

Appendix B. *Examples of Comprehension Questions with analysed segments, in studies providing more than one example of a CQ on critical trials*

Study	Target feature	Example stimuli <u>critical regions/targets underlined</u>	Example CQ (total k of CQs available)	Commentary: CQ in relation to Critical Region (CRA) analysed
Study A ¹	Verb incongruence: plurality (i & ii) and subcategorization (iii & iv)	i. “The child was watching some of the <u>rabbit(s) in the room.</u> ” ii. The professor noticed a few of his <u>friend(s) in the picture.</u> iii. “The teacher wanted/insisted the <u>student to start all</u> over again” iv. “They had to teach/train the <u>employees Chinese before sending them to China</u> ”	i. “Was the child chasing some chickens?” ii. “Were the professor’s friends in the picture?” iii. “Was the teacher satisfied with the student’s work?” iv. “Were the employees to be sent to China?” (64, all – in appendix, p.964-967)	All CQ focus on (all or part of) CRA. Pattern across all CQs
Study B	Subject object ambiguities – weak garden paths (i & ii), strong garden paths (iii & iv)	i. “The spokesman confirmed the <u>story/doctor had surprised the president yesterday.</u> ” ii. “The man believed the <u>girl/book had upset very many people.</u> ” iii. “As the men drank the <u>beer/song pleased everybody very much.</u> ” iv. “While the neighbor visited the <u>boy/car passed by the house</u> ”.	i. “Had the story surprised the president?” ii. “Had the girl/book upset many people?” iii. “Did the beer/song make everybody unhappy?” iv. “Did the neighbor pass by the house?” (40, all – in appendix, p.327-9)	All focus on CRA as intended, to measure off-line interpretation. These two types of orientation of attention pattern across all CQs.
Study C	Gender agreement –	i. “El abuelo adora <u>al nieto nuevo/*nueva</u> de la familia.	i. “El abuelo adora el auto/al nieto nuevo?”	Both examples require some focus on CRA,

¹ We re-iterate, the purpose of this synthesis is not to critique individual studies but to highlight potential issues regarding consistency and transparency for further research. Study A in this table is not the same as Study A in subsequent tables.

	animate versus inanimate	<p>The grandfather adores the family's new grandson."</p> <p>ii. "El abuelo adora <u>el auto nuevo/*nueva</u> de la familia. The grandfather adores the family's new car." (p.94)</p>	<p>Does the grandfather adore the new car/grandson"</p> <p>ii. "¿El hombre detesta el auto/al nieto nuevo?"</p> <p>Does the man detest the new car/grandson?" (2, p.95)</p>	<p>but a pattern not discernible from these two examples and it could be pre-CRA, on the verb.</p>
Study D	<p>Plural inflection of the object – simple quantifier phrases (i & ii) partitive quantifier phrases (iii & iv)</p>	<p>i. "Haley ordered <u>four brown leather chair(s)</u> for her new condo."</p> <p>ii. "Erin fixed <u>several old broken desk(s)</u> with some old tools"</p> <p>iii. "Frank promoted <u>three of the engineer(s)</u> to high management positions."</p> <p>iv. "Alex gave <u>several of his toy(s)</u> to his baby cousins."</p>	<p>i. "Was Haley planning to put the leather chairs in her new condo?"</p> <p>ii. "Did Erin repair the desk without any tools?"</p> <p>iii "Did any engineers get promoted?"</p> <p>iv. "Did Alex give his toys only to his classmates?"</p> <p>(all - online supplementary materials)</p>	<p>In i and ii, the focus is on a region after the CRA. iii focuses on the CRA and pre CRA ('promoted') iv focuses on both the CRA ('several of' is needed for interpretation) and also the post CRA region</p>

Appendix C. Segments analysed in studies investigating temporary (local) ambiguity²

