Word Recognition and Multilingualism

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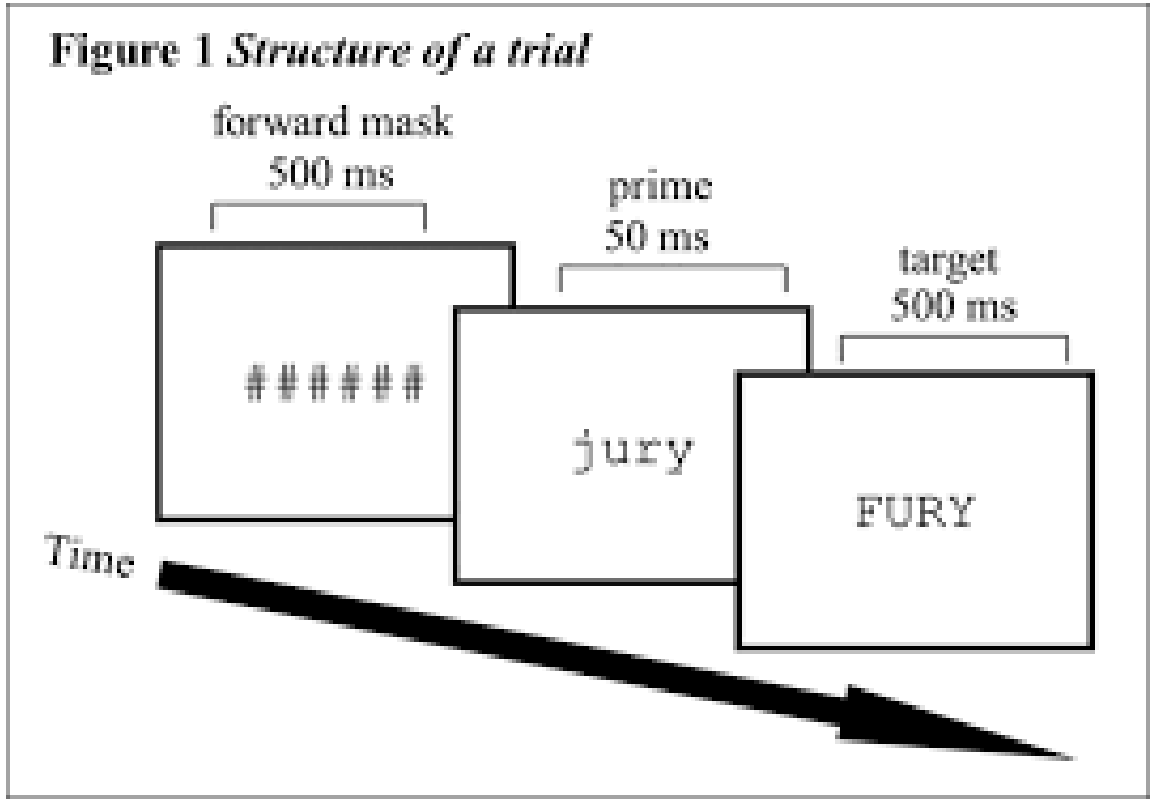
COGS 4780

How do we store multiple languages?

- Some of the same methods we've already looked at in the past few weeks can be used on bilinguals to see how activation may spread across languages
- Two broad possibilities (with some subdivisions):
  - A) Each language is separate, so activation doesn't spread within a language unless that language is being used
    - There is a switching mechanism that we utilize to switch back and forth between languages that we know
  - B) There is interaction between languages, so even if only one language is in use, activation can spread in/to another
    - No need for a switching mechanism, patterns of activation will do all the work for us

How do we store multiple languages?

- Schoonbaert et al. (2009) tested Dutch-English bilinguals in a masked priming lexical decision task



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- Cross-linguistic masked priming would present a masked prime in one language and a target item in the other language

- *meisje*-GIRL
- *girl*-MEISJE

- Lexical decision task on second word

How do we store multiple languages?

- Translation priming:
  - *meisje*-GIRL
  - *girl*-MEISJE

- Semantic priming:
  - *jongen*-GIRL
  - *boy*-MEISJE

How do we store multiple languages?

