MTA POSTDOCTORAL FELLOWSHIP PROGRAMME IN HUNGARY
Research plan
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Short summary of the research plan

The project is about the mental representation of case. It focuses on case assignment conflict: when 1 noun phrase is in the scope of 2 different case assigners, and these would like to assign different cases to the noun. The case conflict is resolved such that only 1 of the cases ends up on the noun.

The project shows that when choosing the winning case assigner, languages universally make use of the case hierarchy Nom < Acc < Gen/Partitive < oblique: cases higher on the hierarchy systematically win over lower ones.

The case hierarchy gives evidence for 4 groups of (hierarchically arranged) cases, rather than 2, so it's clear that the structural/oblique distinction is not fine-grained enough to capture these data. Nevertheless, the structural/oblique bifurcation is real and important in grammar. The project aims to work out a case theory that can make sense of the case hierarchy, and can explain how the structural/oblique bifurcation is related to the more fine-grained case hierarchy.

The research plan in Hungary

<u>Purpose of the research</u>

Generative grammar aims to model the human language faculty. It searches for universal principles of human language (Universal Grammar), and the parameters of cross-linguistic variation. The project focuses on the mental representation of case. It argues for a universal hierarchy of cases, and studies how the hierarchy materializes in the grammars of Hungarian, Finnish, Sami, and Russian. The results will give greater international visibility to Hungarian linguistics and will be useful for Finno-Ugric comparative linguistics.

The project studies case via the phenomenon of case assignment conflict: when a noun phrase is in the scope of two different case assigners, and these would like to assign different cases to the noun. Case conflict is resolved such that only one of the cases appears on the noun in the end. This occurs in several languages and constructions: case on Hungarian operators undergoing long movement; the case of quantified nouns in Sami, Finnish, and Russian (see below); case on the head of free relatives in Finnish, Modern Greek, Gothic, German, etc; and the case of the object in negated Russian and Finnish clauses, etc. In Sami, for instance, cardinals 2 to 6 assign Accusative case to the noun (1); higher numerals assign Partitive (2) (Nelson & Toivonen 2000).

(1)   Nelji poccuu/*puásui ruottii mâttâl.
        four reindeer.acc.3sg/reindeer.nom.sg ran.3pl away
        Four reindeer ran away.

(2)   Čiččâm poccud/*puásui láá tobbeen.
        seven reindeer.prt.sg/reindeer.nom.sg are there
        Seven reindeer are there.

When *four reindeer* is the subject, a case conflict arises between the Accusative assigned by the numeral and the Nominative assigned by finite T. Case conflict is resolved by assigning only

one case to the noun: here Accusative wins over Nominative (1). When *four reindeer* occupies a position that is normally assigned an oblique case, a case conflict arises between the Accusative assigned by the numeral and the oblique case assigned by V or P. In this case competition oblique cases win over Accusative (3).

(3)   Kulmâ/ čiččâm poccust lii ennuu purrâmâš.
       Three/seven reindeer.loc.sg is much food
       Three/seven reindeer have much food.

When *seven reindeer* is the subject or object, a case conflict arises between the Partitive assigned by the numeral and the Nominative/Accusative assigned by T/v. In this case Partitive wins over both Nominative (2) and Accusative (4). But when *seven reindeer* is in a position normally assigned oblique case, then oblique cases win over Partitive (3).

(4)   Tun oinih kyehtnubáloh poccud/*puccuu.
       You saw.2sg twelve reindeer.part.sg/reindeer.acc.sg
       You saw twelve reindeer.

So Sami cases can be arranged on the implicational hierarchy „Nom < Acc < Partitive < other", and cases higher on the hierarchy win over all lower cases in case conflict environments. This is a 4-way contrast, which the structural/oblique bifurcation cannot capture. Locality based accounts also fail: in (1), (2) and (4) the closer case assigner wins, but in (3) it is the case assigner further away that wins.

The purposes of the project are to
1)   place the Hungarian data into a cross-linguistic context
2)   show that case conflict is cross-linguistically resolved with the aid of a case hierarchy
3)   argue that the hierarchy is universally "Nom < Acc < Partitive/Gen < other"
4)   work towards a theory of case that makes sense of the hierarchy

Current knowledge has not yet realized that
a) case change in Hungarian long operator movement, quantificational case phenomena in Russian, Finnish, Sami, etc, object case under clausal negation in Russian and Finnish, and case assignment to the head of free relatives in Finnish, German, etc. are all instantiations of the same phenomenon: case assignment conflict, so these constructions are directly comparable. Without a direct comparison no inisightful theory of case assignment conflict can emerge;
b) a case hierarchy is involved not only in the typology of case inventories (Blake 1994), morphological syncretism (Caha 2009), and the semantic complexity of cases (Matushansky 2012), but also in the resolution of case conflict;
c) the use of a case hierarchy in case conflict is not specific to particular languages but is universal
A detailed comparison between different ways in which the case hierarchy can be represented in the grammar is also still missing.

