

New Perspectives from Pāṇini's dhātu-:
Towards a Ṛgvedic Derivational Path for -ti- and -tu- Suffixes

Leonardo Montessi
University 'Guglielmo Marconi'

Since Benveniste's work (1948), Ved. *-ti-* and *-tu-* derivatives have been investigated by focusing either on the kind of nominalization shown by these suffixes (Seiler 1986; Stüber 2002; Lazzeroni 1997; Benedetti 2002) or on their functional opposition with respect to verbal constructions (Itzész 2024; Roy 2024). However, the compatibility of these suffixes with the roots that they select, especially in the light of both the Unaccusative Hypothesis (Perlmutter 1978) and the pāṇinian notion of *dhātu-* (A. 1.3.1, 3.1.91), is yet to be investigated (Rix 1986; Bertocci 2022).

In this contribution, we aim at showing how the selection of the Ṛgvedic *-ti-* and *-tu-* suffixes with respect to monovalent verbal roots can be considered as a good diagnostic to establish the compatibility of a verbal root with Unergative or Unaccusative morphology.

To do so, we collect all the monovalent verbal roots showing *-ti-* and *-tu-* derivatives of the Ṛgveda (from Whitney 1885; Mayrhofer 1992-2001), by combining a syntactic and semantic approach (Sorace 2000; Lazzeroni 2004). All the occurrences of these derivatives are gathered and classified in terms of types and tokens (Berg 2014; Levshina 2019, 2021). Then, we analyze: 1) all their contexts of occurrence, considering their semantic and syntactic features (Keydana 2013; Lowe 2014, 2017; Spevak 2022: 62); 2) all the occurrences of the verb they come from, verifying whether it is more likely to be or enter either telic or atelic constructions (being Unaccusative the former, Unergative the latter: Levin & Rappaport-Hovav 1995; Van Valin & Lapolla 1997; Cennamo 2002; Romagno 2002; Sorace 2011). Moreover, following the *Split Intransitivity Hierarchy* model (*SIH*, Sorace 2011), all the verbal roots are grouped into semantic classes.

Preliminary results show that: 1) suffix *-ti-* selects roots creating verbs that are either atelic or more likely to enter atelic constructions (being thus Unergative, Van Valin & LaPolla 1997: 139-142), while suffix *-tu-* attaches to roots creating verbs that are either telic or more likely to enter telic constructions (being thus Unaccusative, Van Valin & LaPolla 1997: 139-142); 2) the selection of these suffixes is coherent with the *SIH* model, since verbal roots capable of taking both *-ti-* and *-tu-* suffixes are located at the peripheric semantic classes of the Unaccusative/Unergative prototype (*scil.*, CONTINUATION OF A PRE-EXISTING STATE: e.g., \sqrt{vas} 'to dwell' > 70% *vasatī-* f. 'staying', 30% *vá/āstu-* m. 'the place of'); 3) the *dhātu-* (A. 1.3.1, 3.1.91: Renou 1896: 432; Sharma 1990, 1995; Alfieri 2024) should be intended as a real linguistic unit, since the selection of these suffixes seems to be triggered by different and specific semantic features of the verbal roots: thus, an analysis carried out according to the Indian grammarians (A. 3.3.94-97, 3.3.158) may help cast some light on peculiar features of Vedic derivative morphology that a lexicalist approach, on the contrary, does not allow to see (e.g., Keydana 2022).

