AILO 2017 Training sample set #3

(A) Ye olde Englishe probleme

Note: The letter þ is pronounced like 'th'.[1]

A1. Translate the following into Modern English. Be sure to distinguish 'both' and 'all' if appropriate.

    (a) *se cyning eow lufode*   the king loved you all
    (b) *ge lufodon þæt mægden*   you all loved the girl
    (c) *wit inc lufodon*   we both loved you both

A2. Translate the following into Old English.

    (a) the king loved us all   *se cyning us lufode*
    (b) we all loved the prince   *we lufodon þone æþeling*
    (c) we both loved the child   *þæt cild wit lufodon*
    (d) the child loved you both   *þæt cild inc lufode*

A3. In Old English there are three different ways to say 'You loved the boy' (A-C) and another three ways to say 'The boy loved you' (D-F). Indicate for each sentence how many people (1, 2, many) are being addressed.

    A. *þone cniht ge lufodon*   many
    B. *þone cniht þu lufodest*   1
    C. *þone cniht git lufodon*   2
    D. *se cniht inc lufode*   2
    E. *se cniht þe lufode*   1
    F. *se cniht eow lufode*   many

Comments
Old English shows several features that are different from Modern English.
1. Nouns fall into two groups (genders) as distinguished by the words for 'the'. One group has *þæt* (*mægden*, *cild*), the other has *se* when it is the subject of the sentence, *þone* when it is the object (*cyning*, *æþeling*, *cniht*).
2. The number system for pronouns 'we' and 'you' distinguishes dual, for two people (shown here as 'both') and plural for more than two.
3. The pronouns as well as the word for 'the' also differ when they are subject or object. The full picture is as follows:

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[1] This is the source of the, actually fake, Old-Englishism in the title. The 'Ye' in affectations like Ye Olde Tea Shoppe is actually just a misreading of 'the' in its old spelling, Þe, and should be pronounced 'the' (but unvoiced, like in 'think'). The letter, called 'thorn', is stilled used in Icelandic. The voiced equivalent ('th' as in modern 'the', 'this' etc.) is written ð or đ but does not appear in this puzzle.

	subject	object
we both (dual)	*wit*	*unc*
we all (plural)	*we*	*us*
you (singular)	*þu*	*þe*
you both (dual)	*git*	*inc*
you all (plural)	*ge*	*eow*
the (common gender)	*se*	*þone*
the (neuter gender)	*þæt*	*þæt*

4. The verb agrees with the subject, *lufodon* in the plural, *lufode* in the singular and 'dual'. Example 3B shows a third form, with the 2nd person singular *lufodest*.
5. Regarding word order, the verb always comes last, and nouns always precede pronouns, irrespective of subject and object. It is typical of languages which distinguish subject and object explicitly that word order can be more flexible. When both subject and object are pronouns, subject precedes object.

If you know German, you will notice the similarity between *þæt* and *das*, the neuter gender marker for 'the' in both subject and object, for *mægden* (*Mädchen*) and *cild* (*Kind*), while the word *þæt* now has a slightly different meaning in modern English ('that'). The object form of the word 'the' persists in some English dialects: 'Look at yon hill'. You can also recognize 'thou' and 'thee' in *þu* and *þe*, and modern 'you' in *ge* and *eow*. *Cyning* is now 'king', and of course *cniht* 'boy' came to be 'knight'. So Old English isn't all that different is it? Mind you, if you were a time traveller I still think you might have some difficulty communicating.

(B) Visible speech

B1.

(a) ꓷꟷꓷꓵ   peaks

(b) ꓴꟷꓵ   boot

(c) ꓵꟷꓷ   tap

(d) ꓷꓒꓱꓵ   cogs

B2.

(a) ꓱꟷꓷ   back

(b) ꓷꟷꓵ   peace / piece

(c) ꓵꓒꓱ   dog

B3.

(a)   *keep*   ɑʃɒ

(b)   *tease*   ɒʃɰ.

(c)   *spook*   ʊɒ1ɑ.

Comments

The first thing to notice is that the symbols correspond to sounds rather than letters. Then this is a typical deciphering problem where you need to look for repeated symbols and match them up to repeated sounds in the words, for example the symbol that starts (a) and ends (c): in the words given only 'boot' and 'tap' follow this pattern, so that symbol must be 't'. The differing length (three or four symbols) is also a clue.

Part 2 is just a matter of assigning sounds to symbols, apart from the previously unseen symbol at the start of (c). But you should notice that the consonant symbols form pairs, with and without a dash. These, it turns out, correspond to p-b, k-g and (as long as you notice that the final 's' of 'cogs' is actually pronounced as a 'z') s-z. These pairs of sounds are related in that they are the 'same' sound, with or without what is called 'voicing' (see http://en.wikipedia.org/wiki/Voice_(phonetics) for an explanation). The voiced equivalent of 't' is 'd', giving 'dog' as the answer to (c). Notice that (b) has an 's', not a 'z' at the end, so the answer is 'peace' or 'piece', which are of course pronounced the same, not 'peas'. Finally in part 3 you had to write some of the symbols. Again this is straightforward, as long as you realised the system is phonetic, so a 'z' rather than an 's' is needed for 'tease'.

