

Referential hierarchies in morphosyntax: description, typology, diachrony

1 - Description of the Collaborative Research Project (CRP)

a) Short description of the state-of-the-art at international level showing the context of this proposal

Languages reflect, in one way or another, a hierarchical order of the concepts that are the topics of communication. "Referential hierarchy" is one of the labels for this scale, on which speech-act participants rank higher than third persons, animate entities higher than inanimate ones, and known entities higher than unknown ones. This difference may find its reflex, for example, in the use of a pronoun instead of a full noun phrase for a higher-ranking referent, or by the choice of a passive over an active construction when a higher-ranking referent is the patient in a two-participant event (cf. DeLancey 1981). Referential hierarchies are of particular interest because there is also preliminary neurolinguistic evidence that they play a key role in language processing and so they might reveal possibly universal aspects of human cognition (Philipp et al. 2008, Wang et al. in press, Wang et al. submitted).

In some languages – many of them in danger of extinction – referential hierarchies affect the foundations of morphosyntactic organization. Three different types of hierarchical systems can basically be distinguished, although they can very well co-occur in one single language. Probably the best-known case is that of so-called "direct/inverse" systems, as found e.g. in Algonquian languages. Here, morphological markers on transitive verbs indicate whether the agent in an event is higher or lower in the referential hierarchy than the patient, i.e., whether the action goes in the expected direction ("direct") or against it ("inverse"). The referential hierarchy may also determine the choice and/or order of person indices on the verb, a system often characterized as "hierarchical agreement" (e.g. in Tupi-Guaranian languages): when there is only one affixal person-marking slot on the verb, it is the higher-ranking person that is indexed, regardless of its role. The hierarchical ranking of nominal referents can also affect case marking: this is manifested by differential object and differential subject marking, which favour zero case on higher-ranking agents and low-ranking patients — a trend that is sometimes frozen in the form of split case alignment.

The existence of hierarchically determined systems poses a number of problems for typology and for grammatical description. For instance, it is still far from obvious how to deal with hierarchical systems, particularly those involving inverse marking and hierarchical agreement, in terms of morphosyntactic typology (cf. Zúñiga 2007). Most typologies of grammatical relations are based on the notion of role alignment, but when hierarchical systems are defined independently of roles, it is not clear how they fit into existing typologies (Bickel in press; Creissels submitted). Unlike the familiar morphosyntactic types (e.g. "nominative/accusative", "ergative/absolutive"), hierarchical systems are not primarily based on semantic roles (agent/patient), but on referential properties of event participants. Some scholars consider these hierarchical systems as an independent alignment type (cf. Nichols 1992; Mithun 1999; Zúñiga 2006); for others, hierarchy effects are better treated in terms of voice (cf. Croft 2003; Givón 1994; Shibatani 2006); still others point out that this depends on the particular properties of individual systems (Gildea 1994; Farrell 2005), or propose multifactorial definitions of grammatical relations and alignment types, assigning typologically variable weights to referential information (Van Valin & LaPolla 1997; Bickel in press-a).

The diachronic development of hierarchical systems in the context of morphosyntactic types is unclear and subject to a similar controversy. Can direct/inverse systems extend from the deictic, person-oriented domain to the pragmatic domain, as argued by DeLancey (2001), or do they originate from passive-like constructions (Givón 1994, Payne 1994)? What is the role of inverse systems in the rise of ergative alignment patterns (cf. Givón 1994; Siewierska 1998) or passive voice marking (cf. Croft 2001)? One fact that may be responsible for the controversy, but that has not yet been sufficiently explored, is that hierarchical systems come in different shapes that are subject to different diachronic developments (cf. Gildea 1994, Guillaume to appear; Rose to appear).

Finally, the nature of referential hierarchies themselves and the degree of influence they have on morphosyntactic systems is not as clear as might be thought. The different components that contribute to hierarchical systems – deixis (person), semantics (animacy) and pragmatics (topicality) – may intuitively be conceived of as parts of one single hierarchy (cf. Comrie 1989), but without detailed, corpus-based research on the contribution of each factor and their competition, it is impossible to know. Recent research has shown that occasionally hierarchical systems display unexpected contradictions of apparent universals, e.g. with high-ranking participants treated as syntactically nonprivileged arguments (cf. Haude to appear) and that, contrary to Silverstein (1976), there is no universal trend for split alignment in verb agreement to follow the referential hierarchy (Bickel in press-b). Likewise, split-case systems do not always conform to the hierarchy, which has led some scholars

to question the strength of the impact of hierarchies on formal marking (cf. Filimonova 2005; Bickel and Witzlack-Makarevich 2008; Malchukov 2008).

b) CRP aims & objectives

As has become clear from the above, hierarchical systems are still far from completely understood, and there is much controversy regarding their analysis and interpretation. To a large extent, this is due to the fact that many of the individual systems have not yet been sufficiently investigated. Since many of the languages displaying hierarchical patterns are seriously endangered, investigation based on first-hand data is high on the list of priorities in linguistic research. It is only now that we have extensive corpora of relevant languages at our disposal that we can test the different claims and explore deviating patterns.

