

#### 4.1 Geurts and Pouscoulous (2009)

Geurts and Pouscoulous (2009) conducted a picture-verification task to find out whether local readings of as- and es-sentences are available.<sup>6</sup> The critical conditions of their study presented subjects with pictures like those in Figure 1c and 2c where the local reading gets a different truth-value from the literal and the global reading. In particular, for as-sentences the local reading is false for the critical picture in Figure 1c whereas the literal and global readings are true; for es-sentences the local reading is true for the critical picture in Figure 2c, whereas the literal and global readings are false.

The results of Geurts and Pouscoulous were strikingly unambiguous: there were no responses indicative of a local read at all! In other words, all of the subjects judged as- sentences true in a situation like in Figure 1c and all of the subjects judged es-sentences false in situations like 2c.

These results were criticized on theoretical grounds (e.g. Sauerland, 2010, but see Ippolito, 2010, for supporting evidence), as well as due to empirical observations (Clifton and Dube, 2010; Chemla and Spector, 2011). In the following, we will review the empirical studies in some detail, as they constitute an important background for our own experiment. We will first consider a comment by Clifton and Dube (2010), which explicitly distinguishes between the availability of a reading and its preference.

#### Clifton and Dube (2010)

In a reply to Geurts and Pouscoulous's study, Clifton and Dube raised the question whether the use of a picture-verification paradigm might have been infelicitous for testing the availability of strong readings, at least in the case of AS-sentences. Asking whether a sentence fits a picture might have created a bias for accepting sentences also on a weaker and probably dispreferred reading. Clifton and Dube's study was therefore aimed at finding out about a potential preference relation between local and literal readings. To this end, Clifton and Dube developed a picture-choice task where subjects were presented with an AS-sentence and a pair of pictures, hence introducing the option to choose between different alternatives. Subjects were asked to "indicate which shape is best described by the sentence" and could choose either picture, or options 'both' and 'neither.' There were two versions of this experiment, differing in which kind of picture pairs were presented on critical trials. In version 1, the picture pair consisted of the weak and strong situations in Figures 1c and 1d. The response percentages observed by Clifton and Dube were:

weak	strong	both	neither
3	39	57	1

That the majority answer is "both" could be taken as evidence that the literal reading is the preferred one. But the almost 40% of choices for the strong situation, so Clifton and Dube argue, might be indicative of the availability of

the local reading. In version 2 of Clifton and Dube's experiment, the picture pair consisted of the literal and weak situations in Figures 1b and 1c. In this case, response percentages were:

weak	literal	both	neither
28	6	50	17

Again, the majority response "both" might speak in favour of a preference for the literal reading, but, as Clifton and Dube argue, the 17% of "neither" answers in this case again suggest that the local reading is available. Taken together, Clifton and Dube take these results to contradict Geurts and Pouscoulous's findings. Local readings are, after all, attested if subjects are given a choice as to which situation they consider most fitting for an as-sentence.

Taken together, the results by Clifton and Dube demonstrate that participants' choices for AS-readings might be strongly affected by the specific experimental paradigm used. If task demands are only felicitous for a literal reading, the *absence* of choices of local readings cannot be accounted for by assuming an inavailability of these readings *per se*. However, at present it is less clear whether these results can also be generalized to further situations. For instance, subjects rejected the ES-sentences in Geurts and Pouscoulous' original study, despite the fact that they could have accepted it based on the local reading. It is thus necessary to test both universal and non-monotonic quantifiers within the same experiment using a task that offers alternatives. Moreover, by focusing in (on what exactly?), the present results are not informative with respect to the availability and the relative preference of global readings. Given that the pictures... please write one or two sentences.