

The influence of contextual features on the choice of the German focus particle *auch* – A case of syntactic priming

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Analyses of additive particles like English *too*, *also* or German *auch* (Dimroth 2004, Krifka 1999, Reis & Rosengren 1997, Sæbø 2004) assume that these particles establish an additive relation between their associated constituent (AC) and contextual alternatives. Thus, there is a close relation between the sentence holding the particle (2) and the context (1). At the same time, a context is necessary to define the particles AC: According to the context in 1a), the AC of *auch* is [Maria] (2a), while according to the context in 1b), the AC is [Äpfel] (2b).

In German, there are two versions of the particle: Stressed *AUCH*, usually following its AC, and unstressed *auch*, usually preceding it. There is a preference regarding the choice of the two version depending on the syntactic function of the AC (Höhle et al. 2009). In 2a), the AC is the subject and *AUCH* is stressed (indicated by capital letters). In 2b), the AC is the object and *auch* is unstressed. Furthermore, there is an information structural difference in that the AC of *auch* is the focus and the AC of *AUCH* belongs to the topic of the utterance (Dimroth 2004, Krifka 1999, Sæbø 2004). However, in many cases, both versions can be used interchangeably (3). It is an open question why speakers chose one version over the other.

In three unsupervised web-based puzzle experiments, we examined the influence of contextual features on the choice of *auch/AUCH* (20 German participants/ 20 experimental, 20 filler sentences per experiment; participants were German native speakers and they participated only once). In Experiment 1 and 2, the AC was the subject. We manipulated the information structural status of the alternative *Peter* (focus in Exp. 1, due to the insertion of the focus particle *nur* 'only' [4]; topic in Exp. 2 [5]). After silently reading the context (utterance speaker A), participants had to drag and drop the given words (presented in boxes in randomized order) in order to assemble the target sentence (utterance speaker B, [6]). The position of the particle informed us whether *auch* was intended to be stressed or unstressed. The results of Experiment 1 and 2 show a general preference for *AUCH* (77%), indicating that speakers preferably chose *AUCH* when the AC is the subject. However, there was a significant difference between Experiment 1 (alternative=focus) and Experiment 2 (alternative=topic) ($X^2=4.1$, $df=1$, $p<0.05$): The preference for *AUCH* is less strong when the alternative is the focus (73%) than when it is the topic of the utterance (82%), indicating that contextual features have an influence (see Figure 1). There are two possible explanations for this contextual influence: First, since we inserted the focus particle *nur* in 4), the structure [*nur* + NP] is similar to the structure [*auch* + NP] (=syntactic priming). Second, *nur* is a natural alternative to *auch*, while NEGATION is a natural alternative to *AUCH*. By activating its alternative, *nur* lead to more uses of *auch*.

In Experiment 3, we asked whether the influence of the context on the choice of the particle is due to structural priming or to the activation of alternatives. To that end, we used sentences of three conditions: Sentences of condition 1 (7) held the focus particle *nur* (structure: *nur* + NP; alternative: *auch*). Sentences of condition 2 (8) held the negation *keine* (structure: *keine* + NP; alternative: *AUCH*). Finally, sentences of condition 3 (9) held the negation *nicht* (structure: NP + *nicht*; alternative: *AUCH*). In contrast to Experiments 1 and 2, the AC was the object. Thus, we expected to find a general preference for *auch*. This preference should be strong in condition 1, with *nur* having the same structure as *auch* and being the alternative to *auch*. However, in condition 3, where the negation *nicht* shares its structure with *AUCH* and is the alternative to *AUCH*, the preference for *auch* should be less strong. In condition 2, on the other hand, predictions are less clear, since the negation *kein* shares its structure with *auch*, but is the alternative to *AUCH*. The results of Experiment 3 show a clear preference for *auch* (81%), due to the AC being the object. Crucially, while in condition 1 and 2 (*nur*, *kein*) *AUCH* was only chosen in 14% and 15% of the cases, in condition 3 (*nicht*) it was with 27% chosen significantly more often ($X^2=8.51$, $df=2$, $p=0.01$, see Figure 2). That *nur* and *kein* show a similar pattern indicates that the shared structure, not the alternative, has an influence on the choice of the two versions of the particle *auch*. The results therefore speak in favor of structural priming as the underlying mechanism.