The project aims to fill these gaps and provides two further contributions:
a) A hierarchy between cases is a relatively new idea in the generative literature, the project brings evidence for the case hierarchy from a new angle;
b) The hierarchies of Blake (1994), Caha (2009), Matushansky (2012) use different types of cases and different number of cases (4-10). Case conflict phenomena give an excellent testing ground to compare any two cases in any language with case conflict, and to find out objectively whether the language in question (and more generally Universal Grammar) places those cases on different levels of the hierarchy, and if so, which one is higher; i.e. we can get direct evidence as to how fine-grained the hierarchy really is.

Research plan, timetable

The project begins with the empirical study of case conflict and its resolution cross-linguistically. The investigation starts in Hungarian, Finnish, Sami, and Russian. These languages exhibit case conflict phenomena and have a sufficiently rich inventory of cases to study case conflict and its resolution in detail. The first three languages fall directly within the research expertise of the host institution. The four languages also provide variety w.r.t. geographical distribution in Europe, genetic affiliation (Finno-Ugric vs. Indo-European), and the resolution of case conflict (case conflict in Finnish sometimes leads to ineffability, the other languages can always produce a grammatical result). Later more languages are to be involved in the project.

Leading hypothesis: the hierarchy arises because different cases can be represented as feature matrices of different size rather than as primitives. The higher a case is on the hierarchy, the more complex its feature matix is (Caha 2009, Matushansky 2012). The project explores two major ways to implement this idea.

Implementation 1: only one KP exists, the K head hosts a feature bundle. The feature bundles of the higher cases properly contain the feature bundles of the lower cases. Featue bundles can be unstructured or structured (form a feature-hierarchy). In a structured bundle, the manipulation of one particular case (the mother node) would always implicate manipulation of other cases (the daughter nodes). The project looks for such implications. Preliminary investigation shows that they exist; this provides an argument against representing cases as unstructured bundles.
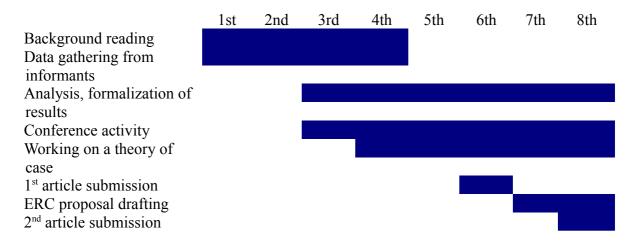
Implementation 2: KP is split into multiple case shells, and each KP shell contains just one case feature. In this scenario cases higher on the hierarchy have more KP layers than lower cases, e.g. Nominative is Knom, Accusative is Knom < Kacc, Dative is Knom < Kacc < Kdat, etc. (Caha 2009).

The two approaches make different predictions w.r.t. movement. Feature bundling on one KP predicts that extraction cannot change the case: it's impossible to strand part of a node. The KP-shell hypothesis predicts that the winning case may change if the noun in question undergoes movement: it may pied-pipe only the lower K projections, stranding the higher ones.
To compare the two implementations, the project closely examines a) movement of full DPs in the clause, b) NumberP subextraction from NPs, and c) DP-internal NumberP movement. The results of this line of inquiry will clearly support one implementation over the other; this will shape the emerging theory of case.

The project's long-term theoretical significance is that it helps us understand the structural/oblique bifurcation, a basic opposition in grammar. It has long been a conundrum why English has two structural cases (Nom and Acc), Hungarian has three (Nom, Acc, Gen), and Sami has four (Nom, Acc, Gen, Partitive). The project derives this from the case hierarchy. Languages universally make a cut on the hierarchy: cases to the left of the cutting point are structural cases; cases to the right are oblique. What varies is at what height the cut is made (English: low, Sami: high). This predicts that structural and oblique cases from contiguous sequences in the hierarchy, e.g. no language treats Nom and Dat as structural without also treating Acc as such. A preliminary survey confirms this. These results are essential for a comprehensive case theory and contribute to a better understanding of the universal principles of human language.

Project timetable, workplan

	1st	2nd	3rd	4th	5th	6th	7th	8th

Background reading
Data gathering from informants
Analysis, formalization of results
Conference activity
Working on a theory of case
1st article submission
ERC proposal drafting
2nd article submission

Expected results, impacts

The expected results are 2 articles in English in journals with an impact factor, and at least 3 conference talks per year. The results will form the basis of the ERC grant to be submitted at the end of the 2nd year. The articles will probably focus on 1) a theory-neutral discussion of how case conflict is cross-linguistically resolved with the help of a universal hierarchy (this is expected to have an impact on case research in non-generative frameworks, too); and 2) a theoretical interpretation of the findings, focusing on a specific type of case conflict (either the quantificational case construction or case in Hungarian long operator movement). The pre-publication versions will be posted on Lingbuzz, the field's largest open access repository. At least 1 overseas and 2 European conferences are planned per year. Abstract submission targets major annual conferences with free topics and conferences specializing on nouns, case, or the languages examined.