

## Reconstructing passive syntax in Proto-Indo-European

**Introduction** While there is consensus that Proto-Indo-European (PIE) expressed “passive meaning” through middle morphology (Jamison 1979ab, Benedetti 2006, Kulikov & Lavidas 2013), the productivity and properties of the “middle” passive are debated, and it has been argued that 1) the passive use of middle morphology does not represent a canonical passive because of the rarity of overt demoted agents in the Indo-European (IE) daughter languages, and 2) the expression of the demoted agent varies too much to allow for a PIE reconstruction. The goal of this paper is to argue that a (synthetic, canonical) passive can indeed be reconstructed for PIE using the methods developed by, e.g., Hale 2007, Walkden 2014.

**Background** All the relevant older IE languages (Hittite, Sanskrit, Greek, Tocharian, Latin) have passives that are morphologically syncretic with other syntactic contexts that take the same non-active (“middle”) endings (“voice syncretism” with, e.g., reflexives, anticausatives, etc.). I follow the analysis of Embick 2004, Alexiadou et al. 2015, etc., in which non-active morphology spells out a Voice head without an external argument. Additionally, Voice comes in different “flavors”, including semantically inert “expletive Voice”, and “unsaturated Voice” that introduces an agent  $\theta$ -role, but no external argument DP to saturate that role. This role is then either existentially bound (generic passives/“medio-passives”) or saturated by a higher Passive Voice head with an adjoined agent *by*-phrase (Schäfer 2017, based on Bruening 2013). The latter case, in which the internal argument becomes the subject, accusative Case is suppressed, and the external argument is “demoted” to an adjunct is generally considered a canonical passive (cf. Alexiadou & Schäfer 2013 on canonical vs. “non-canonical” passives). Such passives are indeed found in early IE:

- (1) a. m̄an ERÍN-MEŠ HĪ.A IŠTU LÚKÚR ḥullantari  
 when troops-PL by enemy defeat.3PL.PRES.NACT  
 “When the troops are defeated by the enemy.” (Hittite, KUB XVII 28 IV 45)
- b. ev<á> <a>gnír gótamebhir (...) astoṣṭa  
 thus Agni.NOM Gotamas.INSTR praise.3SG.AOR.NACT  
 “Thus has Agni (...) been praised by the Gotamas” (Vedic Sanskrit, RV 1.77.5a-b)
- c. hōs ára puknà karétē hup’ Héktori dámnato laōn  
 so then many heads.NOM by Hector.DAT subdue.3SG.IPF.NACT men.GEN  
 “Thus many heads of the men were subdued by Hector” (Greek, Homer, *Il.* 11.309)

The examples in (1) illustrate formally non-active eventive passives of transitive agentive verbs. Moreover, the Greek dative is the diachronic successor of the PIE dative and instrumental cases, while Hittite uses ablative or instrumental case on the demoted agent. It is therefore plausible to reconstruct a) an eventive passive with non-active morphology and b) a demoted, instrumental agent for PIE. However, even scholars who acknowledge a) are reluctant to accept b) because of the attested variation in the case of the demoted agent and its co-occurring prepositions, the relative rarity of eventive passives with *by*-phrases, the lack of “exact equations”, and the existence of other passive-like constructions in the older IE languages, such as the “stative” or the “generic middle” without such *by*-phrases, whose PIE status is controversial.

**Analysis** While the relative “rarity” of a construction is primarily a result of the nature of our texts rather than of (un)grammaticality, Alexiadou & Doron 2012 note that Modern Greek

passives, which take syncretic non-active endings like their Ancient Greek predecessors, are not always compatible with demoted agents. However, verbs that do allow demoted agents include verbs of change of possession, verbs of transfer of message, ‘take’ verbs, verbs of instrument of communication, ‘remove’ verbs, and ‘murder’ and ‘poison’ verbs. These are exactly the classes that passivize with demoted agents in the older IE languages. Concerning the problem of syntactic equations, Walkden (2014) argues that what is relevant for syntactic reconstruction is whether lexical items with similar syntactic features (e.g., verbs with a [NonAct] feature, agentive verbs, etc.) occur in similar syntactic environments in the relevant daughter languages. Applying this approach to the IE languages, we find several good cases for syntactic equations of eventive passives involving cognate roots (and/or roots with the same argument structure/meaning, but differing synchronic stem-forming morphology):

Table 1. Passive equations in PIE (cognate material = **bolded**; segmentation: stem + ending)

Hittite	Tocharian	Vedic	Greek	meaning	PIE
<b>damaš-tari</b>			<b>dámna-tai</b>	‘is subdued, tamed’	*demh <sub>2</sub>
<b>karš-tari</b>	<sup>B</sup> <b>kärsnā-tār</b>		(témne-to)	‘is cut’	*kers, *temh <sub>1</sub>
	<sup>A</sup> <b>klyosnäs-tār</b>	<b>śṛṇv-é</b>		‘is heard’	*k̑lew
	<sup>BA</sup> <b>ās-tār</b>	( <b>ajyá-te</b> )	<b>áge-tai</b>	‘is led’	*h <sub>2</sub> aǵ

I propose that PIE had (minimally) a) a “passive-input” Voice head Voice{ $\lambda x \lambda e[\text{agent}(e, x)]$ ,  $\emptyset$ } (after Schäfer 2017) in “long passives” of verbs such as the ones in table 1., in which the agent  $\theta$ -role was originally saturated through an instrumental DP, b) a medio-passive Voice head Voice{ $\lambda e \exists x[\text{agent}(e, x)]$ } in short passives and “generic middles”, and c) a semantically empty expletive Voice head that selected stative roots (rather than  $v$ ). These three heads were originally spelled out with the same non-active morphology in PIE and the older IE languages, but distinct endings developed for a) and c) as locally conditioned allomorphs in Greek and Sanskrit (e.g., the “stative” mentioned above). Instrumental on demoted agents was originally dependent Case (as it still is in Sanskrit, an analysis modified from Pāṇini), but became lexical/inherent Case in Hittite, Greek, and Latin, accounting for its occurrence with prepositions in those languages.

**Implications** Abstracting away from morphological endings and comparing the syntactic contexts of particular lexical items (in this case, passivized agentive verbs) allows for a finer-grained reconstruction of functional heads and their properties in PIE. This is based on recent advances in syntactic theory and reconstruction and on the cross-linguistic typology of Voice. The dictum that “we can never reconstruct an actual PIE passive phrase” (Jamison 1979a: 217) may thus be too strong.

**Selected References** ALEXIADOU, A., E. ANAGNOSTOPOULOU, and F. SCHÄFER. 2015. *External arguments in transitivity alternations: a layering approach*. OUP. ALEXIADOU, A., and E. DORON. 2012. The syntactic construction of two non-active voices: passive and middle. *Journal of Linguistics* 48:1–34. ALEXIADOU, A., and F. Schäfer (eds.) 2013. *Non-canonical passives*. John Benjamins. BRUENING, B. 2013. *By*-phrases in passives and nominals. *Syntax* 16/1:1–41. HALE, M. 2007. *Historical linguistics: theory and method*. Wiley-Blackwell. JAMISON, S. 1979a. Remarks on the expression of agency with the passive in Vedic. *Zeitschrift für Vergleichende Sprachforschung* 93:196–219. KULIKOV, L., and N. LAVIDAS. 2013. Reconstructing passive and voice in Proto-Indo-European. *Journal of Historical Linguistics* 3/1:98–121. WALKDEN, G. 2014. *Syntactic reconstruction and Proto-Germanic*. OUP.