

## FREGE, SENSE AND LIMITED RATIONALITY

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In this paper, I will discuss a well-known oscillation in Frege's conception of sense. My point is only partially concerned with his two different criteria of sense identity, and touches upon a more specific point: what happens if we apply Frege's intuitive criterion for the difference of thoughts to logically equivalent sentences? I will try to make a schematic argument here that will preempt any endeavor to make Frege more coherent than he really is. In sections A and B, I will present two alternative Fregean ways to treat the sense of logically equivalent sentences. Frege really oscillated between two alternative conceptions of sense, and his inability to detect the contrast between the two alternative conceptions is partly due to his strong conception of rationality. To apply the criterion of difference of thoughts to logical matters, we may also use a weak notion of rationality, or at least a notion of rationality of human agents, with limited computational resources. The distinctions towards which Frege was striving are better understood nowadays from the point of view of the treatment of limited rationality, which imposes itself even in logical matters.

### A. Traditional setting of the definition of sense: 1892

In "Über Sinn und Bedeutung" [1892, p.32], Frege defines the sense of a sentence as the thought expressed by it. He then elaborates what has been called the principle of intuitive difference of thoughts. The definition and argument are as follows:

- (1) DEFINITION: The *sense of a sentence* is the thought expressed by the sentence.
- (2) ARGUMENT: *The principle of intuitive difference of thought:* If it is possible to understand two sentences and coherently believe what one expresses while not believing what the other expresses, then those sentences express different senses, or different thoughts (see Evans 1982, pp.18-21). Sainsbury 1999 works upon this idea, speaking of '*rational co-tenability*'.