Arguments & Validity

1. Arguments: a set of sentences (statements), the Premises, together with a single sentence, the conclusion and such that, the premises (deductively) support the conclusion.

   1) Arguments are made of statements.
     ① Statement are sentences that have a truth-value. (that are true or false)
       ↳ T (true) & F (false)

   2) Structure
     ① Premisses
     ② Conclusion.
     ③ Collectively the Premises support the Conclusion.

how support determine the kinds

   3) Kinds of Arguments.
     ① Inductive Argument: The premises increase the probability / make it more likely that the conclusion is true

     ② Abductive Argument: The Premises are best explained by the conclusion.

     ③ Deductive Argument: The Premises necessitate / make certain that the conclusion

fallible
(never be certain that the conclusion is true)

get certainty ←
(logically gua-

is true.

⟶ A good DA is valid & sound. or/

2. Validity

1) A deductive argument is valid _if and only_

if:

It is not possible for all of the premises
to be true and for the conclusion to
be false.

e.g. (Pr-1) P or Q   T (Hyp.)
　　　(Pr-2) Q   T (Hyp.)
　　───────────────────────────
　　　(Cc)   P   Not sure.

Invalid (Pr all T but C not sure)

　　　(Pr-1) P or Q   T (Hyp.)
　　　(Pr-2) Q or R.   T (Hyp.)
　　───────────────────────────
　　　(Cc)   R   Not sure.

Invalid

　　　(Pr-1) P or Q.   T (Hyp.)
　　　(Pr-2) not Q.   T (Hyp.)
　　───────────────────────────
　　　(Cc)   P   T

valid.

2) _Validity is not dependent upon actual
truth-values ; dependent upon hypothetical
/possible truth-values._

3) Soundness

whenever the premises are true, the conclusion must be true also.

① A deductive argument is sound if and only if:

The argument is valid and all of its premises are actually true.