Indices in the Voice Domain: A Unified Analysis of Javanese Passives

Introduction: In the Surakarta dialect of Javanese (Austronesian), there are two 'passive voice' constructions in addition to the actor voice: a *tak-/kok*-passive and a *di*-passive. The *tak-/kok*-passive is restricted to first and second person singular Agents, and is formed via the proclitics *tak-* (1SG) and *kok-* (2SG), as in (1a). This kind of passive is incompatible with coexistent Agent-denoting bare DPs or by-phrases (1b). In the *di*-passive construction, the Agent is realized as either a by-phrase, which is available for Agents with all person and number features (2), or a postverbal bare DP, which is available for all Agents except 1SG and 2SG (3). When there is no bare DP or by-phrase present, the *di*-passive construction contains an implicit Agent, which, unlike the implicit Agents of typical passive constructions cross-linguistically, can be bound by higher quantifiers (4), being treated like a pronoun — a configuration impossible in English without an overt by-phrase. The full paradigm of passive constructions in Surakarta Javanese is schematized in (5). In this talk, we will propose an analysis that accounts for the co-existence of two passive constructions and their corresponding properties.

Questions: Why are the *di*-passive with a bare DP Agent and the *tak-/kok*-passive in complentary distribution, conditioned by the person of Agents? What allows implicit Agents to be bound by quantifiers in Javanese passives?

Proposal: We argue that both *tak-/kok*-passives and *di*-passives are formed via insertion of a pronominal Agent-introducing v-head, which can be bound by quantifiers. The use of by-phrases, bare DPs, or proclitics is tied to the presence of an optional Voice projection on top of the v-head, which abstracts over the pronominal Agent introduced by v and introduces an overt DP Agent argument in Spec,VoiceP.

Analysis: We follow Harley (2013) and Privoznov (2022) in assuming that the encoding of voice is decomposed into v and Voice projections. We assume that the verbalizing head v is mandatory, whereas the Voice projection is optional. First, motivated by the availability for implicit Agents to be bound by higher quantifiers in Javanese passives, we propose an indexed version of v (6c), which is spelt out as *di-* by default. We take this insight from Privoznov's (2022) treatment of implicit causees in Buryat, which are also found to be pronominal, that is, they can be bound by higher quantifiers. As a result, the verbalizing head v introduces an indexed Agent, modelling the pronominal nature of the implicit Agent in Javanese. Second, we argue that Javanese passives with bare DPs should be syntactically distinguished from the ones with PP by-phrases by the presence/absence of a projected VoiceP. Simply put, bare DPs and by-phrases occupy two different syntactic positions.

When the Agent is realized as a DP, we assume that there is an additional VoiceP projection above vP. The Voice-head functions as an abstractor over assignment functions (6d), and merges with the vP via intensional function application, opening an entity argument which binds the Agent. This argument is then manditorily saturated and bound by the bare DP in SpecVoiceP (6a-i). When a first or second person singular pronoun is merged in SpecVoiceP, the SpecVoiceP, Voice, and v form a span (Svenonius 2019) spelled out as the proclitics *tak-/kok-* (6a-ii). The necessity of span formation for *tak-/kok-* therefore results in the complementary distribution between *tak-/kok-* and bare DP di-passives. When the Agent is realized as a PP by-phrase, no VoiceP is projected; the index of v must undergo predicate abstraction at some point in the structure in order to allow for reference — this can be done either through the optional by-phrase PP, or through binding by a quantifier higher in the structure (6a-iii). We follow Privoznov (2022) in assuming that when no overt binder appears, as in passives with implicit agents, the index is existentially closed at the root clause.

Our analysis leads to a subcategorization of Javanese passives based on the presence or absence of a VoiceP. This subcategorization corresponds to general traits observed regarding Patient Voice and passive voice constructions in other Austronesian languages: constructions with a VoiceP require a bare DP Agent while still promoting the Patient argument, similar to Patient voice (Legate 2014; Wurmbrand 2021), while constructions without a VoiceP allow for binding via a by-phrase or an implicit Agent, similar to 'true' passive voice, except for the ability for binding by higher quantifiers. Such an analysis both expands the typology of passive voice while providing a clue to the diachronic origins of Javanese passive. The denotation of *di-* as an indexed v-head also provides an overt instance of indexed verbal morphology (see also Privoznov 2022), providing further evidence that functional heads may encode their own indexed arguments.

