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Erratum to: Improving word reading speed: individual differences interact with a training focus on successes or failures

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The article reports on a three-way interaction of Time by Focus by Initial Level for the three reading tests: Lexical Decision Test (LDT2), Word Decoding Test (WDT3), and Nonword Reading Test (NRT). In the original publication, it is suggested that the same direction for the interaction applies to all three reading tests LDT2, WDT3, and NRT: a training on failures is most beneficial for HI children, and a training on successes is most beneficial for LI children (page 2082, line 9–10). There also is a four-way interaction, however, of Reading Test by Time by Focus and Initial Level ($p < .001$): The direction for the three-way interaction is correct only for WDT3 and NRT. As for the LDT2, the interaction shows the reversed pattern (as data in Table 6 also correctly indicate). As a consequence, the interpretation of the data analyses is correct for *reading aloud* (WDT3 and NRT). The effects on lexical decision show a less clear picture. These changes do not affect the main conclusions of the paper.

The online version of the original article can be found under doi:[10.1007/s11145-011-9342-7](https://doi.org/10.1007/s11145-011-9342-7).

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Abstract, p. 2061, par 1, line 11–14

Current text

Poor readers with a low initial reading level improved most in the training focused on successes. For poor readers with a high initial reading level, however, it appeared to be more profitable to practice with their failures.

Corrected text

Poor readers with a low initial reading level improved reading aloud most in the training focused on successes. For poor readers with a high initial reading level, however, it appeared to be more profitable for reading aloud to practice with their failures.

Results, p. 2082, par 1, line 3–13

Current text

The interaction of Time by Focus by Initial Level observed in LDT2, WDT3, and NRT shows an ATI effect. In the groups training on successes, LI children improved their reading speed more than HI children (post hoc tests with Bonferroni correction, LDT2: $p < .001$, WDT3: $p < .001$, NRT: $p < .01$). And, conversely, in the groups training on failures, HI children improved more than LI children (LDT2: $p < .05$, WDT3: $p < .001$, NRT: $p < .05$). Thus, a training on failures is most beneficial for HI children, and conversely, a training focused on successes is most beneficial for LI children.

Crucially, as the previous part of the results section pointed out, the training groups did *not* show any differential effect on reading accuracy. Improved reading speed evidently did not go together with a detrimental effect on reading accuracy. In other words, no speed-accuracy trade-off is observed as a result of the flashcard training focusing either on successes or on failures.

Corrected text

The interaction of Time by Focus by Initial Level observed in LDT2, WDT3, and NRT shows an ATI effect. The four-way interaction of Reading Test (LDT2, WDT3, and NRT) by Time by Focus by Initial Level ($F(2, 225) = 7.23$, $p < .001$, $\eta_p^2 = .06$) indicates that the direction of this ATI effect is not the same for each reading test. On the two tests assessing reading aloud (WDT3 and NRT), in the groups training on successes, LI children improved their reading speed more than HI children (post hoc tests with Bonferroni correction, WDT3: $p < .001$, NRT: $p < .01$). In the groups training on failures, however, HI children improved more than LI children (WDT3: $p < .001$, NRT: $p < .05$). Thus, to improve reading aloud, a training on failures is most beneficial for HI children and conversely, a training focused on successes is most beneficial for LI children. As for the LDT2, we found a reversed ATI effect: in the groups training on successes, HI children improved their reading speed more than the LI children ($p < .001$), whereas in the groups training on failures, LI children improved more than HI children ($p < .05$).

Crucially, as the previous part of the results section pointed out, the training groups did *not* show any differential effect on reading accuracy. Improved reading speed for reading aloud or lexical decision evidently did not go together

with a detrimental effect on reading accuracy. In other words, no speed-accuracy trade-off is observed as a result of the flashcard training focusing either on successes or on failures.

Discussion, p. 2082, par 4, line 1–5; p. 2083, par 1, line 1–15

Current text

The main findings of the pretest–posttest comparison are as follows. An improvement of *reading speed* was observed for all reading tests. Improvement was characterized by an ATI effect (Cronbach & Snow, 1977; Snow, 1991). The HI children among the poor readers improved their reading speed most by the training focused on failures, and conversely, the LI children in the training focused on successes. It should be noted that the ATI effect was restricted to the reading speed of untrained words with an orthographical structure that can be characterized as more complex than the orthographical structure of the trained words (observed in LDT2, WDT3, and NRT that is composed primarily of polysyllabic words). A possible cause for this immediate transfer to polysyllabic words may be a more efficient syllable processing. Poor readers tend to read longer words letter-by-letter. Possibly, as a result of the CVC training, the poor readers progressively shifted towards a more syllable-bound decoding strategy. Such a shift after training is evidenced for Dutch poor readers by Wentink, van Bon, and Schreuder (1997) (see also Huemer, Aro, Landerl, & Lyytinen, 2010). An ATI effect was not found for words of the CVC structure used in the training. Improved reading competence in a rather transparent orthography as Dutch is mostly a matter of increased speed (Verhoeven & van Leeuwe, 2009), and low reading speed is an important characteristic of Dutch poor readers (van der Leij & van Daal, 1989). The transfer of increased reading speed to untrained words in our study, therefore, is promising.

Corrected text

The main findings of the pretest–posttest comparison are as follows. An improvement of *reading speed* was observed for all reading tests. Improvement in reading aloud was characterized by an ATI effect (Cronbach & Snow, 1977; Snow, 1991). The HI children among the poor readers improved their reading speed most by the training focused on failures, and conversely, the LI children in the training focused on successes. It should be noted that the ATI effect was restricted to the reading speed of untrained words with an orthographical structure that can be characterized as more complex than the orthographical structure of the trained words (observed in WDT3 and NRT that is composed primarily of polysyllabic words). A possible cause for this immediate transfer to polysyllabic words may be a more efficient syllable processing. Poor readers tend to read longer words letter-by-letter. Possibly, as a result of the CVC training, the poor readers progressively shifted towards a more syllable-bound decoding strategy. Such a shift after training is evidenced for Dutch poor readers by Wentink, van Bon, and Schreuder (1997) (see also Huemer, Aro, Landerl, & Lyytinen, 2010). Remarkably, the improvement in speed of lexical decision (LDT2) was characterized by an ATI effect that is opposite to the ATI effect found for reading aloud. Perhaps children who are focused on reading aloud are mainly

concerned with assembling pronunciation as fast and accurately as possible, and less focused on assessing the meaning and semantics of the words concerned. Then, the reversed ATI effects for reading aloud and lexical decision point to a contrast between speed to name a word, and speed to judge a word's lexicality. It is a matter of future research to interpret these differential ATI findings.

An ATI effect was not found for words of the CVC structure used in the training. Improved reading competence in a rather transparent orthography as Dutch is mostly a matter of increased speed (Verhoeven & van Leeuwe, 2009) and low reading speed is an important characteristic of Dutch poor readers (van der Leij & van Daal, 1989). The transfer of increased speed of reading aloud to untrained words in our study, therefore, is promising.

Discussion, p. 2085, par 4, line 1

Current text

Our study suggests that the improvement of general reading speed in a transparent orthography is closely related to both the type of words children practice with (common and familiar words versus uncommon and less familiar words) and to their initial reading level.

Corrected text

Our study suggests that the improvement of speed in reading aloud in a transparent orthography is closely related to both the type of words children practice with (common and familiar words versus uncommon and less familiar words) and to their initial reading level.