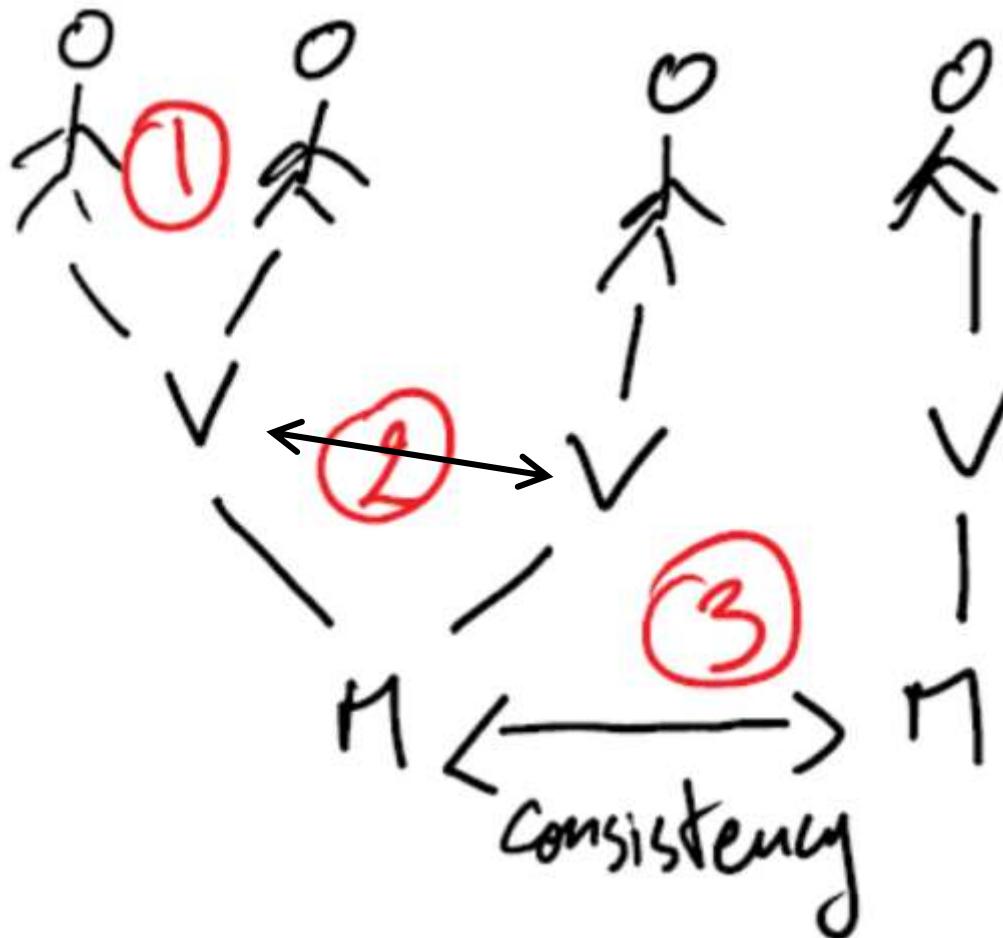


CAMPaM 2015

# Semantics in Multi-View Modeling Systems

Eugene, Didier, Clark

