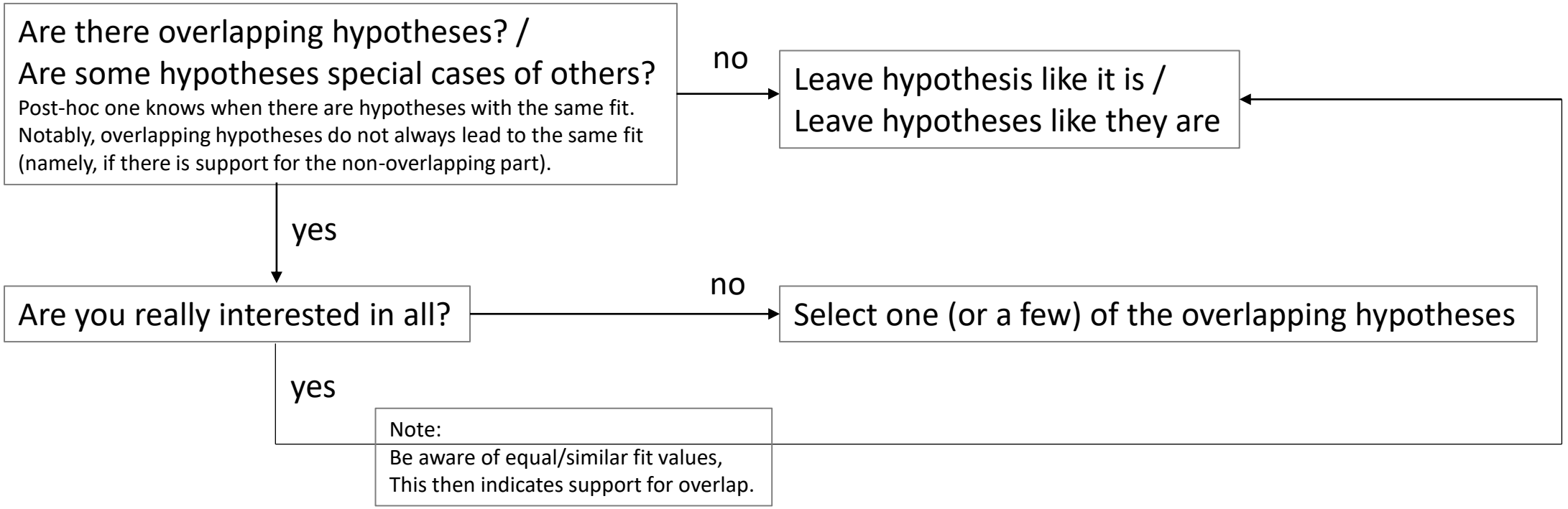
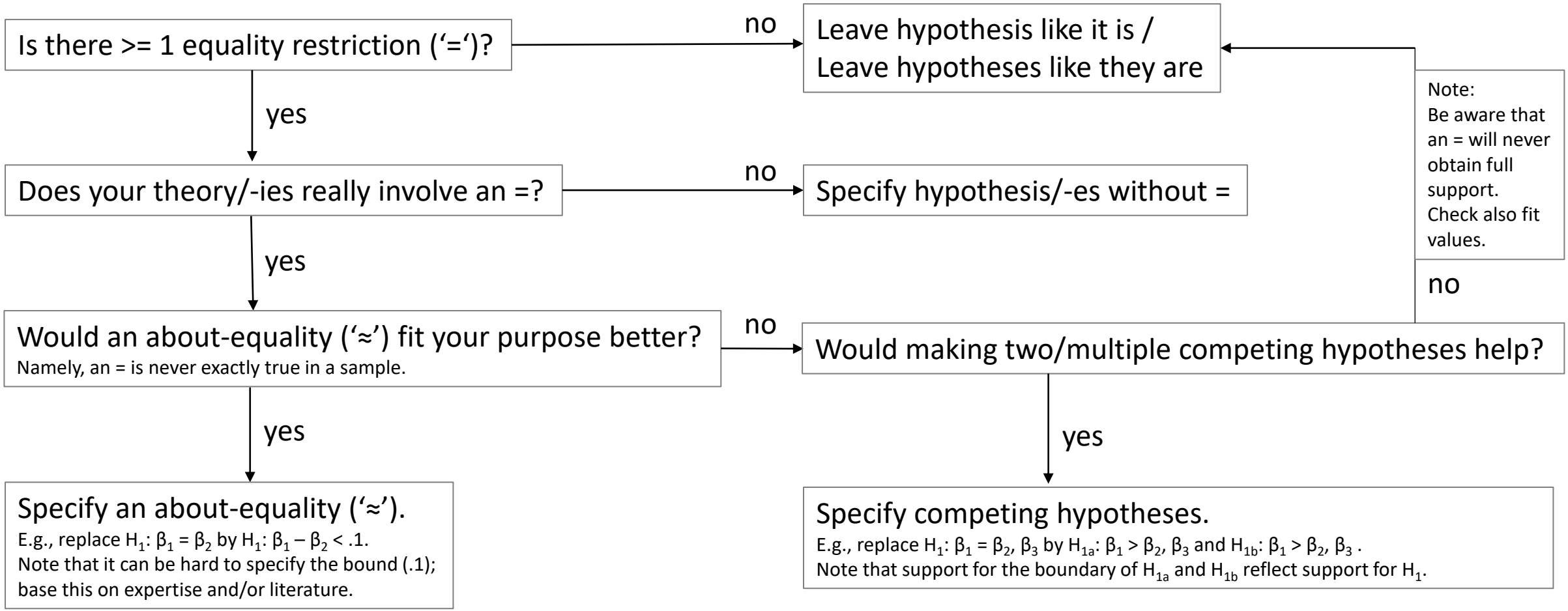
Decision trees for preliminary checks on choice of hypotheses

