A puzzler about sets

There are two kinds of adjectives:

- **autological**: autological adjectives describe themselves. Examples: “pentasyllabic” is autological, because pentasyllabic is pentasyllabic — it has five syllables. Also, “unhyphenated” is autological, and so is “pronounceable”

- **heterological**: heterological adjectives don’t describe themselves. Examples: “monosyllabic” is heterological, because monosyllabic is monosyllabic — it has more than one syllable. Also, “hyphenated” is heterological, and so is “orange” (and most other adjectives).

Let \( S \) be the set of all heterological adjectives, so “orange” \( \in S \) but “pronouncable” \( \not\in S \).

**Question**: Is “heterological” \( \in S \)?