| RelIE | FeatID | Interpreted Function | Languages |
|---|---|---|---|
| **6B specific** | | | |
| [1.00, 0.00, 0.00] | 16271 | Detects comma, punctuation possibly to mark new clauses | eng,fra,hin,por,spa,zh |
| [0.91, 0.01, 0.08] | 3672 | Detects ellipsis and pause/exclamation marks | arb,eng,fra,hin,por,spa |
| [1.00, 0.00, 0.00] | 5273 | Detects commas and full stop | eng,fra,hin,por,spa |
| [1.00, 0.00, 0.00] | 7529 | Detects comma, punctuation possibly to mark new clauses | eng,fra,hin,por,spa |
| [1.00, 0.00, 0.00] | 11289 | Detects comma, punctuation possibly to mark new clauses | eng,fra,hin,por,spa,zh |
| [0.51, 0.23, 0.26] | 13809 | 1st person singular pronoun detector in diff surface forms (, *j'*, *Je*, *je*, *yo*) | fra,spa |
| [0.63, 0.24, 0.12] | 8643 | Plural first person pronoun detector, multilingual | arb,fra,por,spa |
| **6B-55B shared** | | | |
| [0.63, 0.26, 0.12] | 14472 | Plural second person pronoun detector | fra |
| **6B-341B shared** | | | |
| [0.33, 0.25, 0.42] | 5819 | Activates most on new beginning of clauses right after a punctuation and wanes until a new clause | arb,eng,fra,spa |
| [0.45, 0.24, 0.31] | 12522 | capitalized *Je* surface form detector, 1st person singular in French but also activates on names and *Jeux* game and *Yo* | eng,fra,spa |
| **55B specific** | | | |
| [0.00, 1.00, 0.00] | 14378 | - | - |
| [0.00, 1.00, 0.00] | 6506 | - | - |
| [0.00, 1.00, 0.00] | 13738 | - | - |
| [0.29, 0.61, 0.10] | 16196 | - | - |
| [0.20, 0.60, 0.21] | 2471 | Detects plural second person pronouns, multilingual | arb,eng,fra,hin |
| **341B specific** | | | |
| [0.00, 0.00, 1.00] | 15193 | Detects punctuation and parenthesis | arb,eng,fra,hin,spa,zh |
| [0.09, 0.01, 0.90] | 14020 | - | - |
| [0.02, 0.00, 0.98] | 12151 | - | - |
| [0.00, 0.00, 1.00] | 1638 | Detects brackets/parenthesis/punctuation | eng,fra,por,spa |
| [0.03, 0.00, 0.97] | 7694 | - | - |
| [0.02, 0.01, 0.97] | 7066 | - | - |
| [0.02, 0.00, 0.98] | 6461 | - | - |
| [0.00, 0.00, 1.00] | 2598 | - | - |
| [0.03, 0.00, 0.97] | 9110 | - | - |

Table 1: **3-way L1-Sparsity Crosscoder MultiBLiMP French Annotation for BLOOM-1B — 6B 55B 341B.** Similar to the English examples only analysis, we find that many features found with a French dataset activate across multiple languages, reflecting BLOOM's shared cross-lingual representations. Some early detectors remain French-focused (, surface-form capitalization and plural pronouns), while later features, like punctuation and pronoun detectors, consolidate to be multilingual.