References: Dimroth, Stauffenberg, 2004 ♦ Höhle et al., Language Acquisition, 2009 ♦ Krifka, SALT 8, 1999 ♦ Reis & Rosengren, J of Semantics, 1997 ♦ Sæbø, J of Semantics, 2004.

Examples:

1. a) [Peter] isst Äpfel. 'Peter is eating apples.'
 b) Maria isst [Birnen]. 'Maria is eating pears.'
2. a) [Maria] isst **AUCH** Äpfel. 'Maria is eating apples, too.'
 b) Maria isst **auch** [Äpfel]. 'Maria is also eating apples.'
3. [Peter] isst Äpfel. **Auch** [MaRIA] isst Äpfel.
 'Peter is eating apples. Maria is eating apples, too.'
4. A: Peter und Maria hatten Appetit auf Obst. Ich wette, nur Peter hat Äpfel gegessen.
 'A: Peter and Maria wanted to eat fruits. I bet that only Peter ate apples.'
5. A: Peter und Maria hatten Appetit auf Obst. Ich wette, Peter hat Äpfel gegessen.
 'A: Peter and Maria wanted to eat fruits. I bet that Peter ate apples.'
6. B: Ich glaube, dass maria auch äpfel gegessen hat
 I bet that maria also apples eaten has
7. A: Peter hat Obst gegessen. 'A: Peter ate fruits.'
 B: Ich wette, Peter hat **nur** die Äpfel gegessen.
 'B: I bet that Peter only ate the apples.'
 A: Ich glaube, dass peter auch die Birnen gegessen hat
 'A: I bet that Peter also ate the pears.'
8. A: Peter hat Äpfel gegessen. 'A: Peter ate apples.'
 B: Ich wette, Peter hat **keine** Birnen gegessen.
 'B: I bet that Peter did not eat any pears.'
9. A: Peter hat die Äpfel gegessen. 'A: Peter ate the apples.'
 B: Ich wette, Peter hat die Birnen **nicht** gegessen.
 'B: I bet that Peter did not eat the pears.'

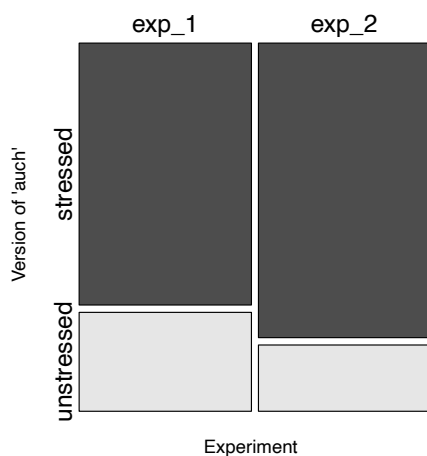


Figure 1. Results of Experiment 1 and 2

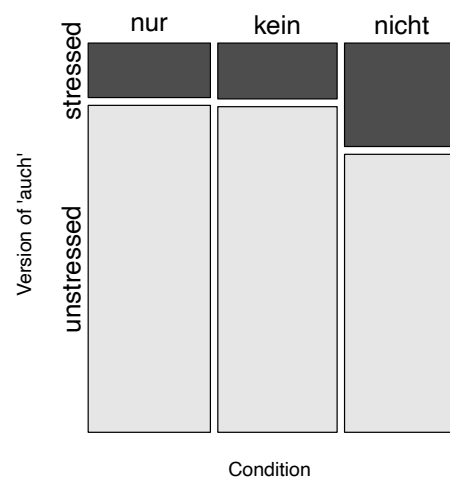


Figure 2. Results of Experiment 3