- Subjects were L1 Dutch – L2 English bilinguals

- L1 → L2 translation priming – strong significant effect
- L2 → L1 translation priming – significant but less strong effect

- L1 → L2 semantic priming – significant effect
- L2 → L1 semantic priming – significant effect

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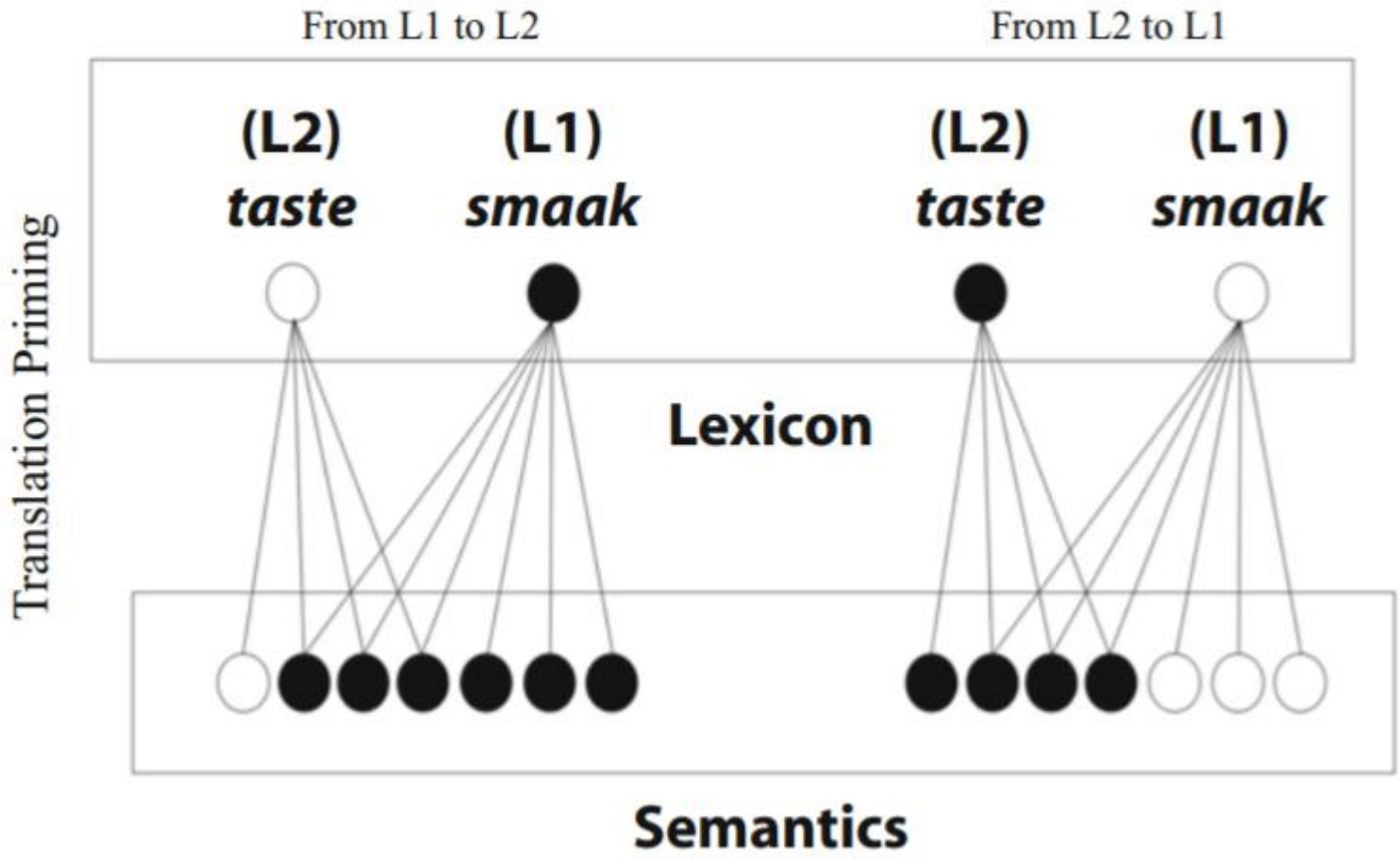

