

Appendix 1. Profiles and readability of the source text

Paragraph	I	II	III	IV
Number of words	314	331	303	334
Number of sentences	26	24	24	23
Percentage of long words	6.7	5.4	7.2	5.4
Average syllables per word	1.4	1.3	1.4	1.4
Flesch Kincaid Reading Ease	77.1	79.7	76.9	77.4
SMOG Index	5.5	5.3	5.8	5.4

Note: Long words are defined as words with more than three syllables. Flesch Kincaid Reading Ease scores is based on a scale from 0 to 100, and a higher score means easier to read. A value between 60 and 80 should be easy for a 12 to 15 year-old (native speakers) to understand. SMOG Index estimates the years of education a person needs to comprehend writing.

Appendix 2. Full transcription of the auditory stimuli and the visual stimuli

Paragraph 1	Target	Competitor1	Competitor2	Distractor
1) As the sun begins to set, I am deeply attracted by the town's beautiful buildings. Trondheim has an old Gothic church. <i>Its corridor is illuminated/decorated by hundreds of candles.</i>	Candle	Painting	Lightning	Guitar
2) But perhaps the most distinctive buildings are a series of old wooden houses along the river. These buildings are usually converted to cosy restaurants and pubs. They are painted either brown, red, green, or yellow.				
3) I stay at a comfortable hotel by the river. <i>To prepare for my journey to the north, I iron/choose a couple of shirts.</i>	Shirt	Book	Curtain	Balloon
4) When we approach the train station early on the following morning, the gentle rain still falls. <i>As we approach the station, which is close to the river, I hear/see a cruise ship's horn.</i>	Horn	Flag	Music	Sofa
5) Trondheim railway station is known for being an elegant classical building. Its warm and bright booking hall is a relief for passengers. They come through the main doors, completely soaked in the rain, and shake water off their umbrellas.				
6) The place seems a home away from home for some of them, and they call cheerful greetings to one another. <i>In the station store, commuters are eating/buying freshly made bread.</i>	Bread	Juice	Turkey	Bone
7) When I arrive at the platform, the train is waiting. Six red coaches are all very well designed and arranged. I take my seat, which is most comfortable with a tall back and plenty of legroom. In front of my seat is a generously sized table.				
8) I am completely happy. There is no need to try and exchange it for another. I plan to fully enjoy myself in the journey. <i>As we pull away from the station, I see a lady with a crying baby pushing/parking a lovely pink stroller.</i>	Stroller	Van	Door	Milk
9) Soon we are out of town, moving through gently waving fields. Herds of cattle are eating fresh and wild grass. In the grey sky above, a white-tailed eagle is turning gracefully in the rain.				
Paragraph 2	Target	Competitor1	Competitor2	Distractor

1) The rain gradually stops as the sun comes out from the heavy clouds. Although there are no people in view, I see drifts of smoke from chimneys and warm lights shining in windows.				
2) <i>Finally, I see a boy flying/chasing a rainbow-coloured kite.</i> Not far away behind him, a couple are walking a spotted dog.	Kite	Ball	Airplane	Computer
3) Over on the other side, the train is passing by what looks like the open sea, on which a giant black ship is moving slowly across the horizon. Sometimes the train seems to move downward almost on to the stone beach. Several boats are waiting for smoother waters.				
4) <i>At some point along the beach, I see a man riding/driving a bright purple motorcycle.</i> When the train passes by, he waves to us. From time to time, I am amazed by the train's approach to the rocky beaches and rolling silvery waves.	Motorcycle	Truck	Horse	Rabbit
5) In the carriage, there are newspapers including English ones and some beverage making facilities. <i>Feeling a bit chill, I brew/drink a cup of hot tea.</i> As I drink and read, the train makes a few more stops.	Tea	Milk	Beer	Cheese
6) <i>At one of the stops, a blonde-haired lady gets on board dragging/carrying a large black luggage.</i> She sits on the seat opposite to mine.	Luggage	Backpack	Chair	Washing machine
7) It seems nodding to fellow passengers is a custom on Norwegian trains, so she smiles and nods to me. After settling down, she puts on a pair of headphones and closes her eyes to take a rest.				
8) It is almost lunch time, so I decide to visit the dining car. As I walk along the train, I pass through one carriage that has a sort of playpen for children. There is a climbing frame and scattered toys. <i>A child is dressing/playing with a well-made doll.</i>	Doll	Teddy bear	Window	Bed
9) Interesting enough, two other children seem to be playing a make-believe game. One plays as a dentist asking the other to open her mouth. Another three are sitting in front of a large TV that is silently showing animation.				
Paragraph 3	Target	Competitor1	Competitor2	Distractor
1) The restaurant car is extremely clean and modern. <i>A waitress is wiping/cleaning the dining tables.</i> The only other customers are a young couple. They both nod at me.	Table	Fork	Eye	Monkey

