

Supplementary Materials C: Objects (100-200ms) model report

Model report for ERPs at the object in time-window 100-200ms. Each line reports the assessment of improved model fit after adding a single predictor.

| Model nr. | -2LL | df | p-value (Pr(>Chisq)) | Model comparison | Predictor added | Action |
|-----------|--------|----|----------------------|------------------|---|----------------------|
| 0 | 686056 | - | - | - | Dependent variable ERP and random factor "Participant" | - |
| 1 | 685014 | 1 | < 2.2e-16 | better | Random factor "Item" | keep |
| 2 | 685013 | 1 | 0.6607 | not better | Fixed factor "Context" | keep for interaction |
| 3 | 685013 | 1 | 0.8978 | not better | Fixed factor "Accent" | keep for interaction |
| 4 | 685013 | 1 | 0.4748 | not better | Interaction between "Context" and "Accent" | remove |
| 4a | 685000 | 8 | 0.102 | not better | Fixed factor "ROI" | keep for interaction |
| 5 | 684987 | 8 | 0.1122 | not better | Interaction between "Context" and "ROI" | remove |
| 5a | 684983 | 8 | 0.02427 | better | Interaction between "Accent" and "ROI" | keep |
| 6 | 684957 | 17 | 0.08624 | not better | Interaction between "Context", "Accent", and "ROI" | remove |
| 6a | 684980 | 1 | 0.15 | not better | Fixed factor "Group" | keep for interaction |
| 7 | 684954 | 1 | 2.60E-07 | better | Interaction between "Context" and "Group" | keep |
| 8 | 684943 | 1 | 0.001075 | better | Interaction between "Accent" and "Group" | keep |
| 9 | 684939 | 2 | 0.1194 | not better | Interaction between "Context", "Accent", and "Group" | remove |
| 9a | 684929 | 8 | 0.06403 | not better | Interaction between "ROI" and "Group" | remove |
| 9b | 684901 | 24 | 0.01085 | better | Interaction between "Context", "ROI", and "Group" | keep |
| 10 | 684895 | 8 | 0.7411 | not better | Interaction between "Accent", "ROI", and "Group" | remove |
| 10a | 684838 | 26 | 6.64E-05 | better | Interaction between "Context", "Accent", "ROI", and "Group" | keep |
| 11 | 684502 | 2 | < 2.2e-16 | better | Random slope for Accent Participant | keep |

Supplementary Materials C: Objects (100-200ms) estimated means (emmean) of Context*Accent*ROI*Group for anterior regions

Left Anterior:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | -0.3882 | 0.364 | 526 | -1.103 | 0.3269 |
| With | Accented | L1 | -1.0635 | 0.367 | 543 | -1.784 | -0.3425 |
| Without | Unaccented | L1 | -0.4881 | 0.371 | 498 | -1.217 | 0.2405 |
| With | Unaccented | L1 | 0.0817 | 0.369 | 486 | -0.643 | 0.8062 |
| Without | Accented | L2 | -0.3438 | 0.285 | 570 | -0.903 | 0.2156 |
| With | Accented | L2 | -0.6091 | 0.292 | 626 | -1.182 | -0.0365 |
| Without | Unaccented | L2 | -0.2961 | 0.29 | 549 | -0.866 | 0.2739 |
| With | Unaccented | L2 | -0.6095 | 0.291 | 559 | -1.182 | -0.037 |

Center Anterior:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | -0.3977 | 0.364 | 524 | -1.112 | 0.317 |
| With | Accented | L1 | -0.8231 | 0.367 | 543 | -1.544 | -0.1021 |
| Without | Unaccented | L1 | -0.0356 | 0.37 | 496 | -0.763 | 0.6921 |
| With | Unaccented | L1 | -0.0187 | 0.368 | 485 | -0.743 | 0.7052 |
| Without | Accented | L2 | -0.1255 | 0.285 | 569 | -0.685 | 0.4336 |
| With | Accented | L2 | -0.7744 | 0.291 | 623 | -1.346 | -0.2024 |
| Without | Unaccented | L2 | -0.5501 | 0.29 | 546 | -1.119 | 0.0192 |
| With | Unaccented | L2 | -0.1791 | 0.291 | 557 | -0.751 | 0.3929 |

Right Anterior:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | -0.484 | 0.363 | 521 | -1.198 | 0.2296 |
| With | Accented | L1 | -0.8986 | 0.368 | 546 | -1.621 | -0.1765 |
| Without | Unaccented | L1 | -0.362 | 0.371 | 499 | -1.091 | 0.3671 |
| With | Unaccented | L1 | -0.4567 | 0.369 | 485 | -1.181 | 0.2674 |
| Without | Accented | L2 | -0.2678 | 0.285 | 571 | -0.828 | 0.2919 |
| With | Accented | L2 | -0.5607 | 0.291 | 624 | -1.133 | 0.0115 |
| Without | Unaccented | L2 | -1.1761 | 0.29 | 546 | -1.745 | -0.607 |
| With | Unaccented | L2 | -0.1868 | 0.291 | 558 | -0.759 | 0.3854 |

