Experimental investigations into exhaustivity of embedded questions

For a semantic theory of questions, it is essential to know their answerhood conditions. To this end, we investigate the truth conditions of sentences with embedded questions. For a sentence like (1), three exhaustive readings are discussed in the literature.

(1) Kim knows who danced at the party.

Under the weak exhaustive reading (WE), for (1) to be true, Kim has to know the full list of dancers. Under the intermediate exhaustive reading (IE), she additionally must not have false beliefs regarding any non-dancers, and under the strong exhaustive reading (SE), it is required that Kim also knows that her answer is complete. Different predictions have been made about the availability of these readings for different verbs of embedding.

In my talk, I will present two experiments that investigate the exhaustivity of questions embedded under different predicates in German. Experiment 1 compared the availability of IE readings of questions embedded under wissen (‘know’) and erzählen (‘tell’). Participants had to judge whether target sentences like (2) were contradictory or not. (If a participant judges [2] as contradictory, s/he rejects the IE reading.)

(2) Jan knows who of the flatmates ate pasta, but he does not know that Beth and Chloe didn’t.

Experiment 2 investigated wissen, (‘know’), korrekt vorhersagen (‘correctly predict’), sich einig sein (to agree) and überrascht sein (‘be surprised’). It was an interactive lab-experiment in which target sentences were the objects of bets whose outcome participants had to evaluate.

Concerning the general availability of the different reading, we replicated the findings of previous experiments (e.g. Cremers & Chemla 2016, Cremers & Chemla 2017) for the verbs korrekt vorhersagen, sich einig sein and überrascht sein. However IE readings for wissen received considerably less acceptance than in previous studies. We conclude that IE readings are available but that they are far from constituting the optimal interpretation for questions embedded under wissen. Strikingly, questions embedded under überrascht sein proved to be very liberal in their truth conditions.