The issue of ditransitive constructions has enjoyed increased attention over the last decade (see HASPELMATH 2015 for a review of the state of art of the research). A number of important studies appeared, including typological studies by Haspelmath and Siewierska on ditransitive alignment (e.g., HASPELMATH 2005; SIEWIERSKA 2003), work by Kittilä and Zúñiga on recipients and beneficiaries (e.g., KITTILÄ 2006; ZÚÑIGA & KITTILÄ 2010), following up on earlier studies such as NEWMAN 1996 and VAN BELLE & VAN LANGENDONCK 1996. This typological work culminated in the publication of a comparative handbook of ditransitive constructions (MALCHUKOV, HASPELMATH & COMRIE eds. 2010) which presents a comprehensive overview of ditransitive alignment in typologically different languages. Some other important advancements in the study of ditransitive constructions have been made in other fields, in particular, through application of statistical and corpus linguistic methods to better studied language (cf. Bresnan et al. 2007 on factors underlying dative alternation in English). Also for general linguistics, the analysis of ditransitive constructions remains an important issue (see LEVIN & RAPPAPORT HOVAV 2005 for an overview of different analyses of ditransitive alternations), which stimulates further research on these issues in English and other European languages (see, e.g., RAPPAPORT HOVAV & LEVIN 2008; COLLEMAN & DE CLERCK 2008).

Among the questions which have still to be fully explored are (cf. HASPELMATH 2015):

- a) the range of variation of ditransitive constructions across languages;
- b) how coding properties (case-marking of ditransitive arguments, agreement cross-referencing) affects behavioural properties (see MALCHUKOV et al. 2010 on constructional "biases"; cf. POLINSKY 1998);
- c) to what extent lexical choices for particular constructions can be predicted across languages (cf. KITTILÄ's 2006 observation that 'give' has a preference for a double object construction, and the use of semantic maps in MALCHUKOV et al. 2010 and MALCHUKOV 2017 on lexical choices for particular constructions; see also BARĐDAL 2007 on Germanic);
- d) the functional load of ditransitive alternations; are they lexically driven, conditioned by pragmatics or information structure; are the alternative distransitive constructions semantically distinct or not (cf. RAPPAPORT HOVAV & LEVIN 2008)?
- e) the effects of referential status of the ditransitive objects and how this status determines the choice of a certain construction (see VAN LIER 2012 and other works on this issue)?

Before turning to the issues addressed in the individual contributions, one important remark concerning terminology is in order. In the linguistic literature, there are different uses of the term "ditransitive". On one interpretation, traditional for English studies, but also found elsewhere, the term relates to a double object construction (e.g., *John sent Mary a letter*), in contrast to a prepositional construction (e.g. *John sent a letter to Mary*). Another usage of the term "ditransitive construction", common in typological studies (HASPELMATH 2005; SIEWIERSKA 2003; MALCHUKOV et al. 2010; HASPELMATH 2015), relates to verbs like 'give', which take recipient (R) and theme (T) arguments in addition to an agent (A). This semantic definition has an advantage of being applicable cross-linguistically, while a

double object construction features only in a subset of languages. In the latter, typological, view, ditransitive constructions may have different "ditransitive alignments", which are determined by comparing the marking of theme and recipient arguments with the marking of a monotransitive patient. The different ditransitive alignments are called "indirective" (T = P vs. R), "secundative" (T vs. P = R), and "neutral" (T = P = R; HASPELMATH 2005; MALCHUKOV et al. 2010; cf. DRYER 1986, SIEWIERSKA 2003). Alignment patterns can manifest themselves in either case-marking (Haspelmath's "flagging", which apart from case proper covers also marking by a case participle or adposition) and/or agreement/cross-referencing (Haspelmath's "indexing"). Of course, these two usages are not unrelated; it is well-known that typical ditransitive verbs like 'give' have a preference for a double object construction (neutral alignment), as suggested by CROFT et al. (2001) and KITTILÄ (2006) and confirmed by later work (MALCHUKOV et al. 2010, MALCHUKOV 2017), but the two usages should not be confused.