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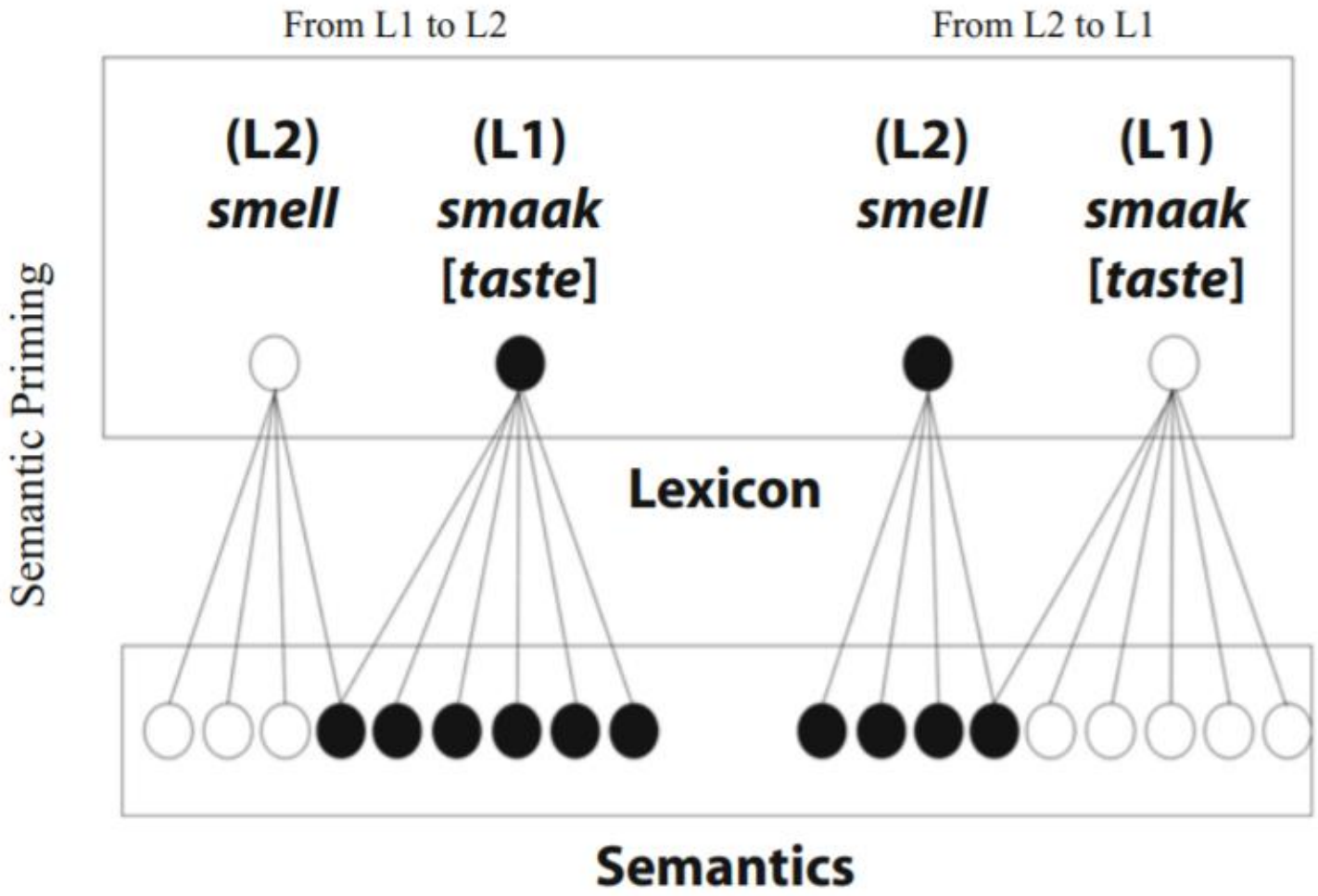

Shook & Marian (2012)

