PHI 103 - Categorical Logic
Lecture 1

Categorical Propositions
Four Statements about the World

Categorical Logic

The Categorical Propositions

Categorical Proposition: *any statement which relates two classes or* ***categories*** *of entities.*

I. **The Components of Categorical Propositions -**

A. **Subject Term** - first category or class

B. **Predicate Term** - second category or class

Cats are mammals

subject *predicate*

Opossums are marsupials.

subject *predicate*

Astronomical objects do not have fur.

subject *predicate*

Categorical Logic

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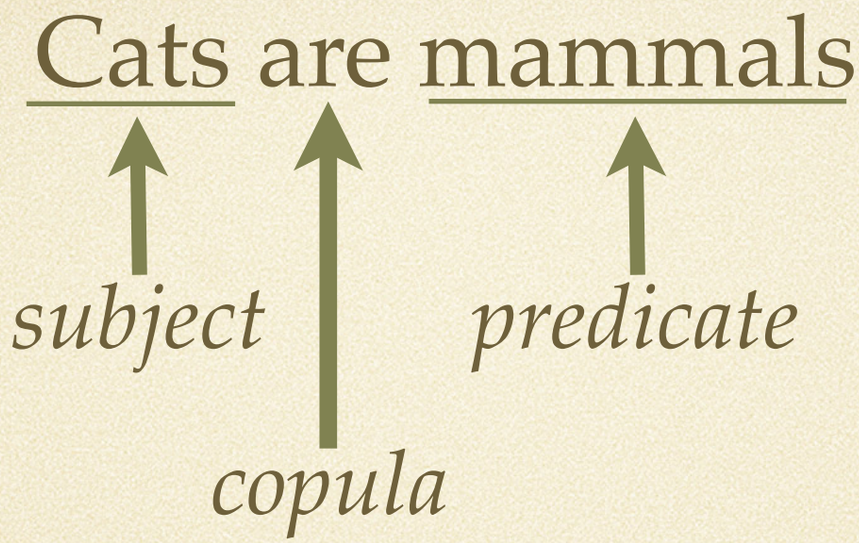
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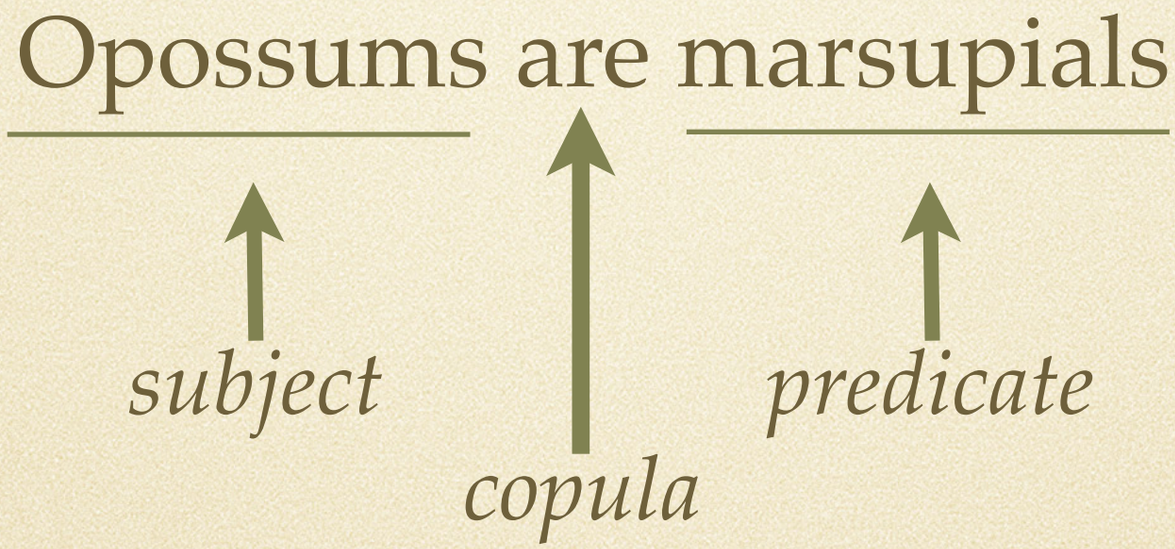
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Categorical Logic

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A. **Subject Term** - first category or class

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C. **Copula** - the grammatical link (verb) between subject and predicate terms.

D. **Quantifiers** - words that specify the quantity of the subject and predicate terms.

1. **Universal** -

   a. affirmative - ‘all’ (***in***cludes all of a class)

   b. negative - ‘no’ (***ex***cludes all of a class)

2. **Particular** - ‘some’ (includes ***part*** of a class)

Four Standard Forms
of Categorical Propositions

All members of the ***Subject*** class ***are*** members of the ***Predicate*** class.

All S are P.

None of the members of the ***Subject*** class ***are*** members of the ***Predicate*** class.

No S are P.

At least one member of the ***Subject*** class ***is*** a member of the ***Predicate*** class.

Some S are P.

At least one member of the ***Subject*** class ***is not*** a member of the ***Predicate*** class.

