

Collections

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Cantor adopted the term ‘Menge’ for his sets. He took it from Bolzano, for whom Mengen were one of a whole family of kinds collections (Inbegriffe), some of which allow for order and repetition. The ontological taxonomy of such collections is far from complete, but our concern here is specifically with those for which order, repetition and variation are irrelevant, namely Bolzano’s Mengen. The standard view is that such sets are abstract entities, which is a form of platonism. I shall however show that a revised version of the theory is compatible with nominalism. To avoid terminological clashes I call these the objects ‘multitudes’. A theory of first order multitudes was developed in the 1920s by Leśniewski, but he confined them to the first level: collections of individuals only. Motivating an extension to higher levels, I develop a nominalist alternative to set theory which poses some interesting choices of principle and which promises to have applications in semantics and for the philosophy of mathematics more generally.