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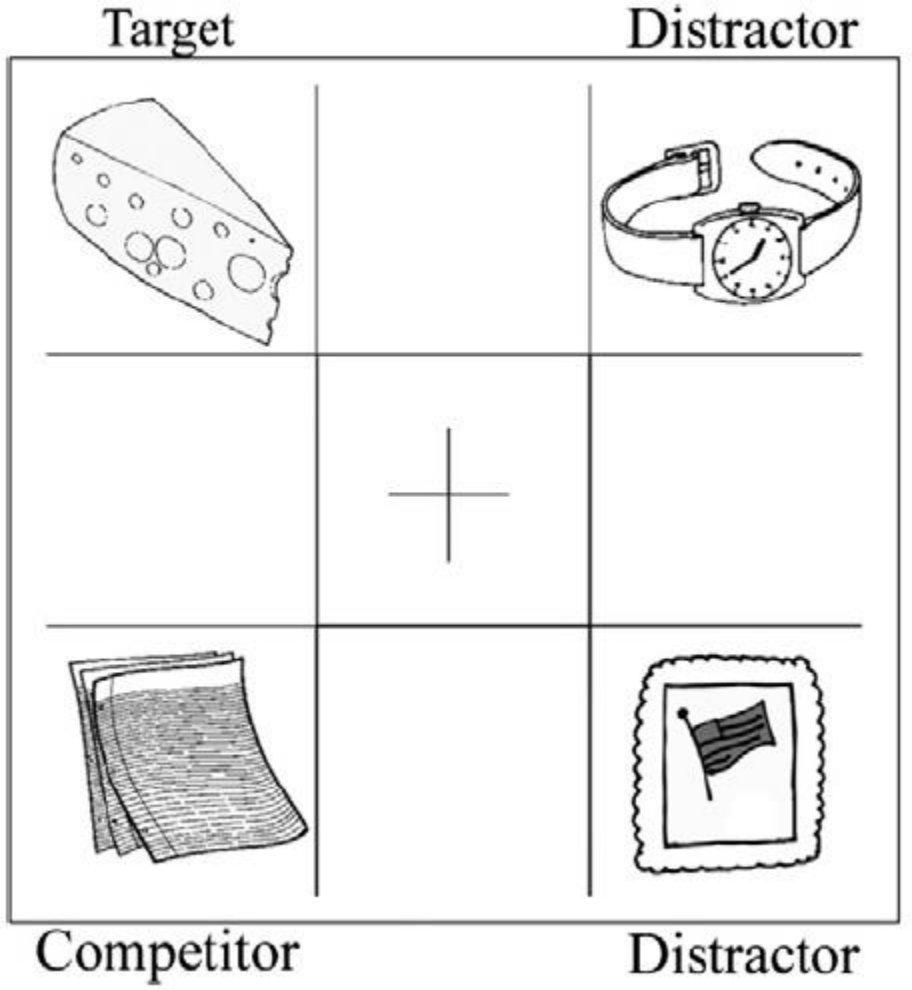
