

NAGOYA UNIVERSITY LIBRARY WORKSHOPS 2017



Academic Writing *and* **Logical Thinking**

May 17 ~ June 14, 2017

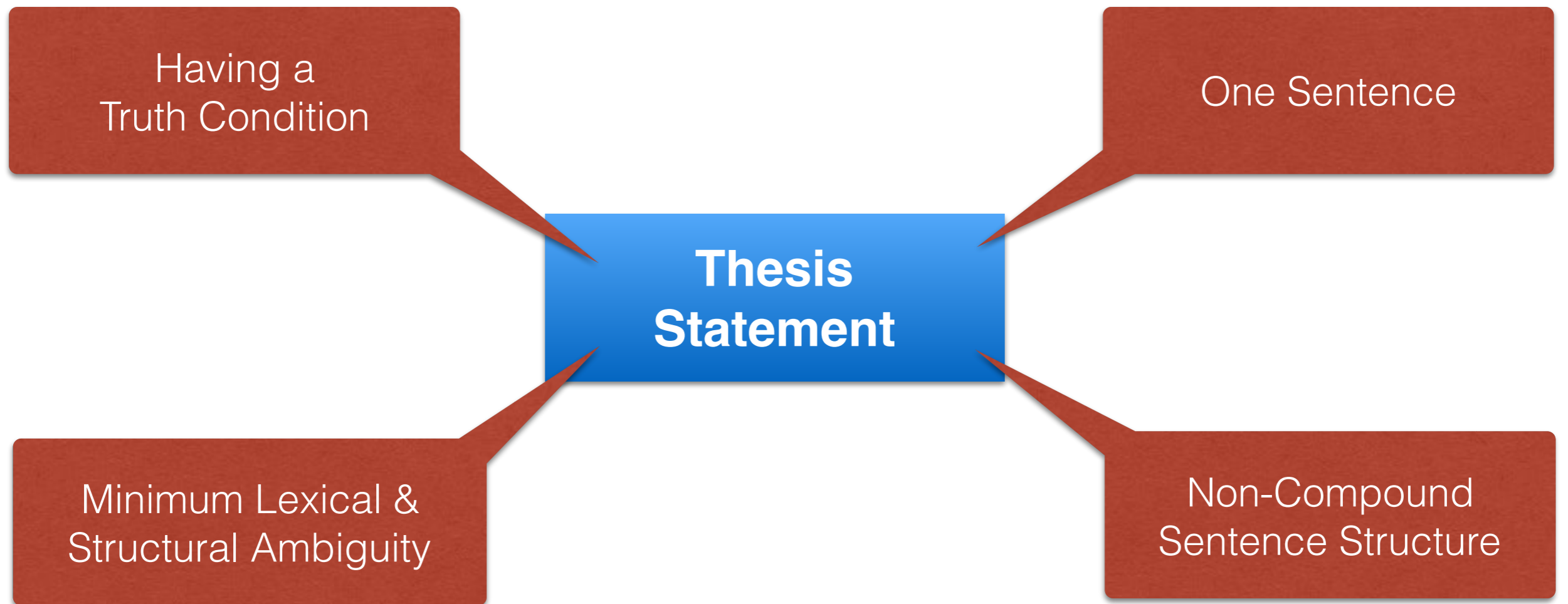
Instructor: Dr. Paul Lai

NAGOYA UNIVERSITY LIBRARY WORKSHOPS 2016



Review

Being Clear

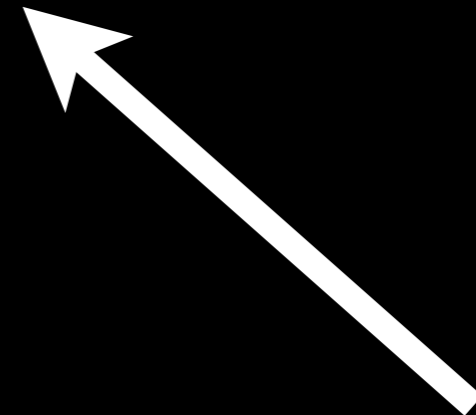
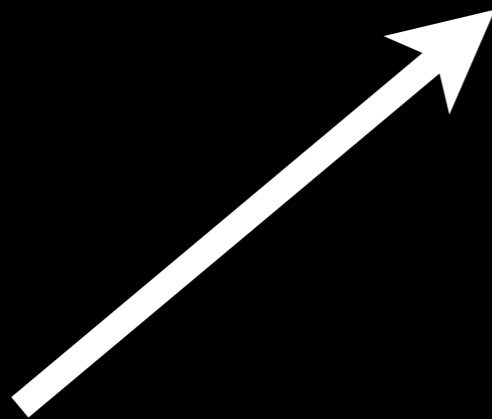


