connections between cortical and subcortical sites, are
threefold and correspond to the neuropsychological processes
of working memory, motor attention and inhibitory control.
Working memory entails the provisional retention of
'sensorimotor' information for prospective action. Motor
attention comprises the selection of motor acts from
established repertoires to permit the execution of temporally
extended acts or goals. An inhibitory control system protects
these preliminary plans from sensorimotor memories,
especially those similar to, but inappropriate to, current
action. The process of working memory and motor attention
depends on the functioning of the dorsolateral prefrontal
cortex, whereas inhibitory control requires orbitomedial
cortical activation.

In this second edition of the text, Dr Fuster draws on
new knowledge to support his model of prefrontal cortical
function. To the earlier and now expanded chapters on
anatomy, neurophysiology, and animal and human
neuropsychology have been added comprehensive entries on
chemical neurotransmission and the neuroimaging of the
frontal lobes.

In the final chapter all these new sources of information
are integrated in what is essentially a neuronal network model
of prefrontal cortical function, which is considered mutually
reconcilable with and complementary to other recent cognitive
hierarchical models. This enriched edition of a standard
text is essential reading for basic scientists and clinicians
interested in the functions and dysfunctions of the frontal
lobes of the brain.

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