Grammatical features of aphasia in Swedish

Ann-Christin Månsson and Elisabeth Ahlsén

Department of Linguistics, Göteborg University

Abstract—Grammatical features in four Swedish aphasic patients with agrammatism were analyzed in conversations and elicited narratives. The most salient features of agrammatism in Swedish are problems with the V + S (i.e., reversed) word order, which is sometimes obligatory; omissions and substitutions affecting auxiliaries and "to have" and "to be", subjects, prepositions and pronouns; and substitutions affecting main verbs. These features were found in all four subjects. Non-use of the obligatory reversed word order (Adv + V + S replaced by Adv + S + V), omission of main verbs, changing inflected forms to root morphemes, omission of the object, and omission and substitution of the indefinite article were also salient features in the production of some of the agrammatic subjects.

Keywords: Aphasia, Agrammatism, Swedish, Omission, Substitution

1. Summary of Relevant Features of Swedish Grammar

Swedish is a Germanic language with a basic SVO word order for main and subordinate clauses. There is a verb-second constraint in main clauses, i.e., a clause starting with an adverbial expression requires VS order. Subjects must be expressed. Adjectives precede the noun. Prepositions are used. Negation is placed after the main verb (or first auxiliary).

Verb morphology: The verb stem + *r* makes up the present indicative active, while the verb stem + *a* (or the verb stem alone) forms the infinitive. The verb is not marked for person or number. There are two kinds of verbs: weak (regular) verbs form past tense by combining the stem with past tense suffixes (*-de*, *-te* or *-dde*). Strong (irregular) verbs form past tense by changing the stem vowel.

The compound tenses are perfect tense, formed by *ha* (have) + participle; pure future tense, formed by *kommer att* (come to) + infinitive; future of intention or determination, formed by *skall* (shall) + infinitive; and personal passive, formed by *bli* (become) + participle. Other auxiliaries, mainly the modals *vill* (want to), *kan* (can, be able), and *måste* (must), are followed by the infinitive of the main verb.

Noun morphology: Swedish has two genders: common (utrum) and neutral (neutrum), which are marked only in the singular. They are grammatically (rather than naturally or semantically) defined, and must be learned and memorized for each noun. The plural is

formed by the stem + *-r, -or, -ar, -er, -r, -n,* a stem change, or no marking. The genitive suffix is *-s*; on plurals it is added after the plural marker.

Adjective morphology: Adjectives are inflected for gender and number to agree with the noun. The suffixes are *-a* for definite and for plural, and *–t* for neuter singular.

Articles: In Swedish, a noun is usually accompanied by an article. The indefinite article *en* (a)/*ett* (an) is a free morpheme and the definite article *-en/-et* is a bound suffix. The articles have different forms depending on the grammatical gender of the noun. If the indefinite article is *ett*, the definite article has a form with *-et* or *-t* (utrum), instead of a form with *-en* or *-n* (neutrum). Example (1) shows the use of the indefinite article and example (2) of the definite article.

(1)   Target: Jag köper ett äpple och en banan
       Gloss: I (pro) buy (V pres) an apple (indef art N) and (conj) a banana (indef art N)
       Target English equivalent: I buy an apple and a banana

(2)   Target: Jag äter äpplet men inte bananen
       Gloss: I (pro) eat (V pres) apple-the (N def art) but (conj) not (neg) banana-the (N def art)
       Target English equivalent: I eat the apple but not the banana

Possessive adjectives: These forms are used for the possessive of the first and second persons and reflexive pronouns. Their endings agree with gender of the object possessed.

Pronouns: Masculine pronouns (forms of *han* (he)) and feminine pronouns (forms of *hon* (she)) are used for natural gender human nouns. *Den* is used for common-gender non-human nouns, and *det* for neuter-gender human nouns (see "Noun morphology" above). The plural pronoun is *de* (they).

2. Earlier Descriptions of Grammar in Swedish Aphasics

2.1 The Cross Language Aphasia Study
The first study of agrammatism in Swedish was provided by Ahlsén and Dravins (1990) as part of the Cross Language Aphasia Study (CLAS) (Menn & Obler, 1990). The Swedish findings were in accordance with the main general cross-linguistic findings. Agrammatic speech was found to be characterized by short phrase length and slow speech rate. Free grammatical morphemes were sometimes omitted and occasionally substituted. Bound grammatical morphemes were occasionally omitted and infinitive verb forms were used. Bound grammatical morphemes were more likely to be substituted than omitted. Certain free grammatical morphemes, e.g., conjunctions and adverbs, were used heavily. Lexical and syntactic factors interacted, e.g., main verbs differed from copulas, etc. More than 10% of main verbs were omitted. The subjects relied heavily on the simplest structures of the language (VO and SV).