

Philosophy of the Human Person

Lecture #4

Aristotelian Logic: Terms

a. Distinguishing Subject & Predicate

structure of categorical propositions

categorical propositions are composed of terms (Subject + Predicate)

e.g., “Dogs are mammals”

all simple propositions have a subject and a predicate

(the universality of S+P analysis)

why?

every proposition must be about something (i.e., it must have a subject)

every proposition must say something about (i.e., predicate something of) that subject

two apparent classes of exceptions

idiomatic sentences

e.g., “It’s raining”

but this tells us something about the weather

identity statements

e.g., “Clark Kent is Superman”

these will be left for the logic course

the subject—what the proposition is about

grammatically

the subject is always a noun phrase

logically

the subject could be either

individual term

either

a proper noun (e.g., “Aristotle”)

a definite description (e.g., “the first great logician”)

individual term can only be subjects

universal term

a common noun (e.g., “man”)

these can be either subjects or predicates

logical analysis differs from grammatical analysis

the subject must...

(1) include any adjectival phrases (as in grammar)

e.g., “The man who wrote this book is very imaginative.”

(2) exclude “all”, “some”, “none” (unlike in grammar)

e.g., “All horses are mammals.”

these quantify the subject, but are not part of it (see below)

the predicate—what is said about the subject

grammatically

three possible kinds of predicate

predicate nouns (e.g., “John is a quarterback”)

predicate adjectives (e.g., “That horse is white”)

verb phrases (e.g., “That horse runs well”)

logically

the predicate must be a noun phrase

so, additions must be made in some cases

add a more general noun

predicate adjectives

That horse is white □ That horse is a white animal

verb phrases

That horse runs well □ That horse is an animal that runs well

logical analysis differs from grammatical analysis

the predicate must...

(1) include the direct object, the indirect object and all adverbial phrases
(as in grammar)

e.g., “The man generously gave Mary the book.”

(2) exclude “is”, “are”, “not” (unlike in grammar)

e.g., “Some horses ~~are not~~ fast.”

“is” and “are” link the predicate to the subject, but are not part of it

“not” qualifies the predicate, and is not ordinarily part of it (see below)

b. Relating Subject & Predicate

four ways of relating propositions

(1) two terms can be ...

composed (“Dogs are mammals”)

since this is a statement about dogs as a kind of thing, more explicitly

“All dogs are mammals”

separated (“Dogs are not mammals”)

hereafter, “No dogs are mammals”

the composition or separation can be affirmed (as above) or denied

when the subject is a singular term, this is simple

	Combination	Separation
Affirmed	Lassie is a good dog	Lassie is not a good dog
Denied	It’s not true that Lassie is a good dog	It’s not true that Lassie is not a good dog
	= Lassie is not a good dog	= Lassie is a good dog

the denials do not introduce anything new

the denial of the combination is the affirmation of the separation

when the subject is a universal term, the matter is more complex

	Combination	Separation
Affirmed	All dogs are brown	No dogs are brown
Denied	It's not true that all dogs are brown = Some dogs are not brown	It's not true that no dogs are brown = Some dogs are brown

each denial results in a new proposition

denying that "All dogs are brown" does not require us to assert that "No dogs are brown"

it is enough to say that "Some dogs are not brown"

denying that "No dogs are brown" does not require us to assert that "All dogs are brown"

it is enough to say that "Some dogs are brown"

(2) [equivalently,] the predicate can be *affirmed* or *denied* of *all* or *some* of the subject

	Affirmed (Affirmative)	Denied (Negative)
Of All (Universal)	All dogs are brown	No dogs are brown
Of Some (Particular)	Some dogs are brown	Some dogs are not brown

note that, properly, the distinction between universal and particular

Summary — the four forms of the categorical proposition

Universal Affirmative	A	e.g., All dogs are mammals.
Universal Negative	E	No dogs are mammals.
Particular Affirmative	I	Some dogs are mammals.
Particular Negative	O	Some dogs are not mammals.

these propositions are said to vary in

Quantity — universality or particularity

Quality — affirmativity or negativity