References

- Alfieri, Luca (2024), *Review of: Malzahn, M., Fellner, H. A. & Illés T-S. (2022, eds.) 'Zurück zur Wurzel. Struktur, Funktion und Semantik der Wurzel im Indogermanischen. Akten der 15. Fachtagung der Indogermanischen Gesellschaft von 13. bis 16. September 2016 in Wien'*, in «Ricerche Linguistiche» 1: 245-272.
- Benedetti, Marina (2002), 'Radici, morfemi nominali e verbali: alla ricerca dell'inaccusatività indoeuropea', in «Archivio Glottologico Italiano» 87.1: 20-46.
- Benveniste, Émile (1948), *Noms d'agent et noms d'action en indo-européen*, Paris, Klincksieck.
- Berg, Thomas (2014), 'On the relation between type and token frequency', in «Journal of Quantitative Linguistics» 21.3: 199-222.
- Bertocci, Davide (2022), 'Root and stems between Indo-European and Latin', in Malzahn, Melanie; Fellner, Hannes A.; Illés, Theresa-Susanna (eds.), *Zurück zur Wurzel. Struktur, Funktion und Semantik der Wurzel im Indogermanischen. Akten der 15. Fachtagung der Indogermanischen Gesellschaft vom 13. Bis 16. September 2016 in Wien*, Wiesbaden, Verlag: 31-40.
- Cennamo, Michela (2002), 'La selezione degli ausiliari perfettivi in napoletano antico: fenomeno sintattico o sintattico-semantic?', in «Archivio Glottologico Italiano» 87.1: 175-222.
- Ittész, Máté (2024), 'Action nouns in Vedic support-verb constructions with *kr*', in «Journal of South Asian Languages and Linguistics» 11: 1-23.
- Keydana, Götz (2013), *Infinitive im Ṛgveda: Formen, Funktion, Diachronie*, Leiden/Boston, Brill.
- Keydana, Götz (2022), 'Back to the root – and away again!', in Malzahn, Melanie; Fellner, Hannes A.; Illés, Theresa-Susanna (eds.), *Zurück zur Wurzel. Struktur, Funktion und Semantik der Wurzel im Indogermanischen. Akten der 15. Fachtagung der Indogermanischen Gesellschaft vom 13. Bis 16. September 2016 in Wien*, Wiesbaden, Verlag: 131-146.
- Lazzeroni, Romano (1997), 'La transitività come categoria linguistica: i nomi d'azione indoeuropei', in «Incontri Linguistici» 20: 71-82.
- Lazzeroni, Romano (2004), 'Inaccusatività indoeuropea e alternanza causativa vedica', in «Archivio Glottologico Italiano» 89: 139-164.
- Levin, Brett & Rappaport-Hovav, Malka (1995), *Unaccusativity. At the Syntax-Lexical Semantic Interface (Linguistic Inquiry Monograph 26)*, Cambridge, MA, Mit Press.
- Levshina, Natalia (2019), 'Token-based typology and word-order entropy: A study based on Universal Dependencies', in «Linguistic Typology» 23.3: 533-572.
- Levshina, Natalia (2021), 'Corpus-based typology: applications, challenges and some solutions', in «Linguistic Typology» 51: 611-643.
- Lowe, John (2014), *Review of: Keydana, G. 'Infinitive im Ṛgveda: Formen, Funktion, Diachronie'*, in «Indo-Iranian Journal» 57: 261-298.
- Lowe, John (2017), *Transitive Nouns and Adjectives. Evidence from Early Indo-Aryan*, Oxford, Oxford University Press.
- Mayrhofer, Manfred (1992-2001), *Etymologisches Wörterbuch des Altindoarischen, I-III*, Heidelberg, Winter.
- Pāṇini (ed. Katre, Sumitra Mangesh 1987), *The Aṣṭādhyāyī of Pāṇini in Romanised Transliteration*, Austin, University of Texas Press.
- Perlmutter, David M. (1978), 'Impersonal Passives and the Unaccusative Hypothesis', in *Proceedings of the 4th Annual Meeting of the Berkeley Linguistic Society*: 157-190.
- Renou, Louis (1896), *Terminologie grammaticale du sanskrit*, Paris, Champion.
- Rix, Helmut (1986), *Zur Entstehung des urindogermanisches Modusystems*, Innsbruck, Institut für Sprachwissenschaft der Universität Innsbruck.
- Romagno, Domenica (2002), 'Diatesi indoeuropea e verbi di movimento greci: alcune considerazioni sull'intransitività', in «Archivio Glottologico Italiano» 87.2: 163-174.

- Roy, Alex (2024), 'Early Vedic denominatives and their analytic counterparts with $\sqrt{\text{kr}}$ 'do, make'', in «Journal of South Asian Languages and Linguistics» 11: 1-22.
- Seiler, Hansjakob (1986), 'Zum Zusammenhang von Nomina actionis, Nomina agentis und Eigennamen', in Etter, A. (ed.), *O-o-pe-ro-si: Festschrift für Ernst Risch zum 75. Geburtstag*, Berlin & New York, Walter de Gruyter: 60-71.
- Sharma, Rama Nath (1990), *The Aṣṭādhyāyī of Pāṇini*, II, New Delhi, Munishiram Manoharal.
- Sharma, Rama Nath (1995), *The Aṣṭādhyāyī of Pāṇini*, III, New Delhi, Munishiram Manoharal.
- Sorace, Antonella (2000), 'Gradients in auxiliary selection with intransitive verbs', in «Language» 76: 859-890.
- Sorace, Antonella (2011), 'Gradience in Split Intransitivity: the End of the Unaccusative Hypothesis?', in «Archivio Glottologico Italiano» 96: 67-86.
- Spevak, Olga (2022), *Nominalization in Latin*, Oxford, Oxford University Press.
- Stüber, Karin (2002), *Die primären s-Stämme des Indogermanischen*, Wiesbaden, Reichert.
- Van Valin, Robert D. Junior, and LaPolla, Randy J. (1997), *Syntax: structure, meaning and function*, Cambridge, Cambridge University Press.
- Whitney, William D. (1885), *The Roots, Verb-Forms and Primary Derivatives of the Sanskrit Language. A Supplement to his Sanskrit Grammar*, Leipzig, Breitkopf and Härtel.