2) Seeing that I am looking with interest at the sushi they are eating, the woman explains, ‘Seafood is really fresh here. The sushi is made of quality fish. I promise you will like it.’ Although I am not really a seafood fan, I order a few and find them quite tasty.

3) *Still feeling unfulfilled, I toast two slices of bread for myself and **spread/add** some delicious **jam**.* As I have my lunch, the rolling green meadows have now become more exciting rocky landscape.

Jam Egg Virus Mask

4) When I walk back to my seat, the blonde lady stops listening to music and removes her wireless headphones. She introduces herself as a painter. She will be going to Bodø to draw inspirations for painting.

5) Since we are going to spend a few more hours together, she asks if she can paint for me. *As I happily agree, she starts to **sharpen/prepare** some drawing **pencils**.*

Pencil Brush Knife Battery

6) While she paints, I watch the TV in the front of our carriage, which is playing a magic show. *The magician **bends/grabs** a tiny silver **spoon**.* As he snaps his fingers, it just disappears completely.

Spoon Ring Knee Banana

7) The train progresses more slowly now as the rocky forests have become steep snow-capped mountains. Gradually as the train approaches the station, trees begin to reappear. Unlike small station buildings that are made of wood, the Bodø station is built of bricks.

8) Just as I leave the station, I notice a few people queuing in front of a stall selling traditional local food. *The chef **heats/fetches** a specially designed **pan**.* As it is dinner time, attracted by its wonderful smell, I join the queue and buy a few pieces to try.

Pan Bowl Water Camera

Paragraph 4

Target Competitor1 Competitor2 Distractorr

1) Bodo(ø) is a tranquil town surrounded by lakes and mountains. The hotel I am staying at is a two-floor building with a well-kept garden. As I enter the warm reception hall, a porter enters to throw charcoal into a large burning fireplace.

2) The porter then accompanies me to my room. Before leaving, he reminds me that in case of an emergency, I should not use the lift and instead, I should use safety stairs. I say thanks and goodnight to him and enter my room.

3) My room is warm and comfortable with a gentle yellow light. <i>I fold/remove my wool scarf and put it on a luggage rack.</i> I decide I would like some wine before going to bed.	Scarf	Hat	Paper	Pen
4) As I arrive at the cafe, there is only a lady serving at the counter. The wine I order is made from a kind of grapes that only grows in the southern France. <i>As I sip my wine, the woman squeezes/picks a couple of lemons and makes a cocktail for herself.</i>	Lemon	Apple	Time	Telephone
5) Having enjoyed the wine, I have a wonderful sleep and wake up rather early in the morning. <i>As I walk through the Queen's Garden, a man is trimming/painting a beautiful flower.</i>	Flower	Cat	Hair	Watering bottle
6) Unlike the peace and quietness in the night, the town becomes bustling in the day. I go to the market at the town centre. There are diverse shops selling various food, flowers, and groceries.				
7) <i>When wandering around the market, I find a butcher shop that bakes/sells sweet and spicy chicken.</i> Attracted by the smell, I buy myself a piece as lunch.	Chicken	Steak	Cake	Desk
8) <i>On the central square, a young man, accompanied by thrilling music, is beating/playing a unique kind of drum.</i> I listen for a while and leave some coins as my appreciation to the performance.	Drum	Keyboard	Heart	Mushroom
9) The day is finished by a visit to the post office, where I send myself a letter. 24 hours after my arrival, I am back at Bodo(ø) station, preparing to board the Nordland night train.				

