Beliefs about similarity to a prototype, such as the following, are highly influential and prevalent in linguistics.

1. When categorization is based on a definition, it cannot be related to similarity to a prototype.
2. Membership in the denotation of most predicates is not related to similarity to a prototype.
3. Feature based models, which base categorization on similarity to a prototype along a set of features, are inherently not well defined.
4. Similarity to a prototype is irrelevant for grammar.

In this talk, I will show that (1) is a fallacy, and therefore the basis for (2) weakens. The principles of a well-defined, formal, feature based model will be presented, pace myth (3). Finally, experimental findings will be reviewed, which suggest that grammar is sensitive to conceptual matters such as similarity, refuting (4).