -Asp+T '(that) you might praise'	-tis -Voice _φ
laud -ā -re V -v -Asp+T '(that) he/she/it might praise'	-t -Voice _φ	laud -ā -re V -v -Asp+T '(that) they might praise'	-nt -Voice _φ

Imperfect Passive Subjunctive

laud -ā -re V -v -Asp+T '(that) I might be praised'	-r -Voice _φ	laud -ā -rē V -v -Asp+T '(that) we might be praised'	-m -φ	-ur -Voice
laud -ā -rē V -v -Asp+T '(that) you might be praised'	-ri -Voice	laud -ā -rē V -v -Asp+T '(that) you might be praised'	-s -φ	-minī -Voice _φ
laud -ā -rē V -v -Asp+T '(that) he/she/it might be praised'	-t -φ	laud -ā -re V -v -Asp+T '(that) they might be praised'	-ur -Voice	-nt -φ

Perfect Active Subjunctive

laud -ā -v -eri V -v -Asp -T 'I (have) praised'	-m -Voice _φ	laud -ā -v -erī V -v -Asp -T 'we (have) praised'	-mus -Voice _φ
laud -ā -v -erī V -v -Asp -T 'you (have) praised'	-s -Voice _φ	laud -ā -v -erī V -v -Asp -T 'you guys (have) praised'	-tis -Voice _φ
laud -ā -v -eri V -v -Asp -T 'he/she/it (has) praised'	-t -Voice _φ	laud -ā -v -eri V -v -Asp -T 'they (have) praised'	-nt -Voice _φ

Pluperfect Active Subjunctive

laud -ā -v -isse V -v -Asp -T ² '(if) I had praised'	-m -Voice _φ	laud -ā -v -issē V -v -Asp -T '(if) we had praised'	-mus -Voice _φ
laud -ā -v -issē V -v -Asp -T '(if) you had praised'	-s -Voice _φ	laud -ā -v -issē V -v -Asp -T '(if) you guys had praised'	-tis -Voice _φ
laud -ā -v -isse V -v -Asp -T '(if) he/she/it had praised'	-t -Voice _φ	laud -ā -v -isse V -v -Asp -T '(if) they had praised'	-nt -Voice _φ

Present Active Imperative

laud -ā V -v -Asp -T '(you) praise!'	-re -Voice _φ	laud -ā V -v -Asp -T '(you guys) praise!'	-te -Voice _φ
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Present Passive Imperative

laud -ā V -v -Asp -T '(you) be praised!'	-re -Voice _φ	laud -ā V -v -Asp -T '(you guys) be praised!'	-minī -Voice _φ
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² Contra Calabrese (2019, §3.4.4.1.1), on whose analysis *-i* is a second theme vowel, the linearly earlier *-s* is T, the linearly later *-s* is a Mood head, and *-e* is a third theme vowel.

Future Active Imperative

laud -ā -tō
 V -v -Asp -T -Voice_φ
 '(you will) praise!'

laud -ā -tō -te
 V -v -Asp -T -Voice_φ
 '(you guys will) praise!'

laud -ā -tō
 V -v -Asp -T -Voice_φ
 'let him/her/it praise!'

laud -ā -tō -nt
 V -v -Asp -T -Voice_φ
 'let them praise!'
 [Actual form: *laudantō*. Possible metathesis for phonological reasons: *V:nt is illegal.]

Future Passive Imperative

laud -ā -to -r
 V -v -Asp -T -Voice_φ
 '(you will) be praised!'

laud -ā -to -r
 V -v -Asp -T -Voice_φ
 'let him/her/it be praised!'

laud -ā -tō -nt -r
 V -v -Asp -T -φ -Voice
 'let them be praised!'
 [Actual form: *laudantor*. Possible metathesis for phonological reasons: **V:ntr is illegal.]

Present Active Infinitive

laud -ā -r -e
 V -v -Asp+T -Voice
 '(to) praise'

Present Passive Infinitive

laud -ā -r -ī/-ier
 V -v -Asp+T -Voice
 '(to) be praised'

Perfect Active Infinitive

laud -ā -v -isse
 V -v -Asp -T -Voice
 '(to) have praised'

Present Active Participle

laud -ā -nt -s
 V -v -a -Asp -Voice -Agr
 'praising' (→ *laudāns*)

Perfect Passive Participle

laud -ā -t -us
 V -v -a³ -Asp -Voice -Agr
 'having been praised'

Future Active Participle

laud -ā -t -ūr -us
 V -v -a -Asp⁴ -Voice -Agr
 '(that is) going to praise'

Gerundive

laud -a -nd -us
 V -v -a -Voice -Agr
 'that must be praised'

Gerund

laud -a -nd -ī/-ō/-um
 V -v -n -Voice -K
 'of praising / by praising / praising'

³ Contra Embick (2000: 215–219), who analyzes the *-t* in this participle (and the following one) as a default realization of Asp, and Calabrese (2019, §3.4.4.1.5), who also analyzes it as an Asp head. See fn. 21 for detailed discussion.

⁴ Contra Embick (2000: 218–219), who analyzes *-ūr* as a modal element of category Mod, and Calabrese (2019, §3.4.4.1.5), who analyzes it as a categorizing *n* head. See fn. 21.

Supine

laud **-ā** **-tu** **-m/-:**
 V **-v** **-n** -Voice -K
 'praising / in order to praise [ACC] /
 in (the) praising (of it) [ABL]' (ABL → *laudātū*)

References

Calabrese, Andrea. 2019. Morphophonological investigations: A theory of PF. From syntax to phonology in Italian and Sanskrit verb forms. Ms. University of Connecticut.

Embick, David. 2000. Features, syntax, and categories in the Latin perfect. *Linguistic Inquiry* 31(2). 185–230.