# Use cases in multi-view modeling

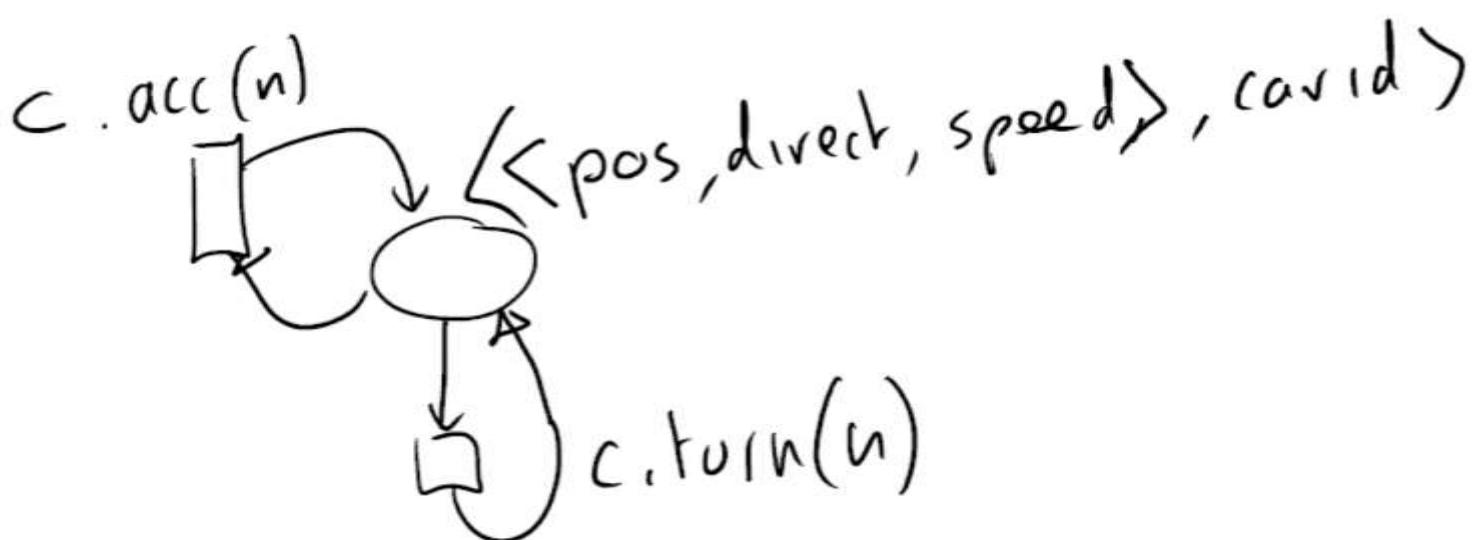


# Running example: Car Racing Game

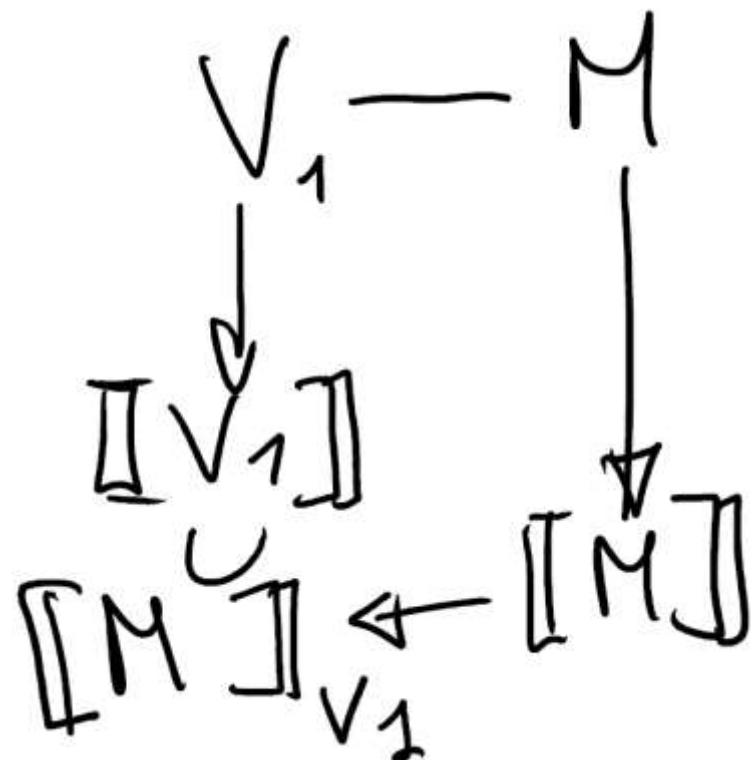