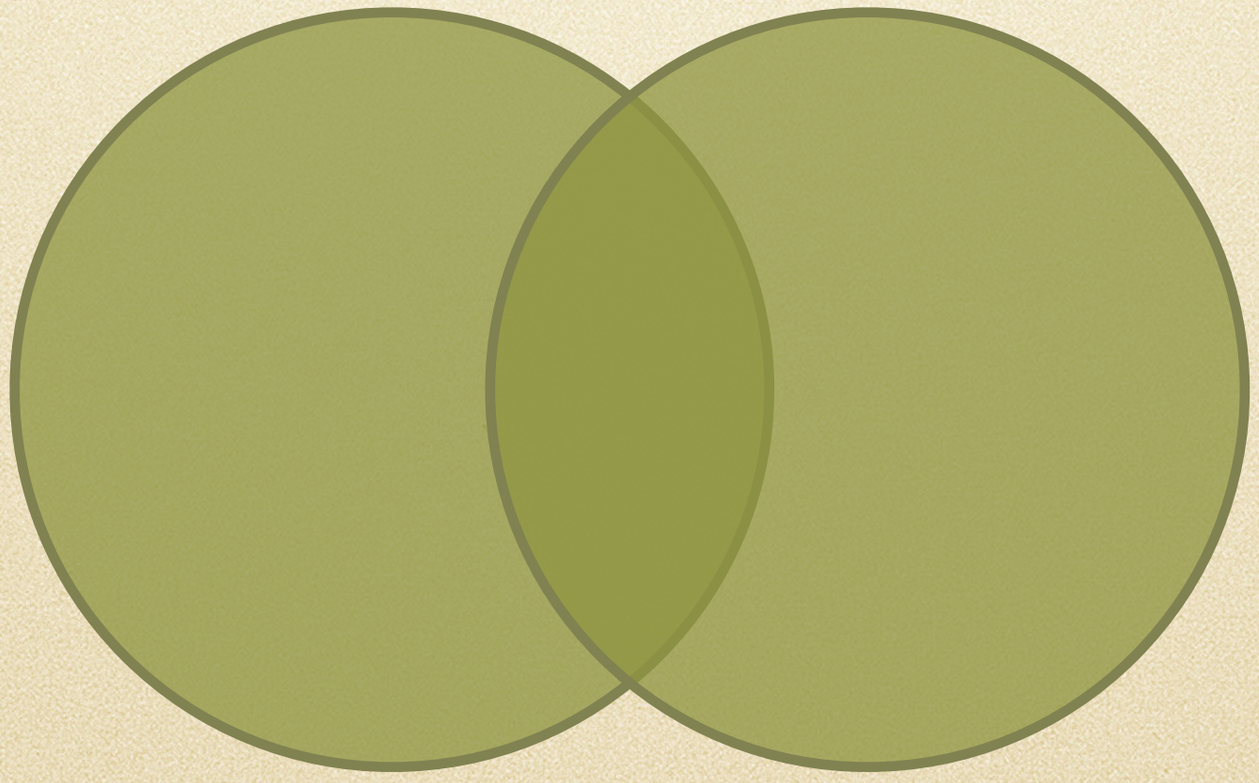
Some S are not P.

Universal Affirmative

All S are P.

Every member of the subject class is also a member of the predicate class.

