AB Two open-ended classes were formed when students were exposed to a forced choice primary generalization test, conducted in a matching-to-sample context. The classes were at opposite ends of a fill-based continuum. The endpoints of the continuum were called base stimuli and the intermediate stimuli were called variants. Class members were identified with tests conducted in the traditional variant-to-base format and a new base-to-variant format. The ranges of variants that functioned as members of the same nominal class differed with test format. In addition, the direction of that difference reversed for the classes at each end of the continuum. Followup tests showed that adjacent variants in a class were discriminable from each other. Thus, forced choice primary generalization tests induced classes of similar but discriminable stimuli. The fact that the same nominal class has two different widths raises a fundamental question about the definition of class membership. That issue is discussed along with recommendations for answering the question.