

(premotor) or granular (prefrontal) cortex (1). Many classic cytoarchitectural maps have nevertheless labeled this region as premotor area 6. We are not the only ones to question the designation of this region as area 6. Luna *et al.* (2), who describe the location of the human frontal eye field (FEF), point out that "If FEF were still to demarcate the border zone of areas 6 and 8 in human, as it does on macaque monkey, it would imply that human prefrontal cortex proceeds far more posteriorly than is traditionally appreciated." The alternative to this conclusion is that the human FEF would be "in area 6, and if so, [the field] would be comprised of agranular cortex...[representing] a significant lack of homology in the cytoarchitecture of saccade-related FEF in human and non-human primates." Another reason to question the traditional premotor designation is that the spatial working memory area in the superior frontal sulcus lies anterior to the frontal eye fields in humans, while the premotor cortex in monkeys lies posterior to the frontal eye field. It would be unexpected if the topological relationship between these areas had changed over the course of evolution.

In sum, while we are willing to remain "agnostic" about whether the superior frontal sulcus is in agranular or granular cortex,

keeping the traditional premotor designation and assigning a cognitive function to it, as Meegan suggests, would create more puzzles than it would solve. As indicated in our report, it seems more likely that the human spatial working memory area in the superior frontal sulcus is homologous to the monkey spatial working memory area in the principal sulcus, which lies anterior to the monkey frontal eye field. We agree with Meegan that spatial cognition and spatiomotor behavior must be intimately related. Complex motor behavior must require spatial attention and, often, spatial working memory, but it is not clear that spatial cognition and spatiomotor behavior are identical functions, or that they are performed by identical neural substrates.

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References

1. M. B. Carpenter, *Core Text of Neuroanatomy*. (Williams & Wilkins, Baltimore, MD, 1985).
2. B. Luna *et al.*, *Cereb. Cortex* **8**, 40 (1998).

Corrections and Clarifications

■ In the letter "Coral disease" by James M. Cervino *et al.* (24 Apr., p. 499), the e-mail address for James M. Cervino was incorrect. It should have been "cnidaria@earthlink.net."

■ The affiliation of Frederick Prete, the second author of the report "Visual input to the efferent control system of a fly's 'gyroscope'" by Wai Pang Chan *et al.* (10 Apr., p. 289) was given incorrectly. He is in the Department of Biological Sciences (not "Psychology") at DePaul University in Chicago, Illinois.

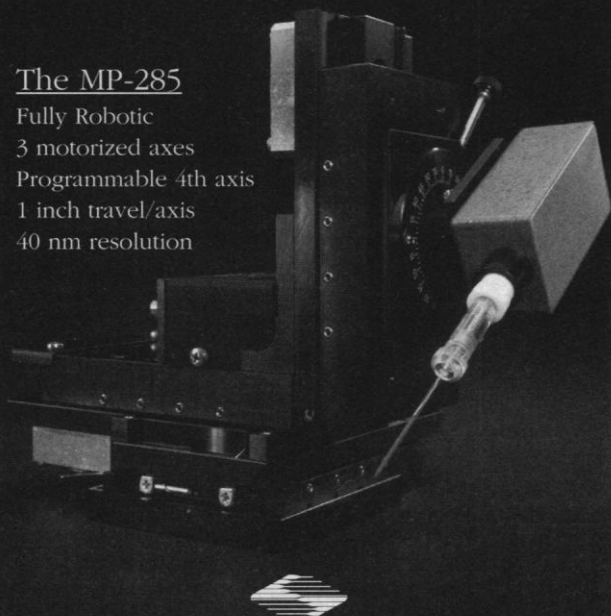
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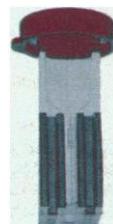


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