Thesis Statement

Support 1

Support 2

Support 3



The Thesis Statement Recipe

*Textbook for
the Nagoya University Library workshop series on
Academic Writing & Logical Thinking Skills*



*Written by
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(Mei-Writing)*



(Homework)

(i) Think about a paper that you are planning to write.

(ii) Develop a thesis statement for the paper.

(iii) Discuss your thesis statement on June 14.



How to use logic practically

Try to make the following reason convincing:

Peter cannot submit the assignment on Monday because his computer broke down on Saturday.

My computer broke down on Saturday.

No direct relation!

I could not submit my assignment on Monday.

My computer broke down on Saturday.



The assignment must be done on a computer.

No other computer was available during the period.



My computer was not repaired in time.

I could not submit my assignment on Monday.



学術論文の基本的な目的は、結論へと至る論理的ステップを提示することによって、論文の主張する結論を受け入れるよう読者を説得することである。

What is logic?

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An Instrument for Acquiring Knowledge

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ARISTOTLE

Father of Logic

384-322 BC

Logic is the “organon”, or instrument of thought, which is specifically used for acquiring knowledge.

According to Aristotle, we would not come to know anything without logic.

KNOWLEDGE ACQUISITION

When you see many people inside a subway station wearing a wet raincoat or carrying a wet umbrella, what can you tell?



It must be raining outside.

KNOWLEDGE ACQUISITION

INFERENCE
RELATION

Wet raincoats



Rain outside

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What is inference ?

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**INFERENCE
RELATION**

Statement 1

True



Statement 2

True

e.g. If Peter is in Tokyo, then Peter is in Japan.

**INFERENCE
RELATION**

Statement 1

False



Statement 2

False

e.g. If Peter is not in Japan, then Peter is not in Tokyo.

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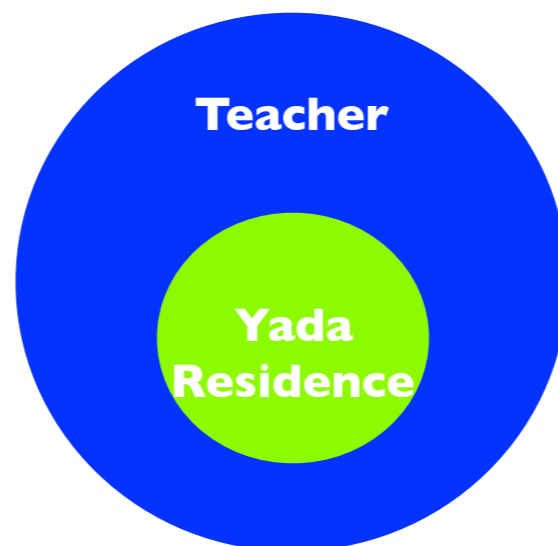
The truth/falsity of statement 1
affects
the truth/falsity of statement 2

Some examples of logical inferences

All people who live in Yada Residence are teachers.



No one who lives in Yada Residence is not a teacher.

