# Research question

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What determines the preference of one food over another?

Expected reward value of food option will likely determine the preference in the decision-making process. However, expectation is built around an estimate value of a particular action (to obtain food) and the environment response. The latter defines reward uncertainty by defining the probabilistic pairing of action-reward. While the effects of food properties (such as fat content), and nutritional state on food intake have been largely studied, the effect of environmental variables which are not directly related to food content are laking in the literature.

Combinations:

1. Neural-state (ox/dyn) and environmental uncertainty
2. Development of preference and environmental uncertainty
3. Preference-neural-state and environmental uncertainty

Environmental uncertainty: defined by Shannon entropy, is a function applied to the probability of obtaining a given reward.

Options:

1. same action, different reward
2. same reward, different action