CHAPTER 7

VAGUENESS AND IMPRECISION

In Part I of this book, I introduced and classified the various phenomena of semantic indefiniteness; in the second Part, I developed a theory of indefiniteness, and reconstructed the terminology and results of Part I in its framework. The remainder of the book is exclusively devoted to a single topic: semantic vagueness. The formalism of precisification logic does not do full justice to this most interesting and most important of indefiniteness phenomena. For this reason, I will extend precisification semantics in Chapter 8 to a vagueness semantics that departs significantly from conventional theories of semantics in various ways. This is not a special extension to treat a specific problem; it is an essential requirement for the semantics of natural languages. This shall be made clear in this Chapter by giving a detailed answer to an old question in the philosophy of language: Is precision in natural language possible?

Unlike most authors who have dealt with this question, I will not apply a deductive argument to it. I know of no argument of this kind that produces a sound and satisfying answer. Instead, I will subject certain linguistic expressions to a careful analysis. In the first part of the Chapter (7.1 – 7.3), these will be numeric measurement phrases, which can be taken as typical examples of precision. First I will deal with the use of measurement phrases in scientific contexts, then with uncomplicated special cases of their colloquial application, and finally with arbitrary applications of such phrases to arbitrary objects. In the course of the discus-

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1 This is true of general pleas for complete precision as well as of Russell's argument (based on semiotics) and Quine's (based on behaviorism) against the possibility of precise language. – Rolf (1980) gives a presentation and criticism of some of these general philosophical arguments. He deals primarily with those of Russell (1923), Black (1937), Hempel (1939), and Körner (1960).
sion, three different kinds of obstacles to precisification will come to light: epistemic, pragmatic, and semantic, in that order. – In section 4, I will apply these results to comparison constructions, thereby building the bridge to the vagueness semantics that result from Part I, as well as establishing the link to the Sorites Paradox, which is the starting point of the discussion in Chapter 8.

7.1 Epistemic Limits of Precisification

In the context of the informal typology of indefiniteness in 3.3, I mentioned a few examples of precision, among them the adjectives married, single, four-doored, and childless. It is easy to see that none of these predicates is precise in the global sense – in any sentence, under all circumstances of utterance, in any state of the world. There may be differences of opinion as to whether the Renault I bought twenty years ago is four-doored (it was listed as five-doored in its prospect); a “childless couple” that places a classified ad for an apartment does not normally mean the same thing as a physician who deals with the problem of childlessness; and it is not clear whether we can describe six-year-old children or sixteen-year-old adolescents, or even thirty-six-year-old adults who have shared an apartment for sixteen years, as single – for different reasons in each case. Even the predicate married is unproblematic only as long as the institution of marriage is stably secured by civil law or ecclesiastical sacrament (see 4.4, p. 108f.). It may be difficult to find any expression of the English language that is plainly precise, and thus in a certain sense, we have a prompt answer to the central question of this Chapter. But of course, the question is not intended in that sense; instead, we are interested in the following modified form of the question: are there predicates that are precise in certain readings for certain domains of application?