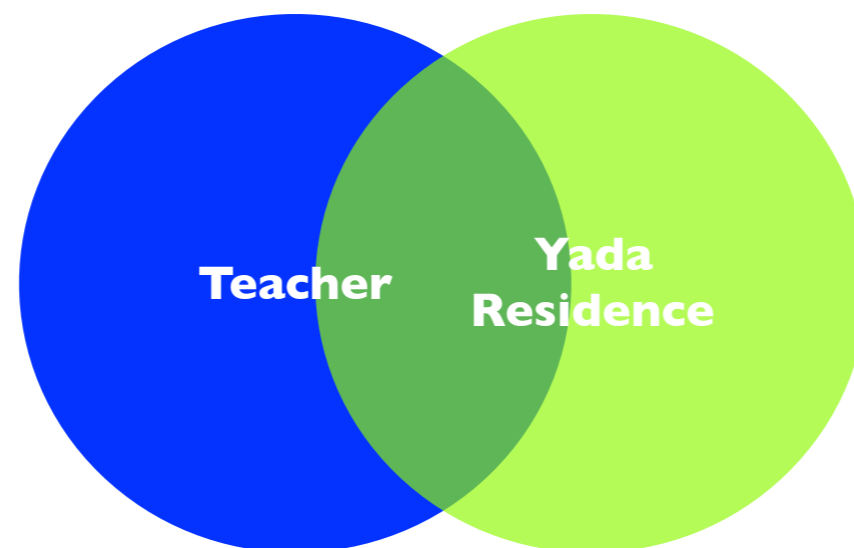


Some examples of logical inferences

Some people who live in Yada Residence are teachers.



Some people who live in Yada Residence are not teachers.

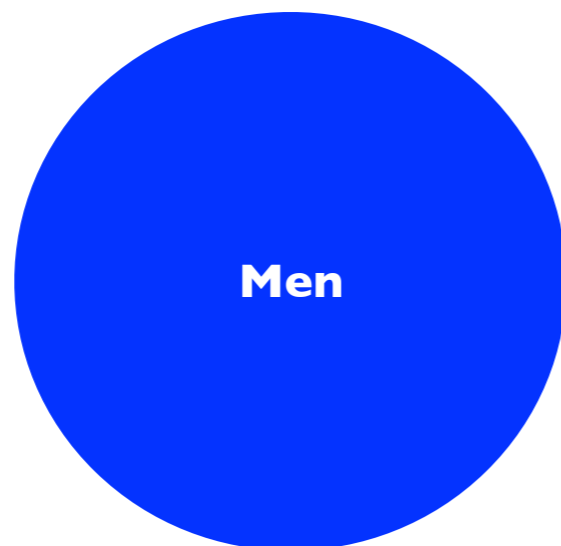


Some examples of logical inferences

No men are angels.



No angels are men.

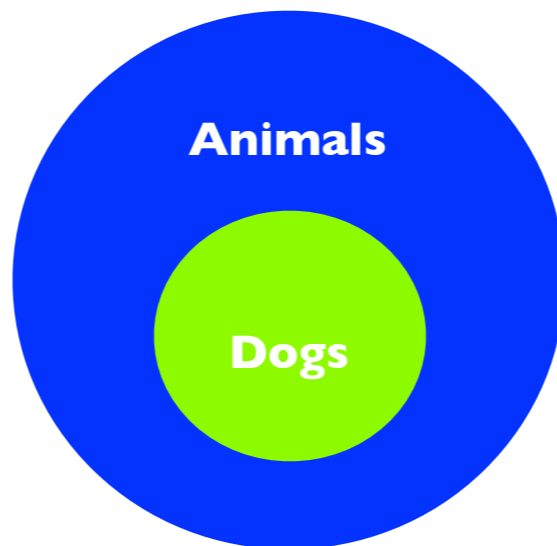


Some examples of logical inferences

All dogs are animals.



All animals are dogs.

