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Self-selected walking speed as a function of load in reproductive age women carrying an indigenous pack basket.

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Almost universally, females from indigenous populations walk long distances carrying heavy loads; these loads include infants and toddlers, ~~as well as~~ food, water, firewood, and household belongings. The purpose of our research was to determine how different levels of load carried in an indigenous pack basket affect the speeds selected by free-walking reproductive age women given qualitative speed directives. The study involved 14 women between 18 and 30 y who were in the luteal phase of their menstrual cycle or taking oral contraceptives. Subjects carried three different load amounts in an indigenous style pack basket -- 0 kg (an empty pack), 10 kg, and 20 kg -- while walking around a gym perimeter at four different walking speed directives ("slow walk", "walk all day", "brisk walk", "fast walk"). During each of two testing days, 12 trials (all combinations of 3 loads, 4 speed directives) were performed in a random order. Each trial consisted of six minutes walking followed by four minutes resting. Average selected walking speed for each trial was determined from video tape recordings on each side of the gym. Actual walking speed increased curvilinearly with speed directive. For a given speed directive, selected speeds dropped significantly from 0 to 20 kg loads at all but the "slow walk" directive, with the amount of the speed drop increasing at faster speed directives. Such load-related modulation of walking speed could limit daily foraging range, as well as increase the frequency of camp moves, potentially influencing the mobility of the entire population.

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Comment [JDC1]: Be sure to add a superscript by the names and the institution.

Comment [JDC2]: Any additional context about why this is an important question or what it can tell us? Add something here or in the last sentence. The last sentence sort of leaves me on the edge of my seat-