



The Typology and Diachrony of Nominal Classification

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In this thesis, I study the typological structure and pathways of developmental change of nominal classification systems. Nominal classification is a wide-spread cross-linguistic phenomenon, which scholars investigate since almost 2500 years (cf. chapter 1 for an overview on the research history). In a nutshell, nominal classification systems are a grammatical device that categorises nouns and their referents with respect to their semantic characteristics, stem-forming morphemes, or phonological shape.

Chapter 2 presents the two basic types of nominal classification systems, namely classifier systems, which are frequently found in Pacific, East Asian, and South Asian languages, and concordial class systems, which are commonly found e.g. in Indo-European and Bantu languages. The difference between these two types is that classifier systems are fairly interactive in allowing the speaker to assign a variety of classifiers to a given noun or referent, semantically productive in that the inserted classifier contributes to the meaning of its host noun phrase, and morphosyntactically independent in that classifiers are typically clitics or unbound elements, (cf. 1, where all these conditions apply).

- (1) Nùng (cf. Saul and Wilson 1980: 14)

lēo hāhn tú má luhc
then kill two CL:ANIMATE dog.child
“Then kill two puppies.”

Moreover, classifiers are a delimited phenomenon in that they occur once and overtly within the borders of the noun phrase, and in that they are bound to given morphosyntactic contexts: Mandarin for instance does not allow to count objects by the mere combination of a quantifier and a noun (*one snake, two books, three bullets, . . .*), but requires a classifier to be inserted in these contexts (cf. 2). Except for quantificational contexts, Mandarin allows demonstratives and sometimes nouns to combine with a classifier, while other elements are not able to do so.

- (2) Mandarin (cf. Zhang 2007: 45f.)

A *yī tiao she*
one CL:LONGISH snake
“one snake”

B *liang ben shu*
two CL:VOLUME book
“two books”

C *yī ke zidan*
three CL:SMALLISH bullet
“three bullets”

There are four main classifier types, which are labeled according to their morphosyntactic operative context: Possessive classifiers, which occur in possessive constructions, numeral classifiers, which occur in quantificational constructions, noun classifiers, which occur in combination with the bare noun, and multiple classifiers, which insert their classifiers in more than a single kind of construction. This study does not consider the types of so-called ‘verb classifiers’, ‘relational classifiers’, deictic classifiers, and locative classifiers.

Concordial class systems in contrast are fairly automatised in that nouns typically belong to a fixed, single class; they are semantically unproductive, since the class of the noun in most cases does not manipulate the meaning of its noun phrase, and they are morphosyntactically dependent in that a noun’s class is marked by means of agreement affixes on a language-specific range of nominal satellites (cf. 3, where all these conditions apply).

(3) Italian

La *mi-a* *ragazz-a* *è* *scaltr-a* *e* *colt-a*.
 ART:F.SG POSS1SG-F.SG girl-F.SG is clever-F.SG and educated-F.SG
 “My girl is clever and educated.”

Class agreement marking on nominal satellites is obligatory, which means that class markers may occur multiply in the same context. Concordial class marking is thus not limited to a single occurrence per classificatory context, like it is the case for classifiers.

Classifiers and concordial class systems constitute the respective extreme points of a continuum of nominal classification. The gradations of the continuum are created by grammaticalisation, a concept of gradual linguistic change that involves the loss of morphosyntactic independence and categorial characteristics, semantic bleaching, and morphologisation. The properties of classifier systems correspond to a low degree of grammaticalisation, and the properties of concordial class systems correspond to a high degree of grammaticalisation.

A common hypothesis states that a classifier system may undergo grammaticalisation and turn into a concordial class system. I refer to this process as the “grammaticalisation hypothesis”. This process is not observed or documented in real world languages, and, therefore, the present study examines in detail and from a typological perspective how likely this phenomenon is to occur. For this purpose, I study a sample of forty languages, which are projected onto a grammaticalisation scale. If the grammaticalisation hypothesis holds, an uninterrupted increase of grammaticalisation should be observed in the sample.

Chapter 3 presents a theoretical background of grammaticalisation and applies it to the typology of nominal classification devices. As a result, seven properties, which apply to both classifier systems and concordial class systems and are widely used in descriptive analyses of nominal classification, are isolated as a measure for a system’s degree of grammaticalisation. These properties are listed in figure 1.