Subject Predicate



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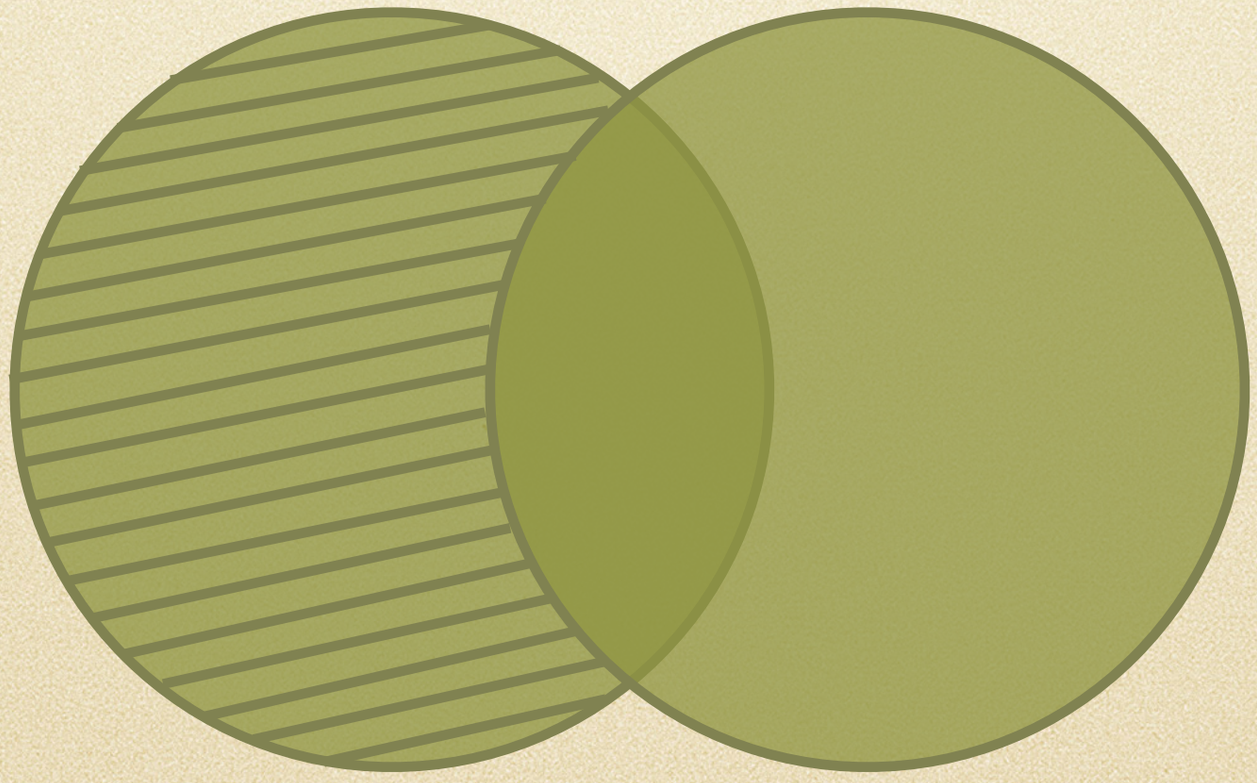
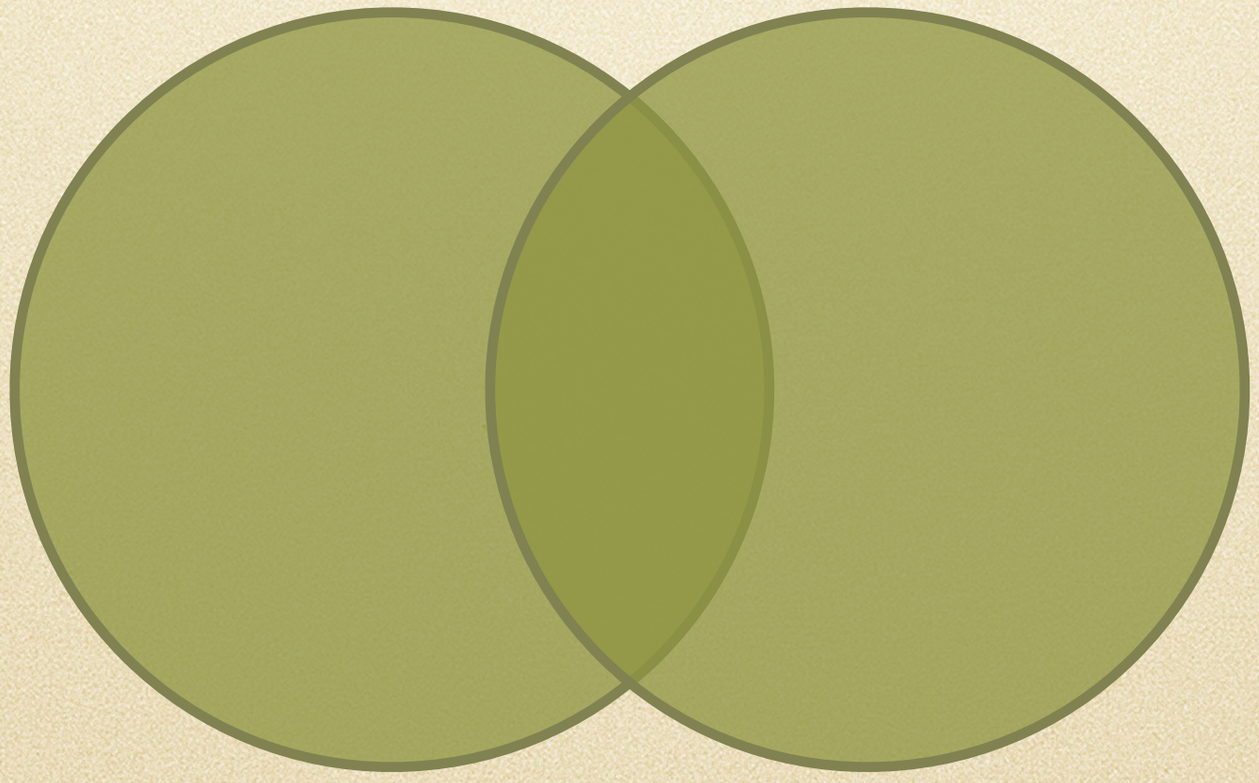


Universal Negative

No S are P.

No members of the subject class are members of the predicate class.

