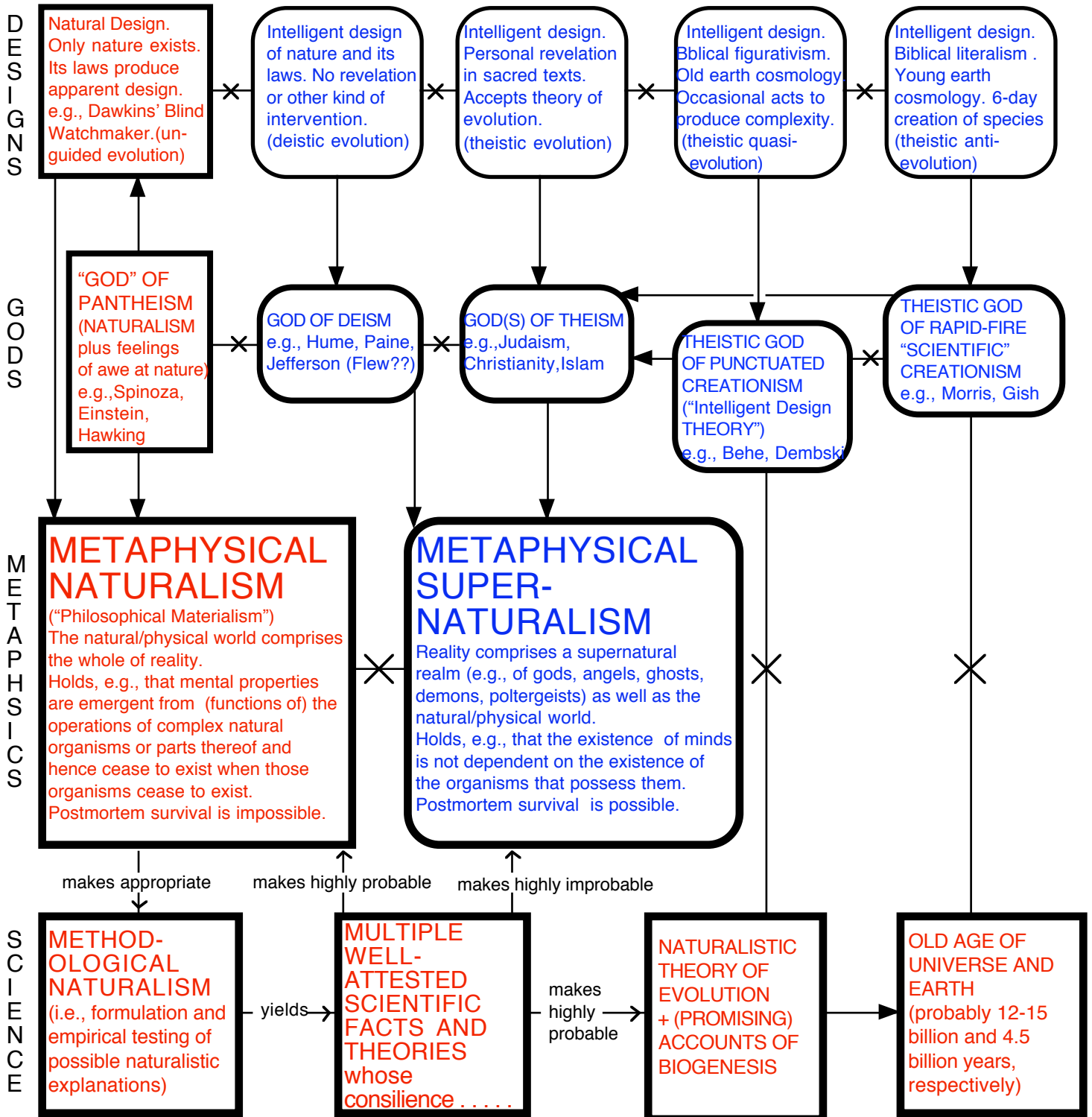


CONCEPTS OF DESIGN AND THEIR LOGICAL LIAISONS

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Note that the design concepts depicted here are not exhaustive of all possibilities.
Other design concepts include Manichean design (design by both good and evil gods).



Conventions: \rightarrow = logical implication. \times = logical inconsistency. Other arrows = weaker, nonlogical, relationships.
Rectangular boxes = naturalistic beliefs or practices. Rounded boxes = supernaturalistic beliefs.

Logical and probabilistic principles (where P, Q, R = beliefs or sets of beliefs):

- (1) If P implies Q and Q implies R, then P implies R.
- (2) If P implies Q and Q is false (or improbable), then P is false (or improbable).
- (3) If P implies Q and Q is inconsistent with R, then P is inconsistent with R.
- (4) Belief-set P is inconsistent with belief-set Q if and only if at least one member of P is inconsistent with at least one member of Q.
- (5) If P is inconsistent with Q then at least one must be false. (P and Q are contraries when both can be false; they are contradictories when only one can be false)
- (6) If P makes Q highly probable then P makes not-Q (the contradictory of Q) highly improbable.
- (7) If P makes Q highly improbable and R implies Q, then P makes R highly improbable.