More details can be found in the guidelines (‘Guidelines_output_GORIC.html’), available from: https://github.com/rebeccakuiper/Tutorials/tree/main


Are there overlapping hypotheses? /
Are some hypotheses special cases of others?
Post-hoc one knows when there are hypotheses with the same fit.
Notably, overlapping hypotheses do not always lead to the same fit
(namely, if there is support for the non-overlapping part).
no
Leave hypothesis like it is /
Leave hypotheses like they are
yes
Are you really interested in all?
no
Select one (or a few) of the overlapping hypotheses
yes
Note:
Be aware of equal/similar fit values,
This then indicates support for overlap.


Is there >= 1 equality restriction ('='?
no
Leave hypothesis like it is /
Leave hypotheses like they are
yes
Does your theory/-ies really involve an =?
no
Specify hypothesis/-es without =
yes
Note:
Be aware that an = will never obtain full support.
Check also fit values.
no
Would an about-equality ('≈') fit your purpose better?
Namely, an = is never exactly true in a sample.
no
Would making two/multiple competing hypotheses help?
yes
yes
Specify an about-equality ('≈').
E.g., replace H_1: $\beta_1 = \beta_2$ by H_1: $\beta_1 - \beta_2 < .1$.
Note that it can be hard to specify the bound (.1); base this on expertise and/or literature.
Specify competing hypotheses.
E.g., replace H_1: $\beta_1 = \beta_2, \beta_3$ by H_{1a}: $\beta_1 > \beta_2, \beta_3$ and H_{1b}: $\beta_1 > \beta_2, \beta_3$.
Note that support for the boundary of H_{1a} and H_{1b} reflect support for H_1.

Did you use minimum bounds in specifying your informative hypothesis H_1?

E.g., Did you (re-)specify $\beta_1 > \beta_2$ as H_1: $\beta_1 - \beta_2 >$ (say) .1?