Subject Predicate



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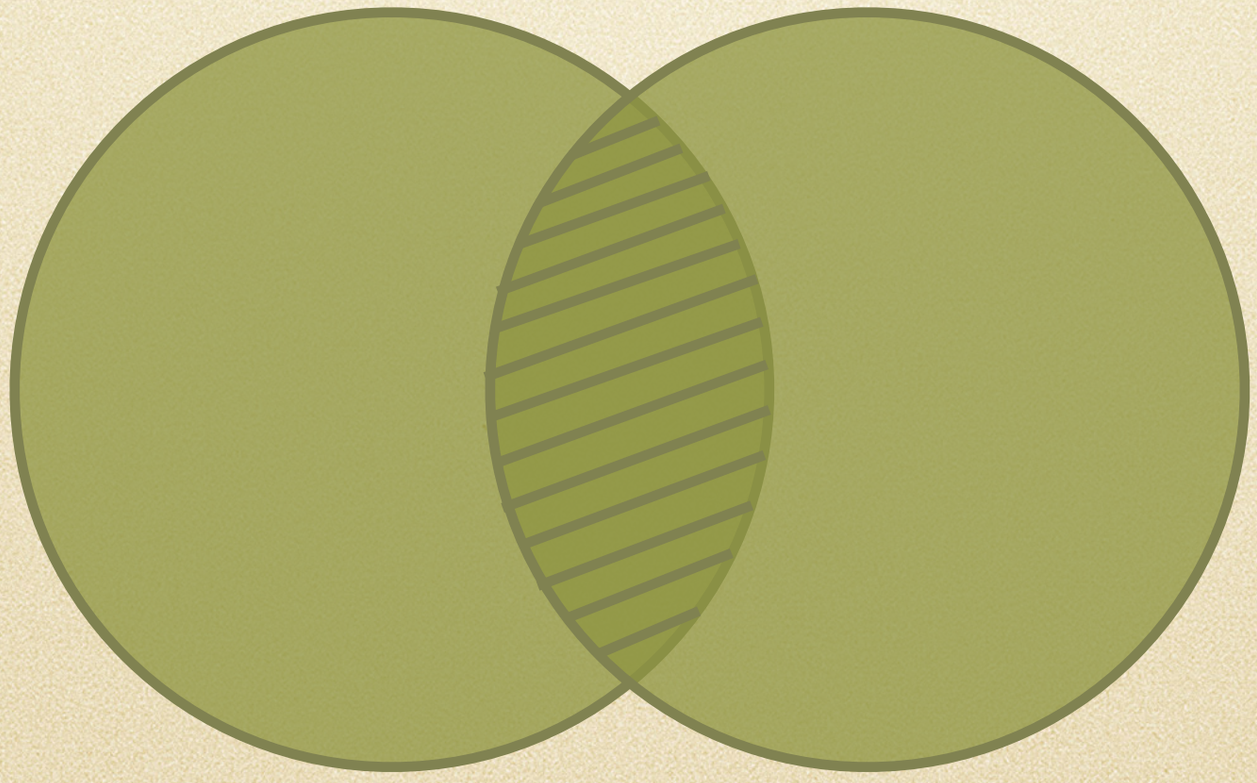
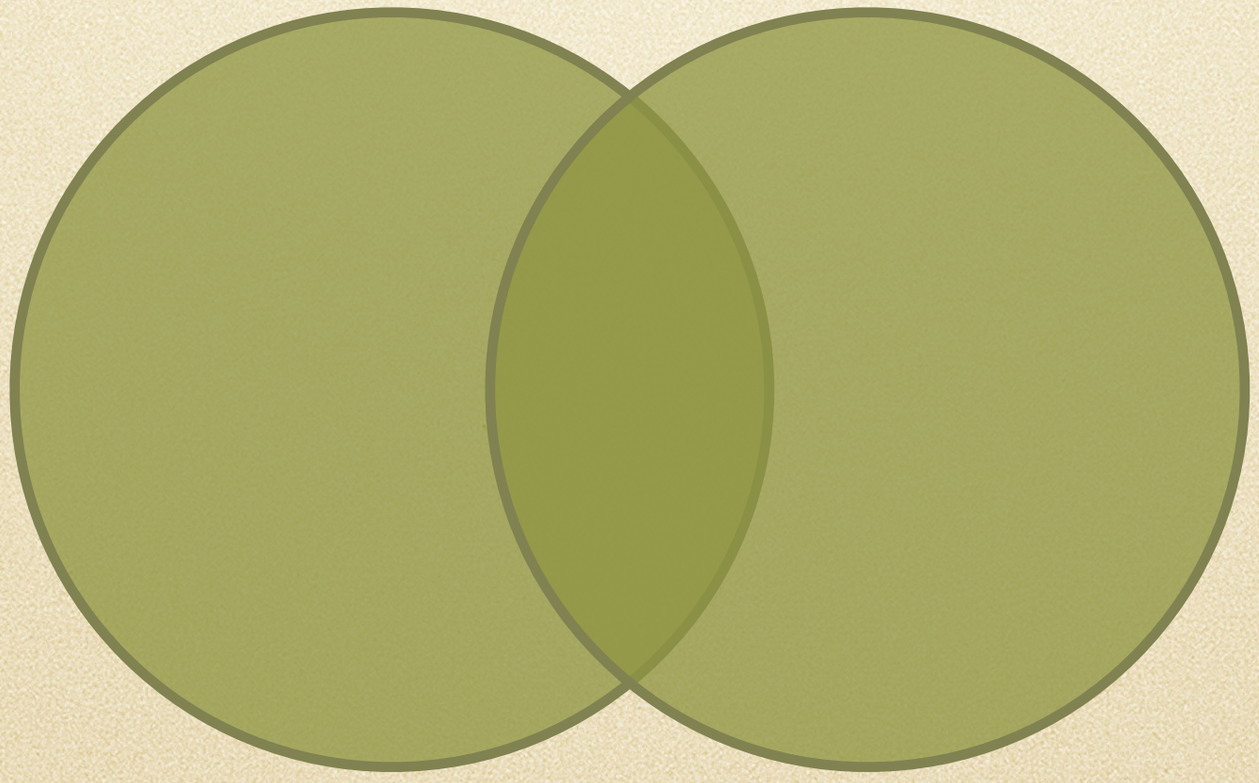


Particular Affirmative

Some S are P.

At least one *members of the subject class is also a member of the predicate class.*