(C) Say it in Abma

C1. Translate the following sentences into Abma.

     (a) The teacher carries the water down.   *Seserakan mweselkani sileng mwisib.*
     (b) The child keeps eating.   *Nutsu mwalbo mwegani.*
     (c) Mabontare eats taro.   *Mabontare mwegami bwet.*
     (d) The child crawls here.   *Nutsu mwegalgal mwamba.*
     (e) The teacher walks downhill.   *Sesesrakan mahural mwisib.*
     (f) The palm-tree keeps growing upwards. *Butsukul mwatbo mwegau mwesak.*
     (g) He goes up.   *Mwesak.*

C2. Translate these Abma sentences into English:

     (a) *Sesesrakan mweselkani bwet mwabma.* The teacher carries the taro here.
     (b) *Sileng mworob mwisib.*   The water runs down.
     (c) *Mwelebte bwet mwesak.*   He brings the taro up.

This is a fairly straightforward word substitution exercise, as the word order is the same as English. The only 'trick' is to note that the adverbs meaning 'up' and 'down' also function as verbs 'go up', 'go down' as necessary.

(D) Grammar rules OK

D1. Mark each sentence with a tick or a cross to indicate whether they are well-formed (✓) or not (✖).

a.	John sees the dog and Mary sees the dog.	✓
b.	The dog sees John and Mary.	✓
c.	The dog sees a squirrel.	✖ 'a' not in the vocab
d.	The squirrel sits in the tree.	✓
e.	That squirrel sees the dog.	✖ no rule D → that
f.	The squirrel is seen by the dog.	✖ no 'is' or 'seen', passive not covered
g.	The dog runs.	✓
h.	The squirrel in the tree runs.	✖ no PP before V
i.	The dog chases the squirrel and eats the squirrel.	✓
j.	The dog eats.	✖ TV must be followed by NP
k.	John sees that the dog eats the squirrel.	✓
l.	John tells Mary that the dog eats the squirrel.	✓
m.	The dog sees that John sees that he eats the squirrel.	✓
n.	And the dog runs away.	✖ can't start with 'and'
o.	Mary and John chase the dog.	✖ 'chase' not in vocab
p.	John chases and catches the dog.	✖ 'chases' is TV so must be followed immediately by an NP
q.	John eats dog.	✓

The comments accompanying sentences marked ✖ are not required in the answer, but given here as explanation.

D2. Give <u>three</u> more examples of sentences that can be generated by this CFG but are not correct English sentences.

The list of possible answers is potentially infinite, and credit is given for three different examples. The following are sources of possible answers:
There is no distinction between proper and common nouns, so anything with 'the John' or 'the Mary' would be an example.
Rule 4 allows conjoined NPs (e.g. 'John and Mary') but does not cover plural verbs (as in sentence (o)) – however this is in effect the example given 'The dog and the squirrel sits' so it is not a clever answer.
The NP 'he' can be generated in object position, e.g. 'John sees he', or after a P 'away he'.
Rule 10 allows any TV to be followed by a 'that' clause, e.g. 'John chases that …'.

As well as ungrammatical sentences, the grammar can generate incongruous sentences such as 'Mary runs in dog', 'John tells the tree', 'The dog sits away' and many more.

D3. Which is the redundant rule?
Rule 8 is covered by a combination of rules 5 and 7.

Comments

The PSG is a very powerful tool for describing language. Of course the one given here is oversimplified, lacking as it does many constructions that are allowed in English, and also not covering some of the restrictions, such as subject-verb agreement. But one thing worth noticing is that a number of rules in this grammar are what is called 'recursive rules', in that they call themselves: rule 4 (NP) is an example. So you can have 'Mary and John and the squirrel and the dog and the dog and Mary and …' ad infinitum. Can you spot any other such rules and give examples of what they generate? Another type of recursive rule is one that calls another rule that calls it, in a kind of loop. Rule 10 allows you to start a new sentence after the conjunction 'that', so for example you can have 'John sees that Mary tells that the squirrel sees that …'.

PSGs are usually designed not just to cover the data but also provide a kind of insight, and enable generalisations. The symbols used are not arbitrary: here NP means noun phrase, VP verb phrase, TV transitive verb, IV intransitive verb, PP prepositional phrase. For example, by distinguishing IV and TV, rules 7 and 9 allow you to specify whether a verb requires a direct object. Rule 15, which is called a 'terminal rule' because it specifies vocabulary and cannot be further expanded, says that 'eats' is a TV. Of course we know that it can also be an IV, as in 'The dog eats': we could easily add another rule allowing this. What would it look like? Similarly, we know that 'that' can be a determiner, like 'the': to cover sentence (e) above, just add another rule.