Paper	**Task** **1. Recognition** **2. Production** **3. Naming** **4. Translation**	**RHM assumption tested?** **1. Separation of lexical & conceptual representations.** **2. Separate lexicons & selective access.** **3. Asymmetries between L1 & L2 processing.** **4. Developmental aspect** **5. Common conceptual system**	**Findings**	
Schwieter, & Sunderman, 2009	Stroop BW translation task with semantically related or unrelated word or picture distracters. → **Translation** 2 groups of bilinguals - Less proficient English dominant Spanish learners - More proficient English dominant Spanish learners	3. Asymmetries between L1 & L2 processing. → **Supported** 4. Developmental aspect → **Supported**	- The less proficient learners were highly sensitive to lexical information that resulted in facilitated translation; they were not influenced by the pictures. - Translation in more proficient bilinguals was not significantly impeded when accompanied by a semantically related context word but it was facilitated when accompanied by a semantically related context picture.	
Stein, Federspiel, Koenig, et al., 2009	Longitudinal study Language learning (test: silent reading) fMRI	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	- On day 1, second language words evoked more frontal activation than words from the	

	→ **Recognition**		mother tongue. - These differences were diminished 5 months later.	
Navarrete, & Costa, 2009	BW translation with phonologically or semantically related distracter pictures. → **Translation**	3. Asymmetries between L1 & L2 processing. → **Not supported**	- Phonological related pictures sped up translation latencies. This effect disappeared when the percentage of related trials was reduced. - Translation latencies were faster when the words were accompanied by semantically related pictures than by unrelated pictures. This effect was still reliable when the proportion of related trials was reduced and the total number of semantic categories was increased.	Highly proficient bilinguals.
Tonzar, Lotto, & Job, 2009	Vocabulary learning (picture- or word mediated) in children. FW and BW translation. → **Translation**	3. Asymmetries between L1 & L2 processing. → **Not supported**	- The picture-based method leads to a better performance than the word-based method. - Cognates were found to facilitate the acquisition of L2 words. - Cognate status interacted with the learning method in the older children, indicating that the word	

			method was particularly effective for cognate words.	
Egi-Dinn, & Caldwell-Harris, 2009	**-** Emotional-intensity rating - Counting letter features - Translation and word association taboo words, reprimands, positive words, negative words, and neutral words + Recall task **→ Recognition, translation, production**	No RHM assumption was tested. Reference to the asymmetry aspect of the RHM.	- Emotion-memory effects were similar in the two languages, with taboo words having the highest recall, followed by positive words. Negative words had no recall advantage over neutral words.	
Comesana, Perea, Pineiro, et al., 2009	Vocabulary learning (word or picture mediated) – Translation recognition with semantically related or unrelated words. **→ Recognition**	3. Asymmetries between L1 & L2 processing. **→ Not supported**	- A significant semantic interference effect - a conceptual effect - in children was found after just one vocabulary learning session. - The L2-picture method produced a greater semantic interference effect than the L2–L1 method.	
Hocking, McMahon, & de Zubicaray, 2009	Object naming **→ Production**	No RHM assumption was tested. Reference to the semantic blocking effect.	- Significant increase in response latencies when naming categorically related objects within blocks, an effect associated	

			with increased perfusion fMRI signal bilaterally in the hippocampus and in the left middle to posterior superior temporal cortex.	
Martin, Dering, Thomas, et al., 2009	Word length decisions on one word while ignoring another semantically related or unrelated word + ERP → **Recognition**	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	- Significant semantic priming for both English and Welsh target words, irrespective of the active language. - Priming was independent of performance in the low-level letter counting task.	
Wolff, & Ventura, 2009	Describing animations in which the causee's tendency was systematically varied. → **Production**	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	When the causee's tendency was ambiguous, English and Russian monolinguals' descriptions differed.	
Ibrahim, 2009	Patient study - Repetition, naming and comprehension - Visual abilities - Phonological/phonetic abilities - Reading and writing → **Naming, recognition, production**	1. Separation of lexical & conceptual representations. → **Supported**	The patient displayed somewhat different symptomatologies in the two languages. Hebrew was more impaired overall.	Case study with one bilingual patient with aphasia.

Midgley, Holcomb, & Grainger, 2009a	ERP Recognition of target words (= repetitions of, translations of, or unrelated to the immediately preceding prime) 1) Targets in L2 2) Targets in L1 → **Recognition**	3. Asymmetries between L1 & L2 processing. → **Not supported**	1) Both within-language repetition and L1-L2 translation priming produced effects on the N250 and the N400 component. 2) Only within-language repetition produced N250 effects, while both types of priming produced N400 effects.	
Midgley, Holcomb, & Grainger, 2009b	Monitoring of a stream of words, occasionally, probes were from one semantic category. 1) Low proficient English-French bilinguals 2) Low proficient French-English bilinguals 3) Proficient French-English bilinguals → **Recognition**	3. Asymmetries between L1 & L2 processing. → **Supported** 4. Developmental aspect → **Supported**	1) A large effect of language was found that mostly affected amplitudes of the N400 component, but starting as early as 150 ms post-stimulus onset. 2) A similar effect was found. 3) Proficient French/English bilinguals exhibited a different pattern of language effects showing that these effects are modulated by proficiency.	
Ameel, Malt, Storms, et al., 2009	Dutch–French bilinguals Object naming → **Production**	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	- Correlations were higher between typicality ratings for roughly corresponding categories in the two	

			languages than between typicality ratings of monolinguals in each language. - In a geometrical representation, category centers derived from their naming data in the two languages were situated closer to each other than were the corresponding monolingual category centers. - Bilinguals needed fewer dimensions than monolinguals to separate their categories linearly. – Fewer violations of similarity-based naming were observed for bilinguals than for monolinguals.	
Marmolejo, Diliberto-Macaluso, & Altarriba, 2009	Reading of words associated with a non-presented lure in L1 and L2 – Free recall - Recognition test **→ Production, recognition**	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	- A higher proportion of veridical and false recall in English, the more dominant language, than in Spanish, the native language. - False recall, false recognition, and false recognition confidence were higher across	

			languages than within languages.	
Puntoni, De Langhe, & Van Osselaer, 2009	1+4+5) Rate the emotional intensity of slogans in L1 and L2. 2) Rate the emotional intensity of single words In L1 and L2. 3) Rate the emotional intensity of slogans L2 (accessibility of L1 was manipulated). → **Recognition**	2. Separate lexicons & selective access. → **Supported** 3. Asymmetries between L1 & L2 processing. → **Supported**	- Textual information expressed in consumers' native language tends to be perceived as more emotional than messages expressed in their second language. - This effect is not uniquely due to the activation of stereotypes associated to specific languages or to a lack of comprehension. - The effect depends on the frequency with which words have been experienced in native- versus second-language contexts.	
Hsiao, Schwartz, Schnur, et al., 2009	Patient study Picture naming → **Production**	No RHM assumption was tested. Reference to the semantic blocking effect.	- The semantic blocking manipulation did not eliminate the expected bias for short-lag perseverations (recency bias). - There was not a reliable difference between the lag functions for perseverations generated	Patient study with 18 aphasic patients.

			with a 5s, compared to 1s, response-stimulus interval.	
Hall, Newbrand, Ecke, et al., 2009	Vocabulary learning – Grammaticality judgement (immediately) – Language knowledge recognition test (after a week) → **Recognition**	No RHM assumption was tested. Reference to the cognate effect.	- Verbs were preferentially judged grammatical in cognate frames, with verbs in typologically closer French yielding a stronger effect for Spanish frames than German verbs did for English frames. - After a week, the effect had disappeared for German but was maintained for French. - Noncognates were judged more grammatical in the L2 frame in both experiments.	
Li, Mo, Wang, et al., 2009	- Low proficient Chinese-English bilinguals - Study + Test phase 1) Cross-language repetition priming – living/nonliving judgement 2) Cross-language repetition priming – lexical decision 3) Study: living/nonliving	2. Separate lexicons & selective access. → **Supported** 3. Asymmetries between L1 & L2 processing. → **Supported** 5. Common conceptual system → **Supported**	1) Long-term repetition priming in same-language and cross-language conditions when a conceptual task was used during both study and test. 2) Long-term repetition priming in the same-language condition but not in the cross-language condition. 3) Long-term repetition	

	judgement in English – Test: lexical decision in Chinese. 4) Study: living/nonliving judgement in Chinese – Test: lexical decision in English. → **Recognition**		priming in both of same-language and cross-language conditions. 4) There was no long-term cross-language repetition priming effect.	
Renaud, 2009	Picture authentication	No RHM assumption was tested. Reference to the semantic blocking effect.	- The hand-drawn doodles performed better than both system-issued images and personal photos. - Whereas doodles demonstrate viability, personal photos have many insuperable problems, which make them unsuitable for use in a security setting.	
Miertsch, Meisel, & Isel, 2009	Treatment in L3 that focussed on the oral and auditory word finding of verbs and nouns, exercises with prepositions, semantic-conceptual relationships between words and word finding in the context of discourse.	3. Asymmetries between L1 & L2 processing. → **Not supported** 5. Common conceptual system → **Supported**	- Both L2 and L3 significantly improved after treatment with a larger effect for the treated language (L3) than for the L2. - No improvement in L1.	Case study with a trilingual patient with Wernicke aphasia.

