Global statistics are not neglected.

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Hochstein, S, Pavlovskaya M, Bonneh YS, Soroker N. 2015.

Abstract:

In the framework of Reverse Hierarchy Theory it was suggested that initial vision at a glance brings the gist of the scene to conscious perception using explicit high cortical level representations, which are initially built by implicit bottom-up processing (Hochstein & Ahissar, 2002). Only later return to lower cortical level representations introduces local details to conscious perception. Global statistics of similar elements are perceived rapidly and accurately, suggesting they are included in the initial perception of the gist of the scene, not depending on prior conscious perception of local details. Patients with unilateral spatial neglect have difficulty responding to elements in their contralesional hemifield. However, this deficit is especially pronounced for tasks that require focused attention, i.e., are dependent on the reverse-hierarchy return. We review recent studies that indicate that perception of global statistics is among the spread attention tasks that are somewhat spared from this deficit. Combining these results, we suggest that perhaps the function of global statistics perception might include serving as a basic percept required for finding salient deviants from the mean, as in rapid odd element feature search paradigms, and perhaps subsequently focusing attention to them.

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