Degrees-of-freedom method: Satterthwaite

Confidence level used: 0.95

Supplementary Materials C: Objects (100-200ms) estimated means (emmean) of Context*Accent*ROI*Group for central regions

Left Central:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | -0.9637 | 0.362 | 514 | -1.675 | -0.2523 |
| With | Accented | L1 | -0.7082 | 0.371 | 564 | -1.436 | 0.0199 |
| Without | Unaccented | L1 | -0.9096 | 0.363 | 456 | -1.622 | -0.1967 |
| With | Unaccented | L1 | -0.6585 | 0.371 | 497 | -1.387 | 0.0701 |
| Without | Accented | L2 | -0.7185 | 0.288 | 592 | -1.284 | -0.1535 |
| With | Accented | L2 | -0.2497 | 0.29 | 613 | -0.82 | 0.3203 |
| Without | Unaccented | L2 | -0.6575 | 0.289 | 541 | -1.226 | -0.0893 |
| With | Unaccented | L2 | -0.1247 | 0.292 | 560 | -0.698 | 0.4483 |

Center Central:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | -1.1056 | 0.362 | 513 | -1.817 | -0.3947 |
| With | Accented | L1 | -1.2092 | 0.371 | 565 | -1.938 | -0.4809 |
| Without | Unaccented | L1 | -0.4675 | 0.363 | 457 | -1.181 | 0.2458 |
| With | Unaccented | L1 | -1.1013 | 0.371 | 497 | -1.83 | -0.373 |
| Without | Accented | L2 | -0.6222 | 0.288 | 591 | -1.187 | -0.0574 |
| With | Accented | L2 | -0.132 | 0.29 | 614 | -0.702 | 0.4383 |
| Without | Unaccented | L2 | -0.5818 | 0.29 | 545 | -1.151 | -0.0128 |
| With | Unaccented | L2 | 0.0752 | 0.292 | 561 | -0.498 | 0.6485 |

Right Central:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | -1.1472 | 0.362 | 514 | -1.858 | -0.436 |
| With | Accented | L1 | -0.6709 | 0.371 | 564 | -1.399 | 0.0571 |
| Without | Unaccented | L1 | -0.1623 | 0.363 | 456 | -0.875 | 0.5505 |
| With | Unaccented | L1 | -0.9294 | 0.37 | 496 | -1.657 | -0.2015 |
| Without | Accented | L2 | -0.7309 | 0.288 | 597 | -1.297 | -0.1648 |
| With | Accented | L2 | -0.3273 | 0.29 | 611 | -0.897 | 0.2423 |
| Without | Unaccented | L2 | -0.604 | 0.289 | 542 | -1.172 | -0.0356 |
| With | Unaccented | L2 | 0.1957 | 0.292 | 560 | -0.377 | 0.7686 |

Degrees-of-freedom method: Satterthwaite

Confidence level used: 0.95

Supplementary Materials C: Objects (100-200ms) estimated means (emmean) of Context*Accent*ROI*Group for posterior regions

Left Posterior:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | 0.1365 | 0.366 | 538 | -0.583 | 0.8559 |
| With | Accented | L1 | -1.2456 | 0.372 | 571 | -1.976 | -0.5153 |
| Without | Unaccented | L1 | -0.572 | 0.367 | 478 | -1.293 | 0.1492 |
| With | Unaccented | L1 | -0.6019 | 0.372 | 502 | -1.332 | 0.1283 |
| Without | Accented | L2 | -0.1612 | 0.284 | 568 | -0.72 | 0.3975 |
| With | Accented | L2 | 0.4309 | 0.289 | 606 | -0.137 | 0.9989 |
| Without | Unaccented | L2 | -0.3232 | 0.288 | 537 | -0.89 | 0.2436 |
| With | Unaccented | L2 | -0.3169 | 0.293 | 571 | -0.892 | 0.2587 |

