

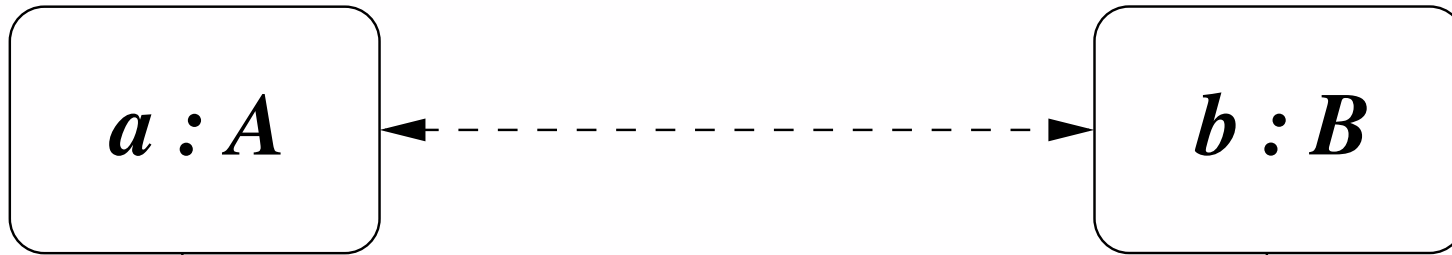
# Coupled Software Evolution

## Software Evolution – L2T2

Dr. Vadim Zaytsev aka @grammarware, February 2021



# Coupled Evolution = Coevolution

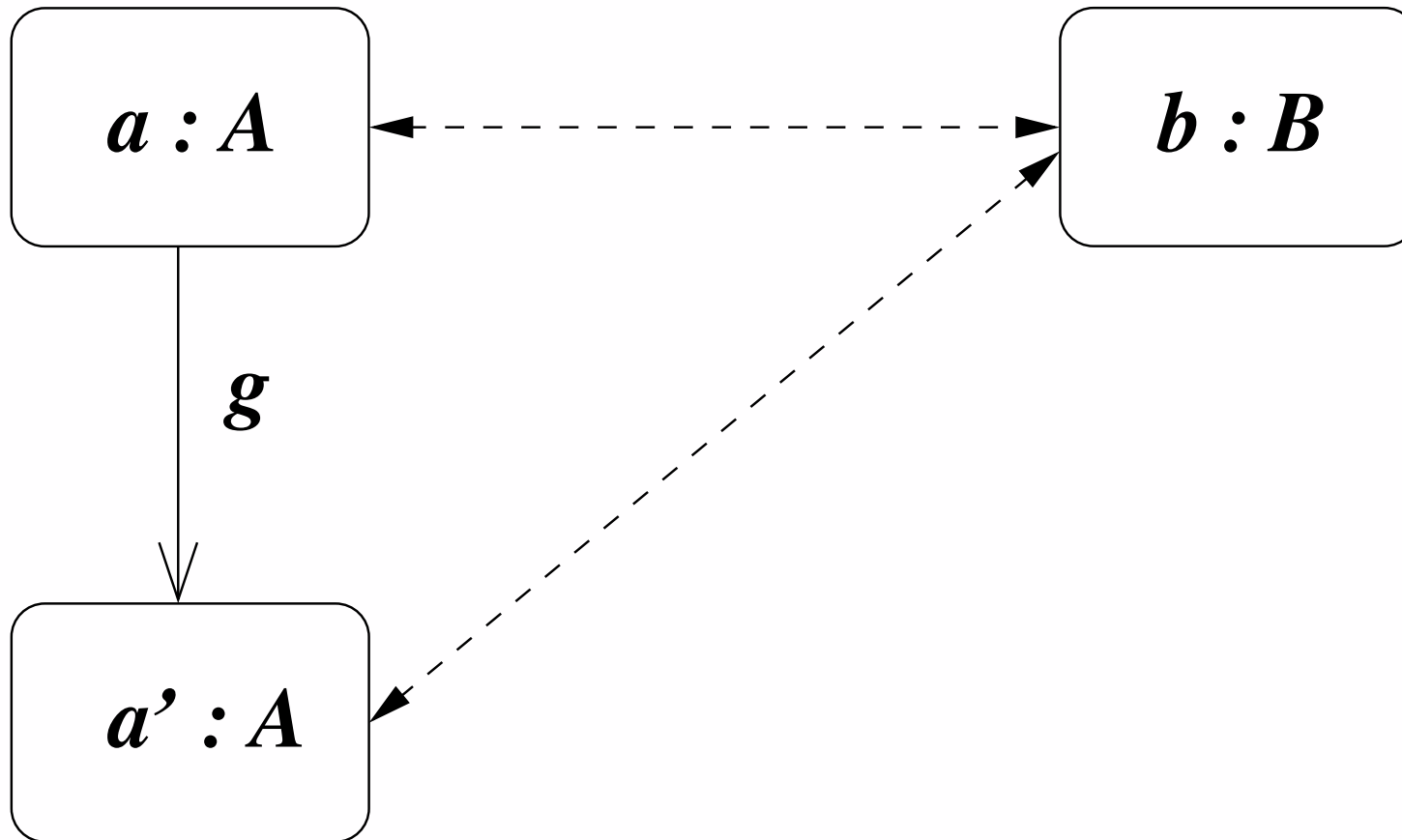


- Two artefacts are **consistent**
- One of them **evolves**
- The other one **coevolves**

