

# Mungo

Adding Behaviour to Class Definitions

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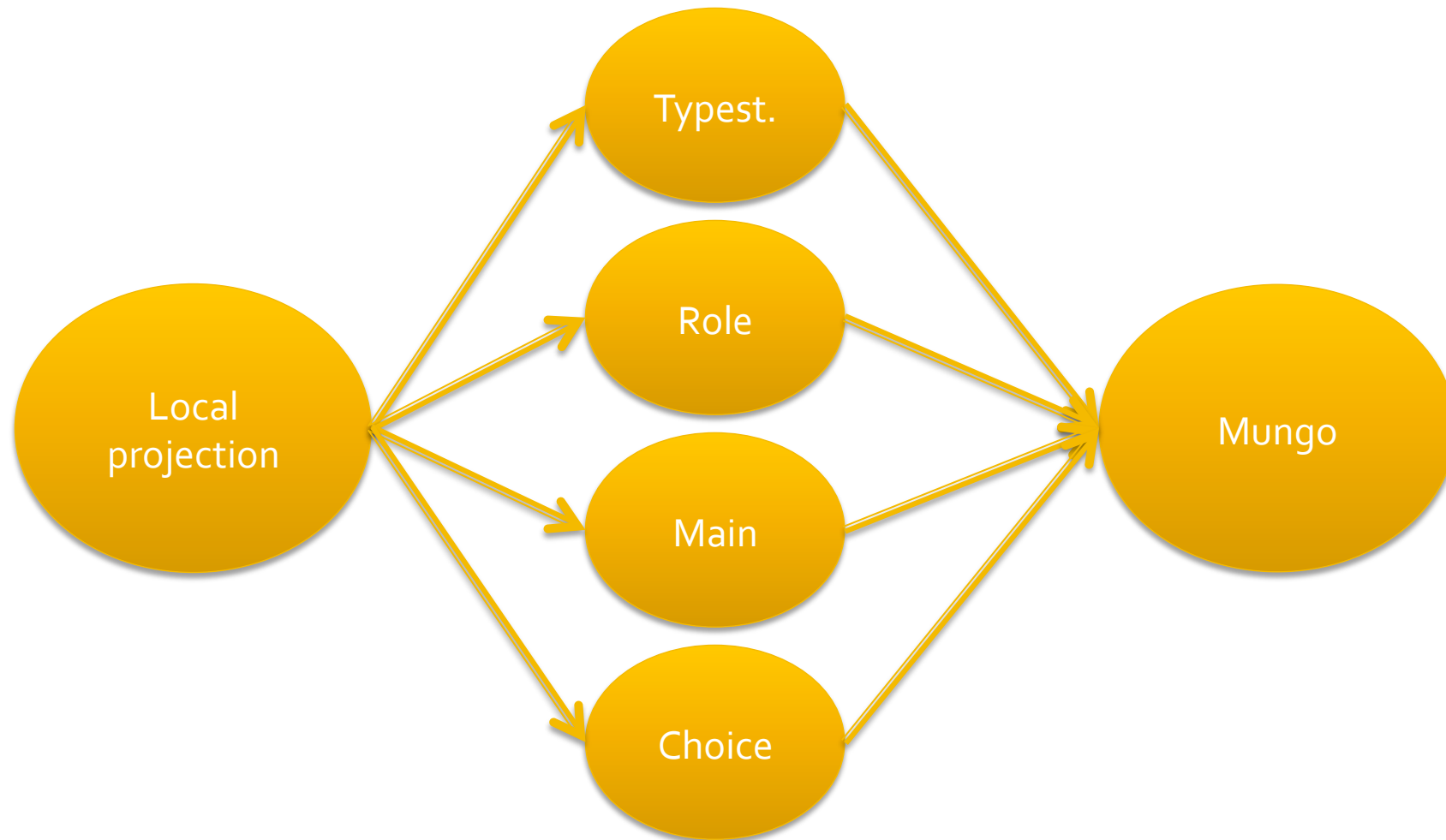
# What is Mungo?

- Java classes are augmented with *typestates*.
- A typestate describes a *protocol*: it imposes an order on objects' methods invocation.
- Mungo checks that method invocations follow the declared typestate of an object.

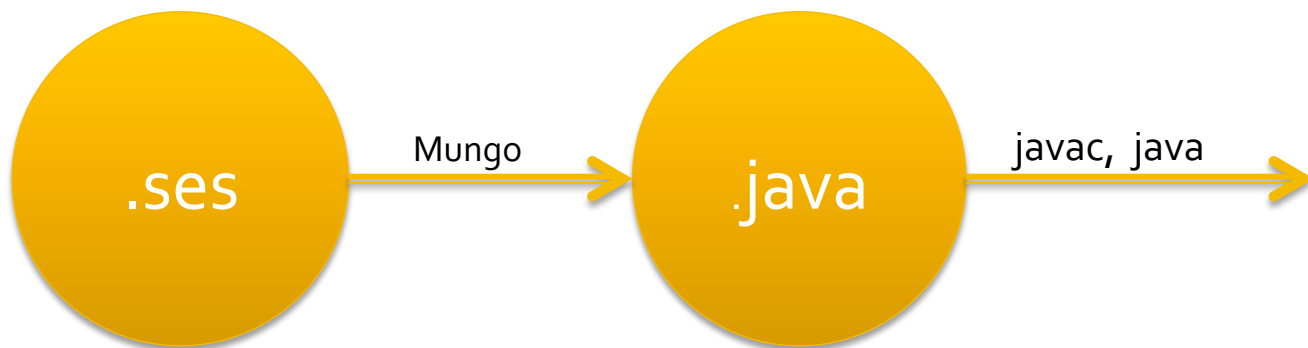
# From Scribble to Mungo

- Scribble is a language for specifying protocols, as global session types.
- Translation Scribble to Mungo:  
message exchange → method invocation.

# Translation in a Nutshell



# Mungo in a Nutshell



# Demo: SMTP in Mungo

- Statically typecheck the SMTP protocol, as follows:
  - ✓ Start: SMTP\_C protocol written in Scribble
  - ✓ Translation in Mungo
  - ✓ End: use Mungo to typecheck it!