

Original study (first characterization of the animal model)

First replication(s)

- **Exact, close (“mere”), or direct replication:** in exact, close or direct replications, all aspects of the replication must be as close as possible to those in the original study. This type of replications necessitates a high degree of standardization. Even then, an *identical* replication may be nearly impossible.

Assessment of the replicability/reliability of the original findings; verification or disconfirmation; detection of false positive results and false hypotheses.

Subsequent extended replications

- **Partial replication:** some procedural modifications, whereas all other aspects closely follow the original study;
- **Systematic or differential replication:** variations in major independent variables (e.g. rearing-, housing-, and test-conditions, gender);
- **Conceptual replication:** investigation of same relationships/constructs as in the original study, but using different procedures.

Assessment of generalizability/ external validity; identifying the conditions under which the generalization does not hold; identification of putative confounding variables.

Extended replications eventually originate new insights that may initiate a new iterative cycle of generating revised or new hypotheses and hypothesis-testing studies.