Qual and Qualitative

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In this paper we introduce terminology for qual and qualitative.

The term “qual” is the analogue for “equal” but for Path Semantical Quality[1].

a ~~ b `a` is qual to `b`

For example:

“house” in English is qual to “hus” in Norwegian

The intuition is that “house” and “hus” are symbolic distinct, but they mean the same thing.

The term “qualitative” is a classification of languages by the naturality of quality assumptions.

1. Is it natural to assume `a ~~ a` directly for some objects but not others?
2. Is it natural to lift `a ~~ b` through biconditionals with symbolic distinction in some cases?

The 1st kind might not be decidable when its naturality is uniform throughout some language.
The 2nd kind might occur as a rule while not being used in practice within some language.

In biology, cannibalism is when a species eats its own kind,
while ourobiosis[2] is when two species eat each other.

Biology is qualitative different from natural language by 1) because:

- Cannibalism can be thought of as directly assuming `a ~~ a` where `a` is some species,
  while cannibalism might not occur in other species.
- It does not make sense to directly assume e.g. `house ~~ house`,
  while not assuming e.g. `dog ~~ dog`.

In natural language, if one word has self-quality, then all words should have self-quality.
It is impossible to say whether self-quality is correct or not, but at least it should be consistently used.

However, in biology, cannibalism can occur for one species while not being true for another species.

So, the naturality of assuming quality differs between the two languages.
Thus, these two languages are qualitatively different, in path semantical sense.

References:

[1] “Path Semantical Quality”
Sven Nilsen, 2021
https://github.com/advancedresearch/path_semantics/blob/master/papers-wip2/path-semantical-quality.pdf

[2] “Symbiosis and Ourobiosis”
Daniel Fisher, William Alexander Morris, Sven Nilsen, 2021
https://github.com/advancedresearch/path_semantics/blob/master/papers-wip2/symbiosis-and-ourobiosis.pdf