Center Posterior:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | 0.0297 | 0.366 | 538 | -0.69 | 0.749 |
| With | Accented | L1 | -1.4656 | 0.372 | 572 | -2.196 | -0.7351 |
| Without | Unaccented | L1 | -0.418 | 0.367 | 477 | -1.139 | 0.3028 |
| With | Unaccented | L1 | -0.392 | 0.372 | 503 | -1.122 | 0.3384 |
| Without | Accented | L2 | -0.4278 | 0.285 | 568 | -0.987 | 0.131 |
| With | Accented | L2 | 0.4098 | 0.289 | 605 | -0.158 | 0.9776 |
| Without | Unaccented | L2 | -0.4538 | 0.288 | 536 | -1.02 | 0.1127 |
| With | Unaccented | L2 | -0.6092 | 0.293 | 571 | -1.185 | -0.0336 |

Right Posterior:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | 0.4702 | 0.366 | 535 | -0.248 | 1.1884 |
| With | Accented | L1 | -1.2754 | 0.372 | 572 | -2.006 | -0.5449 |
| Without | Unaccented | L1 | -0.663 | 0.366 | 474 | -1.383 | 0.0568 |
| With | Unaccented | L1 | -0.5083 | 0.373 | 507 | -1.24 | 0.2235 |
| Without | Accented | L2 | -0.3677 | 0.285 | 568 | -0.927 | 0.1912 |
| With | Accented | L2 | 0.2526 | 0.289 | 603 | -0.315 | 0.82 |
| Without | Unaccented | L2 | -0.3801 | 0.289 | 537 | -0.947 | 0.1869 |
| With | Unaccented | L2 | -0.4758 | 0.293 | 572 | -1.052 | 0.1 |

Degrees-of-freedom method: Satterthwaite

Confidence level used: 0.95

Supplementary Materials C: Objects (100-200ms) pairwise comparisons of Context*Accent*ROI*Group for anterior regions

Left Anterior:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | 0.099899 | 0.524 | 478 | 0.191 | 0.8489 | 0.9992 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | -0.04773 | 0.41 | 527 | -0.117 | 0.9073 | 0.9992 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | -1.14522 | 0.525 | 480 | -2.183 | 0.0295 | 0.2736 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | 0.000403 | 0.415 | 557 | 0.001 | 0.9992 | 0.9992 |

Center Anterior:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | -0.36211 | 0.524 | 476 | -0.692 | 0.4895 | 0.8811 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | 0.424573 | 0.409 | 525 | 1.037 | 0.3 | 0.675 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | -0.80443 | 0.524 | 479 | -1.534 | 0.1257 | 0.497127 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | -0.59527 | 0.415 | 555 | -1.435 | 0.1519 | 0.497127 |

Right Anterior:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | -0.12198 | 0.524 | 476 | -0.233 | 0.8159 | 0.9992 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | 0.908263 | 0.409 | 526 | 2.218 | 0.027 | 0.2736 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | -0.44188 | 0.525 | 480 | -0.842 | 0.4003 | 0.758463 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | -0.37387 | 0.415 | 556 | -0.901 | 0.3681 | 0.758463 |

Degrees-of-freedom method: Satterthwaite

Supplementary Materials C: Objects (100-200ms) pairwise comparisons of Context*Accent*ROI*Group for central regions

Left Central:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | -0.05412 | 0.517 | 452 | -0.105 | 0.9167 | 0.9992 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | -0.06107 | 0.411 | 534 | -0.149 | 0.8819 | 0.9992 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | -0.04972 | 0.529 | 494 | -0.094 | 0.9251 | 0.9992 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | -0.12498 | 0.415 | 552 | -0.301 | 0.7632 | 0.9992 |

Center Central:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | -0.63814 | 0.517 | 452 | -1.234 | 0.2177 | 0.54048 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | -0.04039 | 0.411 | 535 | -0.098 | 0.9218 | 0.9992 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | -0.10793 | 0.529 | 494 | -0.204 | 0.8383 | 0.9992 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | -0.20715 | 0.415 | 553 | -0.499 | 0.6177 | 0.9992 |

Right Central:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | -0.98487 | 0.517 | 452 | -1.905 | 0.0574 | 0.3444 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | -0.12694 | 0.411 | 536 | -0.309 | 0.7578 | 0.9992 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | 0.258457 | 0.528 | 493 | 0.489 | 0.625 | 0.9992 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | -0.52302 | 0.414 | 551 | -1.262 | 0.2074 | 0.54048 |

Degrees-of-freedom method: Satterthwaite

Supplementary Materials C: Objects (100-200ms) pairwise comparisons of Context*Accent*ROI*Group for posterior regions

Left Posterior:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | 0.708539 | 0.523 | 473 | 1.355 | 0.176 | 0.528 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | 0.161906 | 0.408 | 520 | 0.397 | 0.6918 | 0.9992 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | -0.64365 | 0.53 | 500 | -1.214 | 0.2252 | 0.54048 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | 0.747757 | 0.415 | 554 | 1.803 | 0.0719 | 0.35775 |