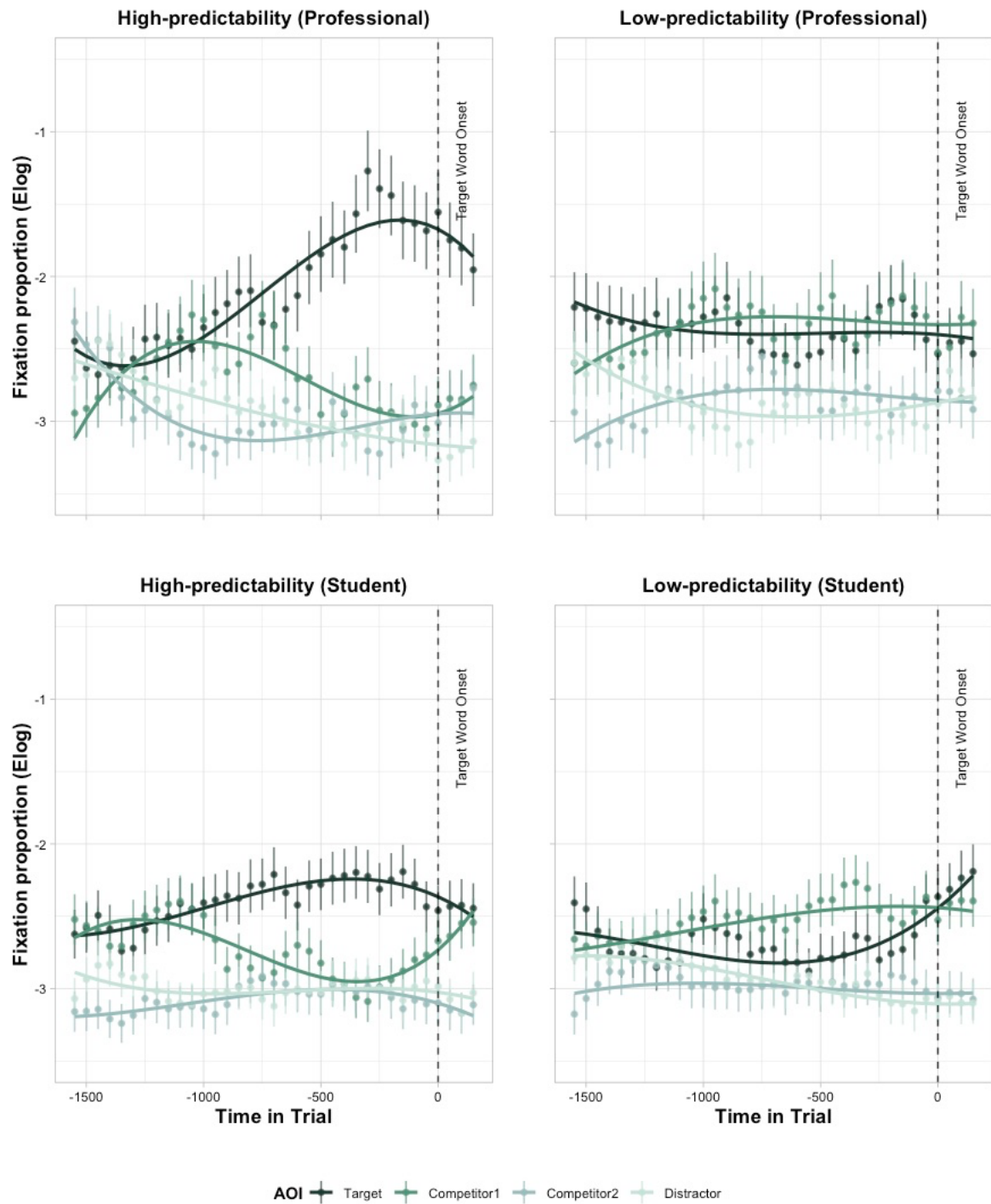
Note: Experimental sentences are presented in italic type. Predictive/unpredictive critical verbs are highlighted in blue and bold, while target words are highlighted in black and bold.