yes

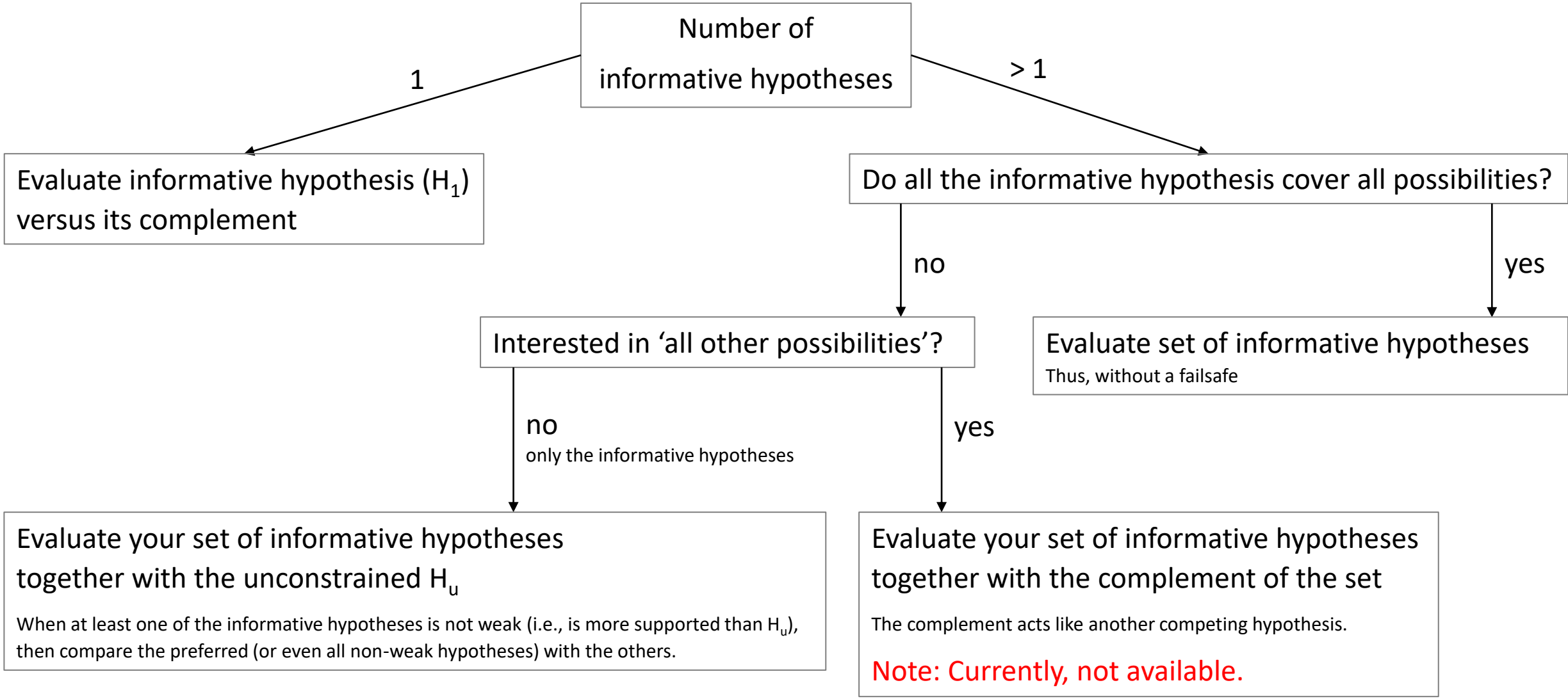
A ratio of GORIC(A) weights of (just over) 1 of H_1 vs its complement or a competing hypothesis means you select the theory of H_1 (i.e., $\beta 1 > \beta 2$).

no

A ratio of GORIC(A) weights of (just over) 1 of H_1 vs its complement or a competing hypothesis means you are indecisive.

Decision tree for choice failsafe

More details can be found in the guidelines (‘Guidelines_output_GORIC.html’), available from: https://github.com/rebeccakuiper/Tutorials/tree/main


Number of informative hypotheses
1
> 1
Evaluate informative hypothesis (H_1) versus its complement
Do all the informative hypothesis cover all possibilities?
no
yes
Interested in 'all other possibilities'?
Evaluate set of informative hypotheses
Thus, without a failsafe
no
only the informative hypotheses
yes
Evaluate your set of informative hypotheses together with the unconstrained H_u
When at least one of the informative hypotheses is not weak (i.e., is more supported than H_u), then compare the preferred (or even all non-weak hypotheses) with the others.
Evaluate your set of informative hypotheses together with the complement of the set
The complement acts like another competing hypothesis.
Note: Currently, not available.