Center Posterior:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | 0.447698 | 0.523 | 473 | 0.856 | 0.3922 | 0.758463 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | 0.025991 | 0.408 | 520 | 0.064 | 0.9493 | 0.9992 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | -1.07355 | 0.53 | 500 | -2.025 | 0.0434 | 0.31248 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | 1.018973 | 0.415 | 554 | 2.457 | 0.0143 | 0.2736 |

Right Posterior:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | 1.133179 | 0.522 | 470 | 2.171 | 0.0304 | 0.2736 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | 0.012356 | 0.408 | 521 | 0.03 | 0.9759 | 0.9992 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | -0.76703 | 0.531 | 502 | -1.445 | 0.149 | 0.497127 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | 0.72846 | 0.415 | 553 | 1.757 | 0.0795 | 0.35775 |

Degrees-of-freedom method: Satterthwaite

Supplementary Materials C: Objects (100-200ms) Estimated means (emmeans) and pairwise comparisons of Accent*Group (Exploratory)

| Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|------------|-------|--------|-------|-------|----------|----------|
| Accented | L1 | -0.734 | 0.223 | 78.2 | -1.178 | -0.2899 |
| Unaccented | L1 | -0.481 | 0.23 | 76.7 | -0.938 | -0.0242 |
| Accented | L2 | -0.296 | 0.178 | 102.5 | -0.649 | 0.0573 |
| Unaccented | L2 | -0.403 | 0.183 | 99.8 | -0.766 | -0.0405 |

| contrast | estimate | SE | df | t-ratio | p-value |
|---|----------|-------|------|---------|---------|
| Accented objects – unaccented objects in L1 | -0.2526 | 0.327 | 75.9 | -0.772 | 0.4424 |
| Accented objects – unaccented objects in L2 | 0.1071 | 0.26 | 98.3 | 0.412 | 0.6812 |

Results are averaged over the levels of: Context, ROI

Degrees-of-freedom method: Satterthwaite

Confidence level used: 0.95

Supplementary Materials C: Objects (100-200ms) Estimated means (emmeans) and pairwise comparisons of Accent*ROI (Exploratory)

| Accent | ROI | emmean | SE | df | Lower.CL | Upper.CL |
|------------|------------------|--------|-------|-----|----------|----------|
| Accented | Left Anterior | -0.601 | 0.198 | 292 | -0.99 | -0.2124 |
| Unaccented | Left Anterior | -0.328 | 0.2 | 274 | -0.723 | 0.0665 |
| Accented | Center Anterior | -0.53 | 0.197 | 291 | -0.919 | -0.1416 |
| Unaccented | Center Anterior | -0.196 | 0.2 | 273 | -0.59 | 0.1984 |
| Accented | Right Anterior | -0.553 | 0.197 | 292 | -0.941 | -0.1641 |
| Unaccented | Right Anterior | -0.545 | 0.2 | 273 | -0.94 | -0.151 |
| Accented | Left Central | -0.66 | 0.198 | 296 | -1.05 | -0.2698 |
| Unaccented | Left Central | -0.588 | 0.2 | 271 | -0.981 | -0.1939 |
| Accented | Center Central | -0.767 | 0.198 | 296 | -1.157 | -0.377 |
| Unaccented | Center Central | -0.519 | 0.2 | 271 | -0.913 | -0.125 |
| Accented | Right Central | -0.719 | 0.198 | 296 | -1.109 | -0.3288 |
| Unaccented | Right Central | -0.375 | 0.2 | 271 | -0.769 | 0.0186 |
| Accented | Left Posterior | -0.21 | 0.198 | 295 | -0.6 | 0.1799 |
| Unaccented | Left Posterior | -0.453 | 0.2 | 273 | -0.848 | -0.0591 |
| Accented | Center Posterior | -0.363 | 0.198 | 295 | -0.753 | 0.0263 |
| Unaccented | Center Posterior | -0.468 | 0.2 | 273 | -0.863 | -0.0739 |
| Accented | Right Posterior | -0.23 | 0.198 | 295 | -0.62 | 0.1596 |
| Unaccented | Right Posterior | -0.507 | 0.2 | 273 | -0.901 | -0.1124 |