# Car racing game: naïve model

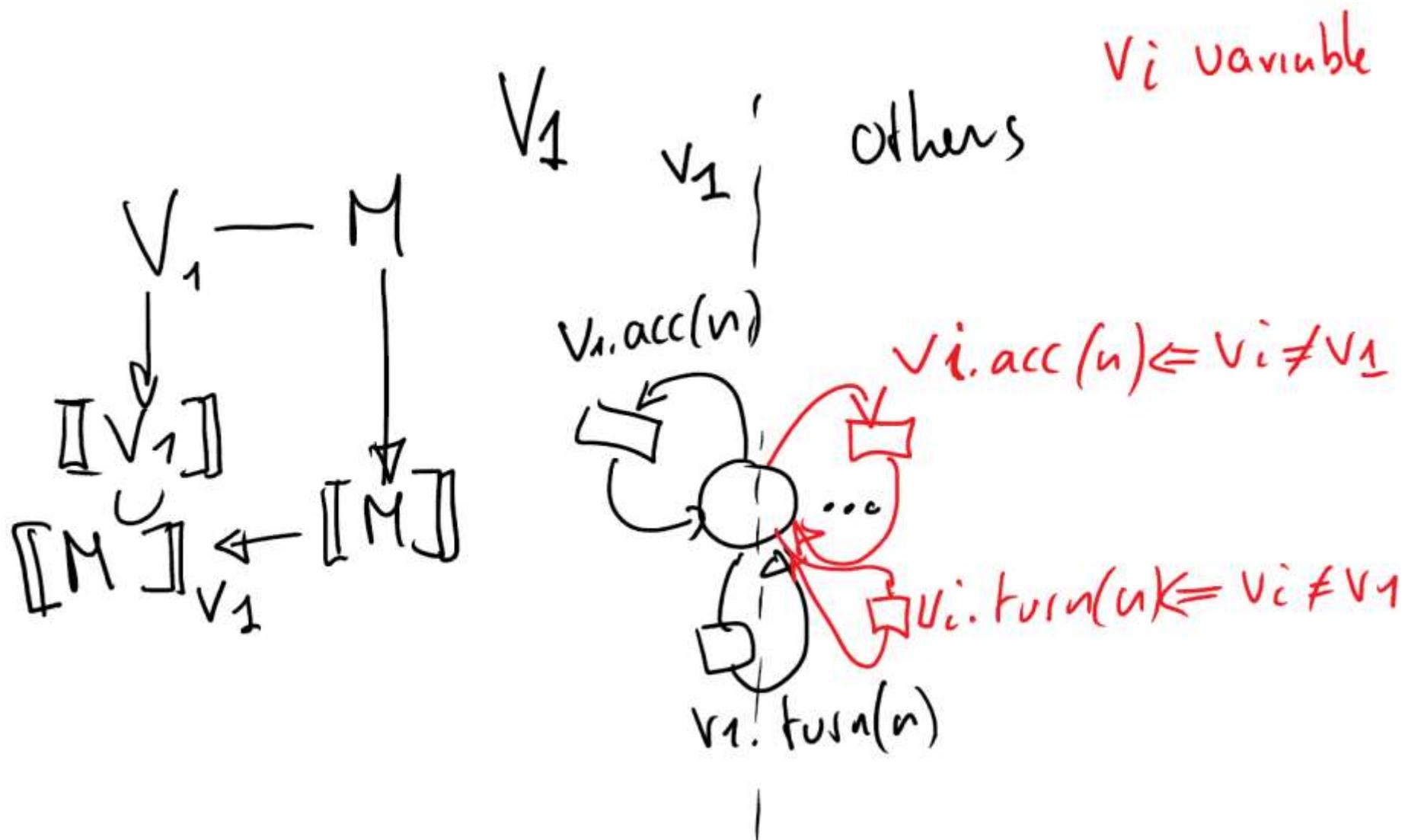
Naïve M  $c : \text{Car}$   $n : \mathbb{N}$



