NATURALNESS: THE ENGLISH *S*-GENITIVE AND *OF*-PHRASE

Janez Orešnik

University of Ljubljana

The subject-matter of my paper is a (language-universal) theory developed in Slovenia by a small group of linguists (under my guidance), who mainly use English, German, and Slovenian language material as the base of verification. Our work owes much to, and exploits, the (linguistic) Naturalness Theory as elaborated especially at some Austrian and German universities (cf. Mayerthaler 1981; Dressler et al. 1987; Stolz 1992). Naturalness Theory has also been applied to syntax, notably at the University of Klagenfurt; the basic references are Dotter (1990), Mayerthaler – Fliedl (1993), Mayerthaler et al. (1993, 1995, 1998). Within the natural syntax of the Klagenfurt brand, the Slovenian work group has built an extension, which will henceforth be referred to as "our theory".

Our theory studies the behaviour of (near-)synonymous syntactic expressions, here called syntactic variants. Whenever two syntactic variants are included in the same naturalness scale, and consequently one variant can be asserted to be more natural than the other, our theory has something to say about some grammatical properties of the two variants.

Naturalness Theory operates with two basic predicates, "marked" and "natural". I cannot see any reason to distinguish the two predicates within our theory, therefore I use throughout one predicate only, namely "natural". (This standpoint was implied as early as Mayerthaler 1987: 50.)

Beside the technical terms "natural(ness)" and "naturalness scale", which have already been alluded to, the terms "sym-value" and "sem-value" (adopted from Mayerthaler 1981: 10 *et passim*) must be mentioned. The sym-value refers to the naturalness of an expression in terms of its encoding properties. The sem-value refers to the naturalness of an expression in terms of its semantic complexity.

The following auxiliary symbols will be employed: ">sym" (= more natural with respect to encoding), "<sym" (= less natural with respect to encoding), ">sem" (= more natural with respect to semantic complexity), and "<sem" (= less natural with respect to semantic complexity).

The assumptions of our theory (in my recently revised version) can be briefly stated as follows.

In a pair of syntactic variants, within each variant, one of the following alternatives obtains:

1. at least one >sym-value tends to associate with at least one additional >sym-value and/or with at least one <sem-value;
2. at least one <sym-value tends to associate with at least one additional <sym-value and/or with at least one >sem-value;
3. at least one >sem-value tends to associate with at least one additional >sem-value and/or with at least one <sym-value;
4. at least one <sem-value tends to associate with at least one additional <sem-value and/or with at least one >sym-value.

In the above items (1-4) the object of the meta-verb "associate" refers to the interior of the unit under observation, OR to a part of the immediate environment of the unit under observation. Our theory covers both cases.

Forschungsgeschichtlich, the predecessor of the above assumptions (1-4) is the familiar principle of constructional iconicity as formulated in Natural Morphology. The principle runs as follows. Iff a semantically more marked category C_j is encoded as "more" featured than a less marked category C_i, the encoding of C_j is said to be iconic (Mayerthaler 1987: 48-49). Using the predicate "natural", the principle can be briefly stated as follows: <sem in combination with >sym is iconic. In our theory, the principle has been extended to syntax and expanded.

Our theory functions only *ex post facto*.

The remainder of the present paper is devoted to selected aspects of the syntax of the English s-genitive and the postmodifying of-phrase. The data have been taken from Quirk et al. (1985) and from Johansson – Oksefjell (1998).

I start with a comparison of the ordinary s-genitive and the postmodifying of-phrase. The following deductions account for a few syntactic characteristics of the two units:

1.   English. The ordinary s-genitive tends to contain a personal noun. The postmodifying of-phrase tends to contain an inanimate noun (Quirk et al. 1985: 1277; Johansson – Oksefjell 1998: 154-155).
1.1.   The assumptions of Naturalness Theory:
1.1.1. >sym (more transparent, less transparent) / syntactic unit

I.e. with respect to encoding, a syntactic unit of greater syntactic transparency is more natural than a corresponding syntactic unit of lesser syntactic transparency (Mayerthaler 1981: 35; Mayerthaler et al. 1998: 186; on the notion of transparency see Mayerthaler 1987: 49).