Appendix 3. By-group CPA for the AOI effect

Professional				
Condition	Contrast	Cluster	<i>p</i>	Cluster mass
High-predictability		–500 to –250	< .001***	21.933
	Target_vs_Competitor1	–100 to 50	< .001***	10.005
		450 to 1150	< .001***	64.600
	Target_vs_Competitor2	–1000 to –200	< .001***	55.029
		600 to 1150	< .001***	52.909
	Target_vs_Distractor	–550 to 1150	< .001***	143.384
Low-predictability		650 to 1150	< .001***	47.122
	Target_vs_Competitor1	650 to 1150	< .001***	47.122
	Target_vs_Competitor2	550 to 1150	< .001***	64.812
		–950 to –800	< .001***	11.352
	Target_vs_Distractor	–300 to –150	< .001***	11.264
		600 to 1150	< .001***	57.912
Student				
Condition	Contrast	Cluster	<i>p</i>	Cluster mass
High-predictability		–400 to –150	< .001***	15.465
	Target_vs_Competitor1	600 to 1150	< .001***	53.807
		–1150 to –900	< .001***	13.888
	Target_vs_Competitor2	–750 to 1150	< .001***	147.260
		–1100 to –100	< .001***	54.268
	Target_vs_Distractor	200 to 1150	< .001***	93.724
Low-predictability		650 to 1150	< .001***	48.913
	Target_vs_Competitor1	650 to 1150	< .001***	48.913
	Target_vs_Competitor2	–50 to 1150	< .001***	110.131
	Target_vs_Distractor	–50 to 1150	< .001***	161.305

Notes: * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix 4. By-group GCA model fit



Notes: Fixation proportions of the four objects under each condition in the prediction window for the professional (above) and the student (below) groups. The solid smooth lines represent GCA model fitting results.

Appendix 5. Post-hoc pairwise comparisons of AOIs in the low-predictability (by-group GCA)

Professional				
Contrast	β	<i>SE</i>	<i>z</i>	<i>p</i>
Target – Competitor1	–0.005	0.052	–0.091	.999
Target – Competitor2	0.496	0.052	9.525	< .001***
Target – Distractor	0.501	0.052	9.611	< .001***
Competitor1 – Competitor2	0.501	0.052	9.616	< .001***
Competitor1 – Distractor	0.505	0.052	9.702	< .001***
Competitor2 – Distractor	0.004	0.052	0.086	.999
Student				
Contrast	β	<i>SE</i>	<i>z</i>	<i>p</i>
Target – Competitor1	–0.139	0.038	–3.639	.002 **
Target – Competitor2	0.322	0.038	8.438	< .001***
Target – Distractor	0.269	0.038	7.049	< .001***
Competitor1 – Competitor2	0.461	0.038	12.078	< .001***
Competitor1 – Distractor	0.408	0.038	10.689	< .001***
Competitor2 – Distractor	–0.053	0.038	–1.389	.506

Notes: * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix 6. Robustness check for unequal trial counts

Background: Due to an unintentional programming error in the counterbalancing procedure, the number of trials per condition was not perfectly balanced across all participants. Specifically, half of the participants were presented with 12 trials in the high-predictability condition and 8 in the low-predictability condition, while the other half received the reverse (8 high-predictability and 12 low-predictability). To ensure the robustness of our findings, we conducted a supplementary analysis on a subsampled dataset with a more balanced trial count.

Method: To create a more balanced dataset, we randomly subsampled the over-represented condition for each participant. For participants who saw 12 high-predictability trials, we randomly selected 10, while retaining all 8 low-predictability trials. For participants who saw 12 low-predictability trials, we randomly selected 10, while retaining all 8 high-predictability trials. This procedure reduced the degree of imbalance (from a 12:8 to a 10:8 ratio) while avoiding excessive data loss that could compromise analytical sensitivity. All primary GCAs were re-run on this subsampled dataset.

Results: The results from the subsampled dataset converged with those from the primary analysis on the full dataset. Crucially, all key statistical effects and interactions remained significant and directionally identical, confirming that the initial imbalance in trial counts had no substantive influence on the reported findings and that our results are robust. It should be noted that due to the stochastic nature of the random subsampling procedure, the exact numerical values of model coefficients may vary slightly across different subsampling iterations; however, this variability does not affect the statistical significance or theoretical interpretation of any effects.

