

Frege's new language

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Many philosophers have complained about the inadequacies of natural languages. None more so than Frege — who found German so inadequate for his own peculiar purposes that he invented a new language. How did his new language trump German?

Unlike German, the new language contained no ambiguities. So what? Well, ambiguities can mislead — but if you're misled, it's your own fault, not the fault of the language.

Again, German disguises the logical structure of the thoughts which it expresses: grammatical structure and logical structure do not always coincide; and as a result you can't felicitously formulate patterns of inference by means of German matrixes or schemata. But you can always use metalogical descriptions rather than matrixes, and then German sails home.

Again, you can express invalid inferences in German: the syntax of Frege's language ensures that any well-formed inference is valid. But you may still misinfer. True, your error will be syntactical rather than logical: so what?

There is still the ace of trumps. Frege needed to express some exceedingly complicated thoughts — notably, thoughts which involved multiple quantifications and thought which involved embedded conditionals. Some of those thoughts cannot be expressed in German, which — like other natural languages — has an upper bound of complexity. (No German sentence begins with five occurrences of the word 'wenn'.) Frege's language has no upper bound.

So the new language has a signal advantage over German — an advantage which mattered to Frege (and to virtually no-one else).