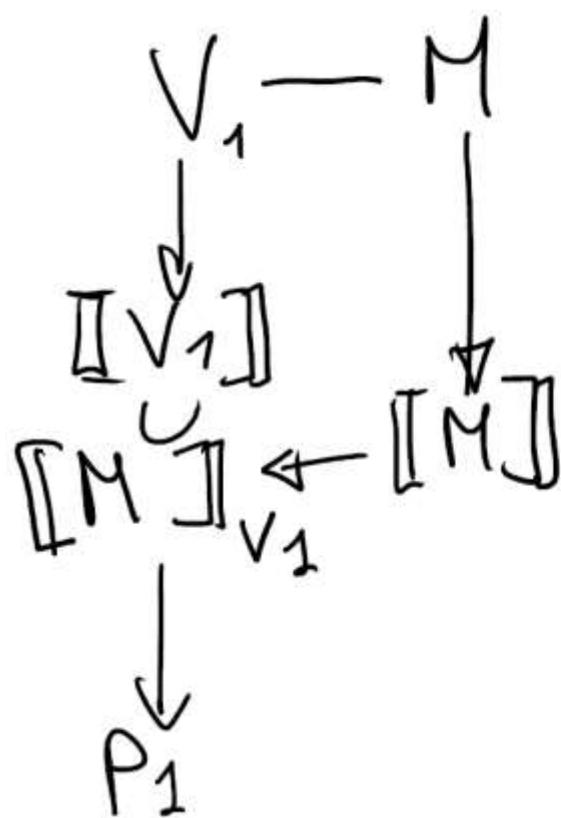
# View, model and semantics



# Incorporate knowledge from other cars



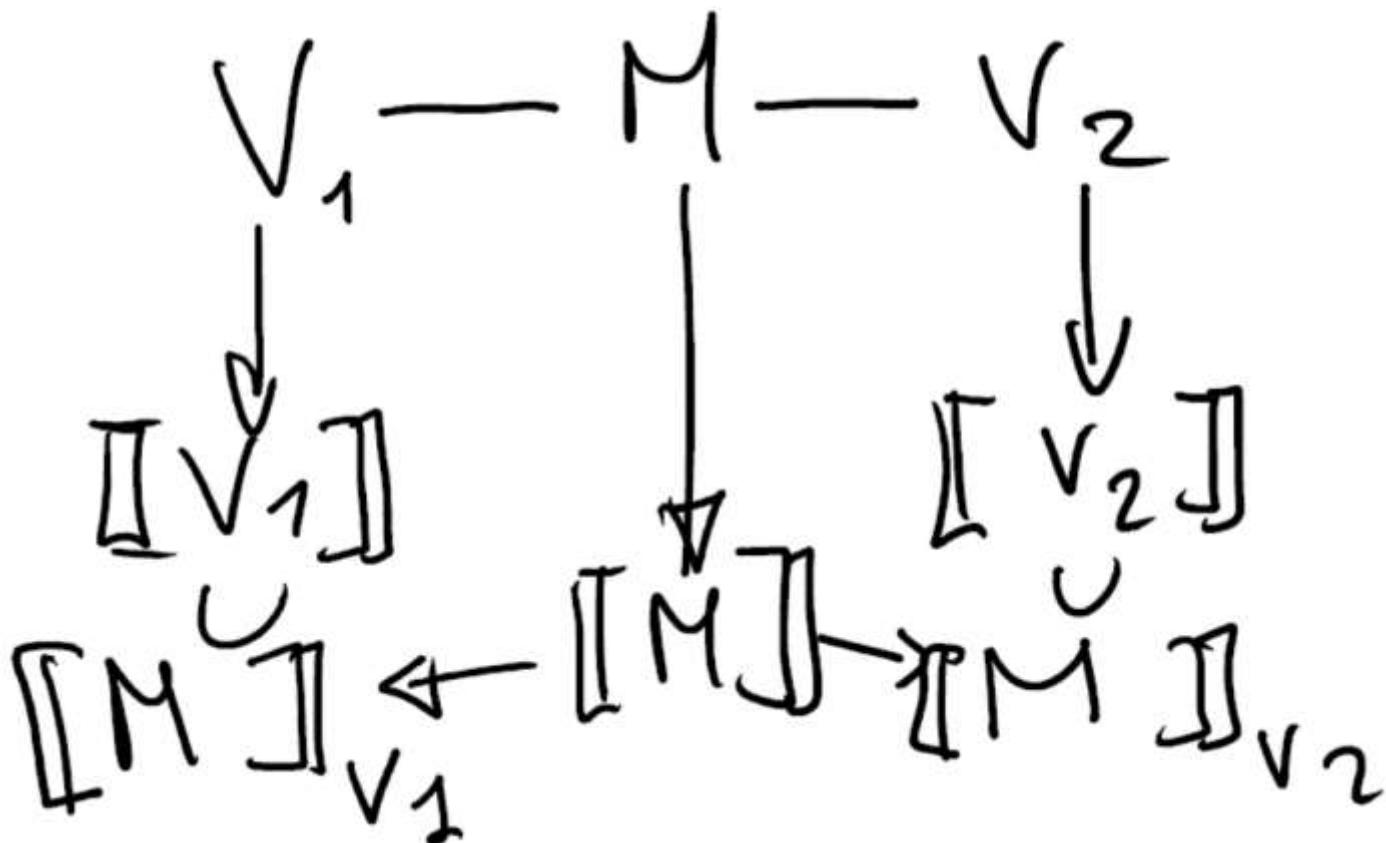