| contrast | estimate | SE | df | t-ratio | p-value |
|---|----------|-------|-----|---------|---------|
| Accented objects – unaccented objects in Left Anterior | -0.27316 | 0.284 | 268 | -0.96 | 0.3378 |
| Accented objects – unaccented objects in Center Anterior | -0.33431 | 0.284 | 267 | -1.176 | 0.2407 |
| Accented objects – unaccented objects in Right Anterior | -0.00737 | 0.284 | 268 | -0.026 | 0.9794 |
| Accented objects – unaccented objects in Left Central | -0.07247 | 0.285 | 268 | -0.255 | 0.7993 |
| Accented objects – unaccented objects in Center Central | -0.2484 | 0.285 | 269 | -0.872 | 0.3838 |
| Accented objects – unaccented objects in Right Central | -0.34409 | 0.285 | 268 | -1.209 | 0.2279 |
| Accented objects – unaccented objects in Left Posterior | 0.24364 | 0.285 | 269 | 0.855 | 0.3931 |
| Accented objects – unaccented objects in Center Posterior | 0.10478 | 0.285 | 269 | 0.368 | 0.7132 |
| Accented objects – unaccented objects in Right Posterior | 0.27674 | 0.285 | 269 | 0.972 | 0.332 |

Results are averaged over the levels of: Context, Group

Degrees-of-freedom method: Satterthwaite

Confidence level used: 0.95

Supplementary Materials C: Objects (200-390ms) model report

Model report for ERPs at the object in time-window 200-390ms. Each line reports the assessment of improved model fit after adding a single predictor.

| Model nr. | -2LL | df | p-value (Pr(>Chisq)) | Model comparison | Predictor added | Action |
|-----------|--------|----|----------------------|------------------|---|----------------------|
| 0 | 703676 | - | - | - | Dependent variable ERP and random factor "Participant" | - |
| 1 | 702401 | 1 | < 2.2e-16 | better | Random factor "Item" | keep |
| 2 | 702393 | 1 | 0.003375 | better | Fixed factor "Context" | keep |
| 3 | 702393 | 1 | 0.8615 | not better | Fixed factor "Accent" | keep |
| 4 | 702393 | 1 | 0.7083 | not better | Interaction between "Context" and "Accent" | remove |
| 4a | 702389 | 8 | 0.8377 | not better | Fixed factor "ROI" | keep for interaction |
| 5 | 702347 | 8 | 2.07E-06 | better | Interaction between "Context" and "ROI" | keep |
| 6 | 702340 | 8 | 0.5153 | not better | Interaction between "Accent" and "ROI" | remove |
| 6a | 702333 | 17 | 0.6506 | not better | Interaction between "Context", "Accent", and "ROI" | remove |
| 6b | 702347 | 1 | 0.9726 | not better | Fixed factor "Group" | keep for interaction |
| 7 | 702339 | 1 | 0.003035 | better | Interaction between "Context" and "Group" | keep |
| 8 | 702337 | 1 | 0.2441 | not better | Interaction between "Accent" and "Group" | remove |
| 8a | 702335 | 3 | 0.2873 | not better | Interaction between "Context", "Accent", and "Group" | remove |
| 8b | 702318 | 8 | 0.009371 | better | Interaction between "ROI" and "Group" | keep |
| 9 | 702303 | 8 | 0.05506 | not better | Interaction between "Context", "ROI", and "Group" | remove |
| 9a | 702294 | 17 | 0.1153 | not better | Interaction between "Accent", "ROI", and "Group" | remove |
| 9b | 702249 | 43 | 0.006589 | better | Interaction between "Context", "Accent", "ROI", and "Group" | keep |
| 10 | 702019 | 2 | < 2.2e-16 | better | Random slope for Accent Participant | keep |

Supplementary Materials C: Objects (500-900ms) model report

Model report for ERPs at the object in time-window 200-390ms. Each line reports the assessment of improved model fit after adding a single predictor.

| Model nr. | -2LL | df | p-value (Pr(>Chisq)) | Model comparison | Predictor added | Action |
|-----------|--------|----|----------------------|------------------|---|----------------------|
| 0 | 736901 | - | - | - | Dependent variable ERP and random factor "Participant" | - |
| 1 | 735859 | 1 | < 2.2e-16 | better | Random factor "Item" | keep |
| 2 | 735859 | 1 | 0.8258 | not better | Fixed factor "Context" | keep for interaction |
| 3 | 735853 | 1 | 0.01272 | better | Fixed factor "Accent" | keep |
| 4 | 735853 | 1 | 0.8895 | not better | Interaction between "Context" and "Accent" | remove |
| 4a | 735819 | 8 | 4.19E-05 | better | Fixed factor "ROI" | keep |
| 5 | 735785 | 8 | 3.52E-05 | better | Interaction between "Context" and "ROI" | keep |
| 6 | 735774 | 8 | 0.2499 | not better | Interaction between "Accent" and "ROI" | remove |
| 6a | 735763 | 17 | 0.2185 | not better | Interaction between "Context", "Accent", and "ROI" | remove |
| 6b | 735783 | 1 | 0.2167 | not better | Fixed factor "Group" | keep for interaction |
| 7 | 735762 | 1 | 4.46E-06 | better | Interaction between "Context" and "Group" | keep |
| 8 | 735760 | 1 | 0.169 | not better | Interaction between "Accent" and "Group" | remove |
| 8a | 735755 | 3 | 0.08552 | not better | Interaction between "Context", "Accent", and "Group" | remove |
| 8b | 735727 | 8 | 2.30E-05 | better | Interaction between "ROI" and "Group" | keep |
| 9 | 735722 | 8 | 0.7589 | not better | Interaction between "Context", "ROI", and "Group" | remove |
| 9a | 735709 | 9 | 0.4317 | not better | Interaction between "Accent", "ROI", and "Group" | remove |
| 9b | 735667 | 43 | 0.04985 | better | Interaction between "Context", "Accent", "ROI", and "Group" | keep |
| 10 | 735372 | 2 | < 2.2e-16 | better | Random slope for Accent Participant | keep |