	→ **Production**			
Lim, Lincoln, Chan, et al., 2008	Patient study Assessment of conversations in different languages. → **Production**	No RHM assumption was tested. Reference to the asymmetry aspect of the RHM.	- English-dominant and Mandarin-dominant patients stuttered more in their less dominant language. - The scores for the balanced bilinguals were similar for both languages.	Study with bilingual stutter patients.
Klepousniotou, Titone, & Romero, 2008	Semantic judgement of ambiguous words in a cooperation, conflicting, or neutral context. → **Recognition**	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	- Dominant targets of high-overlap words showed no difference across cooperating and conflicting contexts. - Dominant targets for the moderate- and low-overlap words showed slower reaction times for the conflicting context than for the cooperating context.	
Hernandez, Cano, Costa, et al., 2008	Patient study Word naming (oral and written). → **Naming**	5. Common conceptual system → **Supported**	The performance revealed a grammatical category-specific deficit, with worse performance in naming verbs than nouns; in oral and written naming.	Case study with one patient with PPA.
Ahn, & La Ferle, 2008	Studying ads + - Brand name recall	3. Asymmetries between L1 & L2 processing.	- An ad presenting a brand name in the foreign	

	- Brand name recognition - Body copy recall - Body copy recognition	→ **Supported**	language (English Roman alphabet) with the body copy message in the local language (Hangul) is an effective strategy to enhance recall and recognition of the brand name and the ad message within the Korean youth market.	
Thomas, Healy, & Greenberg, 2007	Letter detection in reading passages – priming with the same passage, or a translation of it. 1) Passages in L1 2) Passages in L2	No RHM assumption was tested. Reference to the developmental aspect.	- Depressed detection accuracy on frequent function words relative to less frequent content words. - Familiarization promoted overall improvements in letter detection only for English passages. - Priming by familiarized text was significantly higher when the passages were in the same language than when they were in different languages.	
Weekes, & Raman, 2008	Patient study - Word repetition - Writing to dictation - Oral reading - Spoken picture naming	No RHM assumption was tested. Reference to the RHM as an example of a model of bilingual memory.	- Repetition in L1 (Turkish) was better than in L2 (English). - Greater impairment to repetition than other tasks	Case study with a bilingual with deep dysphasia.

	- Written picture naming - Spoken and written FW and BW translation **→ Production, naming, translation**		in both languages. - Performance on repetition and writing to dictation was worse than oral reading in both languages, and spoken and written naming was worse than oral reading in Turkish. - Spoken-word translation in both directions was worse than written-word translation. - Word class had an effect on translation from L1 to L2.	
Abutalebi, Annoni, Zimine, et al., 2008	Picture naming + fMRI **→ Production**	No RHM assumption was tested. Reference to the RHM as an example of a model of bilingual memory.	- Naming in the first language in the bilingual context (compared with monolingual contexts) increased activation in the left caudate and anterior cingulate cortex. - The activation of these areas is even more extended when the subjects are using a second weaker language.	
Fernandes, Craik, Bialystok, et al.,	Studying and free recall of word lists with a distractor task.	No RHM assumption was tested. Reference to the developmental	- The greatest disruptions of memory from divided attention (DA) were for	

2007	→ **Production**	aspect.	encoding rather than retrieval. - The effect of semantic relatedness was significant only for DA at encoding. - Older age and bilingualism were associated with lower recall scores in all coditions, but these factors did not influence the magnitude of memory interference.	
Perea, Dunabeitia, & Carreiras, 2008	1+2+3) Masked semantic priming + lexical decision. → **Recognition**	5. Common conceptual system? → **Supported** 4. Developmental aspect → **Supported**	1) A significant between-language semantic priming effect for both Basque–Spanish and Spanish–Basque pairs 2) The magnitude of the between-language and within-language masked semantic priming effects was quite similar. 3) Replicated the findings of Experiment 2 with highly proficient bilinguals whose mother tongue was Spanish.	
Howe, Gagnon, & Thouas, 2008	False memory task using free recall and	No RHM assumption was tested.	- Both true and false memories increased with	

	recognition → **Production, recognition**	Reference to the asymmetry aspect.	age. - True recall was higher in within- than between-language conditions for all ages. - There were fewer false memories in between-languages conditions than within-language conditions for the youngest children, no differences for the 8 and 12 years old, and by adulthood, there were more false memories in between-languages than within-language conditions. - Recognition results showed that regardless of age, false recognition rates tended to be higher in between-language than within-language conditions.	
Martin-Rhee, & Bialystok, 2008	1) Forward digit span, PPVT-R, EVIP, Simon task 2) Forward digit span, PPVT-R, Simon task, Stroop Picture Naming task. 3) Corsi Blocks, PPVT-R,	No RHM assumption was tested. Reference to the RHM as an example of a model of bilingual memory.	1) Bilingual children perform the Simon task more rapidly than monolinguals, but only on conditions in which the demands for inhibitory control were high.	

	Univalent and Bivalent arrows task. → **Production, non-verbal tasks**		2+3) Bilingual children maintained their advantage on tasks that require control of attention but showed no advantage on tasks that required inhibition of response.	
Sumiya, & Healy, 2008	Stroop colour-word interference task; English and Japanese stimuli and responses. Japanese stimuli: - Traditional Colour Terms (TCT) written in Hiragana. - Loanwords (LW) from English written in Katakana. → **Recognition**	No RHM assumption was tested. Reference to the RHM as an example of a model of bilingual memory.	Both within-language and between-language interference were found for all combinations of stimuli and responses. - The between-language interference was larger for Katakana LWs (phonologically similar to English) than for Hiragana TCTs, especially with Japanese responses. The magnitude of this phonological effect increased with self-rated reading fluency in Japanese. - Overall responding was slower and the Stroop effect larger with English than with Japanese stimuli.	
Marian,	1) Picture naming	No RHM assumption was tested.	1) Speed and accuracy of	

Blumenfeld, & Boukrina, 2008	2) Auditory word recognition with eye tracking 3) Auditory lexical decision task → **Production, recognition**	Reference to the RHM as an example of a model of bilingual memory.	bilinguals' picture naming were susceptible to phonological neighbourhood density in both the first and the second language. 2) The time-course of language activation varied across phonological neighbourhood densities and across native/non-native language status. 3) Speed and accuracy of bilingual performance in an auditory lexical decision task were influenced by degree of cross-linguistic phonological overlap.	
Colzato, Bajo, van den Wildenberg, et al., 2008	1) Stop signal task 2) Inhibition of Return task 3) Attentional Blink task → **Nonverbal tasks**	No RHM assumption was tested. Reference to 1994 paper for the finding that the effects of bilingualism are more salient in balanced bilinguals.	1) Monolinguals and bilinguals did not differ in stop signal reaction time. 2) Bilinguals showed no facilitation from spatial cues and showed a strong inhibition of return effect. 3) Bilinguals exhibited a more pronounced attentional blink.	
Kuipers, & La Heij, 2008	1) Translation or categorization of L1	No RHM assumption was tested.	1) The facilitation effect of semantically related	

	targets in L2. 2) Translation or action naming of L1 targets in L2. 3) Categorization and action naming of L1 targets in L2. 4) Action naming of L1 targets in L2. **→ Translation, production**	Reference to RHM as an example of a model that does not assume concept mediation in backward translation.	pictures in the categorization task was larger than in the translation task. 2) The semantic facilitation effect was larger in the action-naming task than in the word-translation task. 3) The semantic facilitation effect was only significant in the categorization task, not in the action-naming task. 4) Facilitation was only found in the condition that is also message-congruent.	
Chung, 2007	1) Learning of Chinese characters with prompts (pinyin or English translation) 2) Learning of Chinese characters with prompts (Coloured of not; pinyin or English translation) **→ Production**	No RHM assumption was tested. Reference to the RHM: "which has demonstrated that second language words are learned and recalled better if they are presented before rather than after the English word."	1) - More correct responses were recalled when the Chinese character was presented before rather than after the prompts. - More correct responses were recalled when the Chinese character was presented close to the prompts. 2) - Replication of the results of experiment 1. - Better performance with coloured prompts.	Reference to the RHM: "which has demonstrated that second language words are learned and recalled better if they are presented before rather than after the English word."

