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On the German numeral classifier system

Christian Lehmann

Let a counted NP be an NP that includes a nominal – called the counted nominal – which provides the semantic head and a numeral specifying the cardinality of the set designated by the counted nominal. A numeral classifier is a word or affix that is a member of a paradigm with the following properties:

1. A cardinal numeral of the language forms a binary phrase with a member of this paradigm (thus, not with the counted nominal). This phrase is called numeral classifier phrase.
2. The numeral classifier phrase may form a binary phrase with the counted nominal. This phrase is a counted NP.
3. The choice of the numeral classifier from among its paradigm is, by default, conditioned by the semantic class of the counted nominal. This is so both if the counted nominal is a constituent of the counted NP and if the numeral classifier phrase constitutes a headless NP (in deictic or anaphoric use).

Condition 3 of this definition implies that the numeral classifier system of a language (its paradigm of numeral classifiers) brings about some sort of classification of its nouns. E1 from Yucatec Maya (cf. Romero Castillo 1961) illustrates the definition.

E1. a. He'l   óox-p'éel   p'àak-a'.
         PRSV   three-CL.INAN tomato-D1[1]
         'Here are three tomatos.'
     b. He'l   óox-túul   máak-a'.
         PRSV   three-CL.AN   person-D1
         'Here are three persons.'
     c. Hay-túul-e'x?   – Óox-túul-o'n.
         how.many-CL.AN-ABS.2.PL three-CL.AN-ABS.1.PL
         'How many are you? – We are three.'

Numeral classifiers are known from many languages of the world, among them Chinese, Japanese, Thai, Indonesian, Aztecan and Maya. Classifier systems differ along various parameters. In some languages, among them Maya, the numeral classifier only combines with a numeral (with the exception of the interrogative pronoun seen in E1.c), while in others, including Chinese, it also combines with demonstratives. In some languages, including Maya, the selection of the classifier is essentially determined by the semantic class of the counted nominal, while in others, including Thai, there is often a choice out of a subparadigm of classifiers for combination with a given counted nominal

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[1]   Abbreviations in interlinear glosses: ABS absolutive, AN animate, CL numeral classifier, D1 proximal deictic, INAN inanimate, PL plural, PRSV presentative.

(cf. Serzisko 1982, Kölver 1982). Again, in some languages, including Thai, numeral classifiers are words which take the numeral as a modifier. In a subset of these, including Yucatec Maya, the numerals are affixes to the classifiers. In other languages, including Chinese, the classifiers are affixes to the numerals.

Some languages possessing a numeral classifier system lack the category of number. Among these are Japanese and Thai. Others including Maya do have number; but no language in this subclass has obligatory number marking in counted NPs. On the contrary, most classifier languages join the relatively large class of languages that do without number marking in counted NPs.

The majority of numeral classifiers in the languages that have them are of nominal origin. In languages such as Yucatec Maya, this is not ascertainable synchronically, yet the spirit of a numeral classifier phrase such as *óox-p'éel* (cf. E1.a) is correctly grasped by ʻthree (compact, solid) objectsʼ.

German is not commonly regarded as a numeral classifier language. From there results the slightly provocative character of the title of this contribution. When numeral classifiers are mentioned in a German context, generally the example *Stück* ʻpiece, itemʼ comes to mind, which is used in expressions such as E2 and represents the nearest equivalent to a numeral classifier that German can muster.

E2.   Gib mir mal drei Stück! ʻGive me three (of them)!ʼ

The isolated example remains, however, anecdotal, and its place both in the German language system and in cross-linguistic comparison remains in the dark.

A closer look at the German facts reveals one more noun that can be used in a similar way, viz. *Mann* ʻmanʼ as it appears in E3.

E3.   Gib mir mal drei Mann! ʻGive me three persons!ʼ

Stück, if used as in E2, may refer to inanimate objects, typically compact, solid objects such as fruit or ball-point pens, but also to animals such as cattle. *Mann*, if used as in E3, normally refers to male human beings in contexts where persons are counted, for instance in military or sports contexts. Its use for reference to female persons does occur,[2] but would often occasion smiling or correction. Anyway, substituting *Frau* ʻwomanʼ for *Mann* in E3 results in ungrammaticality.

Normal German nouns take plural marking after numerals; cf. *drei Jungen* ʻthree boysʼ as against **drei Junge*. *Mann* and *Stück* allow plural marking in this construction, too. *Drei Männer* ʻthree menʼ and *drei Stücke* ʻthree piecesʼ are just as usual as *drei Mann* and *drei Stück*. The difference is that with number marking, they retain their proper lexical meaning, while without it they have a wider application. Just like anaphoric pronouns, they have a more general meaning than the nouns which they resume.

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[2]   An utterance such as *Könnten bitte mal drei Mann den Tisch mit anfassen?* ʻCould three (of you) please lift the table with me?ʼ could occur in a women's group.