Supplementary Materials C: Objects (500-900ms) estimated means (emmean) of Context*Accent*ROI*Group for anterior regions

Left Anterior:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | -0.2818 | 0.522 | 278 | -1.309 | 0.74504 |
| With | Accented | L1 | -1.4063 | 0.525 | 285 | -2.44 | -0.3725 |
| Without | Unaccented | L1 | -0.1212 | 0.551 | 224 | -1.208 | 0.96545 |
| With | Unaccented | L1 | -0.4216 | 0.549 | 220 | -1.504 | 0.66029 |
| Without | Accented | L2 | -1.4444 | 0.404 | 317 | -2.239 | -0.65003 |
| With | Accented | L2 | -0.9164 | 0.412 | 343 | -1.727 | -0.10621 |
| Without | Unaccented | L2 | 0.1288 | 0.425 | 257 | -0.709 | 0.96662 |
| With | Unaccented | L2 | -0.7092 | 0.427 | 261 | -1.55 | 0.13154 |

Center Anterior:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | -0.5175 | 0.521 | 277 | -1.544 | 0.50889 |
| With | Accented | L1 | -1.0096 | 0.525 | 285 | -2.043 | 0.02423 |
| Without | Unaccented | L1 | 0.037 | 0.551 | 223 | -1.049 | 1.12263 |
| With | Unaccented | L1 | -0.0136 | 0.549 | 219 | -1.095 | 1.0676 |
| Without | Accented | L2 | -0.8227 | 0.404 | 317 | -1.617 | -0.02873 |
| With | Accented | L2 | -0.9631 | 0.411 | 342 | -1.772 | -0.15373 |
| Without | Unaccented | L2 | -0.2618 | 0.425 | 256 | -1.099 | 0.5752 |
| With | Unaccented | L2 | -0.0437 | 0.427 | 260 | -0.884 | 0.79647 |

Right Anterior:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | -0.2109 | 0.521 | 276 | -1.236 | 0.81419 |
| With | Accented | L1 | -1.3235 | 0.526 | 287 | -2.359 | -0.28834 |
| Without | Unaccented | L1 | -0.2776 | 0.552 | 224 | -1.365 | 0.80951 |
| With | Unaccented | L1 | -0.5887 | 0.549 | 219 | -1.67 | 0.49282 |
| Without | Accented | L2 | -1.0772 | 0.404 | 318 | -1.872 | -0.28245 |
| With | Accented | L2 | -0.6959 | 0.412 | 343 | -1.506 | 0.11379 |
| Without | Unaccented | L2 | 0.0331 | 0.425 | 256 | -0.804 | 0.86991 |
| With | Unaccented | L2 | -0.1804 | 0.427 | 260 | -1.021 | 0.66009 |

Degrees-of-freedom method: Satterthwaite

Confidence level used: 0.95

Supplementary Materials C: Objects (500-900ms) estimated means (emmean) of Context*Accent*ROI*Group for central regions

Left Central:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | -2.3862 | 0.519 | 273 | -3.409 | -1.36375 |
| With | Accented | L1 | -1.4755 | 0.53 | 295 | -2.518 | -0.43328 |
| Without | Unaccented | L1 | -1.3427 | 0.542 | 209 | -2.412 | -0.27394 |
| With | Unaccented | L1 | -1.3177 | 0.551 | 223 | -2.404 | -0.23124 |
| Without | Accented | L2 | -1.6866 | 0.407 | 328 | -2.488 | -0.88547 |
| With | Accented | L2 | -0.6844 | 0.41 | 338 | -1.491 | 0.12266 |
| Without | Unaccented | L2 | -0.6751 | 0.424 | 254 | -1.511 | 0.16055 |
| With | Unaccented | L2 | 0.1238 | 0.427 | 261 | -0.718 | 0.96514 |

