24.06J / STS.006J Bioethics Spring 2009

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Bioethics Session 3 Handout: Arguments

An argument is *valid* if and only if it is impossible that its premises be true and its conclusion false.

An argument is *sound* if and only if it is valid and its premises are true.

When Q is a person, an argument is *persuasive for* Q if and only if it is valid and, before being confronted with the argument, Q believes the premises without believing the conclusion.

Examples:

P1 P2	All doctors are responsible, upstanding people. Jane is a responsible, upstanding person.
С	Jane is a doctor. Valid? Sound?
P1 P2	All doctors are responsible, upstanding people. Jane is a doctor.
С	Jane is a responsible, upstanding person. Valid? Sound?
P1 P2	All doctors can be sued for malpractice. Jane is a doctor.
C	Jane can be sued for malpractice. Valid? Sound?
Harder examples:	
P1 P2 P3	All doctors are responsible, upstanding people. Jane is a responsible, upstanding person. Jane is not a responsible, upstanding person.
C	Jane is a doctor. Valid? Sound?
P1	MIT is in Cambridge.
С	MIT is in Cambridge. Valid? Sound? Likely to be persuasive for someone?
P1 P2	God hates murder. If God hates our doing something, we should not do it.
C	We should not murder. Valid? Sound? Likely to be persuasive for someone?