

Output Processing Procedures



- Developed by Manfred Pienemann, Univ. of Paderborn (Germany)



- Presented in *From Input to Output* by Bill VanPatten

Output Processing Procedures

- Pienemann's model.
- Processing procedures emerge over time.
- They emerge in a **hierarchical order**. The acquisition of one procedure implies procedures before it, but not the other way around.
- Stages of acquisition **cannot be skipped**. Teaching does not affect the stages.

Output Processing Procedures

- Factors involved are the **nature of the rule** (does grammatical information have to be exchanged between elements?) and **constraints on working memory**.
- Lemma access.
- Category procedure.
- Phrasal procedure.
- Simple-S procedure.
- S-procedure.
- Subordinate clause procedure.

Lemma Procedure

- production of lexical items or unanalyzed chunks of language. For example, when beginning level learners produce utterances with inflections such as *me gusta*, *me llamo*, *¿cómo estás?* they do so because they have learned them as chunks, not because they understand agreement. At this stage learners also string together words in canonical SVO order (e.g., *Mi padre tener 50 años*). No exchange of grammatical information.

Category Procedure

- use of inflections on lexical items. In this stage, learners place inflections on words that do not involve agreement with another word. For example, adding plural –s to nouns but not pluralizing other elements of the noun phrase (e.g., *mucho cervezas*). No exchange of grammatical information.

Phrasal Procedure

- use of inflections within a phrase. For example, learners now would produce utterances such as *muchas cervezas*, *la casa blanca*, and so forth. Exchange of grammatical information in a phrase.

Simplified S-Procedure

- variation of canonical word order. At this stage, learners begin to vary word order to put important information, such as adverbs, at the front of the sentence (e.g., *Mañana tengo un examen.*)

S-Procedure

- exchange of information between noun and verb phrases. This stage accounts for subject-verb agreement (i.e., agreement across a NP and VP) as in *Mis padres tienen una casa en las montañas*, as well as noun-adjective agreement that crosses phrasal boundaries such as *Mi coche es el rojo*.

Subordinate Clause Procedure

- exchange of information across clause boundaries. For example, with the subjunctive, information from a main clause must be carried over to a subordinate clause as in *Esperamos que se mejore pronto*. In addition to the subjunctive, this stage also accounts for subject-verb agreement across clauses such as *María es la persona que mejor me conoce*.

Processing procedures hierarchy

- Lemma access.
- Category procedure.
- Phrasal procedure.
- Simple-S procedure.
- S-procedure.
- Subordinate clause procedure.