**Block Effects**

We assessed whether mean JOL/recall responses differed as a function Block. Using a 4 (Pair Type: Forward vs Backward vs Symmetrical vs Unrelated) × 3 (Encoding Group: Item-Specific vs. Relational vs Read) × 2 (Block: Block 1 vs Block 2) × 2 (Measure: JOL vs Recall) mixed ANOVA yielded an effect of Pair Type on JOLs/recall,*F*(3, 255) = 766.76, *MSE* = 215.27, *η*p2 = .52. Overall, a significant main effect of block was detected, *F*(1, 85) = 10.82, *MSE* = 166.35, *ηp*2 = .01, in which collapsed across Pair Type, Measure, and Encoding Group, mean JOLs/recall rates were highest in block 1 (59.56) relative to block 2 (57.29).

These effects were qualified by two significant three-way interactions. First, an interaction occurred between Block, Encoding Group, and Measure, *F*(2, 85) = 12.70, *MSE* = 158.03, *ηp*2 = .01, in which collapsed across pair types, the magnitude of the illusion of competence differed across Encoding Groups as a function of Block. Starting with participants in the silent reading group, mean JOLs exceeded recall in both block 1 (63.40 vs 44.88) and block 2 (58.56 vs 46.48; *t*s ≥ 4.19, *d*s ≥ 0.99). Next, for participants in the item-specific group, mean ­JOLs were equivalent to recall for participants in block 1 (62.23 vs 61.17; *t*(28) < 1, *SEM* = 4.68, *p* = .81, *p*BIC = .84), however they significantly differed in block 2 (62.97 vs 54.07; *t*(28) = 2.34, *SEM* = 3.98, *d* = 0.65). Finally, for participants in the relational group, JOLs and recall were equivalent in the first block (63.15 vs 65.28; *t*(30) < 1, *SEM* = 3.81, *p* = .69, *p*BIC = .83), while JOLs exceeded recall in the second block (61.70 vs 55.63, *t*(30) = 2.82, *SEM* = 3.58, *d* = 0.60).

Next, an interaction was detected between Block, Pair Type, and Measure, *F*(3, 255) = 6.13, *MSE* = 120.71, *ηp*2 = .01, in which collapsed across encoding group, the illusion of competence differed as function of block for each pair type. Starting with forward pairs, mean JOLs and recall were equivalent in block 1 (70.69 vs 71.69; *t*(87) < 1, *SEM* = 3.11, *p* = .74, *p*BIC = .90), however, JOLs exceeded mean recall in block 2 (70.55 vs 76.21, *t*(87) = 2.61, *SEM* = 2.20, *d* = 0.35). Next, for backward pairs, JOLs exceed later recall for both block 1 (71.69 vs 55.46) and block 2 (68.24 vs 42.99). All comparisons for backward pairs were significant (*t*s ≥ 4.90, *d*s ≥ 0.75) and the illusion of competence replicated across both blocks. Third, for symmetrical pairs, JOLs in block 1 did not differ from recall (75.94 vs 75.40, *t*(87) < 1, *SEM* = 2.86, *p* = .84, *p*BIC = .90). However, in block 2, JOLs exceed later recall (75.70 vs 69.86, *t*(87) = 2.19, *SEM* = 2.70, *d* = 0.34) indicating a small illusion of competence. Finally, for unrelated pairs, JOLs exceeded later recall in both block 1 (33.37 vs 22.11) and block 2 (35.04 vs 19.67.) Both comparisons differed statistically (*t*s ≥ 3.99, *d*s ≥ 0.57); thus, the illusion of competence replicated across blocks for unrelated pairs.

No other three-way interactions with Block were detected, and the four-way interaction was non-significant, *F*(6, 255) = 1.76, *MSE* = 120.71, *pBIC* = .99. For completeness, mean JOLs and recall rates split by block are reported in Table S1.

Table S1

*Mean JOLs and Recall Split by Block*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Block | Measure | Encoding Task | Forward | | Backward | Symmetrical | Unrelated |
| One | JOL | Item-Specific | | 67.47 | 69.20 | 70.51 | 41.87 |
|  |  | Relational | | 72.57 | 72.23 | 76.04 | 31.74 |
|  |  | Read | | 71.96 | 73.30 | 81.44 | 26.33 |
|  | Recall | Item-Specific | | 76.68 | 67.36 | 84.28 | 16.26 |
|  |  | Relational | | 77.74 | 57.58 | 76.82 | 34.63 |
|  |  | Read | | 59.67 | 40.79 | 76.82 | 34.63 |
| Two | JOL | Item-Specific | | 69.87 | 69.91 | 72.34 | 39.42 |
|  |  | Relational | | 73.36 | 70.86 | 75.49 | 41.45 |
|  |  | Read | | 68.15 | 63.62 | 78.99 | 23.37 |
|  | Recall | Item-Specific | | 81.00 | 50.61 | 72.19 | 12.44 |
|  |  | Relational | | 76.70 | 43.34 | 72.01 | 30.42 |
|  |  | Read | | 70.71 | 34.77 | 65.05 | 15.26 |