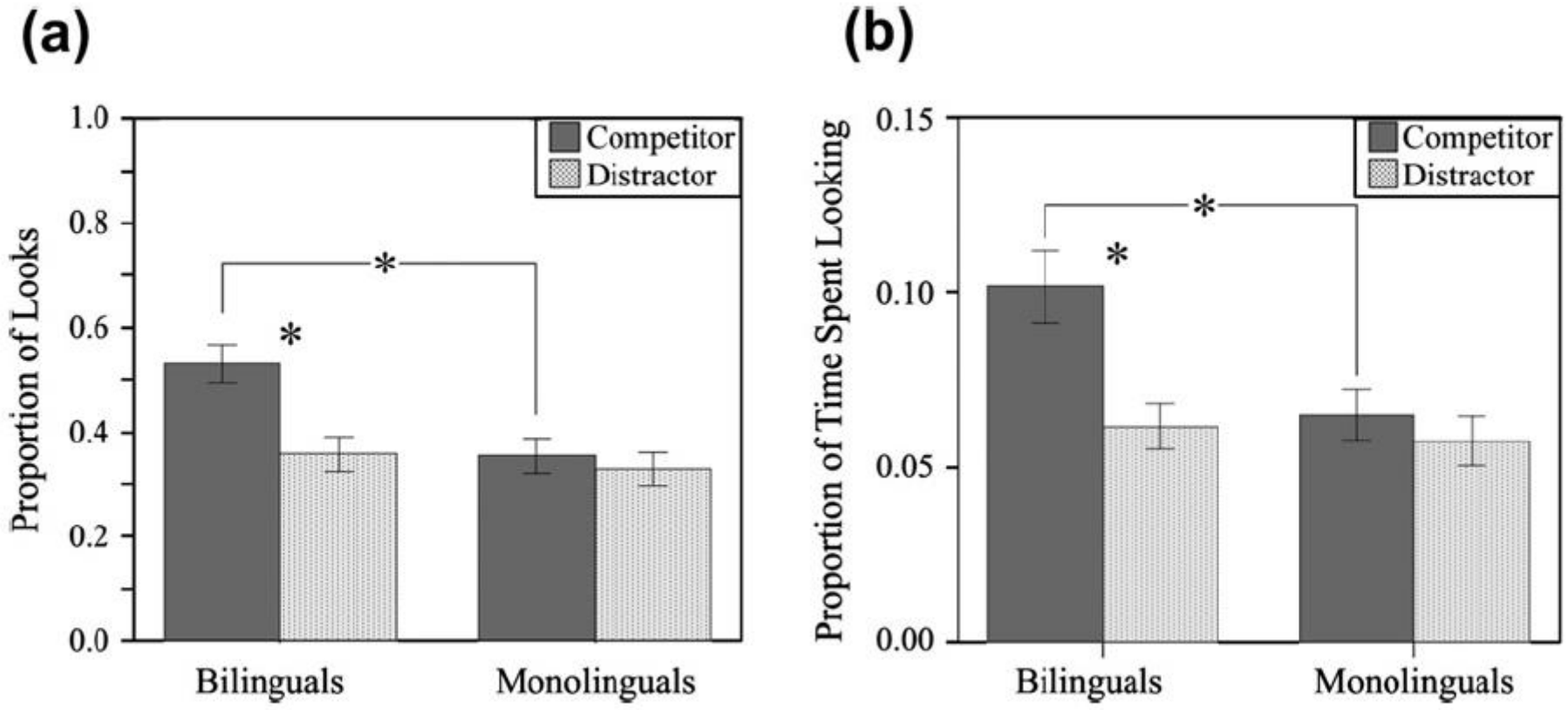
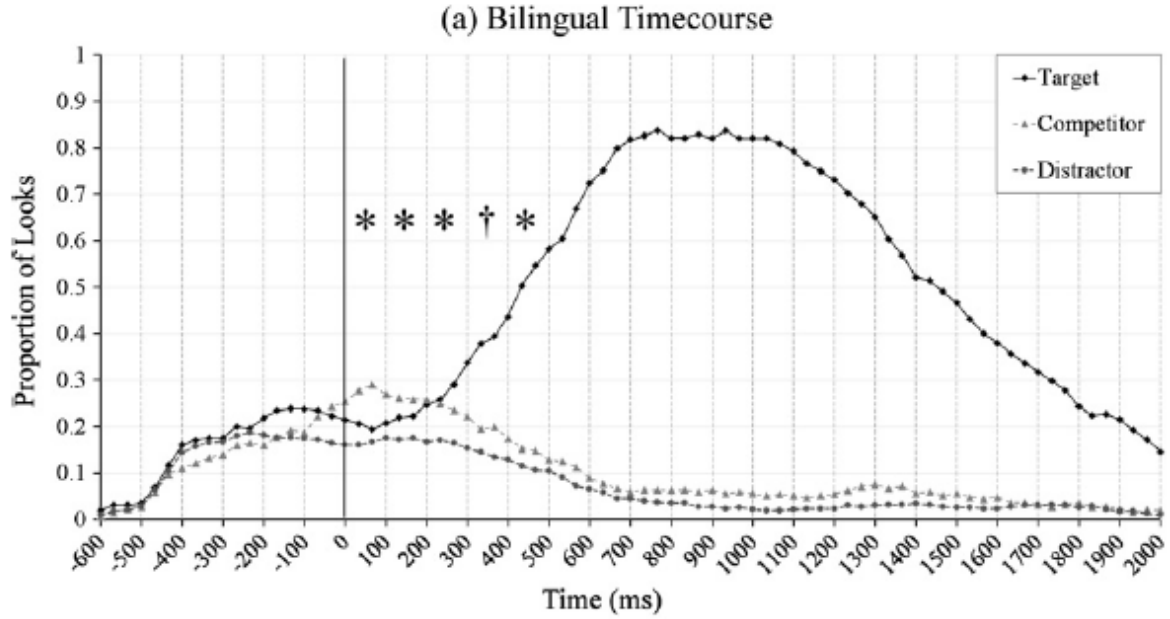


