# snippets

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### Stressed non-Boolean und *(and) in German*

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**Background.** A long-standing issue in semantics is whether English *and* and its correlates in other languages (here AND) have both a Boolean and a non-Boolean meaning and whether one of the two meanings should be reduced to the other (cf. Krifka 1990, Winter 2001, a.o.). We challenge one empirical argument for the claim that the Boolean meaning is the basic one, brought forth by Szabolcsi and Haddican (2004). They argue that in languages like English and German a focus accent on AND is incompatible with non-Boolean (i.e. collective or cumulative) interpretations and thus reveals the Boolean meaning. This claim is based on the observation that the English equivalent of (1) is unacceptable. (As is the German sentence in (1).)

(1) #Jan  UND Kai haben sich getroffen.
    Jan AND Kai  have  REFL met
  '#Jan AND Kai met.'

**Data.** Closer inspection of data with stressed AND shows this empirical claim to be incorrect, at least for German. (2), which differs from (1) in that it involves three conjuncts and the predicate and the individual conjuncts are salient in the context, is acceptable.

(2) Susi hatte befürchtet, dass sich ihre dummen Cousins Kai und Ron in ihrer Stamm-kneipe treffen würden. Außerdem hatte sie den ganzen Tag versucht, den schrecklichen Jan zu vermeiden, der mit ihr ins Kino gehen wollte. Und was ist passiert? **Kai, Ron UND Jan haben sich in der Kneipe getroffen** – und Susi musste mit allen reden.
'Susi had been worried that her stupid cousins Kai and Ron would meet in her local bar. And the whole day she tried to avoid terrible Jan, who wanted to go to the movies with her. Guess what happened: **Kai, Ron AND Jan met in the bar** – and Susi had to talk to all of them.'

Even with two conjuncts, focus on non-Boolean *und* is sometimes possible. (3) has a cumulative construal, as the acceptability of *gemeinsam* ('together, between them') shows. Szabolcsi and Haddican (2004) reject an English example similar to (3) (their (21a)), but do not provide a context.

(3) A: Ich habe gehört, der Jan oder der Kai hat gestern bei der Tombola 10 Preise
    gewonnen.
    'I heard that Jan or Kai won 10 prizes at the tombola yesterday.'
  B: Nein, Jan UND Kai haben (GEMEINSAM) 10 Preise gewonnen.
    'No, Jan AND Kai won 10 prizes (BETWEEN THEM).'

**Discussion**. (2)-(3) show that stress on AND is compatible with a non-Boolean construal. But why is (1) not acceptable, while (2) is? It seems that standard focus theories, such as Rooth (1992), are in principle suited to explain the contrast even if AND is non-Boolean. We assume, following Sauerland (2004), that the individual conjuncts (and possibly the corresponding disjunction) count as focus alternatives of a non-Boolean conjunction. In addition, examples like (2) suggest that subpluralities formed from the denotations of the conjuncts also count as focus alternatives. If so, none of the alternatives for [[Jan und Kai]] in (1) – [[Jan]], [[Kai]], [[Jan oder Kai]] – can serve as an argument of collective *meet*, so no alternatives at sentence level can be obtained. If free focus requires at least one sentence-level alternative to be salient, (1) is predicted to be bad. [[Kai, Ron und Jan]] in (2), on the other hand, would have 'non-trivial' pluralities such as [[Kai und Jan]] among its alternatives, which are compatible with collective predicates.

This explanation raises two questions. First, assuming the alternative set from Sauerland (2004), it is unclear why the focus pattern in (2)-(3) seems to require *all* of the conjuncts to be salient. However, the same problem arises with focus on Boolean AND. Therefore, it is not tied to AND being non-Boolean. Second, if the non-Boolean meaning of AND is lexicalised, one might expect it to contrast with OR for the purposes of another alternative-sensitive semantic phenomenon, namely scalar implicatures (even though the contrast with OR is not needed to account for examples (1)–(3)). Examples like (4) show that this prediction is problematic.

(4) Die Susi oder die Anni hat gestern mindestens zwei Liter Wein getrunken. Ich weiß nicht mehr, wer.
   'Yesterday, Susi or Anni drank at least two liters of wine. I don't remember who.'

   a. → It is not the case that **Susi and Anni each drank at least two liters of wine**.
   b. ↛ It is not the case that **Susi and Anni drank at least two liters of wine between them**.

The disjunction in (4) seems to implicate (4a), the negation of a sentence with Boolean AND, rather than (4b), the negation of a sentence with non-Boolean AND. It is unclear how the implicature (4a) could be derived under a non-Boolean theory of AND.

**References**
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