Response variables and motor slow cortical potentials (SCP) during performance of learned movements in the squirrel monkey (Saimiri sciureus)

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The influence of response-dependent variables on Slow Cortical Potential (SCP) morphology was studied, in order to corroborate motor cortex contribution to SCP genesis. Electrical responses were recorded using non-polarizable electrodes from motor cortex of Saimiri sciureus during performance of a learned movement. The habit consisted of an appetitive instrumental upper limb response (CR), under two different force ranges which were signalled by colour lights (CS). SCP and force values were sampled and processed by means of a LINC computer. Data reported indicate that SCP recorded bilaterally from "specific motor cortex" (cortical representation of CR) are influenced by response-dependent variables: force exerted and duration of movement. This effect was specially clear over the hemisphere contralateral to the limb used. A possible relationship between response variables explored and SCP components is suggested. © 1974.