(1) a. *Surat-é { tak / kok }-tulis.*
letter-DEF { 1SG.CL / 2SG.CL }-write
'The letter was written by {me / you.SG}.'

b. * *Surat-é { tak / kok }-tulis (dening) { aku / kowe }.*
letter-DEF { 1SG.CL / 2SG.CL }-write by { 1SG / 2SG }

(2) a. *Surat-é di-tulis dening { Surti / dhèwèké sakloron }.*
letter-DEF PASS-write by { Surti / 3 two }
'The letter was written by { Surti / them two }.'

b. *Surat-é di-tulis dening { aku / kowe / aku sakloron }.*
letter-DEF PASS-write by { 1SG / 2SG / 1 two }
'The letter was written by {me / you$_{SG}$ / us two}.'

(3) a. *Surat-é di-tulis { Surti / aku saklorong }.*
letter-DEF PASS-write { Surti / 1 two }.
'The letter was written by {Surti / us two}.'

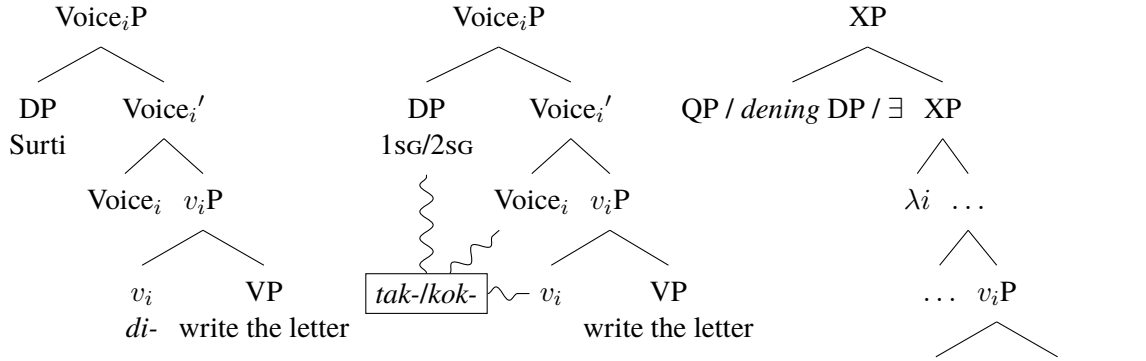
b. * *Surat-é di-tulis { aku / kowe }.*
letter-DEF PASS-write { 1SG / 2SG }
Intended: 'The letter was written by {me / you$_{SG}$}.'

(4) *Ora ana sing ngaku [nèk surat-é wis di-tulis].*
NEG there.is REL ACT.admit [COMP letter-DEF PFV PASS-write]
'No one$_i$ admits that the letter was written (by them$_i$)'

(5)

Agent Realization	Agent Distribution	Morphology	Structure
Implicit Agent	—	*di*-passive	[$_{vP}$ v VP]
by-phrase (PP)	all person/numbers		
Bare DP	all but 1sg/2sg		[$_{\text{VoiceP}}$ Voice [$_{vP}$ v VP]]
proclitic *tak-/kok-*	1sg/2sg	*tak-/kok*-passive	

(6) a. i. **Bare DP (not 1SG/2SG)** ii. **Proclitic (1SG/2SG)** iii. **Implicit Agent/By-Phrase**



b. $[\![\text{VP}]\!]^{w,g} = \lambda e_v.\text{write}(e) \wedge \text{TH}(e) = \text{the letter}$

c. *di-* $= [\![v_i]\!]^{w,g} = \lambda P_{\langle v,t\rangle}\lambda e_v.P(e) \wedge \text{AG}(e) = g(i)$

d. $[\![\text{Voice}_i]\!]^{w,g} = \lambda F_{\langle s,\langle g,\langle v,t\rangle\rangle\rangle}\lambda x_e\lambda e_v.F(w, g[x/i], e)$

e. *n-* $= [\![v_{\text{Actor}}]\!]^{w,g} = \lambda P_{\langle v,t\rangle}\lambda x_e\lambda e_v.P(e) \wedge \text{AG}(e) = x$

Bibliography

Harley, Heidi. 2013. External arguments and the Mirror Principle: On the distinctness of Voice and v. *Lingua* 125:34–57.

Legate, Julie Anne. 2014. *Voice and v: Lessons from Acehnese*. Number 69 in Linguistic Inquiry Monographs. Cambridge, Massachusetts ; London, England: The MIT Press.

Privoznov, Dmitry. 2022. Causative, v and Agent in Buryat. In *Proceedings of the 15th Workshop on Altaic Formal Linguistics*. Lomonosov Moscow State University, Russia.

Svenonius, Peter. 2019. A span-based theory of words.

Wurmbrand, Susanne. 2021. A decomposed notion of Voice.