

As for understanding the organization of the brain, the conceptual 'slicing' of CNS functioning into separable simple reflexes by Descartes in the 17th century is contrasted with the unification efforts in both morphology and physiology at the turn of this century. Ramón y Cajal<sup>25</sup> attempted to bridge the gap between the complexity of entire networks and the symbolism of neuronal loops (cf. Figs 1A and 1C). At about the same time, Sherrington<sup>29</sup> envisioned brain function in the form of activation patterns over large fields of neurons as an 'enchanted loom'. However, a formal merging of structuro-functional features could not be attained at their time for lack of an adequate mathematical (geometrical) approach.

In this paper, we have attempted to relate brain organization to space-time geometry. We have assumed the unified view of space-time, as expressed

by contemporary tensor formulation, which is a general treatment of abstract geometries. Indeed, it appears that the parallel, distributed structuro-functional features of neuronal networks do furnish the CNS with an innate *a priori* propensity to implement geometries. Such an innate functional geometry, however, is Kantian only in an extended sense, being isomorphic not with the physical space only, but with the geometry of the physical space-time continuum.

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