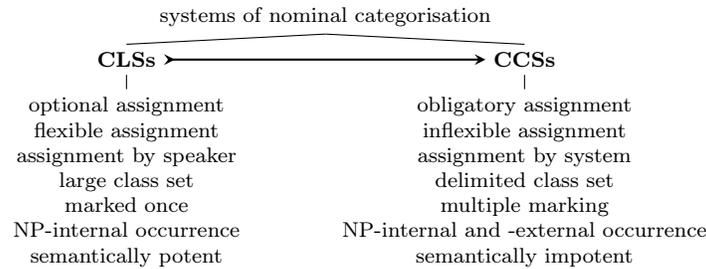


Figure 1: The basic properties of systems of nominal classification.

Chapter 4 renders the aim and focus of this study and presents its methodology. It puts forward research questions, working hypotheses and predictions and discusses the feasibility of studying a diachronic phenomenon, the grammaticalisation hypothesis, by means of synchronic data, the language sample. It also presents the sampling method and sample composition and provides arguments for the inclusion or exclusion of candidate systems for the sample.

Chapter 5 studies grammaticalisation in the sample from the perspective of the systemic types of nominal classification. When the sample languages are ordered according to an increase in their degree of grammaticalisation, classifier-like systems group together at the less grammaticalised end of the continuum and concordial class-like systems group together at the more grammaticalised end of the spectrum. The full sample displays a recognisable grammaticalisation cline, which is, however, blurred by two coherent groups of deviations among the classifier-like systems. These deviations mostly occur in systems that show a conventionalisation of classifier-noun pairs, while they maintain a low degree of grammaticalisation in their other properties. Moreover, only the Korean system corresponds to the definition of an ideal classifier system, whereas there are six systems that fully correspond to the definition of an ideal concordial class system. The concordial class-like systems in the sample generally correspond better to the grammaticalisation cline, too.

Besides classifier systems and concordial class systems, two more phenomena are investigated in chapter 5. First, ‘hybrid systems’ are discussed more in detail. These are systems that seemingly employ defining properties of classifier systems (e.g. a large class inventory, a productive semantic contribution to the noun phrase, a speaker-sided and flexible assignment) and concordial class systems (multiple marking, NP-internal and -external marking) at the same time. Therefore, they elude a straightforward identification as an either classifier-like or concordial class-like system. Furthermore, they have been argued to represent the most likely ‘hinge’ between classifier and concordial class systems and thus might represent the ‘missing link’ in the grammaticalisation hypothesis. The sample features four of these systems, the one of Nasioi, Bora, Mundurukú, and Ngan’gityemerri; these show a coherent grouping towards the very lowly grammaticalised end of the spectrum when ordered with respect to degree of

grammaticalisation of their properties. This observation does not suggest an analysis of these systems as ‘hinges’ between classifier systems and concordial class systems.

Second, the ‘grey area’ between classifier and concordial class systems is investigated. The grey area is not further specified and can be derived from the conceptualisation of the continuum of nominal classification as defined by its two most extreme poles, classifiers and concordial classes. The grey area consists of intermediate systems and is located at the intersection of classifiers and concordial classes. Therefore, it is of great interest for the study of the grammaticalisation hypothesis, because it represents the area in the continuum where a system may shift from a classifier-like type to a concordial class-like type. I put forward three orders of deviation, which are defined on basis of the observations from the sample data and which represent helpful gradations of the grey area: The whole sample shows three properties that are highly consistent with the ideal definition of the respective system. These are the obligatoriness of classification, the potential to feature a class marker multiply or not, and the potential to feature a class marker outside of the borders of the noun phrase or not. A system that shows a deviation in one or more of these ‘core properties’ is a first order deviation; first order deviations are the narrowest form of the grey area. The supposed ‘hybrid systems’ are the only sample-internal systems that show both classifier-like and concordial class-like properties here, and thus are the first order deviations in the sample. Systems that show a consistent classifier-like or concordial class-like setup of properties, but deviate in their flexibility of classification or their assignment from this setup, are second order deviations. First and second order deviations together constitute the wider notion of the grey area. Finally, there are systems that show a consistent classifier-like or concordial class-like setup of properties, but employ individual criteria that are partly classifier-like and concordial class-like at the same time (e.g. if both speaker- and system-sided assignment occur). These are third order deviations, which together with second and first order deviations constitute the widest available notion of the grey area.