# Properties



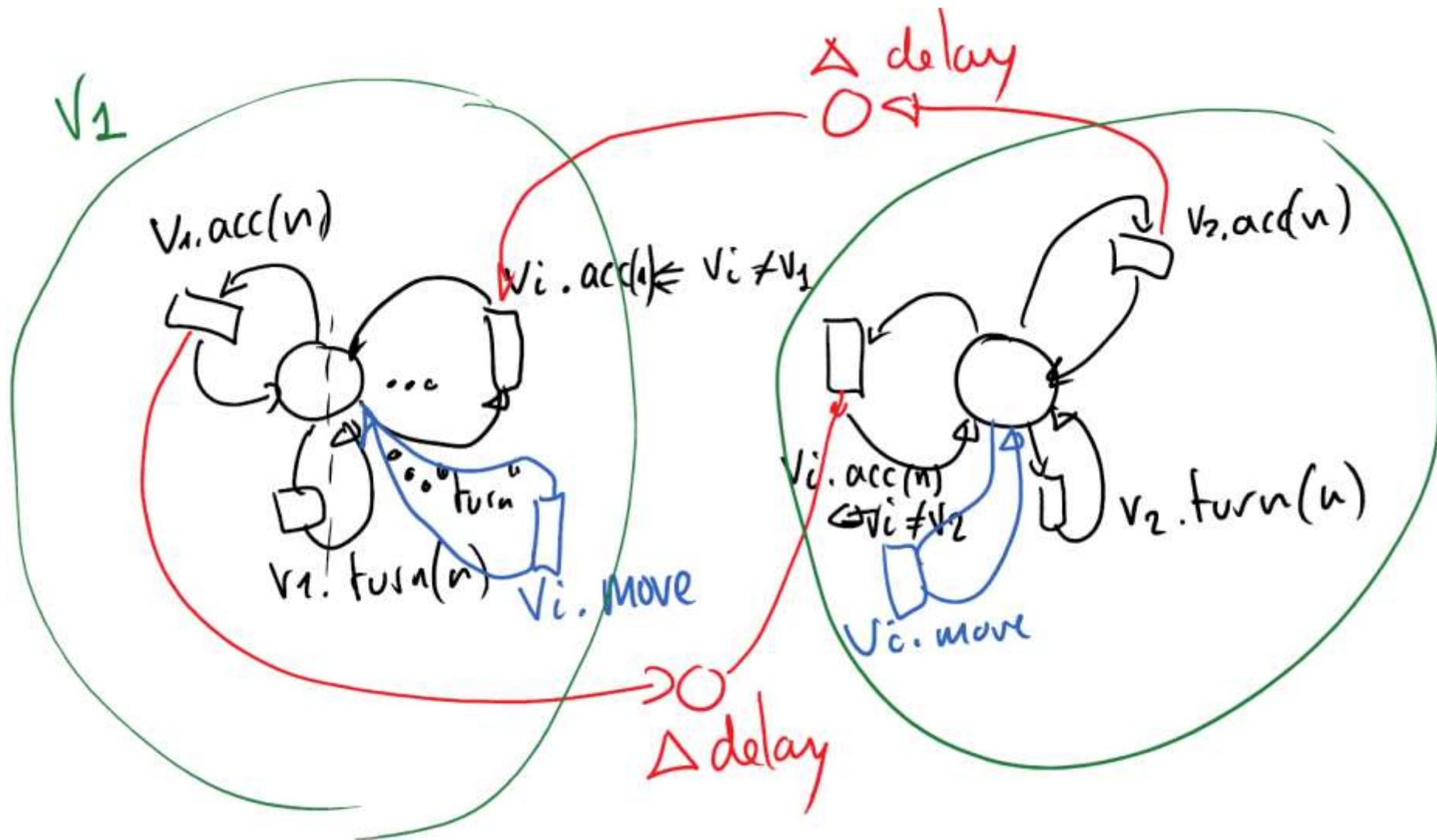
$V_1 \in \text{Cars}$   
Properties  $P_1$

is  $v_1$  ahead of other cars?