A special case of 1.1.1:

1.1.1.1.   >sym (postmodifying of-phrase, ordinary s-genitive) / in English

I.e. in terms of encoding, a postmodifying of-phrase is more natural than an ordinary s-genitive, in English.

1.1.2.   >sem (more animate, less animate)

I.e. in terms of semantic complexity, what is more animate is more natural than what is less animate (Mayerthaler 1981: 14, 1987: 41).

1.2.   The assumptions of our theory concerning any two syntactic variants:
1.2.1.   >sym tends to associate with <sem

I.e. a high sym-value tends to associate with a low sem-value.

From 1.1.1.1, 1.1.2 and 1.2.1 it can be deduced:

1.2.1.1.   In English, when the choice is limited to the ordinary s-genitive and the postmodifying of-phrase, the latter tends to be used with what is less animate. Q.E.D.
1.2.2.   <sym tends to associate with >sem

I.e. a low sym-value tends to associate with a high sem-value.

From 1.1.1.1, 1.1.2 and 1.2.2 it can be deduced:

1.2.2.1.   In English, when the choice is limited to the ordinary s-genitive and the postmodifying of-phrase, the ordinary s-genitive tends to be used with what is more animate. Q.E.D.

2.   English. The ordinary s-genitive tends to express given information. The postmodifying of-phrase tends to express new information (Johansson – Oksefjell 1998: 154-155).
2.1.   The assumptions of Naturalness Theory:
2.1.1.   >sym (more transparent, less transparent) / syntactic unit

I.e. with respect to encoding, a syntactic unit of greater syntactic transparency is more natural than a corresponding syntactic unit of lesser syntactic transparency (Mayerthaler 1981: 35; Mayerthaler et al. 1998: 186).

A special case of 2.1.1:

2.1.1.1.   >sym (postmodifying *of*-phrase, ordinary *s*-genitive) / in English

I.e. in terms of encoding, a postmodifying *of*-phrase is more natural than an ordinary *s*-genitive, in English.

2.1.2.   >sem (given, new) / information

I.e. in terms of semantic complexity, given information is more natural than new information (Mayerthaler 1981: 14 and 1987: 41 on presupposed and non-presupposed).

2.2.   The assumptions of our theory concerning any two syntactic variants:

2.2.1.   >sym tends to associate with <sem

I.e. a high sym-value tends to associate with a low sem-value.

From 2.1.1.1, 2.1.2 and 2.2.1 it can be deduced:

2.2.1.1.   In English, when the choice is limited to the ordinary *s*-genitive and the postmodifying *of*-phrase, the latter tends to express new information. Q.E.D.

2.2.2.   <sym tends to associate with >sem

I.e. a low sym-value tends to associate with a high sem-value.

From 2.1.1.1, 2.1.2 and 2.2.2 it can be deduced:

2.2.2.1.   In English, when the choice is limited to the ordinary *s*-genitive and the postmodifying *of*-phrase, the ordinary *s*-genitive tends to express given information. Q.E.D.

3.   English. The ordinary *s*-genitive tends to express the subjective relation. The postmodifying *of*-phrase tends to express the objective relation (Quirk et al. 1985: 1278 ff.; Johansson – Oksefjell 1998: 155).

3.1.   The assumptions of Naturalness Theory:

3.1.1.   >sym (more transparent, less transparent) / syntactic unit

I.e. with respect to encoding, a syntactic unit of greater syntactic transparency is more natural than a corresponding syntactic unit of lesser syntactic transparency (Mayerthaler 1981: 35; Mayerthaler et al. 1998: 186).

A special case of 3.1.1:

3.1.1.1.   >sym (postmodifying *of*-phrase, ordinary *s*-genitive) / in English

I.e. in terms of encoding, a postmodifying *of*-phrase is more natural than an ordinary *s*-genitive, in English.

3.1.2.   >sem (subject, non-subject) / function

I.e. in terms of semantic complexity, the function of subject is more natural than other functions (Mayerthaler 1981: 14, 1987: 41).

3.2.   The assumptions of our theory concerning any two syntactic variants:

3.2.1.   >sym tends to associate with <sem

I.e. a high sym-value tends to associate with a low sem-value.

