

# Lecture 13

## First Steps in Predicate Logic

Goal: Translate simple sentences into predicate logic.

- ▶ In *propositional logic*, the smallest units of analysis are propositions (sentences).
- ▶ In *predicate logic*, propositions and sentences are broken down into predicates, relations, names, etc.

Alice is famous.

Alice is German.

Yuna is famous.

Yuna is German.

Everyone is famous.

Someone is famous.

If Alice is German, then Alice is famous.

If someone is German, then he or she is famous.

All Germans are famous.

No Germans are famous.

Only Germans are famous.

Some Ghanians are famous.

Some Ghanians are not famous.

All Danes and Germans are famous.