E4.   Wieviele Matrosen brauchst du? – Gib mir mal drei Mann!
        ʻHow many sailors do you need? – Give me three persons!ʼ

E5.   Wieviele Kugelschreiber brauchst du? – Gib mir mal drei Stück!
        ʻHow many ball-point pens do you need? – Give me three!ʼ

E4 and E5 are perfectly coherent dialogues, where *Mann* and *Stück* make anaphoric reference to the set introduced by the first speaker. Replacing these words by *Männer* and *Stücke*, respectively, produces diverse effects. In E4, the meaning is changed in two respects. First, *Männer* is not conventionally anaphoric to *Matrosen*, but merely semantically compatible with it. Second, it limits the referents to male sailors, while E4 allows for inclusion of female sailors. Again, the answer of E5 with *Stücke* ʻpiecesʼ produces an incoherent discourse and would thus meet with lack of understanding on the part of the first speaker.

     There is, in fact, a large set of German nouns which combine with numerals without going into the plural. These include *Pfund* ʻpoundʼ, *Meter* ʻmeterʼ, *Glas* ʻglassʼ and many more. All of them are mensuratives. They form a mensurative phrase with the numeral, and this in turn may combine with a mass noun in a counted NP, as in E6.

E6.   Gib mir mal drei Pfund (Mehl)!
        ʻGive me three pounds (of flour)!ʼ

There are two differences between *Mann* and *Stück*, on the one hand, and the mensuratives, on the other. First, a mensurative designates a portion of a mass, while *Mann* and *Stück* designate individuals. [3] Second, the mensuratives combine freely with (mass) nouns in a counted NP, while *Mann* and *Stück* do so only in a very restricted way. We will come back to this below.

     All languages have mensuratives. However, German in addition has a small paradigm of numeral classifiers, consisting of *Mann* and *Stück*. A brief glance at the typology of numeral classifiers reveals some facts that are essential in the present context. First, the semantic basis of a numeral classifier system is usually a binary contrast between human and non-human, or animate and inanimate (cf. Lee 1987). E1.a and b here represent a typical situation. Whenever a numeral classifier system is reduced in diachrony, it boils down to these two items. For instance, those speakers who shift from Yucatec Maya to Spanish typically only use the two classifiers illustrated in E1. Of the two basic classifiers, the non-human/inanimate item is generally the unmarked member of the paradigm. Thus, it may occasionally happen in Yucatec Maya that *p'éel* is used to refer to animate beings, although this is usually immediately corrected.

     German *Mann* and *Stück* fit exactly in this picture. They designate human and non-human objects, respectively. The contrast is occasionally neutralized in favor of *Stück*, and

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[3]   It is, however, noteworthy that *Stück* is also a mensurative, as in *drei Stück Butter* ʻthree pieces of butterʼ. The mensurative system of a language plays an important role in the development of a numeral classifier system and may even provide some items of the emergent paradigm.

when this happens, the speaker is commonly reproached.

The second typological observation is that the combination of a numeral classifier phrase with a nominal to yield a counted NP presupposes its anaphoric use, both synchronically and diachronically (cf. Greenberg 1972). That is, a language that has the construction illustrated by E1.a and b also has the construction illustrated by E1.c. Wherever a numeral classifier system develops, it starts out from deictic or anaphoric uses of classifiers as in E1.c – E5.

Again, the German facts correspond entirely to this generalization. While the numeral classifiers may be used freely in anaphoric and deictic reference to counted objects, their combination with a counted nominal in the same NP is generally inadmissible, apart from a well-delimited set of exceptions. *Mann* and *Stück* combine with a very small set of collective nouns, as in *drei Mann Besatzung* 'three crew-men' and *drei Stück Vieh* 'three heads of cattle'. Apart from this, collocations such as *drei Stück Kugelschreiber* may occur if an order-list is read aloud, but otherwise are just as ungrammatical as *drei Mann Matrose(n)*.

Last, while plural marking on the counted nominal may be admissible in some languages,[4] no language allows number marking on numeral classifiers. Thus, the classifier in a numeral classifier phrase is always transnumeral. The German rule illustrated by E4 and E5, according to which *Mann* and *Stück* must not be marked for number if used as classifiers is again in keeping with the facts of classifier languages and can thus be interpreted as a step in the transformation of these nouns into numeral classifiers.

If a numeral classifier language is a language that can be characterized, at the typological level, by its possession of a system of numeral classifiers that pervade its texts, then German is not a numeral classifier language. The German system of numeral classification is grammaticalized to a very low degree (cf. Lehmann 1995). Most importantly, there is no context in which numeral classifiers are obligatory. In particular, they are perfectly optional in E4 and E5. German cardinal numerals can easily constitute headless NPs under anaphora and can, in general, be substantivized freely. In this respect, German differs essentially from numeral classifier languages. In these, the classifier is always obligatory if the counted nominal is omitted under anaphora. Further grammaticalization of the German numeral classifier system would presuppose that they become usual in anaphoric contexts like E4 and E5.

On the other hand, the three typological observations made above do point to incipient grammaticalization:

- The paradigmatic relation between *Mann* and *Stück* represents the beginning of paradigmaticization.
- The generalized anaphoric use of the two items implies semantic bleaching.
- The lack of plural marking in their use as classifiers is an instance of decategorialization.

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[4]   Some informants would accept *óox-túul máak-o'b* (three-CL.AN person-PL) in E1.b.

The conclusion of this contribution is therefore that there is more than anecdotal evidence for numeral classifiers in German: the German language system possesses the absolutely elementary basis of what is a system of numeral classification by typological standards.

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