Center Central:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | -2.5217 | 0.519 | 272 | -3.544 | -1.49972 |
| With | Accented | L1 | -1.7482 | 0.53 | 295 | -2.791 | -0.70575 |
| Without | Unaccented | L1 | -1.3705 | 0.542 | 209 | -2.44 | -0.30126 |
| With | Unaccented | L1 | -1.5961 | 0.551 | 223 | -2.682 | -0.50988 |
| Without | Accented | L2 | -0.9989 | 0.407 | 327 | -1.8 | -0.19814 |
| With | Accented | L2 | -0.494 | 0.41 | 338 | -1.301 | 0.3133 |
| Without | Unaccented | L2 | -1.0841 | 0.425 | 256 | -1.921 | -0.24731 |
| With | Unaccented | L2 | 0.0972 | 0.427 | 262 | -0.744 | 0.93879 |

Right Central:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | -2.8174 | 0.519 | 272 | -3.84 | -1.79522 |
| With | Accented | L1 | -1.2774 | 0.53 | 295 | -2.319 | -0.2352 |
| Without | Unaccented | L1 | -0.9283 | 0.542 | 209 | -1.997 | 0.14047 |
| With | Unaccented | L1 | -1.7448 | 0.551 | 223 | -2.831 | -0.65908 |
| Without | Accented | L2 | -1.2001 | 0.408 | 330 | -2.003 | -0.39777 |
| With | Accented | L2 | -0.5698 | 0.41 | 337 | -1.376 | 0.23678 |
| Without | Unaccented | L2 | -0.8939 | 0.424 | 255 | -1.73 | -0.05795 |
| With | Unaccented | L2 | -0.2117 | 0.427 | 261 | -1.053 | 0.62947 |

Degrees-of-freedom method: Satterthwaite

Confidence level used: 0.95

Supplementary Materials C: Objects (500-900ms) estimated means (emmean) of Context*Accent*ROI*Group for posterior regions

Left Posterior:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | -0.9941 | 0.524 | 283 | -2.026 | 0.03777 |
| With | Accented | L1 | -1.6382 | 0.531 | 298 | -2.683 | -0.59344 |
| Without | Unaccented | L1 | -0.6483 | 0.547 | 217 | -1.727 | 0.42994 |
| With | Unaccented | L1 | -1.9098 | 0.552 | 225 | -2.998 | -0.82134 |
| Without | Accented | L2 | -0.7151 | 0.403 | 316 | -1.509 | 0.07852 |
| With | Accented | L2 | -0.8988 | 0.409 | 334 | -1.703 | -0.09421 |
| Without | Unaccented | L2 | -0.8943 | 0.424 | 252 | -1.728 | -0.0602 |
| With | Unaccented | L2 | -0.2525 | 0.429 | 265 | -1.097 | 0.59173 |

Center Posterior:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | -0.6955 | 0.524 | 283 | -1.727 | 0.33638 |
| With | Accented | L1 | -1.6652 | 0.531 | 298 | -2.71 | -0.62008 |
| Without | Unaccented | L1 | -0.5823 | 0.547 | 216 | -1.66 | 0.49549 |
| With | Unaccented | L1 | -1.722 | 0.552 | 225 | -2.811 | -0.63333 |
| Without | Accented | L2 | -0.7966 | 0.403 | 316 | -1.59 | -0.00284 |
| With | Accented | L2 | -1.0204 | 0.409 | 334 | -1.825 | -0.21597 |
| Without | Unaccented | L2 | -0.8842 | 0.423 | 252 | -1.718 | -0.05031 |
| With | Unaccented | L2 | -0.3339 | 0.429 | 265 | -1.178 | 0.51033 |

Right Posterior:

| Context | Accent | Group | emmean | SE | df | Lower.CL | Upper.CL |
|---------|------------|-------|---------|-------|-----|----------|----------|
| Without | Accented | L1 | -0.638 | 0.524 | 282 | -1.669 | 0.39261 |
| With | Accented | L1 | -1.7798 | 0.531 | 298 | -2.825 | -0.73476 |
| Without | Unaccented | L1 | -0.6723 | 0.546 | 215 | -1.749 | 0.40431 |
| With | Unaccented | L1 | -1.887 | 0.553 | 227 | -2.977 | -0.79668 |
| Without | Accented | L2 | -0.6457 | 0.403 | 316 | -1.44 | 0.14811 |
| With | Accented | L2 | -1.4526 | 0.409 | 333 | -2.257 | -0.64867 |
| Without | Unaccented | L2 | -0.6956 | 0.424 | 253 | -1.53 | 0.13873 |
| With | Unaccented | L2 | -0.2451 | 0.429 | 265 | -1.09 | 0.59945 |