Linguistic feature	Study	Segments analysed	Example stimuli (as presented in the article)	Commentary on group of related studies
Subject-object ambiguities in Spanish	Study A	The post-verbal NP, the region with the main clause verb, and the sentence final region.	<p>“Cuando el escultor <u>acabó/volvió</u> <u>la obra</u> <u>tenía tres metros</u> <u>de altura</u> When the sculptor finished/came back <u>the piece</u> <u>was ten feet</u> <u>in height</u>” (p.726)</p> <p>“Después de que comieron/hablaron <u>el pollo</u> <u>se enfrió</u> <u>de una vez</u>. After they ate/talked <u>the chicken</u> <u>got cold</u> <u>right away.</u>” (p.733)</p>	<p>Similarity. All three studies analysed some or all of the ambiguous noun phrase and the disambiguating verb region.</p> <p>Differences. (a) Study A presented multi-word segments; Studies B, C and D presented word by word (b) Studies A, C and D analysed words or segments <i>after</i> the disambiguating verbs; Study B did not. (c) Studies A, B and D analysed the article with the ambiguous noun, each in different ways: A as the total RT on the multi-word segment, B as the mean RT on the article and noun, D as the sum of the RT on article and noun and also included the verb; study C did not analyse the RT on the article. (d) Study A analysed the segments as presented i.e. sums of words in segments; Study B analysed the mean RTs of the two words in each region analysed;</p>
Subject-object ambiguities in English (verb bias)	Study B	Analysis on temporarily ambiguous NP (mean of article + noun), and disambiguating verb region (mean of modal + be).	<p>“The club members understood (that) <u>the</u> <u>bylaws</u> <u>would</u> <u>be</u> applied to everyone. The ticket agent admitted (that) <u>the</u> <u>mistake</u> <u>might</u> <u>be</u> hard to correct.” (p765)</p>	
Subject-object ambiguities in English (strong-weak garden paths)	Study C	Graphically presented mean RTs on all 10 segments. ANOVAs presented for segments 6-10 for strong GP, 5-10 for weak GP (i.e. ambiguous noun onwards).	<p>“While <u>the</u> neighbor visited the <u>boy/car</u> <u>passed</u> <u>by</u> <u>the</u> <u>house</u>. (strong GP) The man confessed the <u>truth/king</u> <u>was</u> <u>not</u> <u>believed</u> <u>by</u> <u>anyone</u>” (weak GP) (p.328)</p>	
Subject-object ambiguities in English (strong-weak garden paths)	Study D	Sum of the article+noun+V and the sum of the following three words.	<p>a Before Mary ate <u>the</u> <u>pizza</u> arrived <u>from</u> <u>the</u> <u>local</u> restaurant. b. After Mary died <u>her</u> <u>husband</u> <u>married</u> a <u>woman</u> <u>from</u> Texas. (p.415)</p>	

² We indicate presentation segments with | and analysed segments with underlining. In some cases, this information was extracted from information in the articles as this precise formatting was not provided.

				Study C provided analysis of the segments as presented i.e. individual words; Study D summed the RTs on the individual words in the two segments analysed. (e) Study C examined the RTs on the comprehension questions; Studies A, B and D did not.
Relative clauses high/low attachment in Dutch (disambiguation by S-V number agreement)	Study A	Analyses presented for the disambiguating region, defined as: the disambiguating auxiliary, the past participle, the preposition/conjunction, and the determiner	“Daar is de machinist die de conducteurs heeft/hebben bevrijd uit het brandende Treinstel” (p.82) That is the engine-driver who the guards has/have saved from the burning train-carriage	Similarity. All four studies presented analyses of the disambiguation region: aux verb or adjective. Differences (a) Study A was word by word presentation; studies B, C and D was presentation by segments. (b) Studies A, B and C reported analysis of regions after the disambiguation pair Study D did not. (c) Study A analysed the three words following the disambiguating word one each separate word; studies B and C analysed them as one segment (d) Study D carried out analyses on the RTs to the CQ; studies A, B and C did not.
	Study B (expt. 2 & 4)	Means and SDs given for all regions. ANOVA carried out on all segments, and reported for disambiguating auxiliary verb and the sentence final region.	“ <u>The dean liked</u> <u>the secretary of the professors</u> <u>who</u> <u>was/were</u> <u>reading a letter</u> <u>The dean liked</u> <u>the professors with the secretary</u> <u>who</u> <u>was/were</u> <u>reading a letter.</u> ” (p.464) “ <u>The clerk asked for</u> <u>the consultants of the economist</u> <u>who</u> <u>was/were</u> <u>reading the reports.</u> <u>The clerk asked for</u> <u>the economist with the consultants</u> <u>who</u> <u>was/were</u> <u>reading the reports</u> ” (p.483)	
	Study C	Means calculated for all segments; inferential statistics reported for disambiguating region and the final region	“The journalist interviewed the assistant of the inspectors who was/were looking very serious” (p.303)	