Subject Predicate



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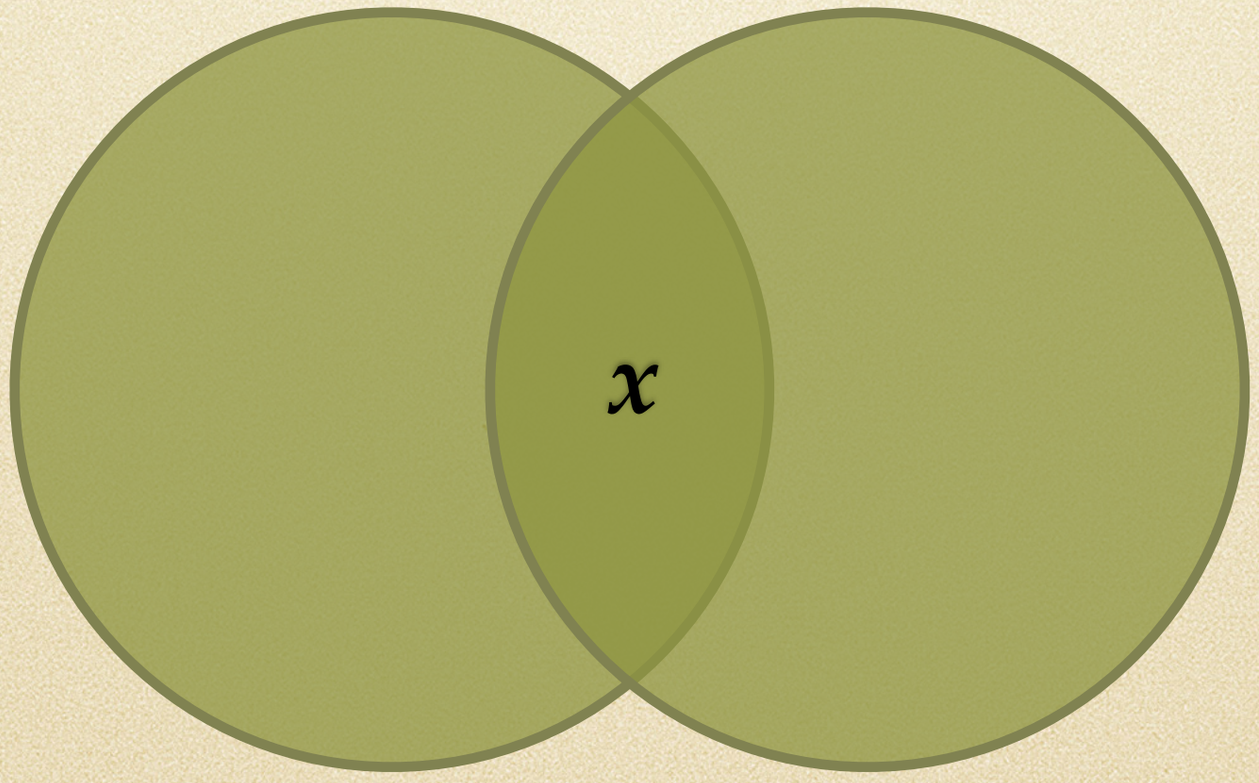
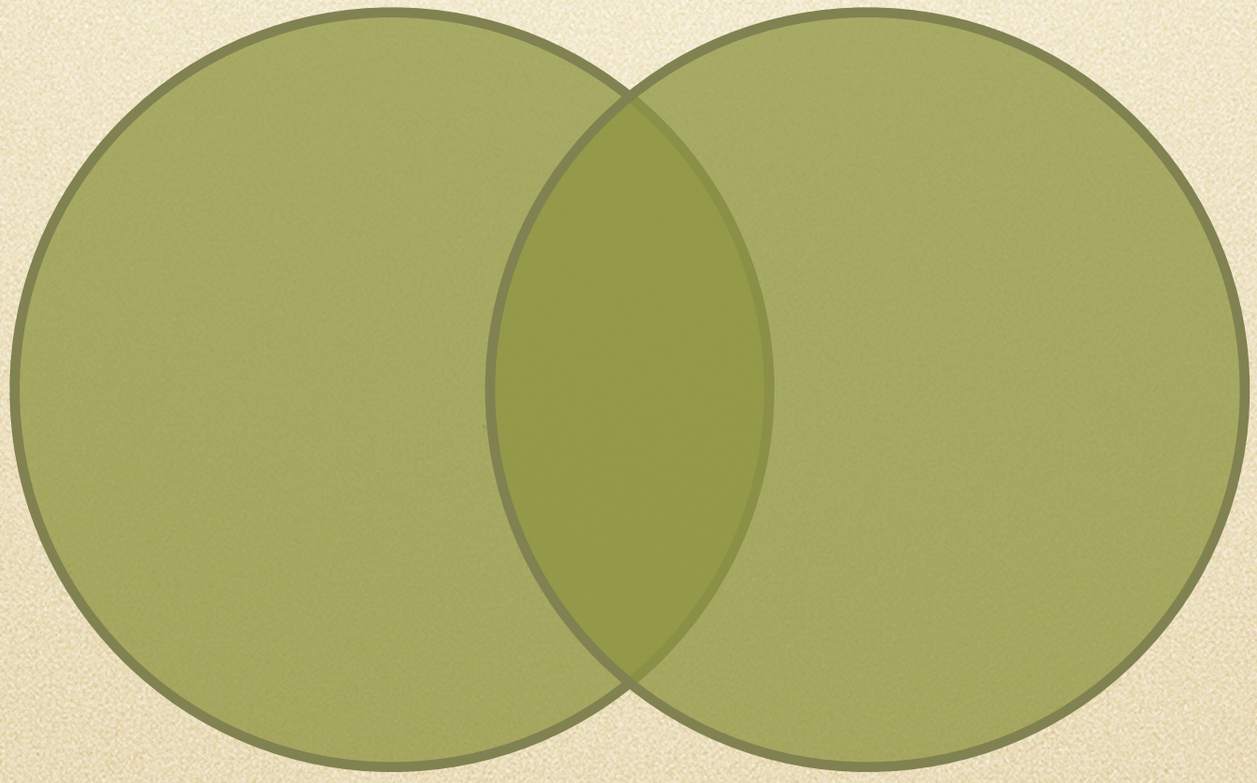


Particular Negative

Some S are not P.

