

## Erratum to: Perceptual Learning Explains Two Candidates for Cognitive Penetration

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### Erratum to: *Erkenn* DOI 10.1007/s10670-015-9785-3

Unfortunately, in the original publication of the article, one important reference was missing. This is corrected in this erratum.

In Arstila (2015), I argue that two well-known candidates for cognitive penetration—those of Macpherson (2012) and Siegel (2005)—can be accounted for by the means of perceptual learning instead of cognitive penetration. I state furthermore that perceptual learning has been ignored by philosophers writing about cognitive penetration, with the exceptions of Raftopoulos (2001) and Cecchi (2014) who were mentioned in the article. This list is lacking Connolly (2014) who had previously argued against Siegel’s candidate and whose argument is based on perceptual learning. Regrettably his paper, published shortly before I submitted my manuscript, had not come up in my literature search. Given that Connolly focuses on Siegel’s candidate too, it might be worthwhile emphasizing the differences between his explanation and mine. This difference results from the fact that perceptual learning consists of four different mechanisms—differentiation, imprinting, unitization and attention weighting<sup>1</sup>—and we explain the candidate by

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<sup>1</sup> I only list the first three. I did not mention attention weighting because (i) my explanation does not refer to such mechanism, (ii) “attention weighting ... is not always properly considered perceptual”

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appealing to different mechanisms. In short, Siegel claims that perceptual experiences of, say, pines change once we learn the concept ‘pine’ and learn to classify pines as such. Likewise, our perception of Cyrillic characters changes, once we learn to read them. Connolly focuses on the first example and explains it with *attention weighting* in which “perception becomes adapted to tasks and environments by increasing the attention paid to important dimensions and features” (Goldstone 1998, p. 585). Philosophers have explained Siegel’s candidate with attentional patterns before too, but Connolly (2014, p. 1407) provides “a comprehensive account of the view” which also allows one to explain how our perception of pines changes before we have mastered to recognize pines. It is also noteworthy that whereas the attentional interpretation of the candidate usually concerns exogenous attentional mechanisms, Connolly explains the candidate by changes to endogenous attentional mechanisms. My explanation, in contrast, is based on two mechanisms. The example of pines is explained by the mechanism of *differentiation* in which perceptual sensitivity to critical differences between categories becomes enhanced and stimuli that are initially difficult to distinguish “become increasingly differentiated from each other” (Goldstone 1998, p. 596). The example concerning Cyrillic letters, on the other hand, is explained by appealing to *unitization* in which parts of the stimuli that used to be detected separately are integrated into a single detectable functional unit.

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Footnote 1 continued

(Goldstone et al. 2012, p. 2582), meaning that one could question whether it is a mechanism of *perceptual learning*, and (iii) an earlier version of the manuscript received a criticism where such view was expressed.