Decision tree for interpreting output

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

Let us denote the hypothesis with the highest GORIC(A) weight as H_H.

Is there one or more hypotheses (H.) for which the ratio of loglik.weights of H_H vs H. is (≈) 1 or even < 1?

No (> 1)

ratio loglik.weights of H_H vs all others > 1

i.e., H_H has highest fit

Hypothesis H_H is the preferred hypothesis.

One can check the ratio of GORIC(A) weights of H_H with other hypotheses.

Notes:

In case of overlapping hypotheses, this indicates support for the non-overlapping part.

In case the failsafe (i.e., the complement or the unconstrained) is the best, one can take on an additional exploratory approach to create one or more new hypotheses for future research.

Yes, 1 or ≈ 1

ratio loglik.weights of H_H vs another ≈ 1

i.e., H_H has together with at least one other hypothesis the highest fit (or close to the highest fit)

There is support for the overlap in (or boundary of) hypotheses with the same/similar fit.

Interpretating the ratio of GORIC(A) weights is not meaningful.

Note: As a basis for future research, one could specify the overlap (or boundary) and evaluate that against its complement.

Yes, < 1

ratio loglik.weights of H_H vs another < 1

i.e., at least one other hypothesis has the highest fit; and, thus, a fit higher than that of H_H

Hypothesis H_H is the preferred hypothesis.

One can check the ratio of GORIC(A) weights of H_H with other hypotheses.

Notes:

The sample size is probably too small. Future research (with a higher sample size) can give more insight in whether this hypothesis indeed still seems to be the best.

One could additionally use an exploratory approach to create one or more new or competing hypotheses for future research.

Yes, both (≈) 1 and < 1

H_H has together with at least one other hypothesis the highest fit (or close to the highest fit)

There is support for the overlap in (or boundary of) hypotheses with the same/similar fit.

Interpretating the ratio of GORIC(A) weights is not meaningful.

Note: The sample size is probably too small. Future research (with a higher sample size) can give more insight in whether this overlap of hypotheses indeed still seems to be the best.

Note: When H_H is true in the population and no other hypothesis contains the truth, then the GORIC(A) weight will go to 1, when sample size or effect size increases. Stated otherwise, the GORIC(A) weights reflect the uncertainty of a hypothesis being the best.