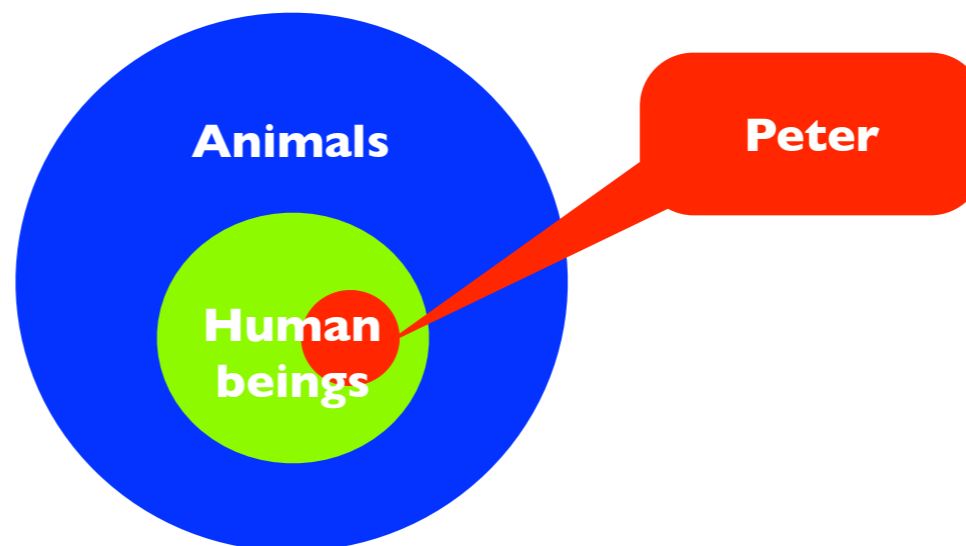


Some examples of logical inferences

All human beings are animals.



Peter is an animal.

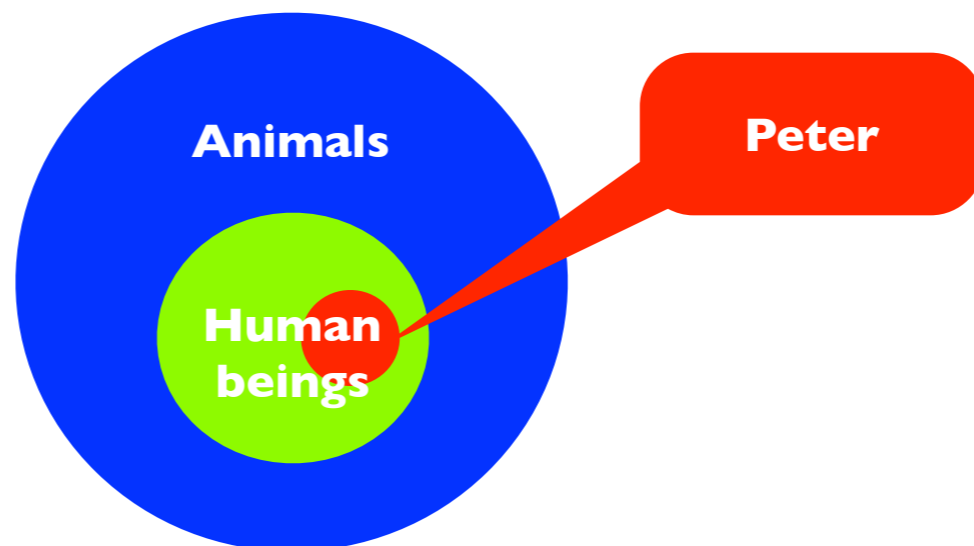


Some examples of logical inferences

All human beings are animals.

Peter is a human being.

Peter is an animal.

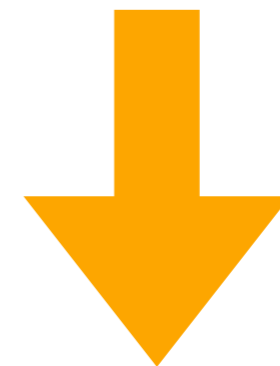
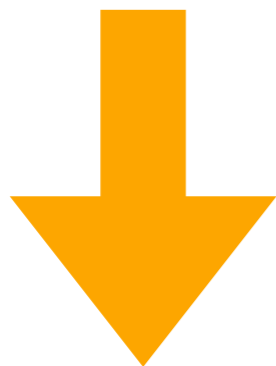


How is logic useful?

