



The ontology of neglect

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Abstract

As shown by neuroscientific evidence, neglect may occur without elementary sensorimotor impairments. The deficit is to be found at a higher, more abstract level of representation, which prevents the patient not only from seeing, but from conceiving the contralesional space. By analysing a series of neuropsychological results, in this paper we suggest a crucial role of time for the construction of a world: on this basis, we try to explain how it is possible that half the ontology gets lost. The analysis of the ontological implication of neglect will allow us to shed light on manifestations of the pathology apparently disconnected.

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...it might be the case that we find certain aspects of neglect puzzling, because we do not find the whole business of neglect puzzling enough.

Bisiach and Rusconi (1990)

1. Unilateral spatial neglect

Unilateral neglect is a condition which has generated a great deal of interest in the past decade, as it reveals a vast amount of often bewildering behavioural manifestations. Patients suffering

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from unilateral spatial neglect fail to respond to stimuli, objects and even people located on their contralesional side—more frequently, the left hemisphere. Depending on the severity of the pathology, neglect may be noticed merely by observing the patients' spontaneous behaviour: patients with neglect may not notice objects on the left of a scene, may not eat food on the left side of the plate, may ignore the left part of words. If the examiner approaches them from the left side, they may address their responses to the opposite side, even if nobody is there (De Renzi, Colombo, Faglioni, & Gilbertoni, 1982). They may bump into walls, doorways, and objects on the left side. Even in absence of dressing apraxia, they may forget to put on the left sleeve of their jacket or the left shoe. Other behavioural signs of left neglect include shaving or applying make-up only to the right side of the face. An endless list of examples could be given.

Some of these behaviours may seem similar to those performed by subjects affected by homonymous hemianopia, a visual field disorder frequently observed after postchiasmatic brain damage. Similarly to neglect patients, patients with left hemianopia may show difficulties in detecting stimuli and finding objects in the left visual space. They may not avoid obstacles on the left side, bumping into people approaching them from that side, and may have difficulties with reading.

Given these similarities, which may render the diagnosis of neglect problematic (Walker, Findlay, Young, & Welch, 1991), one might conceive that patients show left neglect just because, as hemianoptic patients, they *do not see* the left side of the visual world. This hypothesis is nevertheless falsified both at the anatomical level and at the functional level (see Kerkhoff, 2001). In hemianopia, no visual information can be detected in the contralateral visual field. The spatial representation of both hemispaces is nevertheless intact and hence it is sufficient that the patient turns his head to process information from the left side of space. In neglect, as we will see, the deficit is to be found at a higher, more abstract level of representation, preventing the patient not only from seeing, but from conceiving the contralesional space.

2. The hemiontology¹ of neglect

Unlike subjects affected by hemianopia, neglect patients not only do not see stimuli presented in the contralateral half of space, but behave as if that half of space did *not exist* and *never had existed*. Indeed, the most astonishing aspect of neglect is perhaps this: patients suffering from it, not only are unable to *perceive* the left side of space, but are not even able to *conceive* it (Bisiach, 1993).

If unlike the hemianoptic patient, the patient suffering from neglect does not turn his head towards the left, this is because there is no left side of the world on which to shift his gaze.

The neglect patient is unable to conceive the part of the world that the hemianoptic patient simply does not see. The difference is not marginal (see Table 1 for two contrasting case examples).

¹ In philosophy the term ontology is used with different meanings. In this paper the term indicates “what there is,” i.e., the real world, the whole of existing things.

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