Summary:

Using Venn diagrams for syllogistics may be sometimes facilitated by drawing "clouds" for non-empty sums of spaces. In textbooks such neighboring spaces have been sometimes treated separately and/or more Venn diagrams were constructed for one syllogism. Drawing the "clouds", it is easy to see the sums may be interpreted as independent sets themselves and using your imagination you may (try to) find the position in the diagram for a counterexample to the syllogism conclusion and also to name the element whose presence in a given region contradicts the conclusion. In my teaching experience I found it was a problem for some students to work with non-empty sums of spaces in solving syllogisms and many textbooks do not help them out. The "clouds method" is also interesting to study itself.