Chapter 6 studies grammaticalisation in the sample from the perspective of the sample-internal distribution of the individual properties. Most of the properties correspond well to the expected grammaticalisation cline; this includes the size of the class inventory, the obligatoriness of classification, the potential to multiply mark class membership in the same context, and the potential to feature class marking NP-internally and -externally. The remaining two properties, the flexibility of classification and the either speaker- or system-sided class assignment, show a less coherent distribution. The classifier-like systems of the sample show a preference for a flexible and speaker-sided classification, and the concordial class-like systems of the sample show a preference for a rigid and system-sided assignment. However, both systemic types feature a number of deviations from this preference, and thus blur the grammaticalisation cline in the sample. The property of the semantic contribution of a system proves to be highly varied throughout the sample. Nominal classification systems are reported to employ various functions in the domain of semantics and discourse;

to capture this rich functionality in a rather vague criterion such as “semantic contribution” thus is too wide a notion to represent a useful measure for the grammaticalisation of nominal classification systems. The property is therefore dropped as a measure in the further study.

In chapter 6, I provide an alternative analysis for the seemingly multiple marking in the supposed ‘hybrid systems’ as an actual instance of adjacent multiple classification. This means that a class value in those systems is not copied from the noun and expressed in form of agreement on elements surrounding the noun, but that each element carrying a class marker represents an individual context of classification. This allows the reanalysis of the ‘hybrid systems’ as multiple classifier-like systems. Furthermore, I demonstrate that the core properties show strong correlations in the sample—systems with optional classification do not mark class multiply in the same context, and restrict their *locus operandi* to the borders of the noun phrase. Nasioi, Bora, Mundurukú, and Ngan’gityemerri are the only exception in that they allow NP-external class marking. Furthermore, the ‘non-core properties’ of classificatory flexibility and assignment show correlating traits: The more flexible the classification of a system is, the more it is likely to involve the speaker as assigning agent, and vice versa.

The analysis of the sample data in chapter 5 and 6 suggests a modification of the notion of grammaticalisation in nominal classification devices: The sample systems show two main lines of development, which may occur independent of each other. On the one hand, there are systems that show a grammaticalisation of their formal means (“formalisation”); they are characterised by an expansion of the host of the class marker and the *locus operandi*, the loss of morphosyntactic independence of their markers and their phonological erosion, and a decreasing class inventory. On the other hand, there is a larger number of classifier-like systems that does not alter its means of formal expression, but shows an increase in conventionalised and inflexible class-noun pairings and a decrease in the semantic contribution to the noun phrase (“conventionalisation”). The concepts of formalisation and conventionalisation are taken up in chapters 7 and 8 and applied to a refined mapping of nominal classification systems. Other strategies of development are less frequent, but also present in the sample. Systems may expand their functionality beyond the scope of nominal classification; Great Andamanese for instance maintains a nominal classification function when its class markers attach to nouns and adjectives, but serves the function of verbal classification (i.e. the semantic specification of the concept that is expressed by the predicate) when its markers attach to adverbs and verbs. Finally, a system may be given up; in this case, formal remains may indicate the earlier presence of a nominal classification system. I have argued that this is the case for Tlingit and Chukchi, where modifiers of human referent nouns carry an overt marker, while there is no recognisable nominal classification system or function.

Chapter 7 introduces a mapping instrument for nominal classification devices, which is based on both earlier research and the observations from the language sample. The sample study shows that there are systems at all stages of formalisation, and that systems at any given point of formalisation display

differences in their semantic transparency and productivity. Therefore, the mapping account distinguishes the dimension of formalisation from the dimension of transparency. These dimensions are defined on the basis of two packages of seven properties. Each property possesses two or more measure points, which can be projected on a numerical scale of grammaticalisation. The mean value of the seven properties that render the degree of formalisation reveals the formalisation value of a system, and the one of the seven properties that render the degree of conventionalisation reveal the transparency value of a system. These two values allow a straightforward visual presentation of a system in a scatter plot, where systems can be directly compared both synchronically or at different stages of their history. The application of the mapping to the language sample results in a clear grouping of systems, as figure 2 demonstrates.