Kovelman, Baker, & Pettito, 2008	Syntactic sentence judgment task + fMRI. → **Recognition**	No RHM assumption was tested. Reference to the RHM as an example of a model of bilingual memory.	- Behaviourally, in English, bilinguals and monolinguals had the same speed and accuracy. - Bilinguals had a different pattern of performance in Spanish. - Both monolinguals (in one language) and bilinguals (in each language) showed predicted increases in activation in classic language areas. - An important difference was that bilinguals had a significantly greater increase in the BOLD-signal in the LIFC (BA 45) when processing English than the English monolinguals.	
Weekes, Klingebiel, Su, et al., 2007	Oral reading, lexical decision, written word-picture matching and spoken word-picture matching → **Naming, recognition**	No RHM assumption was tested. Reference to RHM as a model that can explain selective effects in bilingual aphasia since it assumes separate lexicons.	The effects of script on lexical processing observed at initial testing had a sustained impact on oral reading for one patient only.	Case-study of 2 bilingual dyslectic patients.
Notebaert, De Moor, Gevers,	Simon task in which the associations between	3. Asymmetries between L1 & L2 processing.	- The associations from the spatial locations left	

et al., 2007	spatial words and spatial responses are altered ("LEFT" – right response). → **Recognition**	→ **Supported**	and right to the spatial responses also change. - This effect was only observed for first-language spatial words (Dutch) and not for second-language spatial words (French). - This effect did not increase when the languages were combined.	
Belke, & Meyer, 2007	2 age groups: - college-aged - 50 year olds 1a) Single object naming with semantically or phonologically related distracters. 1b) Multiple object naming with semantically of phonologically related distracters. 2) Replication of experiment 1, but with a variable rate. → **Production**	No RHM assumption was tested. Reference to the semantic blocking effect.	1a) - In single object naming, there were no performance differences between the age groups. - Interference of semantically related objects, facilitation of phonologically related objects. 1b) - In multiple object naming, a significant age-related slowing was observed, expressed in longer gazes to the objects and slower speech. - Interference of semantically related objects. - Interference of the phonologically related objects in young	

			participants, facilitation in older participants. 2) Young speakers, when adopting a slow speech rate, coordinated their eye movements and speech differently from the older speakers.	
Abutalebi, Brambati, Annoni, et al., 2007	- Semantic and grammatical judgements in French or Italian. - Word translation - Written text comprehension. - Passively listen to sentences in which language was switched. **→ Recognition, translation**	4. Developmental aspect **→ Supported**	- Switching engages an extensive neural network, including bilateral prefrontal and temporal associative regions. - Regular switches entail a pattern of brain activity closely related to lexical processing. - Irregular switches engage brain structures involved in syntactic and phonological aspects of language processing.	
Salamoura, & Williams, 2007	Translation	No RHM assumption was tested. Reference to the RHM for the advantage of cognates over noncognates. Support for a shared gender system for L1 and L2.	Nouns that had the same gender in both languages were translated faster than nouns with different genders, but only when the L2 target utterance required computation of gender agreement.	
Bordag, &	1-3) Picture Naming	No RHM assumption was tested.	L2 speakers cannot	

Pechmann, 2007	4) Grammatical judgement task →**Production, recognition**	Reference to the common conceptual system in the RHM.	eliminate or substantially reduce the interlingual interference… 1) …neither when they know the response language long in advance in a situation in which code-switching is required. 2) …nor when they are close to the monolingual mode. 3+4) Gender typicality of the L2 noun's termination also exerts an influence on L2 processing, both in production and comprehension.	
Khateb, Abutalebi, Michel, et al., 2007	- Monolingual task selection context (TSc) – image naming or verb generation in L1. - Bilingual language selection context (LSc) – picture naming in L1 or L2. + ERP → **Production**	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	- The first ERP differences accounting for the diverging processes involved in the two contexts appeared between 220 and 300 ms after the cue. - An increased activation during LSc in the left middle frontal–precentral gyri, supramarginal and angular gyri.	
Thierry, & Wu,	1) Meaning judgement in	3. Asymmetries between L1 & L2	1) Whereas the hidden	

2007	L2, critical trials contained a character repetition when translation in L1. 2) Replication of experiment 1 in monolinguals. 3) Listening comprehension task. → **Recognition**	processing. → **Supported**	factor (character repetition) failed to affect behavioural performance, it significantly modulated brain potentials in the expected direction, establishing that English (L2) words were automatically and unconsciously translated into Chinese (L1). 2) The same modulation of brain potentials was found in monolinguals. 3) Replication of the results of experiment 1.	
Basnight-Brown, & Altarriba, 2007	1) Unmasked semantic and translation priming in lexical decision. 2) Semantic and translation priming with forward mask in lexical decision. → **Recognition**	3. Asymmetries between L1 & L2 processing. → **Not supported**	1) - Significant translation-priming effects in both language directions. - Significant semantic priming in the L2–L1 direction only. 2) Significant priming was obtained only for translation word pairs in both language directions.	
Eilola, Havelka, & Sharma, 2007	Stroop task with neutral, positive, negative, and taboo words. → **Recognition**	2. Separate lexicons & selective access. → **Not supported** 4. Developmental aspect.	- Significant interference from negative and taboo words compared to neutral words was found in both languages	

		→ **Supported**	- Positive words were not found to differ significantly from neutral words. - No differences in the size of the interference between languages.	
Sutton Altarriba, Gianico, et al., 2007	Emotional Stroop task → **Recognition**	No RHM assumption was tested. Reference to the RHM as an example of a model of bilingual memory.	- The emotional Stroop effect is a robust phenomenon and replicable within a bilingual population. - Highly proficient bilinguals demonstrated equal interference effects in both their first language and their second language.	
Francis, & Saenz, 2007	1) Repetition priming in picture naming. 2) Repetition priming in word translation. → **Production, translation**	No RHM assumption was tested. Reference to the RHM as an example of a model of bilingual memory.	1) - Both picture identification and word retrieval processes of picture naming exhibited facilitation after a week. - Word retrieval priming declined substantially relative to a 10-min retention interval, but picture identification priming remained stable. 2) Word translation exhibited repetition priming after a week.	

			Decreased word retrieval priming accounted for the attenuation of translation priming relative to a 10-min interval, whereas word comprehension priming remained stable.	
Meyer, & Damian, 2007	Picture naming accompanied by distracters. 1) Distracters = homophones 2) Distracters = Begin- or End related pairs. 3) With or without practice phase. → **Production**	No RHM assumption was tested. Reference to the semantic blocking effect.	1-3) The mean target-naming latency was shorter in the related than in the unrelated condition.	
Mestres-Misse, Todriguez-Fornells, & Munte, 2007	Contextual word learning + ERP (silent word reading)	No RHM assumption was tested. Reference to the RHM as a possible model that can explain the findings.	- After 3 exposures, brain potentials to novel words in meaningful contexts were indistinguishable from real words. - This acquisition effect was not observed for novel words, for which sentence contexts allowed no meaning derivation. - When the learned novel words were presented in isolation, an activation of their corresponding	

			meaning was observed, although this process was slower than for real words.	
Basnight-Brown, Chen, Hua, et al., 2007	Cross-modal (Primes: auditory; targets: visually) priming of verbs in lexical decision. Verbs: - Irregular, nested stem - Irregular, change stem - Regular past-present tenses – low resonance - Regular past-present tenses – high resonance → **Recognition**	No RHM assumption was tested. Reference to the RHM as an example of a model of bilingual memory.	- Native English speakers produced significant magnitudes of facilitation for all four verb sets. - Serbian-English bilinguals revealed significant facilitation for both types of regulars and for the nested irregulars. - Chinese-English bilinguals produced significant levels of facilitation for both types of regulars, but no facilitation for the irregular verbs.	
Kiran, & Lebel, 2007	1) 2 bilingual groups - More balanced (MB) - Less balanced (LB) 2) Patients with bilingual aphasia. Lexical decision with semantic and translation priming. → **Recognition**	3. Asymmetries between L1 & L2 processing. → **Not supported**	1) - Semantic priming was observed from L2 to L1 in both the LB and MB groups although the effect was greater for the LB group. Further, only the LB group showed priming from L1 to L2. - No difference between translation and semantic priming.	

