



Ethical evaluation:

A parallel process in every stage of model building/development

Scientific evaluation:

Use criteria from consensus stage

Can the discomfort be justified?

no

Reduce discomfort, or abandon development

yes

Reliability?
Replicability?

no

Singular, or 'idiosyncratic' findings

yes

Descriptive similarity with what is modeled?

yes

Model with face validity

no

Lack of face validity
Note: this doesn't *per se* invalidate a model

Homologous structures and/or processes?

no

No model



yes

Predictability?

no

Model suffers from lack of relevance

yes

Model with predictive validity

Sound theoretical rationale?

no

Does model answer (a) specific purpose(s)?

no

Model with construct validity

yes

Generalizability?

no

Model may have limited applicability

yes

Model with external validity

Model with biological and/or clinical relevance