Polymorphism has been recognized for nearly 200 years, and was studied quite intensively during the latter part of the 19th and early part of the 20th centuries. The subject remained very much in the research doldrums until the late approximately 1991 when interest was rekindled, especially in the pharmaceutical industry, by a number of high profile patent litigations. In this talk I will present an admittedly personal historical perspective and some current developments of this subject.

In the first part of this talk I will review some of the common views about the statistics for the existence of polymorphism in molecular crystals of various compositions, and well as for the molecular features that have been generally accepted as contributing factors to the propensity for polymorphic behavior. Following that will be an exposition of a quantitative definition of conformational polymorphism first recognized in 1974, and a review of some of the more dramatic examples of this phenomenon culled from the Cambridge Structural Database. In the final part of the talk I will revisit the fascinating subject of disappearing polymorphs, first published 20 years ago, with a number of more recent examples of pharmaceutical significance.