Supplemental material

Ein Bild, das Screenshot, Farbigkeit enthält.

KI-generierte Inhalte können fehlerhaft sein.

**Supplemental Figure 1 Time-frequency representation of task-related power (TR-power) around movement onset in naturalistic motor behavior.** Source reconstructed activity at the primary motor cortex (MNI coordinate taken from (23) contralateral to the active arm and hand. Spectral power was normalized by a resting period of 2 to 4 seconds before EMG onset. *n* = 25, paired, two-tailed *t* test against 0, *P* < 0.05, FDR-corrected for multiple comparisons (1000 time points, 34 frequencies).

Ein Bild, das Screenshot, Text, Multimedia-Software, Grafiksoftware enthält.

KI-generierte Inhalte können fehlerhaft sein.

**Supplemental Figure 2 Event-related activity around movement onset.** To obtain phase-locked activity, time series of the source reconstructed electroencephalogram was averaged across movement repetitions of each task. No significant deflections of event-related activity around movement onset are seen. Note that preprocessing of the EEG included a high pass filter set at 2 Hz. *n* = 25, paired, two-tailed *t* test against 0, *P* < 0.05, FDR-corrected for multiple comparisons (1000 time points x 48 regions).

Ein Bild, das Screenshot, gelb enthält.

KI-generierte Inhalte können fehlerhaft sein.

**Supplemental Figure 3 Inter-trial phase coherence at 3-5 Hz around movement onset.** Inter-trial phase coherence (ITC) is a measure of phase consistency over trials at one specific location and was calculated according to (49). Some significant deflections of ITC around movement onset are seen around movement onset, thus indicating that event-related phase locking occurs with low-frequency components in the potential. *n* = 25, paired, two-tailed *t* test against 0, *P* < 0.05, FDR-corrected for multiple comparisons (1000 time points x 48 regions).

**Supplemental Movies 1-6 Cortex-wide movement-related spectral power in the low-frequency (movie 1-3) and alpha/beta range (movie 4-6) across movement types.** Average movement-preparatory spectral power (3-5 Hz and 8-22 Hz) from -1.5 to 1 s around EMG onset during phone lifting (movies 1, 4), spiral drawing (movies 2, 5) and typing (movies 3, 6) projected onto the cortical sheet. Warm colors indicate movement-related increases in power compared to the resting period. Spectral activity was normalized by a resting period of 2 to 4 seconds before EMG onset (task-related power [TR-power]), n = 25, paired, two-tailed *t* test against 0, *P* < 0.05, FDR-corrected for multiple comparisons (548 dipoles).