At least one *members of the subject class is* ***not*** *a member of the predicate class.*

Subject Predicate



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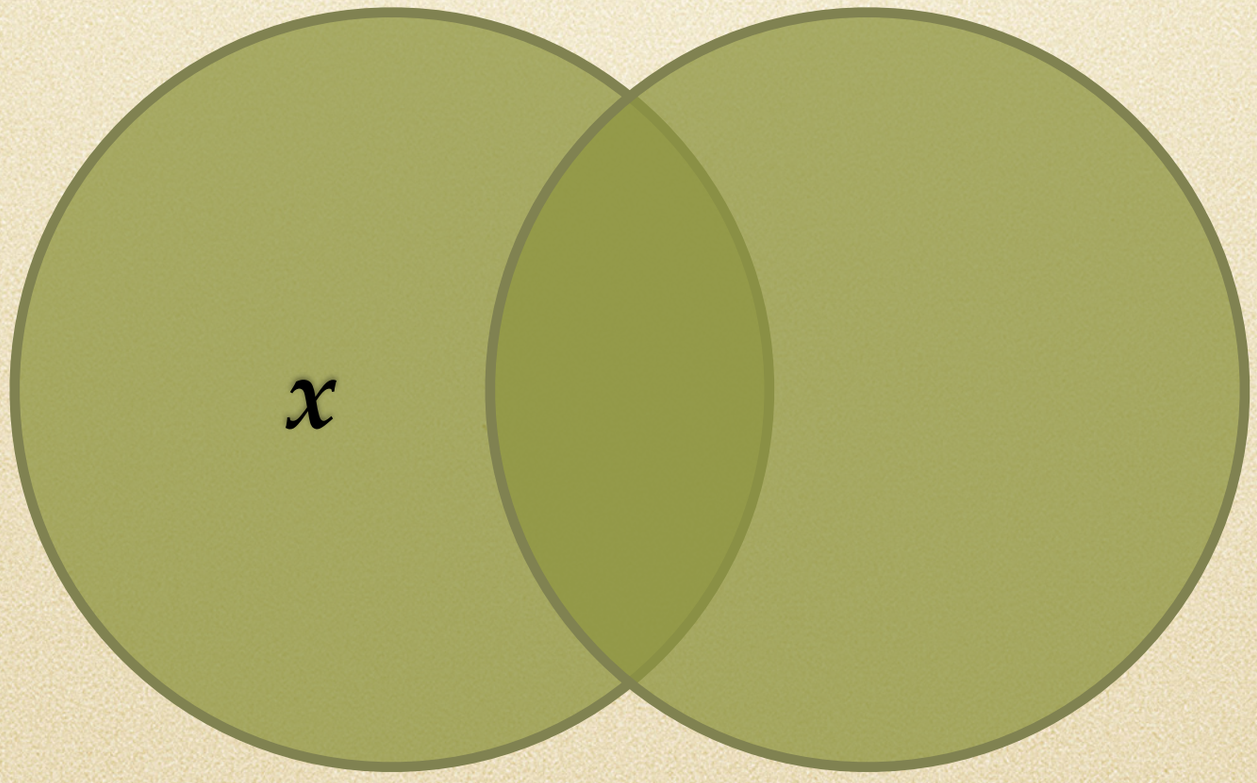


Proposition	*Symbol*	*Quantity*	*Quality*
All S are P.	**A**	universal	affirmative
No S are **P**.	**E**	universal	negative
Some S are P.	**I**	particular	affirmative
Some S are **not P**.	**O**	particular	negative

Distribution of Terms

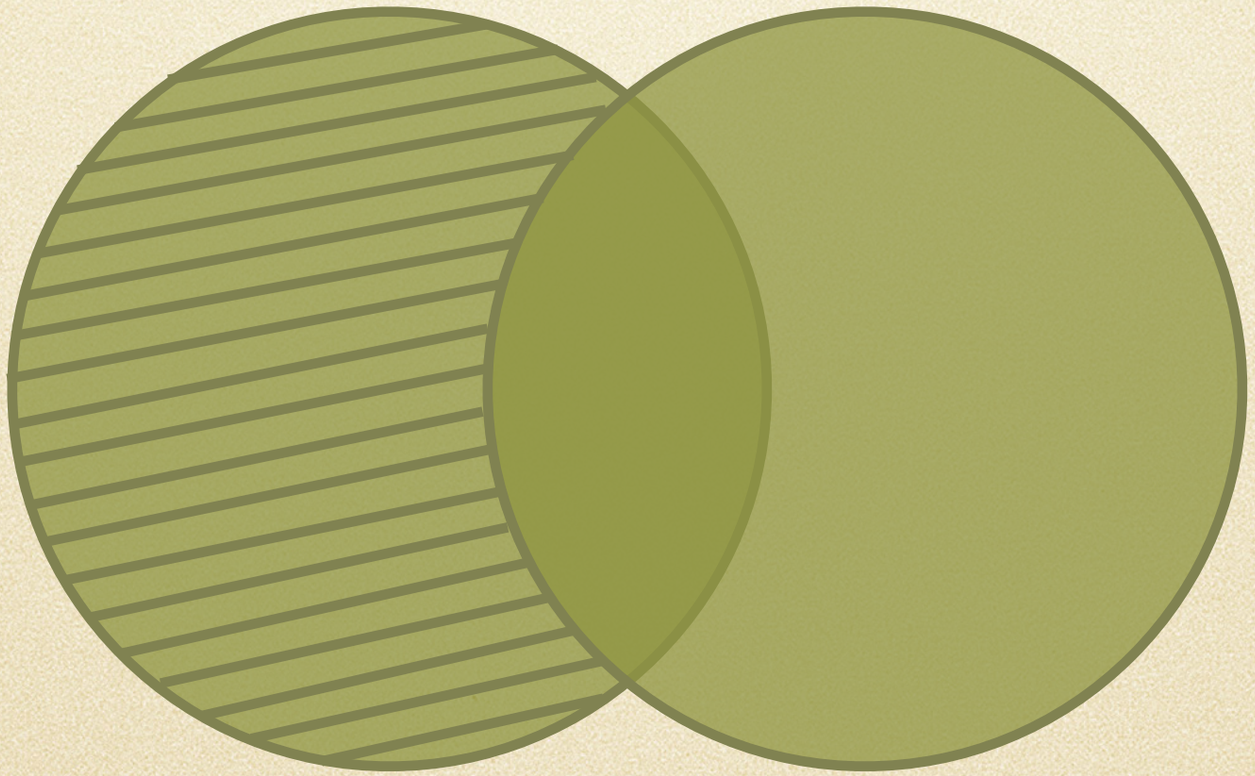
A ***term*** in a categorical proposition is said to be **distributed** when it makes an assertion about every member of a class.