From 3.1.1.1, 3.1.2 and 3.2.1 it can be deduced:

3.2.1.1.   In English, when the choice is limited to the ordinary *s*-genitive and the postmodifying *of*-phrase, the latter tends to express non-subject function. Q.E.D.

3.2.2.   <sym tends to associate with >sem

I.e. a low sym-value tends to associate with a high sem-value.

From 3.1.1.1, 3.1.2 and 3.2.2 it can be deduced:

3.2.2.1.   In English, when the choice is limited to the ordinary *s*-genitive and the postmodifying *of*-phrase, the ordinary *s*-genitive tends to express the subject function. Q.E.D.

4.   English. The ordinary *s*-genitive tends to be short. The postmodifying *of*-phrase tends to be less short (Cf. the statement by Johansson – Oksefjell (1998: 154) that ordinary "/s/-genitives are generally less complex than postmodifying *of*-phrases").

4.1.   The assumptions of Naturalness Theory:

4.1.1.   >sym (more transparent, less transparent) / syntactic unit

I.e. with respect to encoding, a syntactic unit of greater syntactic transparency is more natural than a corresponding syntactic unit of lesser syntactic transparency (Mayerthaler 1981: 35; Mayerthaler et al. 1998: 186).

A special case of 4.1.1:

4.1.1.1.   >sym (postmodifying of-phrase, ordinary s-genitive) / in English

I.e. in terms of encoding, a postmodifying of-phrase is more natural than an ordinary s-genitive, in English.

4.1.2.   >sym (non-short, short) / syntactic unit, in terms of number of words

I.e. in terms of encoding, a non-short syntactic unit is more natural than a short syntactic unit. (My guess. See the note at the end of the deduction.)

4.2.   The assumptions of our theory concerning any two syntactic variants:

4.2.1.   >sym tends to associate with >sym

I.e. a high sym-value tends to associate with another high sym-value.

From 4.1.1.1, 4.1.2 and 4.2.1 it can be deduced:

4.2.1.1.   In English, when the comparison is limited to the ordinary s-genitive and the postmodifying of-phrase, the latter tends to be non-short. Q.E.D.

4.2.2.   <sym tends to associate with <sym

I.e. a low sym-value tends to associate with another low sym-value.

From 4.1.1.1, 4.1.2 and 4.2.2 it can be deduced:

4.2.2.1.   In English, when the comparison is limited to the ordinary s-genitive and the postmodifying of-phrase, the ordinary s-genitive tends to be short. Q.E.D.

Note on the above item 4.1.2. My guess is a generalized observation about abbreviations of relatively simple texts: surely (the longer) *son of a bitch* is more natural in terms of encoding (i.e. easier to decode) than the corresponding (shorter) abbreviation *S.O.B.* Similarly, *the river Thames* is easier to understand than just *the Thames*.

Transparency and number of words are overlapping phenomena, yet to be kept apart: *mother* and *mother's* are just one word each, yet *mother's* is more transparent (in the sense of Frege's compositionality) than *mother*.

Turning now to the s-genitive vs. common case within the of-construction, e.g., in the noun phrases *a friend of my mother's* as against *a friend of my mother* (examples from Johansson – Oksefjell 1998: 156), I concur with Jespersen (1949: 18 ff.) (quoted in Johansson – Oksefjell 1998: 156) that the preposition *of* in the type *a friend of my mother's* has a different function than in the type *a friend of my mother*; in the latter case the *of* expresses the genitival relationship, whereas in the former case the genitival relationship is expressed by the desinence -*'s*, so that the *of* is left with a simple linking function: it connects the superordinate noun phrase with the post-genitive. This much granted, the variant *my mother's* (of *a friend of my mother's*) is to be compared with the variant *of my mother* (of *a friend of my mother*) within Naturalness Theory, which means that the two variants occupy the same respective places in their naturalness scale as in 1-4.1.1.1 above. The corresponding deductions would lead to the same results as in the deductions 1-4 above:

Consider the following data in Johansson – Oksefjell (1998: 157) about the sequence *friend of* as culled from the British National Corpus. Of the 800 instances of the sequence, all cases (= 100 %) of the s-genitive contain a definite human noun phrase, assuming that in the examples containing possessive pronouns (e.g., *a friend of mine*) the latter are definite and human as well. By comparison, and as noted under the deduction 1 above, the postmodifying of-phrase tends to contain an inanimate noun.

