

# Supplement to

## **“The case that mammalian intelligence is based on sub-molecular memory coding and fibre-optic capabilities of myelinated nerve axons”**

By R. R. Traill

Originally published (1988) by *Speculations in Science and Technology*, **11**(3), 173-181;

but now re-issued online as <http://www.ondwelle.com/OSM10en.pdf>

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### **This supplement offers:**

- (1) A re-listing of the REFERENCES into *Author-then-Date* sequence, instead of the *Order-of-Appearance* used in the official version.
- (2) Initially just an English-language duplication of the ABSTRACT; but then (from time to time) translations of this abstract into other languages, when convenient and feasible.

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### **Abstract**

Knowledge-growth in science apparently requires a proper balance between two activities: • experimentation and • the search for wide-ranging self-consistency. (The latter seems to have been neglected and the present project aims to correct this imbalance). The case that the brain itself normally uses the same two criteria is reviewed and accounts of possible mechanisms underlying such activity are outlined. For this it is postulated that there is major quantum/digital information processing at the molecular level and some signal transmission at infrared frequencies (multiplexing with traditional millisecond “spikes” along nerve fibres). It is also shown that such an approach can account for some hitherto unexplained features of mental activity, including retrieval, “storage”, teleology, sequencing, control and decentralization within the brain.

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Dans la science, la croissance de la connaissance requiert apparemment un bon équilibre entre deux activités: • l’expérimentation et • la recherche de l’auto-cohérence globale. (Ce dernier semble avoir été négligé, et le présent projet vise à corriger ce déséquilibre). De même, il y a un examen de l’argument selon lequel le cerveau lui-même utilise normalement les deux mêmes critères, et aussi un aperçu des mécanismes possibles sous-jacents de ces activités. Cet postule qu’une grande partie des traitements quantiques/digitaux de l’information doit se produire à l’échelle moléculaire, et qu’il y aura certains signalisation transmises à des fréquences infrarouge (multiplexées avec les milliseconde “spike” signaux le long des fibres nerveuses). Il est également montré que cette approche peut rendre compte de certaines caractéristiques jusque-là inexpliquée de l’activité mentale; y compris: « l’entreposage », le rétablissement, la téléologie, de séquençage, de contrôle, et de la décentralisation dans le cerveau.

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Note that recent (2009) additions to this list have their reference-numbers in **bold turquoise**.

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