Jumping spiders (family Salticidae) have unique, complex eyes and a capacity for spatial vision exceeding that for any other animals of similar size. Some salticids from a subfamily, Spartaeinae, are known to express an active preference for other spiders as prey (‘araneophagy’) and, using expectancy violation methods, research has shown that one of these spartaeine species, Portia africana, works with representations of different types of prey spiders. One strategy when preying on other spiders is executing pre-planned detours, and research has shown that capacity for detouring is widespread within the Spartaeinae. Moreover, new expectancy-violation experiments have shown that Portia africana represents the number of prey in a scene; P. africana becomes less inclined to complete a detour path if it encounters a different number of prey from what it had seen beforehand. This is an example of how specialized strategies for preying on a dangerous type of prey can help us gain important insights into animal cognition.