			2) Patients with bilingual aphasia demonstrated different patterns of activation with no clear trends.	
Leinonen, Laine, Laine, et al, 2007	Auditory bilingual memory task with cognates + ERP → **Recognition**	5. Common conceptual system? → **Not supported**	Some significant differences between encoding and retrieval in Finnish versus Swedish emerged: greater theta and alpha responses were observed during encoding in Swedish than during encoding in Finnish	
Mahon, Costa, Peterson, et al., 2007	Picture naming with related or unrelated words. → **Production**	No RHM assumption was tested. Reference to the semantic blocking effect.	- Participants are faster to name pictures of objects in the context of semantically related verb distractors compared with unrelated verb distractors - Target naming latencies are, if anything, faster for within-category semantically close distractor words than for within-category semantically far distractor words.	
Rahman, & Melinger, 2007	1+2) Picture naming in the context of	No RHM assumption was tested.	1+2+3) Semantic interference effects were	

	categorically or associatively related objects. 3) Picture-word interference paradigm. → **Production**	Reference to the semantic blocking effect.	observed in both conditions, relative to an unrelated context.	
Melinger, & Koenig, 2007	Ambiguous word naming with priming. Prime: noun, verb, or letter (control). → **Naming**	No RHM assumption was tested. Example of a model that incorporates the influence of semantic information on lexical processes.	- Targets preceded by noun primes were produced as nouns more often than when preceded by verb or letter primes. - Similar results were obtained with verb primes.	
Guo, & Peng, 2007	- Go/Nogo on the basis of semantic and phonological information. - Picture naming → **Recognition, production**	No RHM assumption was tested. Reference to the common conceptual system.	It takes unbalanced bilinguals approximate 170 ms to retrieve phonological information after semantic information becomes available in the second language production.	
Elston-Guttler, & Friederici, 2007	Lexical decision → **Recognition**	3. Asymmetries between L1 & L2 processing. → **Supported**	For both natives and learners, only contextually appropriate meanings were primed, or still active, late in processing.	
Jefferies, Baker, Doran, et al.,	Word–picture matching Synonym judgement	No RHM assumption was tested.	- Patients: refractory effects in naming and	sSroke patients with multimodal

2007	Phonemic cueing in picture naming → **Recognition, production**	Reference to semantic blocking effect.	word picture matching, absence of frequency effects and strong effects of phonemic cueing in picture naming. - LIPC damage: marked effects of refractory variables.	semantically impairment.
Levy, McVeigh, Marful, et al., 2007	Picture naming → **Production**	No RHM assumption was tested. Reference to the strong conceptual links in L1.	- Repeatedly naming the objects in Spanish (L1) reduced the accessibility of the corresponding English words.	
Schoonbaert, Hartsuiker, & Pickering, 2007	Syntactic priming: 1) L2 to L2 2) L1 to L2 3) L1 to L1 4) L2 to L1 → **Production**	3. Asymmetries between L1 & L2 processing. → **Supported**	1) Priming within English was found; this priming was boosted by lexical repetition. 2) Priming from Dutch to English was found; this priming was boosted when prime and target used translation-equivalent verbs. 3) Priming within Dutch was found, again boosted by lexical repetition. 4) Priming from English to Dutch was found, but no boost when prime and target were translation-equivalent verbs.	

Barcroft, 2007	Vocabulary learning: picture-word pairs with (retrieval-oriented condition) or without a lag between the two stimuli. → **Production**	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	Results indicated higher scores in the retrieval-oriented condition.	
Phillips, Klein, Mercier, et al., 2006	Translation priming + word listening → **Recognition**	3. Asymmetries between L1 & L2 processing. → **Not supported**	- The pattern of adaptation and release from adaptation was similar in L1 and L2. - Later N400 effect in L2. - Less N400 activity in BW than in FW translation.	
Kuipers, La Heij, & Costa, 2006	1A) Picture naming 1B) Translation 2+3) Produce the category name → **Production + translation**	No RHM assumption was tested. Reference to the asymmetry aspect of the RHM.	1) Category names induce semantic interference in basic-level naming. 2+3) Response congruency is probably a major contributor to the overall facilitation effect in categorisation tasks.	
Gumnior, Boelte, & Zwitserlood, 2006	BW translation with distracters that were morphologically related, form related, or unrelated to the target words. → **Translation**	No RHM assumption was tested. Reference to RHM as a model of translation.	- Morphologically related distracters facilitated translation irrespective of their semantic transparency. - Phonologically related distracters had no impact	

			on translation latencies.	
Marian, & Fausey, 2006	Information (stories) learning and retrieval (questions). → **Production**	No RHM assumption was tested. Reference to the developmental aspect.	- It was found that memory was more accurate and retrieval was faster when the language of retrieval and the language of encoding matched than when they did not match.	
Hohenstein, Eisenberg, & Naigles, 2006	Describing videos → **Production**	3. Asymmetries between L1 & L2 processing. → **Supported**	Bilinguals' patterns of motion description lexically and grammatically resemble those of monolinguals in each language. - Bilinguals showed bidirectional lexical transfer. - Bilinguals only showed L1-L2 grammatical transfer.	
Ferre, Sanchez-Casas, & Guasch, 2006	Translation recognition; The second word of the pair could be the true translation, a word related in form, a word more or less related in meaning, or an unrelated word. → **Recognition**	4. Developmental aspect → **Supported**	Both early and late proficient bilinguals were more sensitive to the semantic than to the form manipulation, but only in the case of words with a very close meaning. On the contrary, the late nonproficient group	

			exhibited larger effects of the form than of the semantic manipulation.	
Stein, Dierks, Brandeis, et al., 2006	Second language learning – Test ("Do you know the meaning of the word?") → **Recognition**	4. Developmental aspect → **Supported**	With a higher level of second language proficiency, second language word processing is faster and requires shorter frontal activation.	
Costa, Santesteban, & Ivanova, 2006	Picture naming with language switching 1) L1 & L2 2) L2 & L3 3) L3 & L4 4) L1 & recently learned new language → **Production**	No RHM assumption was specifically tested. They might have found evidence for the developmental aspect of the RHM.	Highly proficient bilinguals showed: - Symmetrical switching costs regardless of the age at which the L2 was learned and of the similarities of the 2 languages. - Asymmetrical switching costs when 1 of the languages involved in the switching task was very weak.	
Finkbeier, Almeida, Janssen, et al., 2006	1+2) Digit naming and picture naming with language switching. 3) Unilingual experiment with switching between fast- and slow-response items. → **Production**	No RHM assumption was tested. Reference to the developmental aspect.	1) Asymmetric switchcosts in unbalanced bilinguals, only in bivalent stimuli. 2) It took no longer to name pictures in their dominant language on language switch trials than	

			they did on nonswitch trials. 3) Asymmetric switchcostes were found.	
Goral, Levy, Obler, et al., 2006	Patient study 1) Spontaneous conversation 2) Word translation → **Production, translation**	3. Asymmetries between L1 & L2 processing. → **Partly supported** 4. Developmental aspect → **Supported**	1) Cross-linguistic intrusions while speaking in one language. 2) Slower Hebrew-French than French-Hebrew translation (French = least recovered language).	Case study with a patient with multilingual aphasia.
Edmonds, & Kiran, 2006	Patient study. Semantic naming treatment in aphasia. → **Production**	3. Asymmetries between L1 & L2 processing. → **Supported**	The results suggest that training the less dominant language may be more beneficial in facilitating crosslinguistic generalization than training the more proficient language in an unbalanced bilingual individual.	Case study with three patients with bilingual aphasia.
Vitkovitch, Cooper-Pye, & Leadbetter, 2006	Priming: word and picture naming Target: word naming → **Production, naming**	No RHM assumption was tested. Reference to the semantic blocking effect.	- No evidence for semantic interference during target word naming. - Facilitation from related picture primes in word naming was found. - No priming was found for the related word prime and word target condition.	

De Groot, 2006	Vocabulary learning in a silent condition or in a condition with background music – BW translation. → **Translation**	No RHM assumption was tested. Refecence to developmental aspect of RHM.	- Typical FL (Foreign Language) words, FL words paired with frequent L1 words, and FL words paired with concrete L1 words were learned better than atypical FL words and FL words paired with infrequent and abstract L1 words, respectively. - More learning occurred in the music condition than in the silent condition.	
Howard, Nickels, Coltheart, et al., 2006	Picture naming → **Production**	No RHM assumption was tested. Reference to the semantic blocking effect.	Subjects' naming latencies were slowed by 30 ms for each preceding member of the category.	
Klein, Zatorre, Chen, et al., 2006	fMRI Within and between language adaptation in word listening. → **Recognition**	3. Asymmetries between L1 & L2 processing. → **Supported**	- No evidence for greater recovery from adaptation in across-language relative to within- language conditions. - While many brain regions were common to L1 and L2, some differences in adaptation for forward translation (L1 to L2) as compared to	

			backward translation (L2 to L1) were found.	
Kambanaros, & Van Steenbrugge, 2006	Patient study - Object/noun comprehension - Action/verb comprehension - Object naming - Action naming - Procedures comprehension - Word production **→ Recognition, production**	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	- Verb and noun production during picture naming was significantly worse in the bilingual individuals with anomic aphasia in both languages, who also showed a specific verb impairment in Greek and English. - No specific differences in comprehension between patients and controls. In patients: - Facilitatory effect of instrumentality in both languages. - No effect of verb-noun relation in Greek. - Negative effect of verb-noun relation in English.	Study with patients with anomic aphasia.
Desmet, & Declercq, 2006	Sentence completion with syntactic priming. **→ Production**	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	Equally strong priming effects in within and between language-priming.	
Williams, 2006	Sentence reading + 1) Plausibility judgements 2) Memory task	3. Asymmetries between L1 & L2 processing. **→ Supported**	- The results showed that natives and non-natives immediately computed the plausibility of the	

	→ **Recognition**		preferred structural analysis, which then affected ease of reanalysis. - Native speakers: similar pattern of results in 1 and 2. - Non-native speakers: plausibility effects were delayed.	
Francis, & Gallard, 2005	Trilingual translation → **Translation**	4. Developmental aspect → **Supported**	Repeated items were translated more quickly than new items, with the strongest priming effects occurring for identical repetitions.	
Wang, Park, & Lee, 2006	- Onset detection - Rhyme detection - Phoneme deletion task - Orthographic choice task - Real-word naming - Pseudoword naming - Nonverbal ability test → **Recognition, naming**	No RHM assumption was tested. Refecence to the asymmetry aspect.	Phonological skills in L1 and L2 were strongly correlated; this finding suggests that better phonological skills in one language will lead to better phonological skills in another language.	
Macizo, & Bajo, 2006	1+2) Reading for translation 3) Reading for repetition → **Recognition**	No RHM assumption was tested. Reference to cognate facilitation effects.	1) On-line and global comprehension was affected by lexical ambiguity and memory load.	

