



THE DYNAMIC CHANGES OF MENTAL LEXICON:

PROPOSAL OF THE EXPERIENCE-BASED BILINGUAL MENTAL LEXICON MODEL

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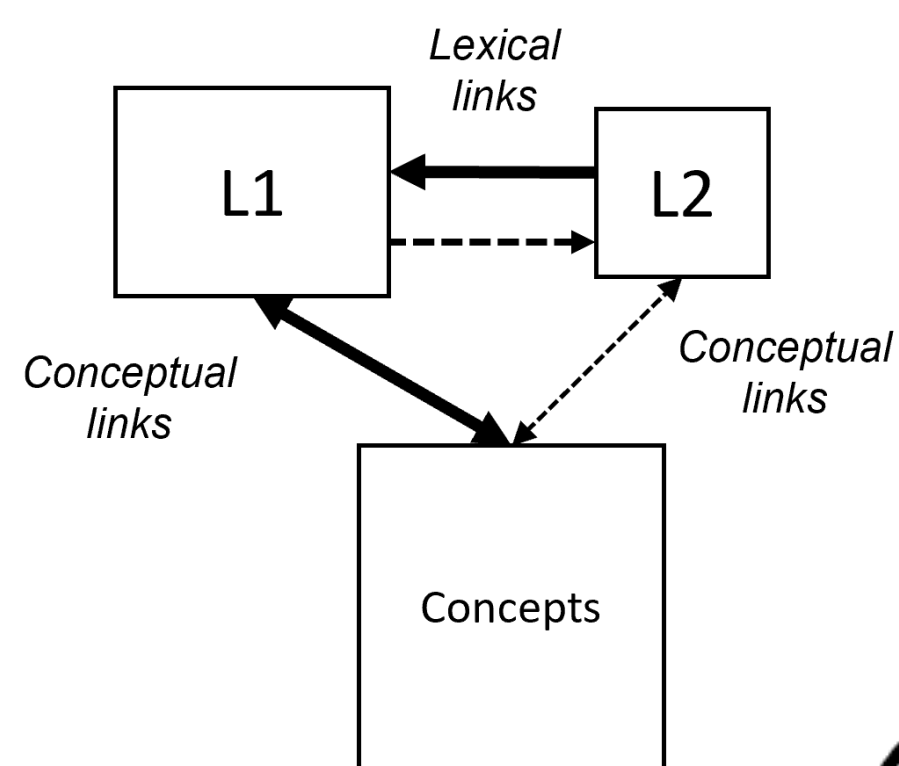
Background

- The two languages of a bilingual are never completely switched off, but always simultaneously activated (Green, 1997). In order to speak in the target language, the bilingual would have to inhibit the unwanted language
- Revised Hierarchical Model (Kroll & Stewart, 1994) was proposed to represent the bilingual mental lexicon [See Point 1 below]
- However, different interaction contexts were proposed to require different amount of cognitive effort (Green & Abutalebi, 2013).
- The interactive relationship between the two languages of a bilingual should be better represented

