

# Logic and the set theory

## Lecture 2: Arguments

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# About this lecture

- Arguments, Nolt. Ch. 1.

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- Argument diagrams

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the moodle page (KLMS) <http://edu3.kaist.ac.kr>
- Grading and so on in KLMS. Ask questions in KLMS.

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- Ancient Rhetorics, S. Crowley, D. Hawhee, 3rd Edition, Pearson, Longman
- <http://plato.stanford.edu/contents.html> has much resource. Search for rhetoric, informal logic, Mozi.

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- Aristoteles Rhetoric (a book to Alexander). There are also books by Sophists (for example by Isocrates).

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- Informal logic is the attempt to develop a logic to assess, analyze and improve ordinary language (or "everyday") reasoning

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- The arguments involve premises (for, since, because, assuming that) and conclusions. (Therefore, thus, hence, accordingly...)

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- Outside the formal logic, one can still draw argument diagrams..



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- ▶ ●  $1 \rightarrow 2 \rightarrow 3 \rightarrow 4 + 5 + 6 \rightarrow 7$

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- Any conclusion follows deductively from inconsistent premises.

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- See also the Black Swan theory. (There is a book by Nassim Nicholas Taleb)

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  - ▶ False premises.

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  - ▶ Vested interest: a proponent is motivated by greed
  - ▶ Circumstantial ad hominem: a proponent is endorsing conflicting propositions.

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- Red herring: tangential matter to divert attention.

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- (These are used often by political party spokesmen/spokeswomen. )

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  - ▶ These are more subtle. (Confucius scholars often. Such and such men are big and big persons do so and so...)

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  - ▶ Accent; generate multiple interpretations.

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- Faulty analogy:
- Gambler's fallacy: something will keep being so.
- False cause : confusing cause.

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- Fallacies of false premise (slippery slope also)