			2) Cognate words located at the final portion of the sentences facilitated performance. 3) lLxical ambiguity and the cognate status of the words did not have any effect.	
Schnur, Schwartz, Brecher, et al., 2006	Patient study Picture naming → **Production**	No RHM assumption tested. Reference to the semantic blocking effect.	- In aphasia, the semantic blocking effect is manifested in increased error rates when naming semantically homogeneous, compared to mixed blocks. - Semantic blocking affects Brocas aphasics more than a matched group of NonBrocas. - The effect increases with repetition of the blocked sets.	Study with aphasic patients.
Hamilton, & Martin, 2005	Patient study Verbal STM tasks: - Stroop task - Colour naming - Recent-negatives task Nonverbal STM tasks: - Nonverbal spatial Stroop task - Antisaccade task → **Production,**	No RHM assumption was tested. Reference to the semantic blocking effect.	The patient was impaired on both verbal tasks but performed normally on the nonverbal tasks.	Case-study with a patient with a semantic short-term memory deficit.

	recognition			
Gollan, Montoya, Fennema-Notestine, et al., 2005	Picture naming and picture classification → **Production, recognition**	No RHM assumption was tested. Reference to common conceptual system.	- Picture naming was slower in bilinguals (on L1) than in monolinguals. - After 5th presentation, bilinguals = monolinguals. - Bilinguals retrieve the name faster if they know the name in Spanish and English.	
Damian, & Als, 2005	Picture naming of semantically related objects. → **Production**	No RHM assumption was tested. Reference to the semantic blocking effect.	1) The semantic blocking effect is not affected by gaps between adjancent targets of up to 12 s that are filled with a nonlinguistic filler task. 2) The effect is unchanged if items from unrelated filler categories are named within the gaps.	
Taube-Schiff, & Segalowitz, 2005	Training: location judgement or classifying methods of transportation. Testing: attention-shifting task (processing of relational terms (spatial prepositions) or non relational terms (nouns)).	No RHM assumption was tested. Reference to the paper as an example of a study concerning interference effects between languages.	- Significantly greater shift costs for relational terms when performing in the L2 as compared to the L1, but no difference in shift costs for non-relational terms between the two languages.	

	→ **Recognition**			
Padilla, Bajo, & Macizo, 2005	Professional interpreters 1) Free recall tasks under normal and articulatory suppression conditions. 2) Free recall tasks while performing a secondary task. 3) Free recall of nonwords or words in their first (L1) and second language (L2). → **Production**	No RHM assumption was tested. Reference to the difference between FW and BW translation.	1) Recall in AS was lower than in silent condition, but only for high WM span and control groups. 2) The decrement in recall in the dual study and tracking condition was similar for the interpreters, high WM span and control group. 3) The presence or absence of articulatory suppression effect in the interpreters is dependent on the familiarity of the materials (effect was present with unfamiliar stimuli, and absent with familiar stimuli).	
Dong, Gui, & MacWhinney, 2005	Same language and cross language priming with related or unrelated primes – lexical decision. → **Recognition**	3. Asymmetries between L1 & L2 processing. → **Supported** 4. Developmental aspect → **Supported** 5. Common conceptual system. → **Supported**	1) Within and between language priming was found; shorter RTs on L1 targets than on L2 targets. 2) Bilinguals tend to integrate conceptual differences between translation equivalents, but they also display a "separatist" tendency to	

			maintain the L1 conceptual system in the representation of L1 words and to adopt the L2 conceptual system in the representation of L2 words.	
Detry, Pillon, & de Partz, 2005	Patient study - Word-picture verification - Picture naming task **→ Recognition, production**	3. Asymmetries between L1 & L2 processing. **→ Supported**	- Preserved recognition in L1. - Recognition in L2 poorer than in L1. - Performance for cognates better than for noncognates.	Case-study with one patient with Broca's aphasia.
Elston-Guttler, Paulmann, & Kotz, 2005	Semantic priming – Lexical decision **→ Recognition**	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	1) Reversed priming in the N200 component and RTs for low-proficiency learners, but only RT interference for high-proficiency participants. 2) Once the words were processed in sentence context, the low-proficiency participants still showed reversed N200 and RT priming, whereas the high-proficiency group showed no effects.	
Elston-Guttler,	English or German movie	No RHM assumption was tested.	- A significant interaction	

Gunter, & Kotz, 2005	- Semantic priming with a sentence – lexical decision In German → **Recognition**	Reference to the RHM as an example of a model of bilingual memory.	between semantic priming, movie version, and block in both the RTs and ERPs: there was significant semantic priming in the RTs and modulations in the N200 and N400 components only for participants who viewed the German movie, and only during the first block.	
Navarrete, & Costa, 2005	1) Picture naming whilst ignoring a phonologically related, semantically related or unrelated picture. 2+3+4) Colour naming whilst ignoring the picture. → **Production**	No RHM assumption was tested. Reference to the RT difference between translation and naming in the 1994 paper.	1) Naming latencies were faster in the phonologically related condition than in the unrelated condition. No difference between semantically related and unrelated distractors was observed. 2+3+4) Naming latencies were faster when colours and objects were phonologically related.	
Marshall, Atkinson, Woll, et al., 2005	- Cued naming → **Production**	No RHM assumption was tested. Reference to the RHM as an example of a model of bilingual memory.	- The patient could be cued to produce English spoken nouns (but not verbs) by the provision of the corresponding BSL sign.	Single case study of a deaf patient with aphasia.

			- Gesture cues had no effect.	
Ibrahim, & Aharon-Peretz, 2005	Semantic priming + auditory lexical decision 1) Targets in spoken Arabic (L1) and primes in literary or spoken Arabic, or Hebrew. 2) Primes in spoken Arabic (L1) and targets in literary or spoken Arabic, or Hebrew. → **Recognition**	3. Asymmetries between L1 & L2 processing. → **Supported**	1) The semantic priming effect was twice as large within L1 as between languages and there was no difference between Hebrew and LA. 2) The priming effects were doubled relative to the previous experiment, but the inter-language relationships were the same. - For both language pairings, the semantic priming was larger when the primes were presented in SA (and the targets in either Hebrew or LA) than when the primes were presented in one of the second languages and the targets in SA.	
Ameel, Storms, Malt, & Sloman, 2005	Naming in L1 and L2 Similarity sorting → **Production, recognition**	No RHM assumption was tested. Reference to the RHM as an example of a model of bilingual memory.	- Different linguistic segmentation of common objects by different languages. - A dissociation between linguistic categorization	

			(naming) and non-linguistic understanding (sorting). - The French and Dutch bilingual naming patterns converged on a common naming pattern, with only minor deviations.	
Raman, & Weekes, 2005	- Reading - Translation → **Naming, translation**	No RHM assumption was tested. Reference to the RHM as an example of a model with lexical links.	- An effect of imageability on reading in Turkish coincident with surface dyslexia in English. - Preserved nonword reading.	Case-study with one bilingual patient with aphasia and acquired dyslexia.
Belke, & Meyer, 2005	Picture naming → **Production**	No RHM assumption was tested. Reference to the semantic blocking effect.	1) Semantic blocking effect when pictures were presented sequentially. 2) Semantic blocking (in naming latencies and gaze durations) effect when pictures were presented simultaneously. 3) The blocking effect for speech onset latencies generalized to new, previously unnamed lexical items.	
Sebastian-Galles, Echeverria,	Lexical decision → **Recognition**	No RHM assumption was tested. Reference to the procedure to	1+2) Highly skilled Spanish–Catalan (early) bilinguals had great	