The contributions in the present volume mostly follow the typological tradition, using ditransitive in the semantic sense; an exception in this regard is a study by PINEDA on Spanish and Basque, which focuses on structural ditransitives (double object construction), following the usage of much of generative literature. The use of WIDMER is also somewhat broader than ditransitives proper, as he follows the terminology of Bickel and colleagues (e.g., BICKEL & NICHOLS 2009). The latter conceive ditransitives as verbs with Agent, Theme and Goal arguments; on one interpretation, these would also include verbs like 'hit'.

Most of the papers in the present volume have the aim of contributing to the documentation of ditransitive constructions in lesser-known languages, although they all also raise many interesting general points. The largest group of papers deals with Iranian languages, which therefore will be reviewed first (the order of presentation of the papers in this introduction does not correspond to the order of their appearance in the volume). These languages are particularly intriguing not only because of the bewildering diversity in the ditransitive domain (cf. STILO 2010), but also because Iranian languages present a number of challenges for ditransitive typology. This is due to the fact that these languages feature reduced case systems as well as differential object marking (DOM; BOSSONG 1985), which obscures the distinction between recipients and (prominent) patient and themes.

Annette HERKENRATH discusses ditransitive constructions in Kurmanji focusing on the interplay between flagging, indexing and word order, uncovering factors which determine the choice of a construction. Mohammad RASEKH-MAHAND & Raheleh IZADIFAR and Guiti SHOKRI provide descriptions of ditransitive constructions in Tāti and Mazandarani dialects, respectively. These chapters contribute not only to language documentation but also to the areal typology of Iranian languages. Maryam NOURZAEI & Thomas JÜGEL's contribution "Ditransitive constructions in three Balochi dialects from a typological perspective" extends the discussion to Balochi and makes more consistent use of corpus linguistic methods to investigate variation in ditransitive constructions; it also elaborates on the observation by KORN & NOURZAEI (2018) about agreement of the verb with the indirect object. The last paper dealing with Iranian languages, by Pegah FAGHIRI, Pollet SAMVELIAN and Barbara HEMFORTH "Is there a canonical order in Persian ditransitive constructions? Corpus-based and experimental studies", is an empirical quantitative study making use of multiple methodologies, which are still novel for Iranian studies.

A paper on Uralic languages, by Bernadett BÍRÓ & Katalin SIPŐCZ, discusses discourse factors behind ditransitive alternation in Mansi, which exhibit the same subtle interplay of pragmatic factors and coding as in Khanty, better researched in that respect (cf. NIKOLAEVA 2001). As in the case of some of the Iranian varieties, the Uralic idioms are endangered languages, which makes them particularly valuable form the perspective of language documentation.

Three contributions deal with ditransitives in Ancient Indo-European languages: Tocharian, Ancient Greek and Latin. Extinct languages present notable challenges for analyses (most obvious in the case of Tocharian) but also offer valuable insights for reconstruction of evolutionary processes in this domain. In his contribution "Ditransitive constructions in Tocharian B", Paul WIDMER discusses peculiarities of coding of ditransitive arguments in Tocharian, spoken during the Buddhist era in the Tarim Basin (modern Western China). One particular trait of Tocharian is the absence of a dative marker; the recipient is marked either by the genitive marker (making it similar to constructions with internal possessors) or an allative marker, or else involves indexing of a prominent recipient on the verb. The choice between the constructions is partially determined by prominence relations and partially by verb semantics. The paper "Double accusative constructions and ditransitives in Ancient Greek" by Silvia LURAGHI & Chiara ZANCHI discusses the range of the use of double object constructions, which includes semantic ditransitives but extend to other classes as well. The authors continue exploration of the lexical range of ditransitive constructions (cf. the semantic maps in MALCHUKOV et al. 2010), making use of corpus linguistic methods. Elena ZHELTOVA in her study "Ditransitive constructions in Latin: Competition of paradigmatic dimensions" also uses corpora for her investigation of ditransitive constructions in Latin, but the research question pertains rather to word order. She shows how prominence information can be used as a predictor of word order of ditransitive objects, including constructions where both R and T are pronouns.