This project aims at a detailed analysis of different types of hierarchical systems from a cross-linguistic perspective, based on fieldwork and corpus research on languages that display different kinds of hierarchical systems and complemented by typological surveying. Through this large-scale investigation, the central aspects of hierarchical morphosyntax can be refined, enabling establishment of a far more stable basis for further, advanced discussion within the theory and typology of grammatical relations and alignment can be established.

Since most of the languages under study are seriously endangered, the project will contribute substantially to the documentation of this typologically highly instructive aspect of their grammar. Because of its time-consuming nature, fieldwork and corpus-oriented research must be limited to only a few selected languages. In order to assess how far results point towards universal and 'natural' patterns, such research needs to be complemented by a world-wide typological survey drawing on published grammars.

The project will take three interrelated topics as the focus of investigation. First, the **discourse factors** and, where possible, the **diachronic developments** will be identified that lead to the expected types of systems, and these will be contrasted with the developmental pathways underlying the unexpected systems. It is clear that the factors in question can only be addressed adequately if more languages and larger databases are taken into account and investigated thoroughly by experts of the relevant languages. The same is true for the second topic, which is the typological evaluation of the relationship between inverse, ergatives and passives, and conversely, of direct, accusatives and antipassives. Detailed investigation of voice operations in languages with inverse systems, case-marking splits, and differential argument marking will shed light on how to deal with these systems in relation to hierarchy effects on **voice and alignment**. The third topic will be the investigation of referential hierarchies in **three-participant clauses**. While research on ditransitive constructions has intensified in recent years, their relation to referential hierarchies has not yet received adequate attention. The question here is to what extent the encoding of, for example, the theme and recipient, is subject to hierarchical effects and what the interplay is between these effects and marked structures such as passive or inverse. We will investigate these topics by looking at genealogically and areally unrelated languages and language families that represent different kinds of hierarchical systems, some of them posing new challenges for typology

c) Strategy and work plan

The research will be based on corpus analysis and fieldwork, complemented by compilation of typological databases and literature research. **Corpus research** will be carried out by all project members, since corpora of various formats and sizes already exist for all our languages of study (see the IP descriptions); they will partly be complemented through additional field work. An important component of the corpus research will be the consistent tagging of the corpus with regard to specific research questions, e.g., semantic roles and referential properties (animacy, topicality etc.). A tag set and tagging conventions will be developed within the CRP to make the different corpora as comparable as possible.

Field work will involve the checking of existing corpus data as well as complementary elicitation, partly guided by existing stimuli. (The development of new video stimuli designed for the investigation of pragmatic vs. semantic effects in discourse lies beyond the scope of the current project, but based on our results, we will develop suggestions for the development of new stimuli in the future.) As specified in the respective IP descriptions, field work will be carried out on Movima (IP 03), Blackfoot, Mapudungun (both IP 05), Chintang (IP 01), and Sahaptin (IP 02). All research will be in accordance with the ethics guidelines of the participating institutions.

Results from the corpus studies and the field work will be incorporated in **typological databases** on agreement types (IP 01) and on ditransitive constructions (IP 04), together with data

from worldwide surveys of published grammars. The databases will be developed at the Universities of Leipzig and Lancaster, respectively, and will be linked to the geographical and genealogical information contained in AUTOTYP (www.uni-leipzig.de/~autotyp). We envisage a productive back-and-forth between the elaboration of the databases on the one hand, and language-specific analysis on the other hand. Research questions arising during the database development will be applied directly to corpus analysis and elicitation, and the specific findings from the research on individual languages will influence the creation of the databases. In this way, the results of the database development will flow back into the case studies and vice versa.

Most of the languages to be investigated in the project are seriously endangered in terms of speaker numbers and/or transmission to younger generations, as listed below.

- Sahaptian (IP 02): all fully fluent speakers are over 60 years of age, and low in number: by the most optimistic estimates, 125 for Sahaptin and 60 for Nez Perce.
- Movima (IP 03): maximally 500 fluent speakers (estimate Haude), most 60 years old. All speakers are bilingual (Movima, Spanish). Apart from very few exceptions (less than a dozen in one distant settlement), no children learn Movima as their first language.
- Cariban (IP 02): all but four languages of the Cariban family have less than 3000 speakers, there is pervasive multilingualism, young men are emigrating to nearby cities (sometimes with their families), and even in communities with robust language use, not all children are learning their ancestral language.
- Chintang (Kiranti; IP 01): there are currently about 5,000 Chintang speakers, and the language is still learnt by children as their first language in a number of families. But both numbers are rapidly decreasing as the direct result of fast economic and social integration.
- Blackfoot (IP 05): the number of speakers is relatively small (5,000 to 8,000), and they are located in two different countries and three Indian reservations; besides, there are two, possibly even three, distinct regional varieties of Blackfoot. Recent reports from linguists and anthropologists suggest that consistent transmission to children is currently taking place only on one of the reservations.
- Mapudungun (IP 05): despite the large number of speakers (over 100,000), the fact that this language is endangered can be seen e.g. from the heavily reduced rates of transmission to children (15% in rural, 2% in urban areas).

d) A short bibliography supporting the scientific case

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