Bosch, 2005		determine the cognate status.	difficulty in distinguishing between mispronounced and properly pronounced words that differed in a Catalan-only contrast. 3) The language used by the mother was a good predictor of the participants' ability to perform the task.	
Hanauer, & Brooks, 2005	Picture naming with interfering words 1+2) Animal and clothing pictures 3) Unrelated pictures → **Production**	No RHM assumption was tested. Reference to the semantic blocking effect.	1+2) The interference effect observed in children, but not in adults, depended on the distractor's status as member of the response set. 3) Adults, but not children, showed greater interference for trials with distractors in the response set.	
Sumiya, & Healy, 2004	Bilingual stroop task → **Recognition**	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	- A significant between-language Stroop effect was found despite the orthographic dissimilarity between the languages. - The magnitude of the between-language interference was larger with the phonologically	

			similar terms.	
Silverberg, & Samuel, 2004	Three groups: - Early L2 learners - Late highly proficient L2 learners - Late less proficient L2 learners Lexical decision with Semantic, Mediated Form or Form primes. → **Recognition**	4. Developmental aspect → **Partly supported** Not only proficiency is an important factor for conceptual links, age of L2 learning is important as well.	- Semantic and Mediated Form primes produced facilitative priming effects for the Early group, but not for either of the Late groups. - Highly proficient Late learners showed inhibitory effects of Form primes, whereas the less proficient group produced no priming effects of any type.	
Jiang, 2004	Semantic judgement with word pairs that did or did not share the same korean translation. → **Recognition**	3. Asymmetries between L1 & L2 processing. → **Supported** 4. Developmental aspect → **Not supported**	The Korean English (L2) speakers responded to the same-translation pairs significantly faster than to the different-translation pairs whereas no such same- translation effect was found among native speakers of English.	
Scheutz, & Eberhard, 2004	Sentence reading. → **Recognition**	No RHM assumption was tested. Reference to the RHM as an example of a model of bilingual memory.	German–English bilinguals have a bias to interpret the referents of -ER nouns as male relative to English monolinguals.	
Finkbeiner,	1-3) Translation priming	2. Separate lexicons & selective	1-3) Robust masked L2–L1	

Forster, Nicol, et al, 2004	in semantic categorization & lexical decision. 4-6) Priming with many-sense words and few-sense words in semantic categorization and translation priming. → **Recognition**	access. → **Not supported** 3. Asymmetries between L1 & L2 processing**.** → **Not supported**	translation priming was found in semantic categorization but not lexical decision. 4-6) In lexical decision, robust priming was obtained in the many-to-few direction, but, no priming was obtained in the few- to-many direction using the same word pairs. Priming in semantic categorization, on the other hand, was obtained in both directions.	
Bialystok, Craik, Klein, et al., 2004	Simon task	No RHM assumption was tested. Reference to RHM as a model that claims that both languages of a bilingual are constantly active.	- Bilingualism was associated with smaller Simon effect costs for both age groups. - Bilingual participants also responded more rapidly to conditions that placed greater demands on working memory. - The bilingual advantage was greater for older participants.	
Hartsuiker, Pickering, & Veltkamp, 2004	Describing cards → **Production**	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	- Participants who had just heard a sentence in Spanish (L1) tended to use the same type of sentence when describing the next	

			card in English (L2). - English (L2) passives were considerably more common following a Spanish (L1) passive than otherwise.	
Xue, Dong, Jin, et al., 2004	- Semantic judgements - Rhyme judgements - Naming task → **Recognition, naming**	No RHM assumption was tested. Reference to the developmental aspect of the RHM.	- Subjects performed better at tasks in their native language (Chinese) than in English (L2). - All working memory tasks in both L1 and L2 elicited a very similar pattern of left-hemisphere-dominated activation in the dorsolateral prefrontal cortex, pars opercularis region, pars triangularis region, precentral cortex, and parietal lobule.	
Freedman, Martin, & Biegler, 2004	1) Picture naming 2) Word naming → **Production, naming**	No RHM assumption was tested. Reference to the semantic blocking effect.	1) - Interference effect for semantically related pictures relative to unrelated pictures in control subjects. - Larger interference effect for patients with semantic STM deficits. - No interference effect for	

			patients with phonological STM deficits. 2) - Control subjects + patient with semantic STM deficits showed a small facilitatory effect for the onset of phrases containing semantically related words.	
Kotz, & Elston-Guttler, 2004	Associative and categorical priming in lexical decision. → **Recognition**	4. Developmental aspect → **Partly supported** AoA is an important factor in the development of conceptual links as well, in addition to proficiency.	- The advanced learners showed associative RT and N400 ERP priming effects similar to early advanced learners and native speakers, but very limited categorical priming effects. - The lower proficiency group showed no RT effects for either categorical or associative pairs but associative N400 priming.	
Phillips, Segalowitz, O'Brien, et al., 2004	1) Living/nonliving judgements with or without primes. 2) Replication with ERP. → **Recognition**	4. Developmental aspect → **Supported**	1) Participants performed faster and with less variation in L1 than L2, and the more highly proficient bilinguals had less variation than the less proficient bilinguals.	

			2) The CV measure of electrical brain activity can provide useful information about the automaticity or efficiency of cognitive processing.	
Izura, & Ellis, 2004	Translation judgement → **Recognition**	No RHM assumption was tested. Reference to RHM as a model that possibly can explain the results.	1) An effect of second language AoA on decision latencies, which interacted significantly with first language AoA such that first language AoA only affected translation when the second language word in the pair was early acquired. 2) Lexical decision speeds in Spanish (L1) were predicted by Spanish AoA and word frequency while lexical decision speeds in English (L2) were predicted by English (not Spanish) AoA, English word frequency and word length. 3) Main effects of both first and second language AoA were obtained when the L2 word in a pair was presented 400 ms ahead	

			of the L1 word.	
Gollan, & Acenas, 2004	Picture naming → **Production**	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	- Bilinguals had more TOTs than monolinguals unless the target pictures had translatable cognate names. - Bilinguals had fewer TOTs for noncognates they were later able to translate.	
Assink, van Well, & Knuijt, 2003	Lexical decision → **Recognition**	No RHM assumption was tested. Reference to RHM as a model that possibly can explain the results.	- Reliable frequency and AoA effects were found - AoA effects can be explained by assuming that early- and late-acquired words differ in their frequency history. - AoA effects decreased with reading age. - Dutch subjects (L2: English) produced identical response patterns as the British group, showing only an overall 94 msec latency delay.	
Francis, Augustini, & Saenz, 2003	1) Picture naming 2) Picture naming + translation → **Production + Translation**	3. Asymmetries between L1 & L2 processing. → **Not supported** 4. Developmental aspect → **Supported**	Between-language priming was symmetric, but within-language priming was stronger in the nondominant language	Highly fluent bilinguals.

Alvarez, Holcomb, & Grainger, 2003	Semantic categorization → **Recognition**	3. Asymmetries between L1 & L2 processing. → **Supported**	- In the typical N400 window between-language repetition (trans-lation) produced a smaller reduction in N400 amplitude than did within-language repetition. - The time-course of between- language repetition effects tended to be more extended in time and differed as a function of language - A greater negativity in the ERP waveforms was observed when the word on the directly preceding trial was from the other language.	
Blot, Zarate, & Paulus, 2003	Brainstorming with and without language switching. → **Production**	3. Asymmetries between L1 & L2 processing. → **Not fully supported**	- L1 brainstorming: more efficient idea productivity than in L2. - Switching L2-L1 → most effecient brainstorming in session 2.	
Meijer, & Fox Tree, 2003	Sentence recall → **Production**	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	Crosslinguistic syntactic priming was found.	

Bortfeld, 2003	Idiom classification → **Recognition**	No RHM assumption was tested. Reference to the developmental aspect of the RHM.	Response times and error rates indicate that participants were able to interpret unfamiliar (e.g., other languages') idioms depending largely on the degree to which they were analyzable, and that different forms of processing were used both within and between languages depending on this analyzability.	
Zeelenberg, & Pecher, 2003	1) Decision: living vs. non-living. 2) Lexical decision with cross-language repetition priming. 3) Lexical decision with L2 words studied in a conceptual task. 4) Lexical decision with shorter study-test interval. 5) Decision: man-made or not? → **Recognition**	3. Asymmetries between L1 & L2 processing. → **Not supported**	1+5) Reliable cross-language repetition priming in a conceptual task. 2-4) No cross-language repetition priming in lexical decision	
Damian, 2003	1) Picture-word interference (phonologically or semantically related)	No RHM assumption was tested. Reference to semantic blocking effect.	1) -200 ms SOA: effect of semantical relatedness. 0 and +200 ms SOA: effect of phonological	

	2) Picture naming 3) Stroop task **→Production, recognition**		relatedness. 2) A reliable semantic effect was obtained for both mono- and bisyllabic targets in the no-deadline and the deadline group. In contrast, a reliable phonological effect was obtained for mono- and bisyllabic targets but only in the deadline group. 3) - No deadline: Stroop interference at SOA 0, 100, 200 ms, but not 300 ms; Stroop facilitation at SOA 100 en 200, but not at SOA 0 and 300 ms. - Deadline: Stroop interference at SOA 0, 100, 200 ms, but not 300 ms; Stroop facilitation at SOA 0, 100 en 200, but not at SOA 300 ms.	
Tamaoka, & Miyaoka, 2003	1) Lexical decision 2) Questionnaire about previous exposure **→ Recognition**	3. Asymmetries between L1 & L2 processing. **→ Not supported**	1) - Loanwords phonetically similar to the original English words were judged with the same speed and accuracy as those being phonetically dissimilar to their original English words.	