Shook & Marian (2012)





. Time-course of activation for (a) bilingual and (b) monolingual participants. The solid line represents onset of the target word.

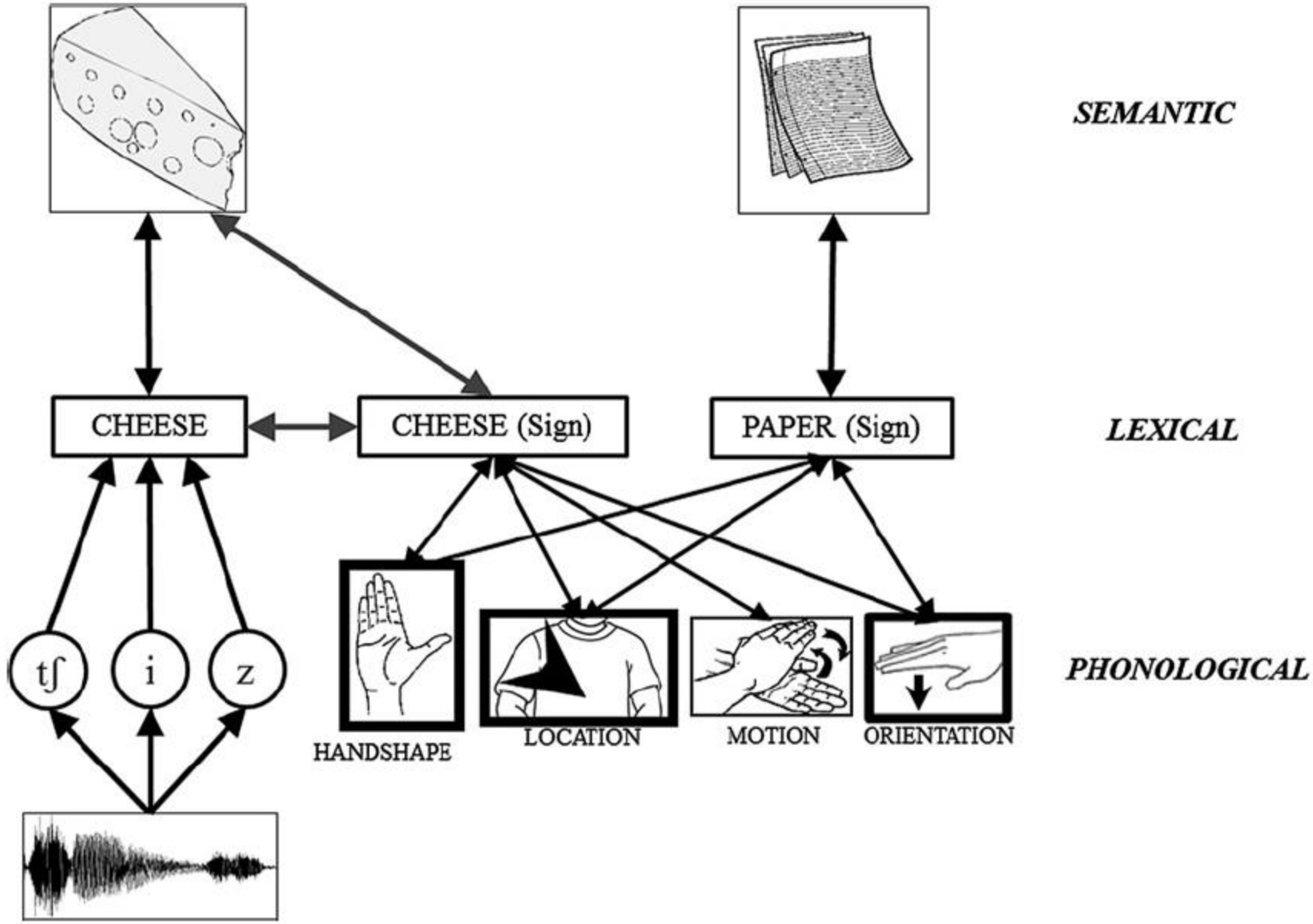


Fig. 4. Proposed co-activation pathways in bimodal bilinguals during speech comprehension.