1 ORIGINAL MODEL

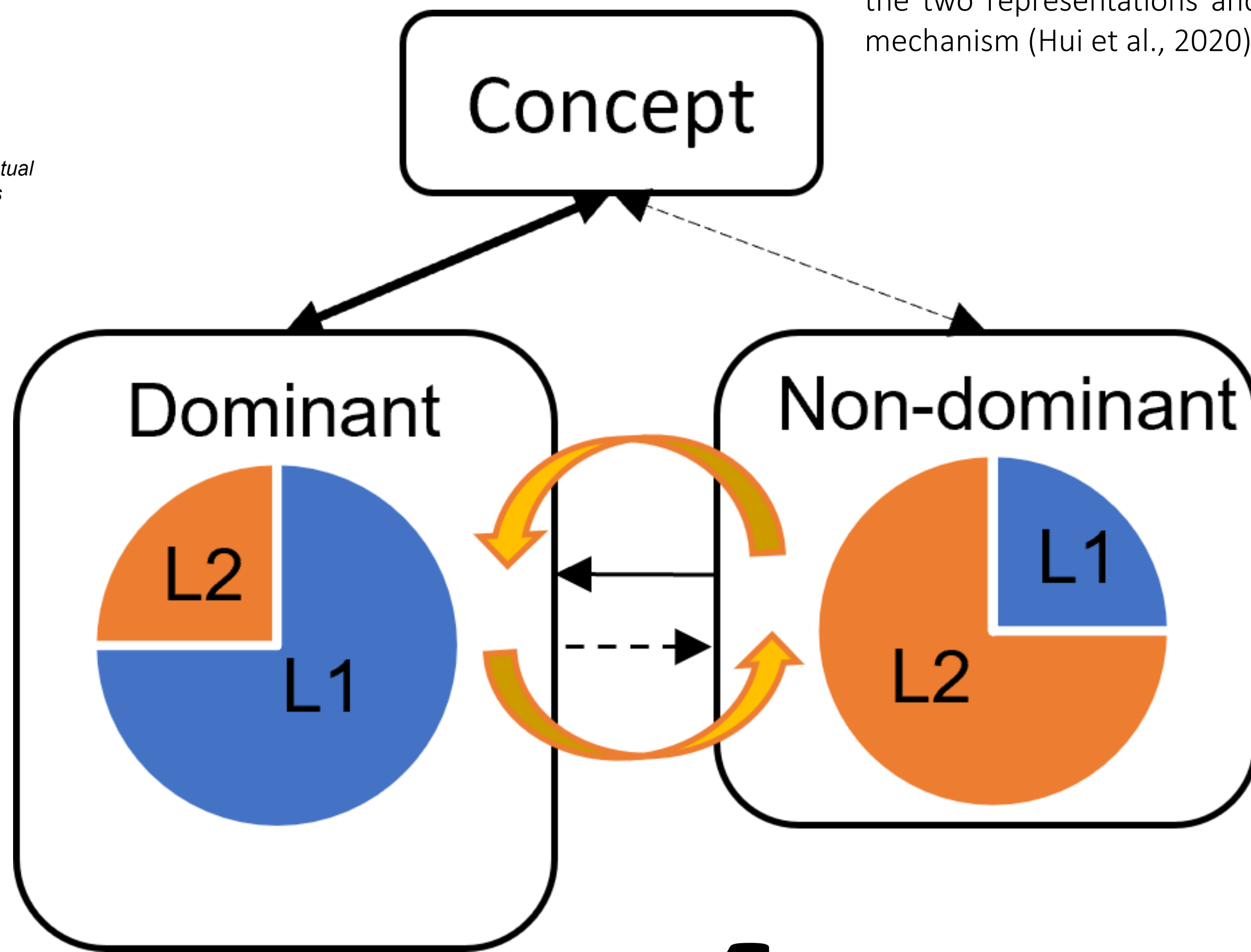
Revised Hierarchical Model (Kroll & Stewart, 1994)

- Both L1 and L2 representations are connected to the Concept directly through the conceptual link, but with different strengths.
- People usually learn the L2 by associating the meaning to the L1. Therefore, the retrieval of L2 has to go through L1.
- L2 is more dependent to the L1 than vice versa.



2 ASYMMETRIC STRENGTHS

- Holds the same view as the original model.
- Weaker translation equivalent in the non-dominant lexicon would also be activated during a dominant lexicon task.
- Lifelong bilinguals: L2 proficiency predicts better L1 verbal fluency score. Lifelong bilingualism develops a more separated association between the concept and the two representations and better language control mechanism (Hui et al., 2020)



3 ORGANISATION

- The lexicons are separated in terms of dominance instead of language origin
- In a code-switching experiment (Hui et al., 2022), Habitual Code-switched terms (e.g., “present”, “printer”) are not effortful to retrieve because they became part of the dominant lexicon
- L1 is usually the more proficient language, but there are possibilities that the L1 terms for certain concept is the lesser known one (e.g., “正弦、餘弦、正切” ← Sine, Cosine, Tangent)

Conditions	Example
Habitual-Unilingual	敷完呢款面膜，你會覺得皮膚即刻好咗。*
Habitual-CS	仲有嘢要討論，等我下晝present完再搵你。#
Non-Habitual-Unilingual	仲有嘢要討論，等我下晝匯報完再搵你。#
Non-Habitual-CS	敷完呢款面膜，你會覺得skin即刻好咗。*

*After using this mask, you will feel that your skin (condition) has improved instantly
 #(We) still have things to discuss. Let me find you after I presented in the afternoon.

4 DYNAMIC CHANGES

- L1 became less fluent in migrants after moving to the L2-speaking country for more than ten years, compared to the L1 monolinguals who stayed in the original country (Yilmaz & Schmid, 2012)
- Commonly code-switched items becomes bilingual prefabs in the dominant lexicon, even when the language origin is clearly distinguishable (Hui et al., 2022)
- L2 learners: Successful learners were worse in verbal fluency task. It shows that those who are better in acquiring the L2 started to be interfered by the non-dominant lexicon (Hui, 2023)

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