Over the last few decades, scalar implicatures have become one of the intensely discussed issues in semantics and pragmatics. One of the major debates, especially in the psycholinguistic literature, has been concerned with the question of how scalar implicatures are generated. Regarding this issue two accounts are usually contrasted—the default theory and the context-driven account. Other controversies involve the embeddability of scalar implicatures and their truth-conditional. I review and discuss the most important psycholinguistic findings that proved to be relevant for these debates, paying special attention to ERP studies. Referring to the results of two recent ERPs experiments that use a sentence-picture verification paradigm, I compare two important cases of the scalar phenomena: the strengthening of the meaning of “some” and of bare numerals. Based on empirical data, I argue that the polar default vs. context-based debate does not capture the complexity of the scalar implicature phenomenon. I propose that any plausible theory of scalar implicatures should marry two features: a contextual sensitivity of scalar implicatures and a possibility of their incremental integration into the compositional semantics.