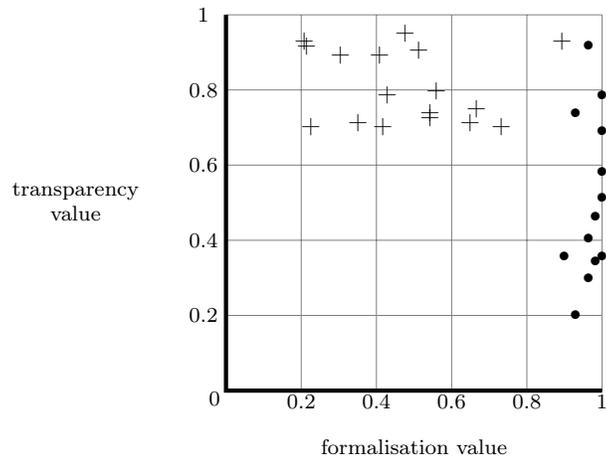


Figure 2: Comparative mapping of the sample systems: Distribution of systemic types (+: classifier system; ●: concordial class system).

Figure 2 shows that systems with a formalisation value up to 0.73 are those systems that were earlier analysed as classifier-like; they have a transparency value of 0.7 or more. They are highly varied with respect to their degree of formalisation. Systems with a formalisation value higher than 0.89 are those that were earlier analysed as concordial class-like and show little variation in their degree of formalisation, but a large variation in their transparency value, which roughly spans from 0.2 to 0.93. The classifier-like systems are separated from the concordial class-like systems by a gap that covers 16 per cent of the formalisation scale. The only exception is the system of Tainae, which is located at the top of the highly formalised systems, yet was analysed as a classifier-like system in chapter 6. The supposed hinge systems of Nasioi, Bora, Mundurukú, and Ngan'gityemerri are at an actual hinge position in the two-dimensional mapping of the sample; they occur among the the more grammaticalised classifier-like

systems. The distribution of the sample systems in figure 2 has an important implication for the grammaticalisation hypothesis: If only systems with a high formalisation value are able to lose their transparency to a considerable degree, a ‘unitary’ grammaticalisation approach, which assumes formalisation and conventionalisation to occur at the same time, cannot be maintained. Instead, systems of nominal classification seem to undergo ‘split’ grammaticalisation, which means that formalisation precedes a potential conventionalisation process.

Chapter 8 investigates the diachrony of the systems of Mandarin, Dyrbal, and Western Germanic. The respective systems are mapped at different stages of their development and at different linguistic registers. This diachronic and sociolinguistic mapping allows us to observe the processes of formalisation, conventionalisation, and systemic semantic remotivation. The case studies suggest that a considerable loss in transparency is related to the visibility of a system in discourse, i.e. that only a concordial class-like system, which allows for multiple classificatory marking in the same context, can refrain from entertaining an accessible and productive semanticity without entering the risk of decaying or undergoing semantic remotivation. Beyond this, the linguistic and cultural proficiency of the younger generation of speakers plays an important role in the reanalysis of the system of Dyrbal. Furthermore, the high prestige of English as compared to Dyrbal contributes not only in the remodelling of the nominal classification system, but also influences other parts of the grammar.

In conclusion, this study has shown that grammaticalisation takes a ‘split’ form in nominal classification: The means of formal expression of nominal classification systems grammaticalise independently of their semantic and interactive components. An account for nominal classification which distinguishes these two developmental vehicles yields much more detailed and expressive results than a ‘unitary’ grammaticalisation approach. Moreover, I have shown that the grammaticalisation hypothesis is a scenario which is possible, but highly unlikely to ever occur. Besides the lack of a ‘missing link’ between classifier-like and concordial class-like systems in the sample, the grammatical changes that a system requires to develop concordial class-like affixed agreement, for instance, are not available in many Asian classifier languages of an isolating type. A language that grammaticalises its classifiers into a concordial class-like system requires in-depth grammatical shifts that span far beyond nominal classification; for instance, many classifier languages employ their markers as semantic specifiers of otherwise underspecified lexical nouns. If the classificatory markers shift from their specifying function into a function as ‘mere’ agreement markers, the concept of nouns in these languages had to reform, and the lexical content of nouns had to become more specified. While a scenario with a number of in-depth grammatical changes that are required by the grammaticalisation hypothesis is not impossible, it is improbable.