			- Reaction times displayed the shortest mean for non-words, followed by pseudo-loanwords, and finally unadopted loanwords.	
Bloem, & La Heij, 2003	**Translation**	3. Asymmetries between L1 & L2 processing. → **Not supported**	1+2) In a word-translation task, context words induce semantic interference whereas context pictures induce semantic facilitation. 3) Categorization level of the context words had no effect on the direction or size of the semantic context effect. 4) Context words induce phonological facilitation, but context pictures do not.	
Snellings, van Gelderen, & de Glopper, 2002	Lexical decision Translation → **Recognition, translation**	No RHM assumption was tested. Reference to RHM as an example of a model which incorporates a non-language specific conceptual system.	Better performance after training.	
Vigliocco, Vinson, Damian, et al.,	Naming pictures of objects and actions. → **Production**	No RHM assumption was tested. Reference to semantic blocking	Naming latencies for both object and action words were modulated by the	

2002		effect.	semantic similarity between the exemplars in each block.	
Sharifian, 2002	Detecting the semantic relation in hyponym-superordinate pairs in L1 & L2. → **Recognition**	4. Developmental aspect → **Supported**	Unbalanced bilinguals: - Faster with superordinate – hyponyme pairs than with hyponym-superordinate pairs in both L1 & L2. - Longer RTs in L2 More fluent bilinguals: - L2 processing as good as L1 processing.	
De Groot, Borgwaldt, Bos, et al., 2002	- Selective lexical decision in Dutch & English - Word naming - Delayed word naming → **Recognition, naming**	3. Asymmetries between L1 & L2 processing. → **Supported**	- Same effects across the tasks and across the languages. - Better performance for: - concrete words - cognates - familiar words - frequent words - short words - words with many neighbours - words with simple and structurally preferred onsets - words that do not contain consonant clusters	
Hernandez, &	1+2+3) Picture naming	No RHM assumption was tested.	1) Repetition effect both	

Reyers, 2002	with priming (within or between languages) → **Production**	Reference to RHM as an example of a model of bilingual memory.	within languages and between languages; an asymmetry within language, with repetition priming being larger in Spanish than in English. 2+3) A lag resulted in a decrease in the asymmetry for within- but not between-language priming.	
Luna, & Peracchio, 2002	Studying and remembering advertisements. → **Production**	3. Asymmetries between L1 & L2 processing. This paper presents need-for-cognition as a mediating factor in the processing asymmetry between languages.	1) For low-need-for-cognition individuals, first-language processing is superior to second-language processing. High-need-for-cognition individuals remember first- and second-language ads equally well. 2) Significant interaction between need for cognition and an extrinsic manipulation of processing motivation: L1 leads to greater memory under conditions with high motivations and low need for cognition.	
Maess, Friederici,	Picture naming → **Production**	No RHM assumption was tested.	- Semantic blocking effect - Involvement of the left	

Damian, et al., 2002		Reference to semantic blocking effect.	temporal cortex in the semantic interference effect.	
Schneider, Healy, & Bourne, 2002	Vocabulary learning + BW and FW translation 1) Categorically blocked or mixed 2) Pretrained on half of the L2 words. → **Translation**	3. Asymmetries between L1 & L2 processing. → **Supported**	- Advantage of practice during vocabulary learning. - Backward translation is easier than forward translation.	
Vigliocco, Louer, Damian, et al., 2002	Producing sentences with the translation of given nouns. 1) Semantically blocked 2) Blocked by grammatical gender 3) 1+2 → **Translation, production**	3. Asymmetries between L1 & L2 processing. → **Not supported**	1) Participants performed the task slower when the target nouns were of the same semantic category. 2) Participants performed the task faster when the target nouns had the same gender. 3) No interaction was found.	
Damian, Vigliocco, & Levelt, 2001	1) Picture naming 2a) Word naming 2b) Word + determiner naming → **Production, naming**	No RHM assumption was tested. Reference to semantic blocking effect.	1) Pictures are named slower in the context of same-category items than in the context of items from various semantic categories. 2a) Words were named faster in the context of same-category items than of different-category	

			items. 2b) Words were named faster in the context of different-category items than of same-category items.	
Vitkovitch, Rutter, & Read, 2001	1) Speeded picture naming task 2) Standard picture naming task 3) Repetition priming in picture naming. → **Production**	No RHM assumption was tested. Reference to the semantic blocking effect.	1) Lag 3 condition: targets are misnamed above chance with the semantically related prime name. Lag 1: no effect of the prime. 2) Replication of the results of experiment 1. 3) No stronger facilitatory effects from prime/target repetition in lag 3 than in lag 1.	
Freedman, & Martin, 2001	Patient study - Phoneme discrimination task - Nonword repetition task - Rhyme probe task - Peabody Picture Vocabulary Test - Relatedness judgement task - Single word-single picture matching task - Category probe task	No RHM assumption was tested. Reference to RHM as an example of a model that incorporates a developmental aspect.	Both phonological and semantical aspects of STM are essential for LT learning.	Study with five aphasic patients that show STM deficits for phonological or semantic information.

	- Attribute judgement task - Word/nonword span tasks - Vocabulary learning → **Production, recognition**			
Jiang, & Forster, 2001	1+2+3) Masked L2-L1 translation priming in episodic recognition task and lexical decision. 4+5) Masked L1-L2 translation priming in episodic recognition task and lexical decision. → **Recognition**	3. Asymmetries between L1 & L2 processing. → **Supported**	1+2+3) L2-L1 translation priming effect in episodic recognition, but not in lexical decision. 4+5) Less L1-L2priming in episodic task.	
Costa, Caramazza, & Sebastian-Galles, 2000	1+2) Picture naming with cognates and noncognates. → **Production**	3. Asymmetries between L1 & L2 processing. → **Supported**	1) Naming latencies were shorter for cognates than for noncognates, this effect disappeared in monolinguals. 2) Cognate facilitation effect was larger when naming in the nondominant language than in de dominant language.	
Schrauf, & Rubin, 2000	Word-cue technique: autobiographical memory retrieval.	3. Asymmetries between L1 & L2 processing. → **Not supported**	Bilinguals encode and retrieve certain autobiographical	

	→ **Production**		memories in one or the other language according to the context of encoding, and these linguistic characteristics are stable properties of those memories over time.	
McElree, Jia, & Litvak, 2000	Same-different category task (conceptual retrieval). 3 bilingual groups: 1) Balanced bilinguals. 2) Russian dominant bilinguals 3) English dominant bilinguals. → **Recognition**	3. Asymmetries between L1 & L2 processing. → **Supported** 4. Developmental aspect → **Supported**	- Translation pairs engendered higher accuracy and faster retrieval speeds than other conditions, and judgments of same-language category pairs were more accurate than different-language pairs. - No differences in speed or accuracy were found for L1 and L2 same-language pairs for the balanced group, indicating that conceptual retrieval was equally proficient in L1 and L2 - In unbalanced groups: retrieval speed was slower and less accurate for same- and different language pairs with items from the nondominant language.	
De Groot, &	Foreign vocabulary	3. Asymmetries between L1 & L2	- Cognates and concrete	

Keijzer, 2000	learning + forward and backward translation → **Translation**	processing → **Not supported**	words are easier to learn than noncognates and abstract words. - No effect of frequency. - Better recall in BW translation than in FW translation. - Concreteness effects in BW and FW translation.	
Illes, Francis, Desmond, et al., 1999	Semantic (concrete or abstract?) and nonsemantic (upper- or lowercase) decisions in L1 and L2 + fMRI. → **Recognition**	5. Common conceptual system → **Supported**	No differences in brain activation pattern between languages.	
Vitkovitch, & Tyrell, 1999	Picture naming whilst ignoring a distractor word (subordinate or basic level). →**Production**	No RHM assumption was tested. Reference to the semantic blocking effect.	- Prolonged naming latencies when the distractor is from the same subordinate category. - Shorter naming latencies when the distractor is the name of the correct basic level category.	
Costa, Miozzo, & Caramazza 1999	Picture-word interference task. → **Production**	3. Asymmetries between L1 & L2 processing → **Not supported**	1) Facilitation of picture name in same or different language (larger in same language). 2) Interference of semantically related	

			words in same or different language. 3) Phonologically similar distractors facilitated picture naming regardless of their language.	
Askari (1999)	Produce the word that best fits the given definition. The definition was followed by a prime (Farsi or English) that could be meaning-related, sound-related or not related. **→ Production**	2. Separate lexicons **→ Not supported**	- Sound-related primes lead to facilitation. - Same and different language primes have the same effect.	
Grainger, & Frenck-Mestre, 1998	Semantic categorisation & lexical decision with translation or unrelated primes. **→ Recognition**	No RHM assumption tested Reference to RHM as an example of a model of bilingual memory.	Facilitation effect of the translation primes, this effect was stronger in the semantic categorisation task than in lexical decision.	Highly bilingual participants.
Cheung, & Chen, 1998	- Delayed production - Picture naming - Word translation - Category matching **→ Production, translation, recognition**	3. Asymmetries between L1 & L2 processing **→ Not supported**	- FW translation slower than BW translation (could be explained by item familiarity) - L2 picture naming as fast as FW translation - L1 picture naming faster than BW translation.	