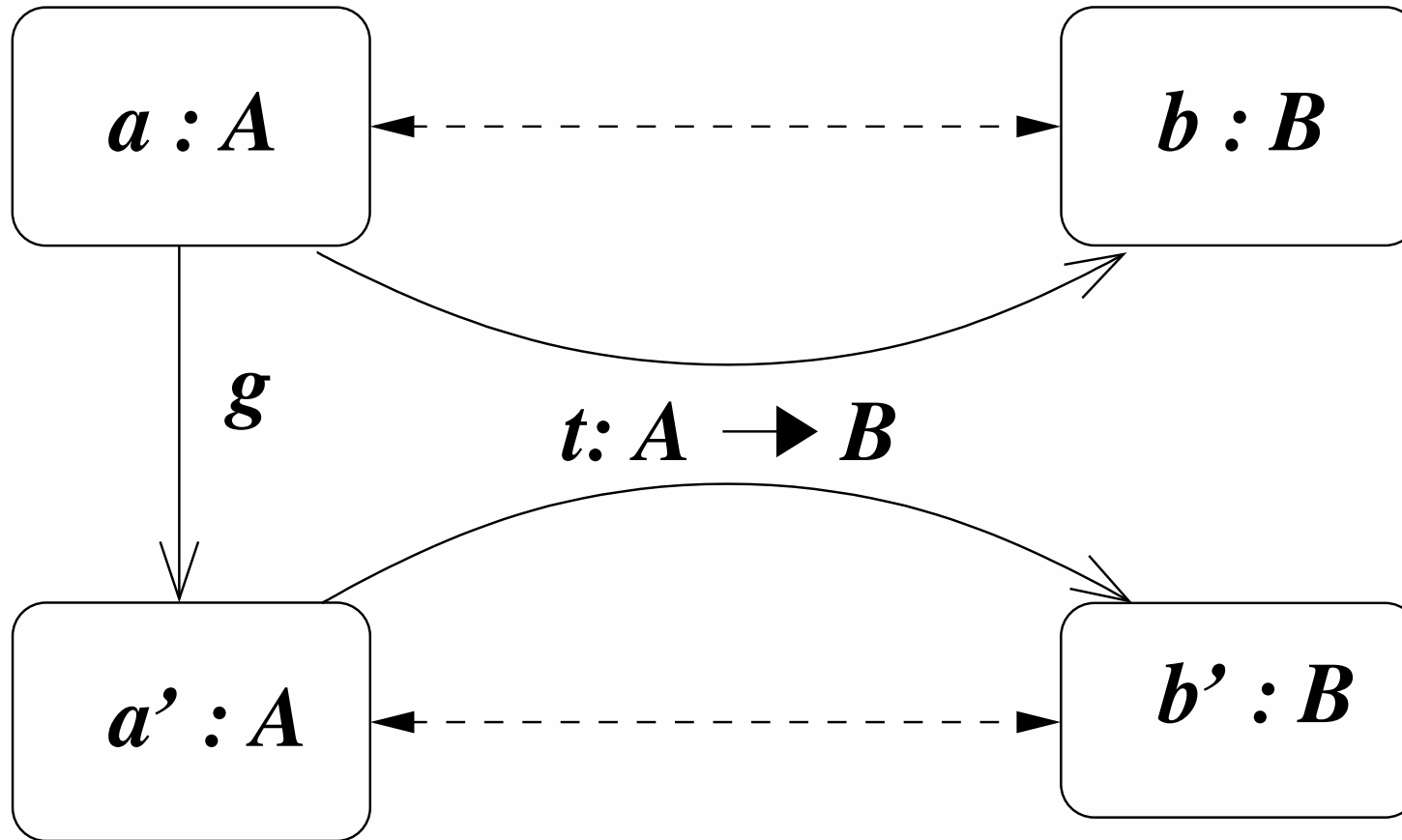
# Coupled Evolution Examples

- Cooperative editing
- Source code and runnables
- Consistency management in software modelling
- Co-evolution of design & implementation
- View-update translation
- Structural/projectional editing
- Negotiated program transformations

