Do shared modular primitives simplify neuromotor control? Exploring modular strategies for coordinating muscles during multidirectional human locomotion



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What about musculoskeletal simulations suggesting a few primitives may be sufficient?

Although some simulations indicate that shared primitives could theoretically coordinate muscles to perform walking (e.g., soleus, medial & lateral gastroc EMGs below), the predicted EMG activations are often inconsistent with empirical recordings (which are not simply scaled versions of the same waveform)

Asynchronous **Experimental Measurements**



