New Notation for Optional Minors

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17th June 2008

Currently the grammar notation uses bracketed "m"s to denote optional minors. This includes cases like:

$$3b. \quad X^7 := I_X^7 / IV_X(m)^7$$

which simply contain a chord that may be major or minor, and cases like:

$$1. \quad X(m) := I_X(m)$$

where the minor(s) on the right-hand side depend on that on the left. In both cases, the notation is merely a shorthand for categories which could be expressed without any such notation:

$$3bM. \quad X^7 := I_X^7 / IV_X^7$$

$$3bm. \quad X^7 := I_X^7 / IV_X m^7$$

and:

$$1M. \quad X := I_X$$

$$1m. \quad Xm := I_X m$$

It would be useful to be able to use a slightly richer shorthand to compress some groups of rules still further. For example,

$$4a. \quad X^7 := I_X^7 / VII_X(m)^7$$

$$4b. \quad Xm^7 := I_X m^7 / VII_X(m)^7$$

could be expressed as a single category if it were not for the fact that we have already used up our one opportunity for an optional minor and any other would have to be tied to this.

We may use a system of subscript indices to group codependent optional minors together. Thus 4a and b could be written:

$$4ab. \quad X(m)_0^7 := I_X(m)_0^7 / VII_X(m)_1^7$$

The chord with a $(m)_0$ is bound to be minor if and only if the word-chord on the left is minor, whilst the $(m)_1$ chord may be major or minor independently.

I will use this subscript notation for writing the lexicon whenever possible, such as in Latex, and the following style of notation when writing in plain text:

```
4ab.   X(m-0)7 := Ix(m-0)7 / VIIx(m-1)7
```

The class of minors indexed 0 shall be reserved by convention for optional minors bound to the left-hand side (that is, to the minorness of the word).

Where no subscript is used, the index 0 is implied and the unindexed minors are therefore implicitly bound. This means that most of the grammars lexical categories may be written exactly as they have been previously.

Henceforth, all documentation of the grammars will use this notation. The system is also now incorporated into the XML schema for lexicon files. Any atomic category within a lexical entry may include an optional minor as before; in such a case, it may also specify the attribute `minor_class`, which gives the index of the optional minor class to which the chord belongs. As explained above, this defaults in the implementation to 0.