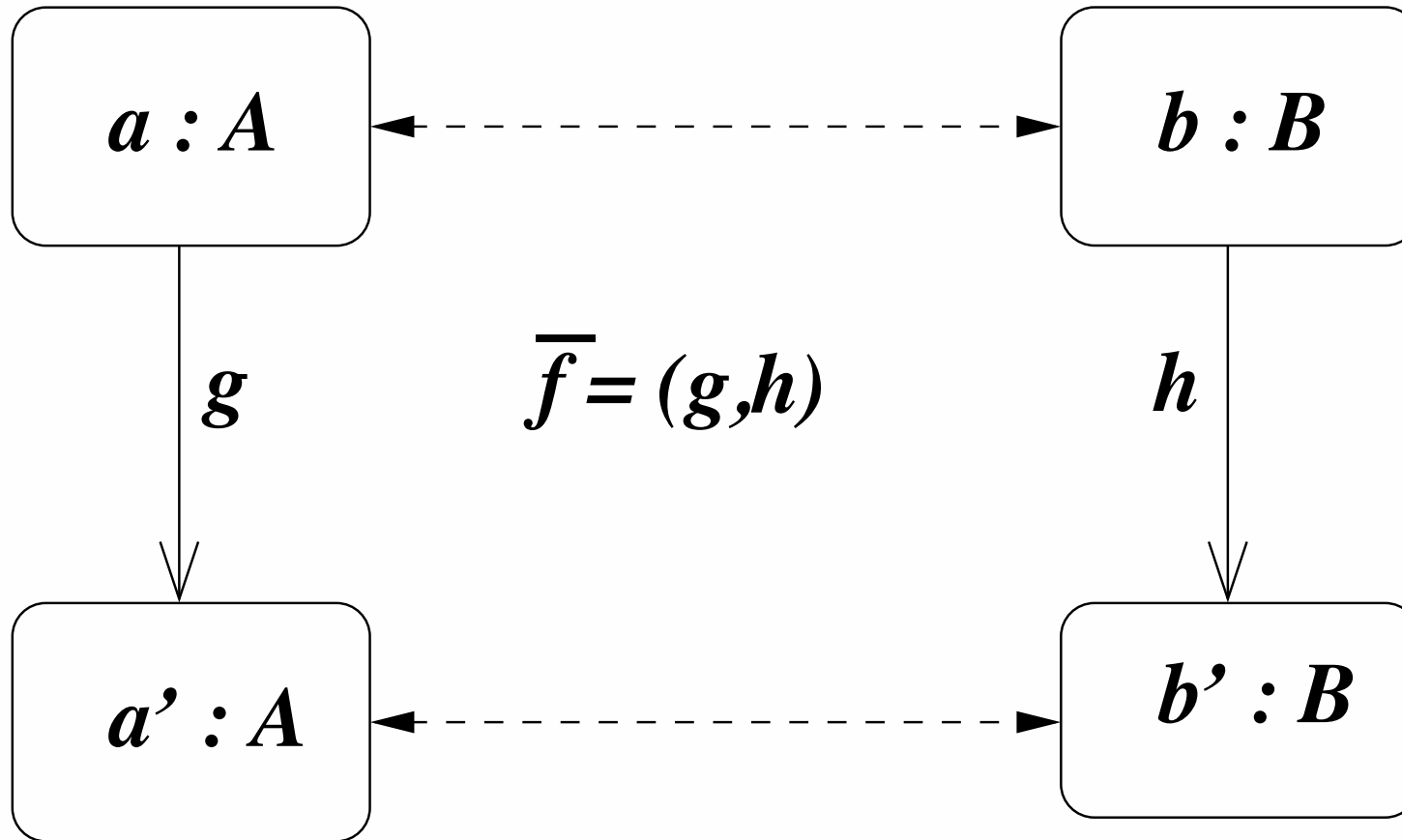
# No Reconciliation



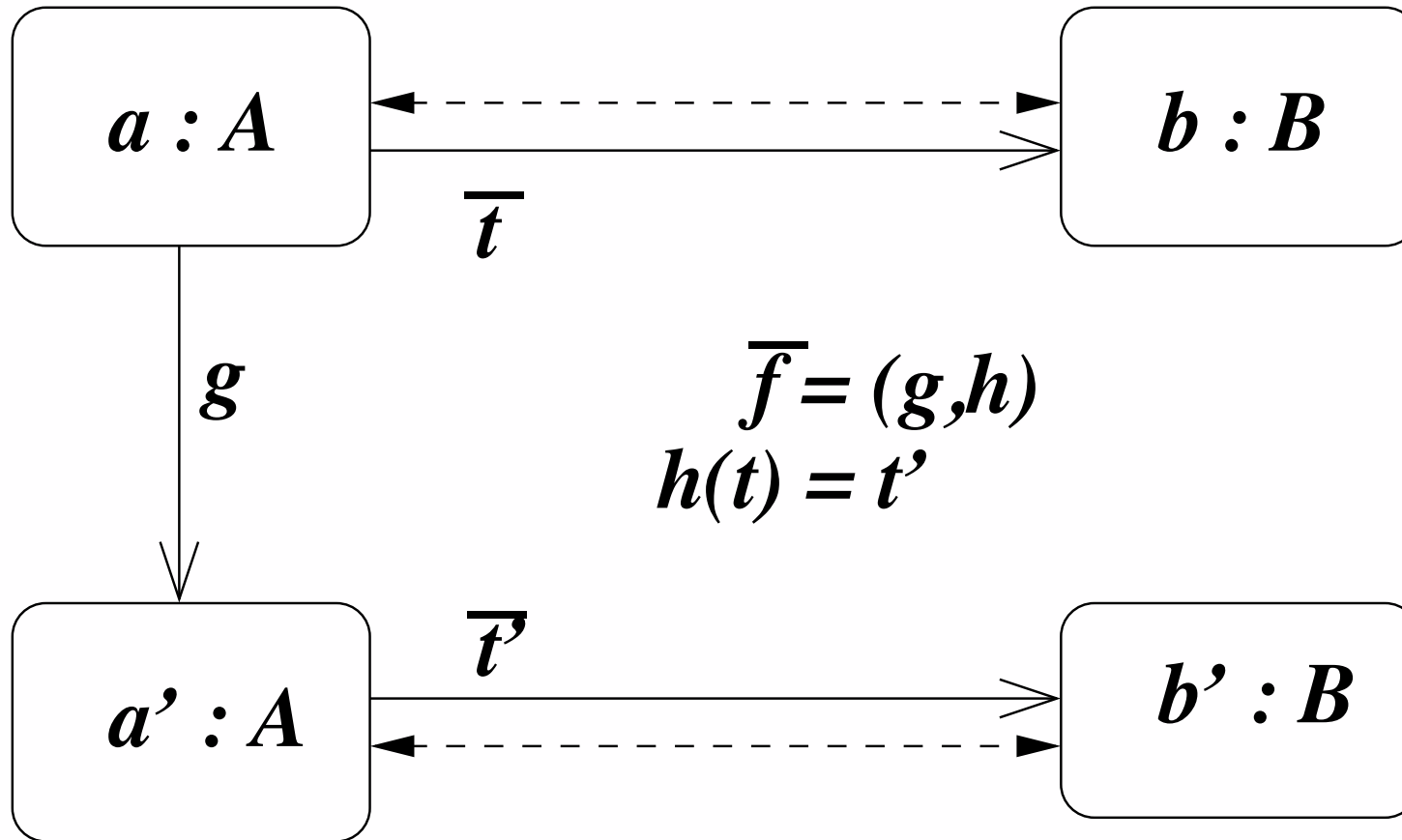
# Trivial Reconciliation



# Symmetric Reconciliation



# Asymmetric Reconciliation



# Conclusion

- Evolution is not always triggered from the outside
- Coupled evolution is ubiquitous
- Many possible patterns
  
- Q&A Sessions @ Canvas
  - ⇒ [v.zaytsev@utwente.nl](mailto:v.zaytsev@utwente.nl)
  - ⇒ <https://discord.gg/n7VQAPNBPD>