Professional					
Fixed effect	Original Estimate	Original <i>p</i>	Subsampled Estimate	Subsampled <i>p</i>	Change in significance
High × Competitor1	-0.643	< .001 ***	-0.554	< .001 ***	→
High × Competitor2	-0.372	< .001 ***	-0.265	< .001 ***	→
High × Distractor	-0.342	< .001 ***	-0.279	< .001 ***	→
High × Competitor1 × ot1	-3.286	< .001 ***	-3.471	< .001 ***	→
High × Competitor2 × ot1	-3.218	< .001 ***	-3.227	< .001 ***	→
High × Distractor × ot1	-3.037	< .001 ***	-3.115	< .001 ***	→
High × Competitor1 × ot2	0.1456	.738	-0.079	.862	→
High × Competitor2 × ot2	1.725	< .001 ***	1.444	.001 **	↓
High × Distractor × ot2	0.041	.925	-0.361	.427	→
High × Competitor1 × ot3	1.226	.005 **	1.307	.004 **	→
High × Competitor2 × ot3	1.276	.770	-0.093	.837	→
High × Distractor × ot3	0.721	.098 †	0.463	.308	↓
Student					
Fixed effect	Original Estimate	Original <i>p</i>	Subsampled Estimate	Subsampled <i>p</i>	Variation
High × Competitor1	-0.463	< .001 ***	-0.518	< .001 ***	→
High × Competitor2	-0.363	< .001 ***	-0.375	< .001 ***	→
High × Distractor	-0.339	< .001 ***	-0.336	< .001 ***	→
High × Competitor1 × ot1	-1.208	< .001 ***	-1.233	< .001 ***	→
High × Competitor2 × ot1	0.119	.708	0.135	.685	→
High × Distractor × ot1	0.452	.155	0.354	.287	→

High × Competitor1 × ot2	1.902	< .001 ***	1.827	< .001 ***	→
High × Competitor2 × ot2	1.028	.001 **	0.957	.004 **	→
High × Distractor × ot2	1.306	< .001 ***	1.086	.001 **	↓
High × Competitor1 × ot3	1.148	< .001 ***	1.220	< .001 ***	→
High × Competitor2 × ot3	0.261	.412	0.303	.363	→
High × Distractor × ot3	0.200	.530	0.384	.249	→

Notes: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. →: No meaningful change in estimate direction or p -value significance; ↑: More significant effect in the subsampled dataset; ↓: Less significant effect in the subsampled dataset. An estimate direction flip would also be marked with ↑ or ↓ depending on whether the effect switched from significant to non-significant, or vice versa.

Between-group					
Fixed effect	Original Estimate	Original p	Subsampled Estimate	Subsampled p	Variation
High × Professional × ot1	2.232	< .001 ***	2..236	< .001 ***	→
High × Professional × ot2	0.816	.031 *	1.023	.001 **	↑
High × Professional × ot3	-0.147	.698	0.016	.968	→
High × Professional × Competitor1 × ot1	-2.078	< .001 ***	-2.238	< .001 ***	→
High × Professional × Competitor2 × ot1	-3.336	< .001 ***	-3.361	< .001 ***	→
High × Professional × Distractor × ot1	-3.489	< .001 ***	-3.469	< .001 ***	→
High × Professional × Competitor1 × ot2	-1.756	.001 **	-1.906	< .001 ***	→
High × Professional × Competitor2 × ot2	0.697	.192	0.487	.383	→
High × Professional × Distractor × ot2	-1.264	.018 *	-1.447	.009 **	↑
High × Professional × Competitor1 × ot3	0.078	.885	0.088	.875	→

High × Professional × Competitor2 × ot3	-0.133	.803	-0.396	.478	→
High × Professional × Distractor × ot3	0.521	.330	0.080	.887	→

Notes: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. →: No meaningful change in estimate direction or p -value significance; ↑: More significant effect in the subsampled dataset; ↓: Less significant effect in the subsampled dataset. An estimate direction flip would also be marked with ↑ or ↓ depending on whether the effect switched from significant to non-significant, or vice versa.