While Alexander Zheltov's contribution "Ditransitive constructions in selected Niger-Congo languages in a typological perspective" is very different from the last one in terms of the languages considered, it addresses the same research question, viz. to what extent referential properties of arguments determine the choice of a ditransitive construction. This chapter focuses more specifically on cases of referential conflicts, in particular on cases of violation of the so-called "person role constraint", when the theme is higher on the referential hierarchy than the recipient (cf. HASPELMATH 2004).

The contribution "Overt and covert ditransitivity in Romance: From double object constructions to case alternations" by Anna PINEDA is different from the other contributions in that it adopts a generative approach. It also stands out for its non-semantically based use of the term "ditransitive"; interestingly, this definition is not equivalent to the double object construction either, but rather pertains to architecture of the clause, where either Theme or Goal moves from a lower node (Low Applicative head) to check structural case. This approach accounts for certain variation in double object constructions across languages (with respect to passivization) and shows interesting parallels to generative analyses (by PYLKKÄNEN 2002 and others) of the Bantu data in the previous contribution.

Finally, the contribution of Andrej MALCHUKOV, which opens the volume, is of typological nature. He addresses (following the work of CREISSELS 1979, CROFT 1985 and LEHMANN et al. 2004, among others), the typologically peculiar type of indirective alignment when the recipient (or beneficiary) is expressed as the possessor of the theme (a more literal paraphrase of this construction would be 'I gave his money' intended to express 'I gave him money'). Such a coding strategy for ditransitive constructions (called "indirect object lowering" by CROFT 1985, and "indirekte Partizipation" by LEHMANN et al. 2004), is functionally infelicitous as it introduces ambiguities. Now, as shown in MALCHUKOV's contribution, the extension of this strategy is frequently compensated by other disambiguation mechanisms such as use of applicative markers, secundative indexing or word order.

The contributions in this volume address a variety of languages, provide rich new data on the distribution of ditransitive constructions in lesser-researched languages, and, as is evident in many chapters, substantiate the findings with corpus data. Recurrent themes in the present collection concern the factors underlying the choice of construction in the ditransitive alternation, the most important of which are lexical choices, information structure and discourse prominence of theme and recipient argument.

## References

- BARÐDAL, Jóhanna 2007: "The semantic and lexical range of the ditransitive constructions in the history of (North) Germanic." Functions of Language 14:1, pp. 9-30
- VAN BELLE, William & Willy VAN LANGENDONCK 1996: The Dative. Volume 1: Descriptive studies. Amsterdam/Philadelphia: John Benjamins
- BICKEL, Balthasar & Johanna Nichols 2009: "Case marking and alignment." In: Andrej MALCHUKOV & Andrew Spencer (eds.): *Handbook of Case*. Oxford: Oxford University Press, pp. 304-322
- Bossong, Georg 1985: Differenzielle Objektmarkierung in den neuiranischen Sprachen. Tübingen: Narr
- Bresnan, Joan, Anna Cueni, Tatiana Nikitina & Harald Baayen 2007: "Predicting the dative alternation." In: Gerlof Boume, Irene Kraemer & Joost Zwarts (eds.): Cognitive Foundations of Interpretation. Amsterdam: Royal Netherlands Academy of Science, pp. 69-94
- COLLEMAN, Timothy & Bernard DE CLERCK 2008: "Accounting for ditransitive constructions with envy and forgive." Functions of Language 15:2, pp. 187-215
- CREISSELS, Denis 1979: Les constructions dites "possessives": Étude de linguistique générale et de typologie linguistique. Paris: Université de Paris 4 dissertation
- CROFT, William 1985: "Indirect object 'lowering'." Annual Meeting of the Berkeley Linguistics Society 11, pp. 39-51
- CROFT, William, Jóhanna BARÐDAL, Willem HOLLMANN, Maike NIELSEN, Violeta SOTIROVA & Chiaki TAOKA 2001: Discriminating verb meanings: The case of transfer verbs. Handout, LAGB Autumn Meeting, Reading
- DRYER, Matthew S. 1986: "Primary objects, secondary objects, and antidative." *Language* 62, pp. 808-845
- HASPELMATH, Martin 2004: "Explaining the Ditransitive Person-Role Constraint: a usage based account." *Constructions* 2004, 49 pp.
- 2005: "Argument marking in ditransitive alignment types." *Linguistic Discovery* 3:1, pp. 1-21 (free online journal, http://linguistic-discovery.dartmouth.edu/)
  - 2015: "Ditransitive constructions." Annual Review of Linguistics, 1:1, pp. 19-41
- KITTILÄ, Seppo 2006: "The anomaly of the verb 'give' explained by its high (formal and semantic) transitivity." *Linguistics* 44:3, pp. 569-612