Proposition	Distributed Term
A - **All *S*** are P.	subject
E - **No *S*** are ***P***.	subject ***and*** predicate
I - Some S are P.	*none*
O - Some S are **not *P***.	predicate

Universal Affirmative

A - All S are P.

Subject Predicate

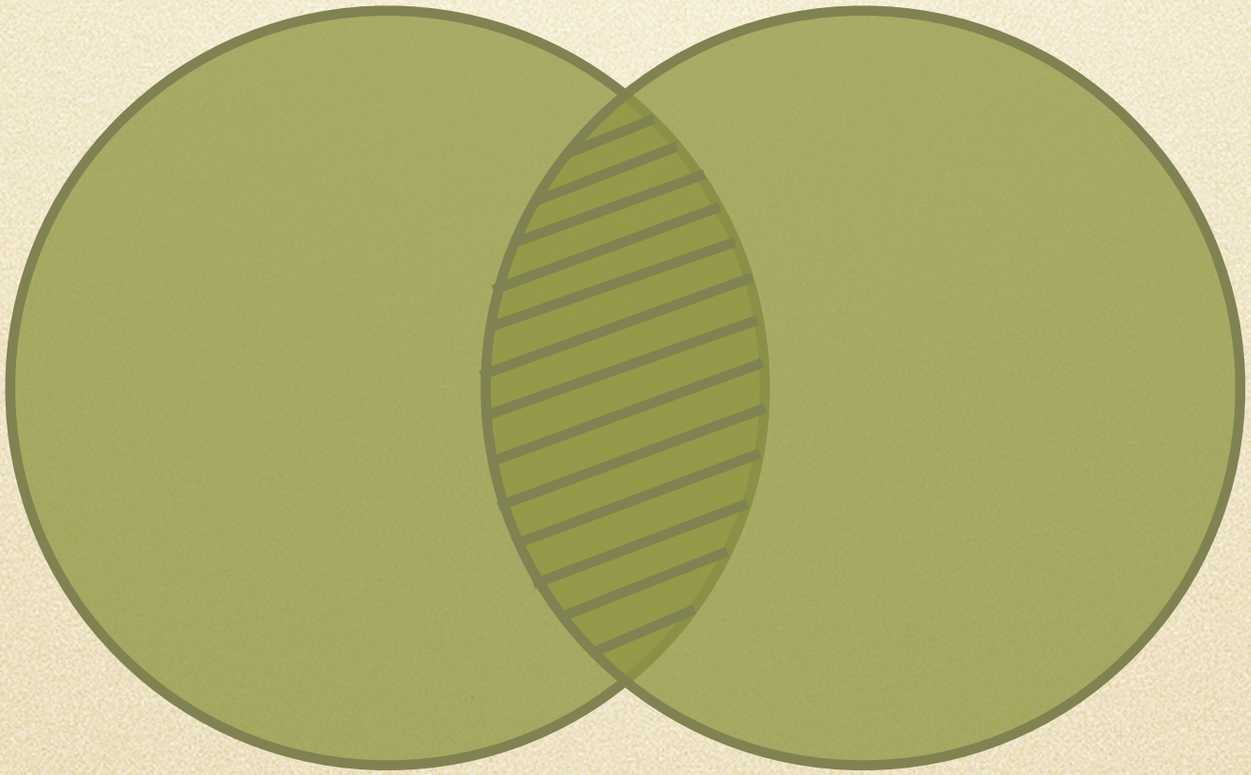


The ***whole*** subject class is ***part*** of the predicate class.

Universal Negative

E - No S are P.