Schrauf, & Rubin, 1998	Autobiographical memory: writing a memory associated with a cue. → **Production**	4. Developmental aspect → **Supported**	Fluent bilinguals demonstrate access to the autobiographical memory base with equal facility from either language.	Fluent bilinguals
Lotto, & De Groot, 1998	Vocabulary learning: role of learning method (word-word or word-picture), word frequency and cognate status + Test: FW translation. → **Translation**	3. Asymmetries between L1 & L2 processing → **Not supported**	1) Better results in word learning compared to picture learning 2) Better results in congruent learning-test condition than in incongruent condition 3) Cognates and HF words are easier to learn.	
Chen, Cheung, & Lau, 1997	- Picture naming - Word naming - Word translation - Category matching → **Production, naming, translation, recognition**	3. Asymmetries between L1 & L2 processing → **Partly supported** 4. Developmental aspect → **Supported**	- Backward translation faster than forward translation. - Backward translation slower than L1 picture naming. - No difference between forward translation and L2 picture naming.	Highly proficient bilinguals!
Ahmrein, & Sanchez, 1997	1+3+4) 3 stimulus types (English word, Spanish word, picture) – 3 response types (Give English word, Spanish word, or draw picture) 2) Only in English → **Translation,**	3. Asymmetries between L1 & L2 processing → **Not supported**	1+3) Equivalent increases in production onset latency for cross-language/modality translation were found; bilinguals and monolinguals were equivalent	

	recognition, production		2) Cross-modality translation equivalence was replicated, though bilinguals were slower than monolinguals overall. 4) Bilinguals were faster for blocked than mixed tasks	
Loyd Jones, & Humphreys, 1997	- Superordinate categorization - Picture recognition - Naming → **Recognition, production, naming**	No RHM assumption was tested. Reference to the semantic blocking effect.	1) Responses to pictures of structurally similar objects were slowed relative to pictures of structurally dissimilar objects. This structural similarity difference was greater for picture naming than for superordinate categorization of pictures. 2) Structural similarity effects in picture naming were reduced by repetition priming. Repetition priming effects were equivalent from picture and word naming as prime tasks. 3) Superordinate categorization of the prime did not produce the structural similarity effects on priming found for picture naming	

			4) Such priming effects did not arise for picture or word categorization or for reading picture names as target tasks.	
Gollan, Forster, & Frost, 1997.	Lexical decision with translation priming. 1) Priming from L 1 to L2 in Hebrew-Dominant bilinguals 2) Priming from L1 to L2 in English-Dominant bilinguals 3) Priming from L2 to L1 in Hebrew-Dominant bilinguals 4) Priming from L2 to L1 in English-Dominant bilinguals → **Recognition**	3. Asymmetries between L1 & L2 processing → **Supported**	1+2) Stronger priming for cognates than noncognates. 3) No difference between cognates and noncognates. 4) No priming effect	
De Groot, & Poot, 1997	- 3 proficiency groups - FW & BW translation → **Translation**	3. Asymmetries between L1 & L2 processing → **Not supported**	- Similar effects of imageability, frequency and cognate status in the three proficiency groups → no qualitative differences in translation. - FW translation faster than BW translation - Conceptual memory appeared to operate as much in backward	

			translation as in forward translation.	
Altarriba, & Mathis, 1997	1) Learning – translation recognition 2) Stroop color-word task **→ Translation, recognition**	3. Asymmetries between L1 & L2 processing **→ Not supported**	1) Both novice and expert learners had longer RTs on orthographically related foils and on semantically related translations. 2) Novice and expert bilinguals both demonstrated Stroop effects both within and between languages. The results of all three experiments indicate that both conceptual and lexical links are formed for second language words, even after a single learning session.	
Perea, & Gotor, 1997	- Masked associative and semantic priming in 1) Lexical decision 2) Naming **→ Recognition, naming**	No RHM assumption was tested. Reference to 1994 paper for not conducting item analyses.	1+3) associative priming in both tasks. 2+4) semantic priming in both tasks.	
Ferrand, & Humphreys, 1996	Patient study - Recognition (English-French)	3. Asymmetries between L1 & L2 processing. **→ Not supported** 4. Developmental aspect	there is a similar pattern of category-specific breakdown in French as well as English, and there	Study with 1 fluent bilingual aphasic patient; a category-specific breakdown in

	→ **Recognition**	→ **Supported** 5. Common conceptual system → **Supported**	is symmetric transfer of the refractory state from one language to the other	auditory written word-matching tasks
Lee, & Williams, 1997	Sentence recall with distractor task 1) Distractor task = word matching in L1 or L2 2a) Distractor task = object size categorization 2b) Distractor task = picture-word matching task 3) Distractor task = definition task → **Production**	No RHM assumption was tested. Reference to the semantic blocking effect. Reference to the strong L2-L1 lexical links as an explanation for the results of experiment 1.	1) Encountering the French lure in the distractor task still increased the probability of recalling the sentence with the target replaced with the French lure's English translation equivalent 2) Subjects still tended to be more likely to recall an experimental sentence with the target replaced with the lure when a picture of the lure was in the distractor picture set. 3) Mere presentation of a word in a word-matching task does not influence the process of subsequently lexicalizing a related concept.	
Skwarchuk, & Clark, 1996	1) - Preference task - Incidental recall - Mediator rating task 2) – Preference task - Free association task	No RHM assumption was tested. Reference to the semantic blocking effect.	1) An advantage for complementary relations in the neutral conditions, and even somewhat under conditions that were	

	3) - Preference task - Association task - Imagery/category rating task → **Recognition, production,**		expected to favour categorical relations. 2) Free associations also tended to be complementary rather than categorical. 3) Replication of the results of experiment 1.	
Prince, 1996	Vocabulary learning (context vs. translation) and recall (context vs. translation) → **Production, translation**	3. Asymmetries between L1 & L2 processing → **Supported**	Translation learning and recall is easier than context learning and recall.	
LaHeij, Hooglander, Kerling, et al., 1996	1) Reading and translation with irrelevant colours. 2+3) Reading and translation with irrelevant pictures. 4) Translation → **Naming, translation**	3. Asymmetries between L1 & L2 processing → **Not supported**	1) The effect of the NV context was similar for FW and BW translation. 2+3) Congruency effects in FW and BW translations. 4) Larger semantic context effects in BW than in FW translation.	
Altarriba, & Soltano, 1996	1+2) Repeated Blindness effect in word recalling → **Production**	No RHM assumption was tested. In line with the developmental aspect of the RHM.	1) No RB when repeated in different languages. 2) RB in Spanish and English in cross-language condition, facilitation in recall → Although conceptual	

			processing had taken place, semantic overlap is not sufficient for RB.	
Cheung, 1996	Nonword span + vocabulary learning → **Production**	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	Nonword span is predictive for the number of trials needed to learn new words.	
Hernandez, Bates, & Avila, 1996	Naming with within and between language priming. → **Naming**	No RHM assumption was tested. Reference to RHM as an example of a model of bilingual memory.	Cross-language priming was always observed when the target language was predictable (in the blocked condition), even under speeded conditions. When the target language was unpredictable (in the mixed condition), cross-language priming was observed only when response was delayed (delayed naming) and under a subset of conditions when word recognition was delayed (visual degradation).	
Fox, 1996	1) Categorizing a number flankered by primes (semantically related or unrelated) – Lexical decision of probes. 2) Categorizing a number	3. Asymmetries between L1 & L2 processing → **Supported** 5. Common conceptual system → **Supported**	1) When probe words were semantic associates of previously ignored flanker words, cross-language negative priming occurred only when the	

	flankered by primes (translation equivalents or not) – Lexical decision of probes → **Recognition**		ignored flankers were in the subject's first language (L1), and the probe target was in the second language (L2). 2) Cross-language negative priming occurred in both the L1-L2 and the L2-L1 conditions. However, there was still an asymmetry with more negative priming occurring in the L1-L2 condition.	
Tzelgov, Henik, Sneg, et al., 1993	Bilingual stroop task → **Recognition**	3. Asymmetries between L1 & L2 processing → **Supported**	The Stroop effect was obtained in Hebrew-English bilinguals for cross-script homophones, which have meaning as color names in one language but are written in a script of the other language. The magnitude is, however, larger and more stable when the stimuli have meaning in the participant's first language.	