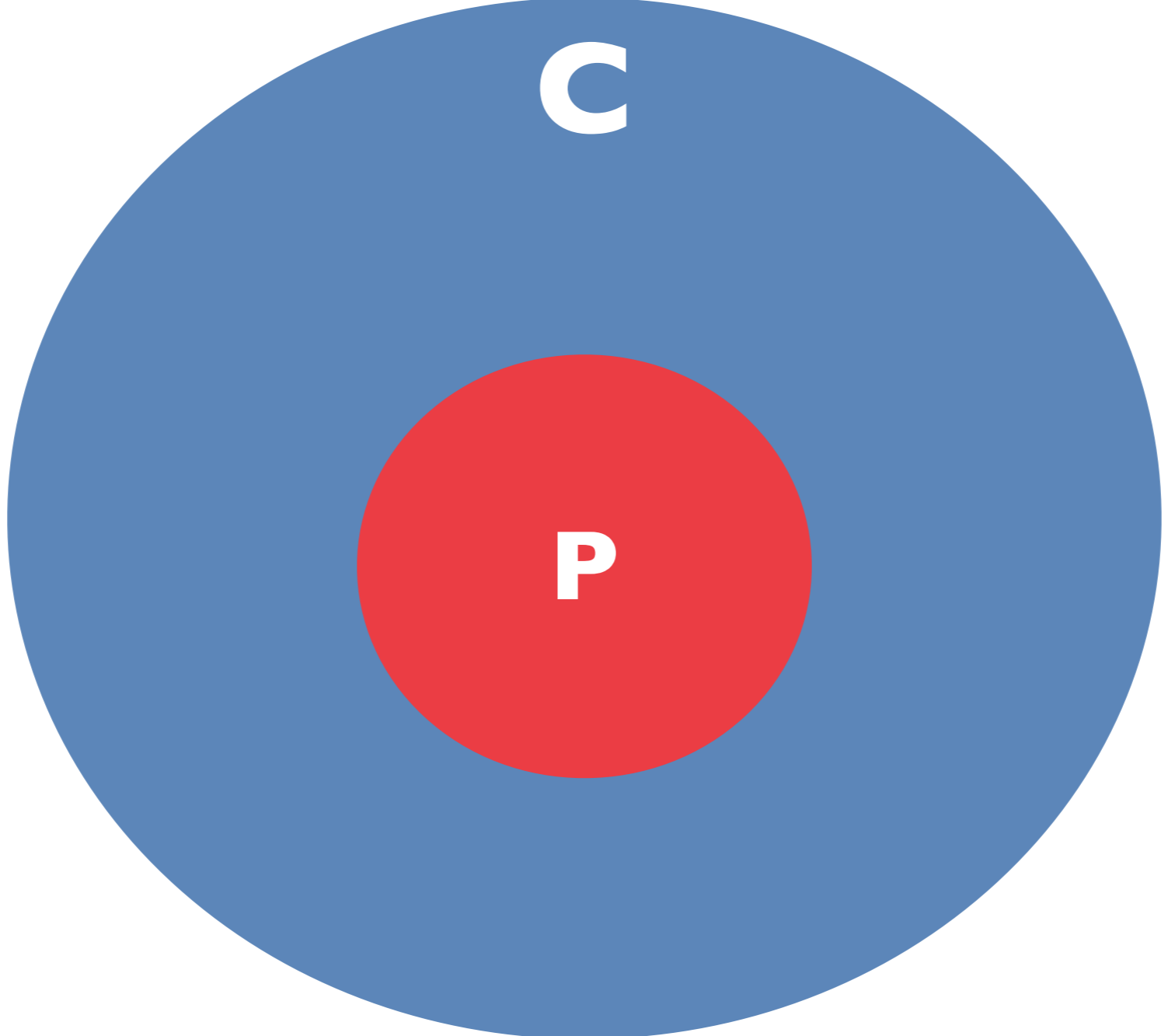
Class exercise:

Find the premise that infers the truth of C

Premise:

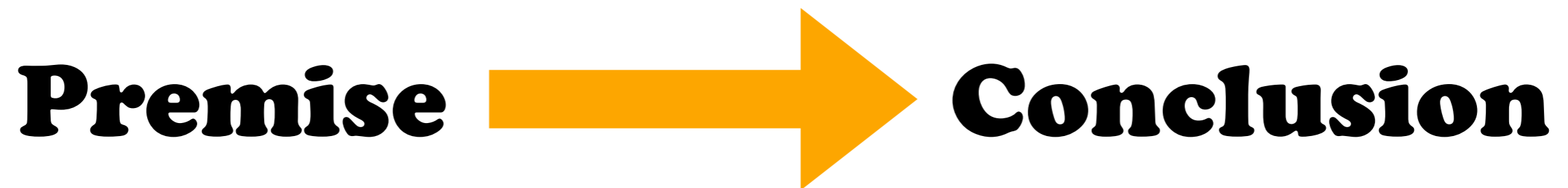


C: Peter is a student of NU.