Degrees-of-freedom method: Satterthwaite

Confidence level used: 0.95

Supplementary Materials C: Objects (500-900ms) pairwise comparisons of Context*Accent*ROI*Group for anterior regions

Left Anterior:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | -0.16069 | 0.675 | 513 | -0.238 | 0.8118 | 0.9593 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | -1.57318 | 0.527 | 560 | -2.983 | 0.003 | 0.0846 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | -0.98469 | 0.675 | 515 | -1.458 | 0.1455 | 0.476182 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | -0.20723 | 0.535 | 592 | -0.388 | 0.6985 | 0.9593 |

Center Anterior:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | -0.55454 | 0.674 | 511 | -0.823 | 0.4111 | 0.8222 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | -0.56093 | 0.527 | 558 | -1.065 | 0.2874 | 0.64665 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | -0.99596 | 0.675 | 514 | -1.475 | 0.1408 | 0.476182 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | -0.91939 | 0.534 | 590 | -1.721 | 0.0858 | 0.441257 |

Right Anterior:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | 0.06664 | 0.674 | 511 | 0.099 | 0.9213 | 0.9593 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | -1.11031 | 0.527 | 559 | -2.107 | 0.0356 | 0.3204 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | -0.73486 | 0.676 | 516 | -1.087 | 0.2774 | 0.64665 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | -0.51548 | 0.534 | 591 | -0.964 | 0.3352 | 0.709835 |

Degrees-of-freedom method: Satterthwaite

Supplementary Materials A: Objects (500-900ms) pairwise comparisons of Context*Accent*ROI*Group for central regions

Left Central:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | -1.0435 | 0.665 | 485 | -1.568 | 0.1175 | 0.476182 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | -1.01146 | 0.529 | 567 | -1.912 | 0.0564 | 0.40608 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | -0.15774 | 0.681 | 530 | -0.232 | 0.8168 | 0.9593 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | -0.80816 | 0.534 | 587 | -1.514 | 0.1306 | 0.476182 |

Center Central:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | -1.15122 | 0.665 | 485 | -1.73 | 0.0842 | 0.441257 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | 0.08515 | 0.529 | 568 | 0.161 | 0.8723 | 0.9593 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | -0.1521 | 0.681 | 531 | -0.223 | 0.8233 | 0.9593 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | -0.5912 | 0.534 | 588 | -1.107 | 0.2687 | 0.64665 |

Right Central:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | -1.88913 | 0.665 | 484 | -2.84 | 0.0047 | 0.0846 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | -0.30629 | 0.53 | 569 | -0.578 | 0.5633 | 0.9593 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | 0.46747 | 0.68 | 529 | 0.687 | 0.4924 | 0.90432 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | -0.35808 | 0.534 | 586 | -0.671 | 0.5024 | 0.90432 |

Degrees-of-freedom method: Satterthwaite

Supplementary Materials A: Objects (500-900ms) pairwise comparisons of Context*Accent*ROI*Group for posterior regions

Left Posterior:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | -0.34581 | 0.673 | 508 | -0.514 | 0.6077 | 0.9593 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | 0.17918 | 0.525 | 552 | 0.341 | 0.7332 | 0.9593 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | 0.27154 | 0.683 | 537 | 0.398 | 0.6909 | 0.9593 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | -0.64631 | 0.534 | 589 | -1.21 | 0.2267 | 0.627785 |

Center Posterior:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | -0.11324 | 0.673 | 507 | -0.168 | 0.8664 | 0.9593 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | 0.08765 | 0.525 | 552 | 0.167 | 0.8676 | 0.9593 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | 0.05687 | 0.683 | 537 | 0.083 | 0.9337 | 0.9593 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | -0.68647 | 0.534 | 589 | -1.286 | 0.1991 | 0.5973 |

Right Posterior:

| contrast | estimate | SE | df | t-ratio | unadjusted p-value | fdr adjusted p-value |
|---|-----------------|-----------|-----------|----------------|---------------------------|-----------------------------|
| Accented objects without context in L1 – Unaccented objects without context in L1 | 0.03431 | 0.672 | 504 | 0.051 | 0.9593 | 0.9593 |
| Accented objects without context in L2 – Unaccented objects without context in L2 | 0.0499 | 0.526 | 553 | 0.095 | 0.9244 | 0.9593 |
| Accented objects with context in L1 – Unaccented objects with context in L1 | 0.10711 | 0.684 | 539 | 0.157 | 0.8755 | 0.9593 |
| Accented objects with context in L2 – Unaccented objects with context in L2 | -1.2075 | 0.534 | 588 | -2.262 | 0.0241 | 0.2892 |

Degrees-of-freedom method: Satterthwaite