The data of the preceding paragraph are also compatible with the above deduction 2 if it is granted that a definite noun phrase usually conveys given information. (According to Johansson – Oksefjell (1998: 156), "genitives typically present given information".) By comparison, and as noted under the deduction 2, the postmodifying of-phrase tends to express new information.

Concerning the above deduction 3, I can find no direct statement either in Quirk et al. (1985) or in Johansson – Oksefjell (1998) about the distribution of the subjective and the objective relations within the of-construction. However, Johansson – Oksefjell (1998: 162) do mention that "the genitive expresses relationships associated with the ordinary s-genitive, the of-phrase those associated with of-phrases in general". In my opinion, the examples (in Quirk et al. 1985: 1284) such as *a painting of my sister's*, whose one meaning is 'a painting done by my sister', as against *a painting of my sister*, which means 'a painting representing my sister', seem to corroborate that the s-genitive and the common case tend to express the subjective and the objective relationships, respectively, within the of-construction as well.

Concerning the above deduction 4, attention can be drawn to the statistics in Johansson – Oksefjell (1998: 158, Table 2), where the length of noun phrases following the sequence *friend of* is presented. The post-genitive is "restricted to

very short noun phrases", and it is the other way round with the common case. Thus the deduction 4 obtains even here.

5.   English. The nouns that alternate with *friend* in the sequence *friend of mine, yours, ...* often represent inalienable possession, e.g., family and social relationships (*aunt, colleague*, etc.), parts of body (*eyes*, etc.), one's own country, land, society, world, one's own business, concern, fault, etc. (Johansson – Oksefjell 1998: 160).

5.1.   The assumptions of Naturalness Theory:

5.1.1.   >sym (more transparent, less transparent) / syntactic unit

I.e. with respect to encoding, a syntactic unit of greater syntactic transparency is more natural than a corresponding syntactic unit of lesser syntactic transparency (Mayerthaler 1981: 35; Mayerthaler et al. 1998: 186).

A special case of 5.1.1:

5.1.1.1.   >sym (postmodifying *of*-phrase, *s*-genitive) / in English

I.e. in terms of encoding, a postmodifying *of*-phrase is more natural than an *s*-genitive, in English. I count possessive pronouns like *mine, yours* as *s*-genitives.

5.1.2.   >sem (inalienable, alienable) / possession

I.e. in terms of semantic complexity, inalienable possession is more natural than alienable possession (Mayerthaler 1981: 152; Mayerthaler et al. 1998: 275).

5.2.   The assumptions of our theory concerning any two syntactic variants:

5.2.1.   <sym tends to associate with >sem

I.e. a low sym-value tends to associate with a high sem-value.

From 5.1.1.1, 5.1.2 and 5.2.1 it can be deduced:

5.2.1.1.   In English, when the choice is limited to the post-genitive (possessive pronoun) and the postmodifying *of*-phrase, the post-genitive (possessive pronoun) tends to associate with superordinate noun phrases that express inalienable possession. Q.E.D.

Conclusion

Our theory can explain, in synchronic terms,

(1)   why the *s*-genitive tends to contain a personal noun, whereas the postmodifying *of*-phrase tends to contain an inanimate noun;

(2)   why the *s*-genitive tends to express given information, whereas the postmodifying *of*-phrase tends to express new information;

(3)   why the *s*-genitive tends to express the subjective relation, whereas the postmodifying *of*-phrase tends to express the objective relation;

(4)   why the *s*-genitive tends to be short, whereas the postmodifying *of*-phrase tends to be less short;

(5)   why the post-genitive often associates with superordinate noun phrases that represent inalienable possession;

(6)   why there are parallels in the syntactic behaviour, on the one hand, of the ordinary *s*-genitive as compared with the postmodifying *of*-phrase, and on the other hand, of the post-genitive as compared with the postmodifying *of*-phrase.

To the best of my knowledge, other language theories cannot account for the above facts.

In each of the above cases, the explanation is rendered possible by a constellation of naturalness scales and the assumptions of our theory. Both the naturalness scales and the assumptions of our theory are presumed to reflect the organization of the language faculty in the human brain.

Recall once again that our theory explains only *ex post facto*.

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