Exercises on logical inference 1

Logical Inference

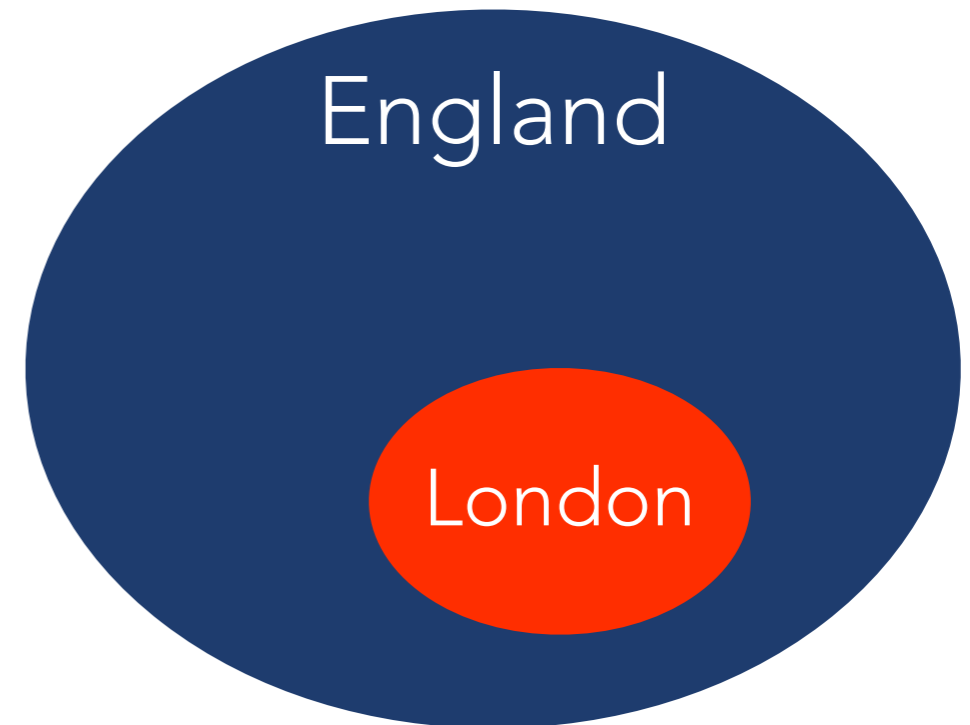


Part A of the exercises is designed to train you how to make a proper inference based on a premise.

Each one of the exercises comes with (i) one statement corresponding to a factual event, and (ii) four inference choices that follow from (i). Although more than one of the four choices might be logical, you need to find out the one that is most likely / certainly true following from the truth of (i).

e.g.

Ex-1. Paul is in London.



(a) Paul is on a business trip.

(b) Paul will not come back to Japan for a while.

(c) Paul is in England.

(d) Paul likes London.

Ex-2. There is a laptop computer found on a classroom desk in Nagoya University.

- (a) The computer belongs to Nagoya University.
- (b) The computer belongs to one of the students who used the classroom.
- (c) Someone has forgotten to take the computer when leaving the classroom.
- (d) Someone came to the classroom with the computer.

Ex-3. A car is found parking in an area with the NO PARKING sign.

- (a) The car's owner will soon receive an illegal parking ticket.
- (b) The car was driven or transported there by someone.
- (c) The car was parked by someone who did not notice the NO PARKING sign.
- (d) The parked car will cause disturbance to the normal traffic.

Ex-4. Tanaka has a piano in his office.

(a) Tanaka likes to play piano in his office.

(b) The piano is taking some space in the office.

(c) Tanaka's office is very big.

(d) The piano is used for Tanaka's work.

Exercises on logical inference 2

Fun Exercise!!
Solving Logical Puzzles

Puzzle 1:

Who is doing what?

Alonzo, Kurt, Rudolf, and Willard are four creative artists of great talent. One is a dancer, one is a painter, one is a singer, and one is a writer, though not necessarily in that order.

- (1) Alonzo and Rudolf were in the audience the night the singer made his debut on the concert stage.
- (2) Both Kurt and the writer have had their portraits painted from life by the painter.
- (3) The writer, whose biography of Willard was a best-seller, is planning to write a biography of Alonzo.
- (4) Alonzo has never heard of Rudolf.

What is each man's artistic field?

Thank you very much!

Writing Is Thinking