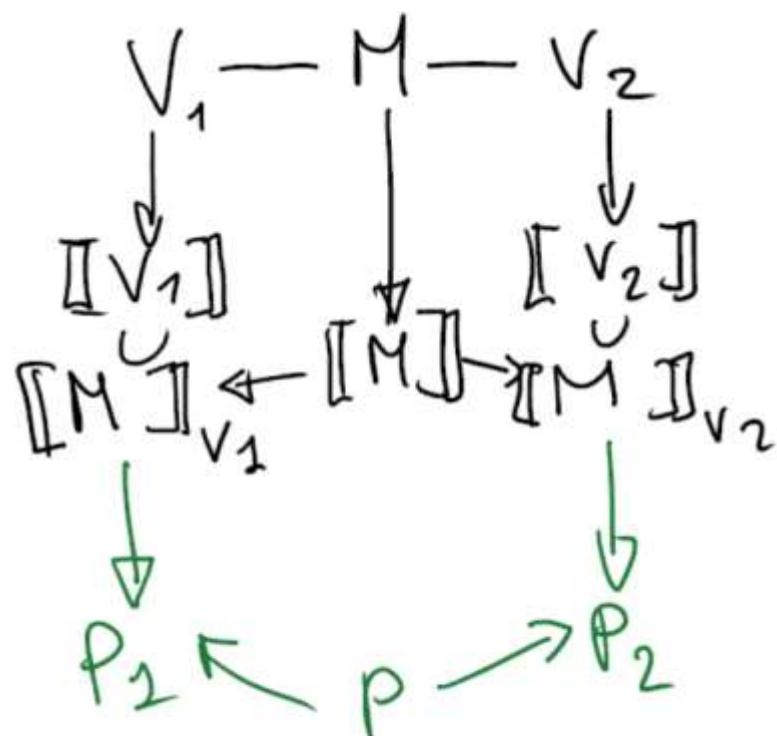
# Multiple views



# The complete model: M



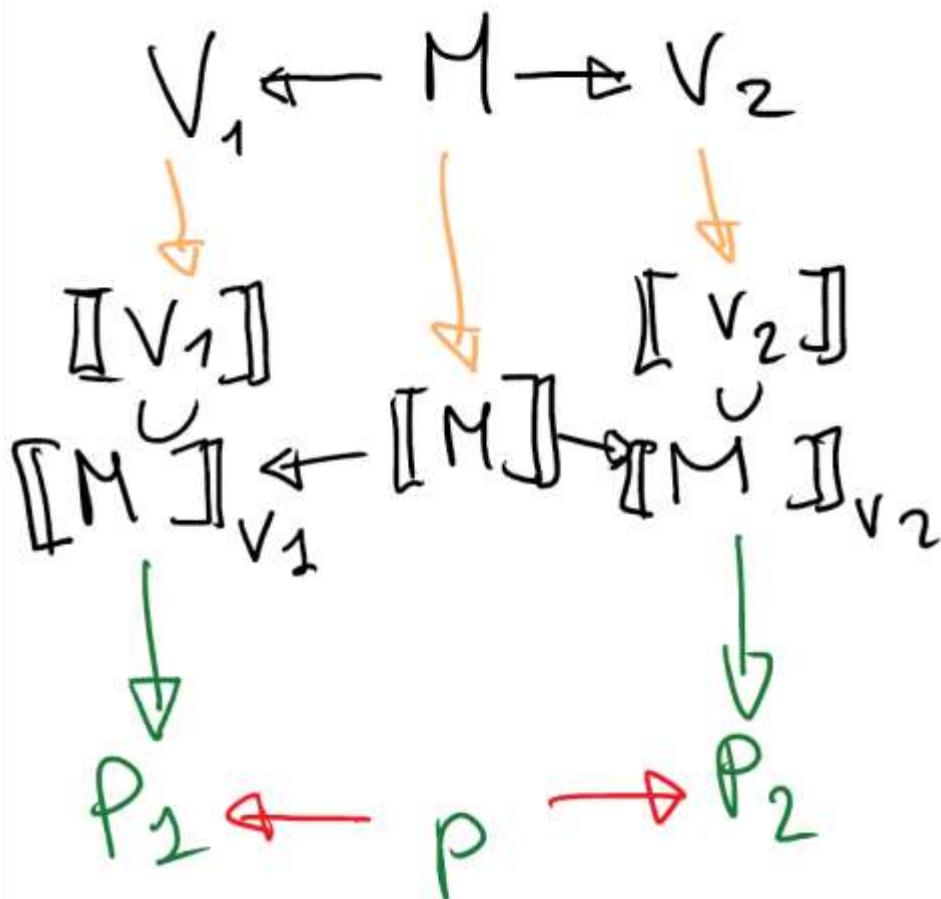
# Consistency between properties



P  
v<sub>1</sub> ahead of other cars?  
 $\Leftrightarrow (P_1 \approx P_2)$

$\approx$  is an equivalence relation here  $\Leftrightarrow$

# Semantic consistency in multi-view modeling



→ projection  
→ meaning  
→ derivation  
→ approximation