Subject ***Predicate***

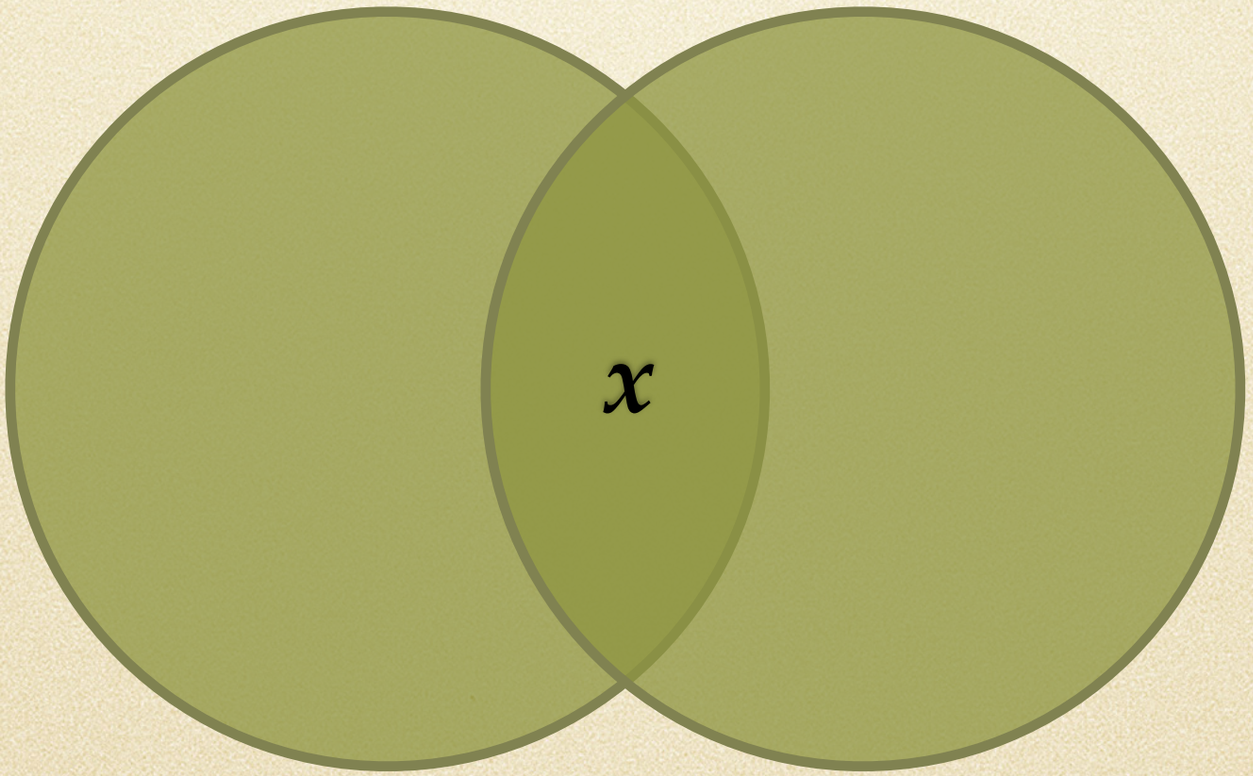


No members of the subject class are members of the predicate class.

Particular Affirmative

I - Some S are P.

Subject Predicate

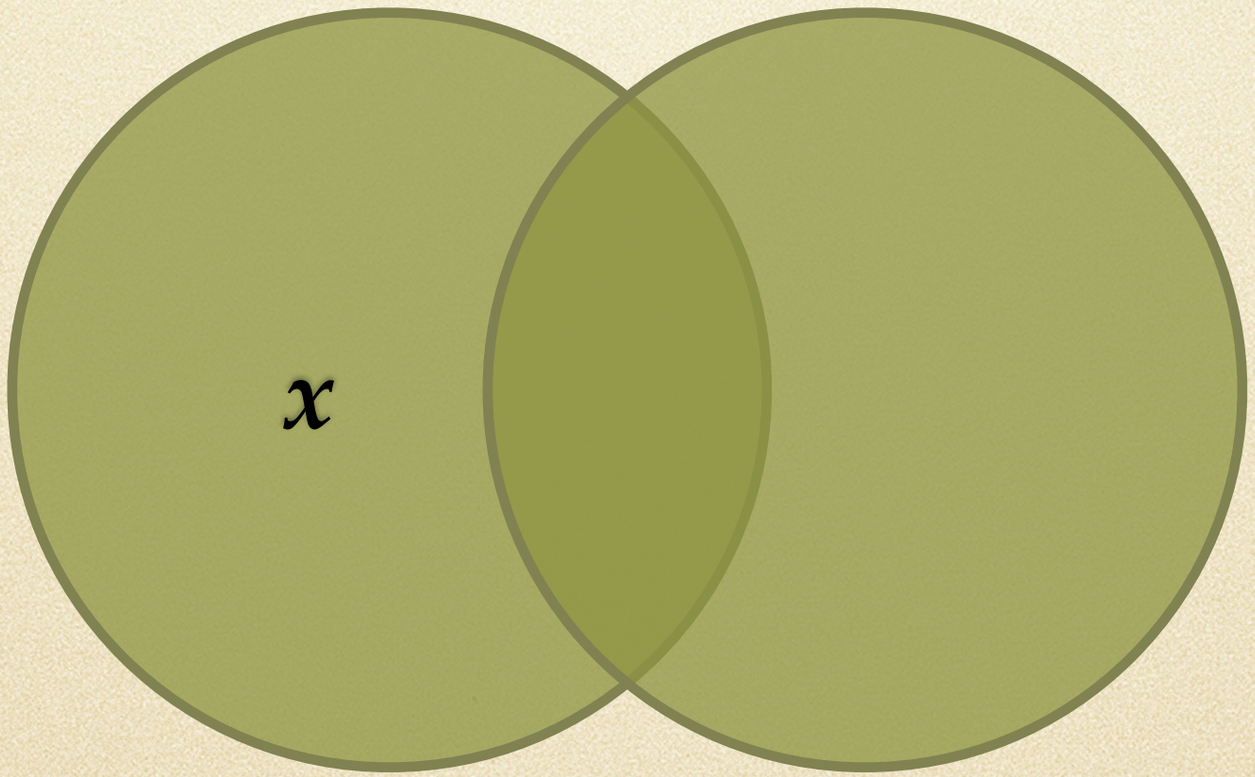


We are talking about neither all of, nor none of, either class.

Particular Negative

O - Some S are **not P**.

Subject ***Predicate***



The ***whole*** predicate class is ***excluded*** from the subject.