- KORN, Agnes & Maryam NOURZAEI 2018: "Those were the hungry years': A glimpse of Coastal Afro-Balochi." *Journal of the Toyal Asiatic Society* 3<sup>rd</sup> series, 28, pp. 661-695
- LEHMANN, Christian, Yong-Min SHIN & Elisabeth VERHOEVEN 2004: Direkte und indirekte Partizipation: Zur Typologie der sprachlichen Repräsentation konzeptueller Relationen [ASSiDUE 13]. Erfurt: University of Erfurt
- LEVIN, Beth & Malka RAPPAPORT HOVAV 2005: Argument Realization. Cambridge: Cambridge University Press
- VAN LIER, Eva 2012: "Referential Effects on the Expression of Three-Participant Events across Languages An Introduction in Memory of Anna Siewierska." *Linguistic Discovery* 12:3, pp. 1-16
- MALCHUKOV, Andrej 2017: "Exploring the domain of ditransitive constructions: Ditransitive splits and ditransitive alternations across languages." In: Lars Hellan, Andrej Malchukov & Michela Cennamo (eds.): Contrastive studies in verbal valency. Amsterdam: Benjamins, pp. 177-219
- MALCHUKOV, Andrej L., Martin HASPELMATH, & Bernard COMRIE (eds.) 2010: Studies in ditransitive constructions: a comparative handbook. Berlin: De Gruyter
- MALCHUKOV, Andrej L., Martin HASPELMATH, & Bernard Comrie 2010: "Ditransitive construction: a typological overview." In: MALCHUKOV / HASPELMATH / COMRIE, pp. 1-64
- NEWMAN, John 1996: Give: A Cognitive Linguistic Study. Berlin / New York: Mouton de Gruyter
- NIKOLAEVA, Irina 2001: "Secondary topic as a relation in information structure." *Linguistics* 39:1, pp. 1-49
- POLINSKY, Maria 1998: "A non-syntactic account of some asymmetries in the double object construction." In: Jean-Pierre Koenig (ed.): Conceptual Structure and Language. Discourse and Cognition: Bridging the Gap. Stanford, CA: CSLI Publications, pp. 403-423
- PYLKKÄNEN, Liina 2002: *Introducing Arguments*. PhD diss, MIT, online at: http://www.ai.mit.edu/projects/dm/theses/pylkkanen02.pdf
- RAPPAPORT HOVAV, Malka & Beth LEVIN 2008: "The English dative alternation: The case for verb sensitivity." *Journal of Linguistics* 44:1, pp. 129-167
- SIEWIERSKA, Anna 2003: "Person agreement and the determination of alignment." *Transactions of the Philological Society* 101:2, pp. 339-370
- STILO, Donald 2010: "Ditransitive constructions in Vafsi: A corpus-based study." In: MALCHUKOV / HASPELMATH / COMRIE, pp. 243-276
- ZÚNIGA, Fernando & Seppo KITTILĂ 2010: Benefactives and Malefactives: Typological perspectives and case studies. Amsterdam: John Benjamins