Relative clauses high/low attachment in Greek (disambiguation by S-ADJ gender agreement)	Study D (expt. 2)	Descriptive data for all segments; all segments analysed, analysis of 4 th and 5 th segments reported	<p>“<u>Enas kirios fonakse ton fititi tis kathigitrias pu fenotan apoghoitevmenos/eni apo to neo ekpedheftiko sistima</u> <u>A man called the student [MASC] of/with the teacher [FEM] who seemed disappointed [MASC/FEM] by the new educational system.</u>” (p.513)</p>	
Reduced relative clauses in English	Study A	Ambiguous verb, cue, and disambiguating verb	<p>“The brown sparrow <u>seen</u> <u>by the hungry cat</u> <u>pecked</u> at an insect. The brown sparrow <u>noticed</u> <u>on an upper branch</u> <u>pecked</u> at an insect. The brown sparrow <u>noticed</u> <u>almost every day</u> <u>pecked</u> at an insect.” (p.90)</p>	<p>Similarity. Both studies analysed three segments including the ambiguous verb and two subsequent regions.</p> <p>Differences. (a) Study B presented and analysed ‘by’ in the same segment as the ambiguous verb; Study A presented and analysed the ambiguous verb alone (b) Study B included the predicate following the disambiguating verb i.e. the whole sentence final region; Study A analysed the disambiguating verb only</p>
	Study B	"Segments 3, 4 and 5" p. 1121	<p>“The boy <u>kissed by</u> <u>the girl</u> <u>was cute.</u> The boy who was <u>kissed by</u> <u>the girl</u> <u>was cute</u> The apple <u>kissed by</u> <u>the girl</u> <u>was cute.</u> The apple that was <u>kissed by</u> <u>the girl</u> <u>was cute.</u> The apple <u>seen by</u> <u>the girl</u> <u>was cute.</u> The apple that was <u>seen by</u> <u>the girl</u> <u>was cute.</u>” (p.1120)</p>	

Appendix D. *Studies investigating global ambiguity and the segments analysed*

Linguistic feature	Studies	Segments analysed	Example stimuli (as presented in the article)	
Subject-object assignment in German	Study A	Average RT for whole item used for analysis	<p>“Peter kann sehen, dass das Spiel den Trainer ärgert. (SO/-ANIM) <u>Peter kann sehen, dass den Trainer das Spiel ärgert.</u> (OS/-ANIM) (Peter can see that the <u>game</u> angers the coach.)”</p> <p><u>Peter kann sehen, dass das Kind den Trainer ärgert.</u> (SO/+ANIM) (Peter can see that the <u>child</u> angers the coach.)</p> <p><u>Peter kann sehen, dass den Trainer das Kind ärgert.</u> (OS/+ANIM) (Peter can see that the <u>child</u> angers the coach). (p401).</p>	<p>Differences.</p> <p>(a) Study A analysed whole sentence reading time and study B analysed the sum of SO + adverb + OS in the subordinate clause.</p> <p>(b) Study A used whole sentence presentation; Study B used presentation in multi-word segments.</p>
Subject-object assignment in German	Study B	Sum of segments 3, 4 and 5	<p>“Ich glaube, dass <u>den Arbeiter am Dienstag der Lehrling </u> abgelenkt hat I think that <u>the worker-OBJ on Tuesday the apprentice-SUBJ </u> distracted</p> <p>Ich glaube, dass <u>der Chefarzt am Morgen den Oberarzt </u> überredet hat I think that <u>the chief physician-SUBJ in the morning the</u> <u>senior physician-OBJ persuaded</u>” (p479).</p>	
Wh-questions in English, subject/object	Study A	The three words after the main verb. Average RTs of region presented and analysed.	<p>“Who did the police declare <u>killed the pedestrian?</u> Who did the police declare <u>the pedestrian killed?</u> Who did the police know <u>killed the pedestrian?</u> Who did the police know <u>the pedestrian killed?</u>” (p.452)</p>	<p>Similarity. Both studies presented analyses of the same word by word regions.</p>
Wh-questions in English, subject/object	Study B	"The critical region was defined as the verb and noun phrase in the complement clause"	<p>“Who do you think <u>met the tourists </u> in front of the museum? Who do you think <u>the tourists met</u> in front of the museum?” (p.204)</p>	

		p.208. Average RTs of region presented and analysed.		
Wh-questions in German (nominative and accusative case marking)	Study A	Means for all 5 segments then, based on differences in means, ANOVAs on segments 3 and 4	“Welche Ingenieurin traf <u>den/der Chemiker</u> <u>gestern Nachmittag</u> im Café? Which [NOM/ACC] engineer met <u>the</u> [ACC/NOM] <u>chemist</u> <u>yesterday afternoon</u> in the cafe?” (p.887)	Similarity. Both studies analysed the 2 nd NP (article + noun ACC or NOM) and the next multi-word segment Differences. (a) Following the ACC/NOM NP, study B’s adverbial segment was sentence final; study A included an additional preposition wrap up region (b) Study B provided ANOVAs on all segments prior to the NP; study did not.
Wh-questions in German (nominative and accusative case marking)	Study B	"The <i>wh</i> -element, the matrix verb, the matrix subject, the past participle, the complement verb, and the complement noun phrase...and sentence final prepositional phase" p.616 ANOVA for each segment.	“ <u>Wer/wen</u> <u>denkst</u> <u>du</u> , <u>vermisste</u> <u>den/der Lehrer</u> <u>in den Ferien?</u> ” <u>Who</u> [NOM/ACC] <u>think</u> <u>you</u> , <u>missed</u> <u>the</u> [ACC/NOM] <u>teacher</u> <u>during the vacation?</u> ” (p.613)	