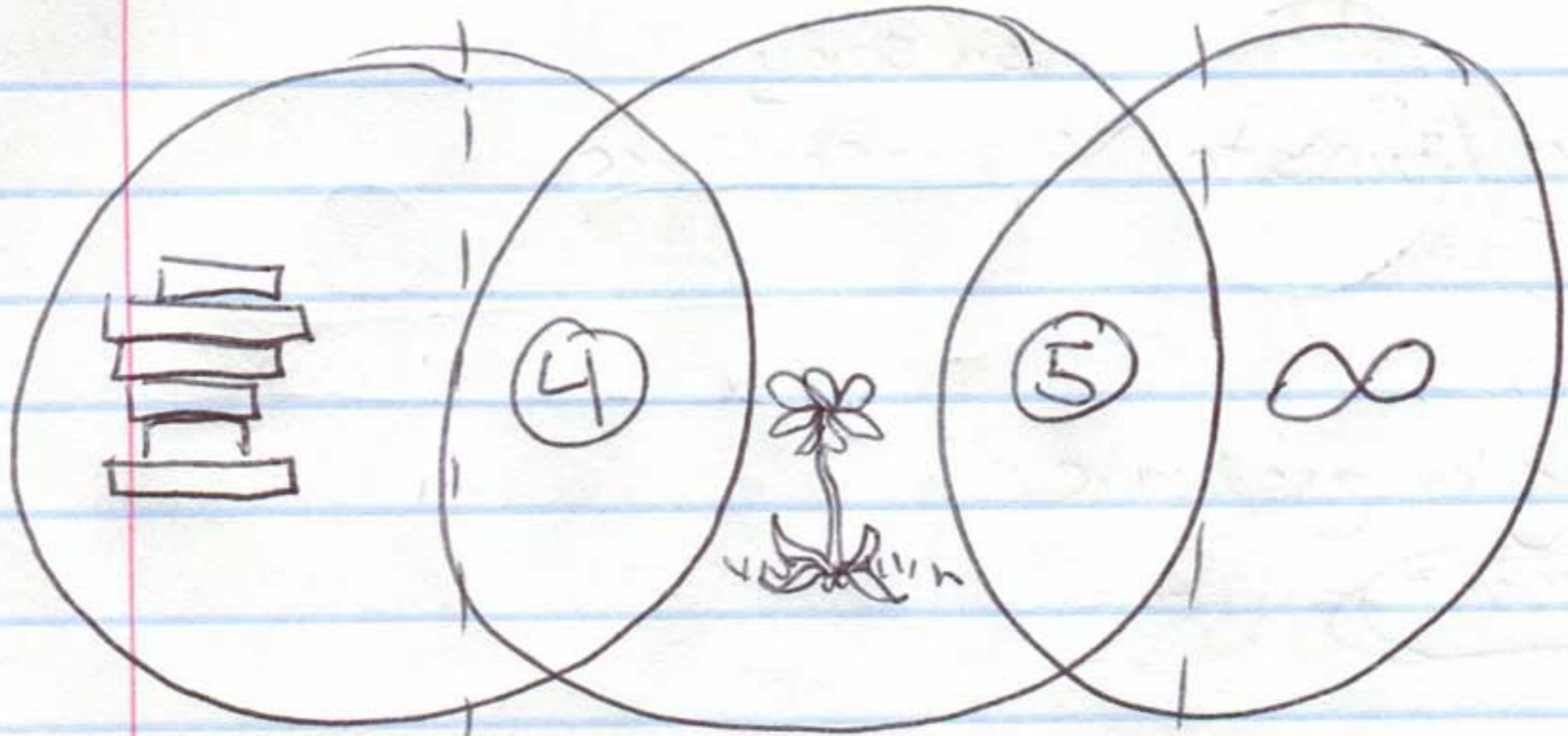


Neurogastronomy

Why it

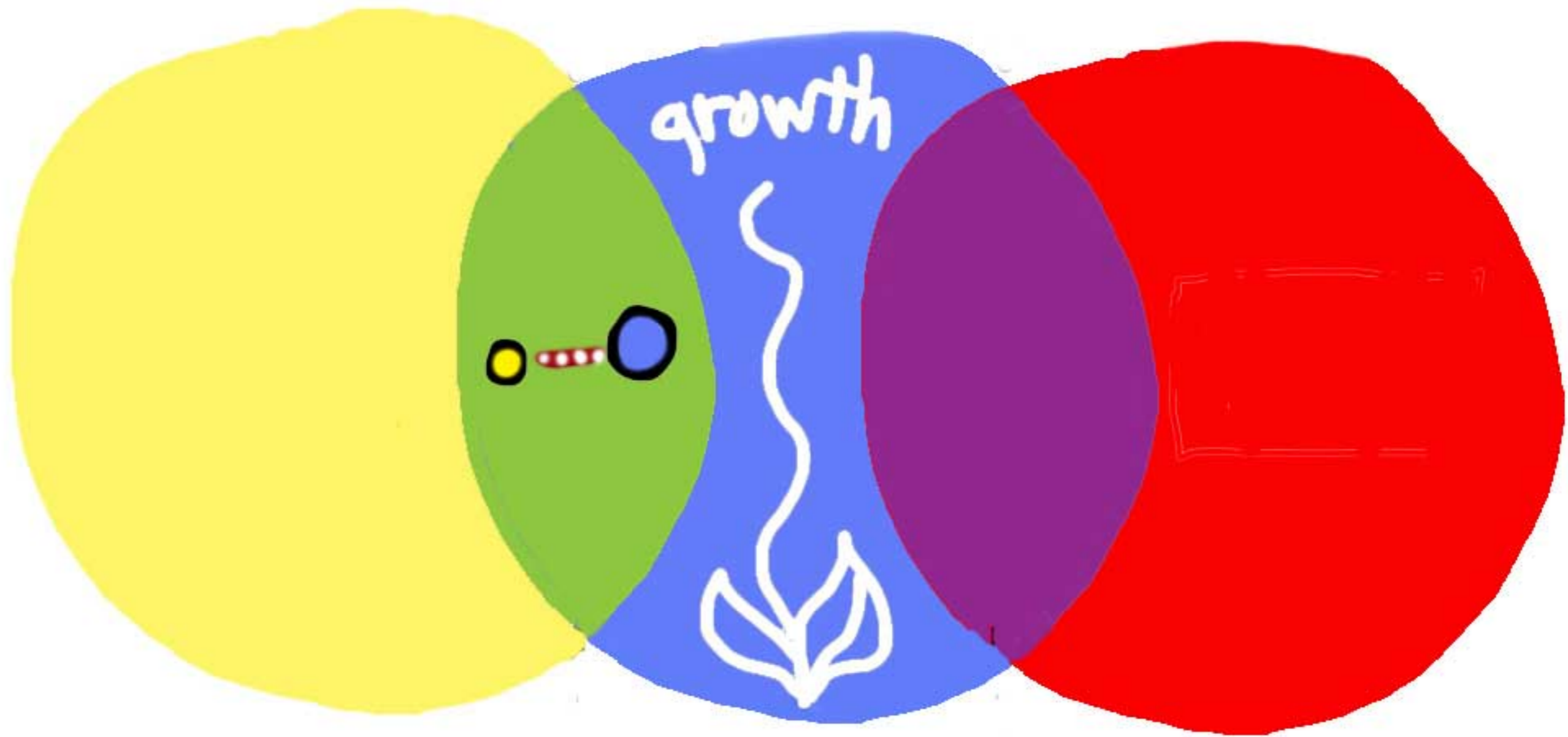
Matters



Reflection

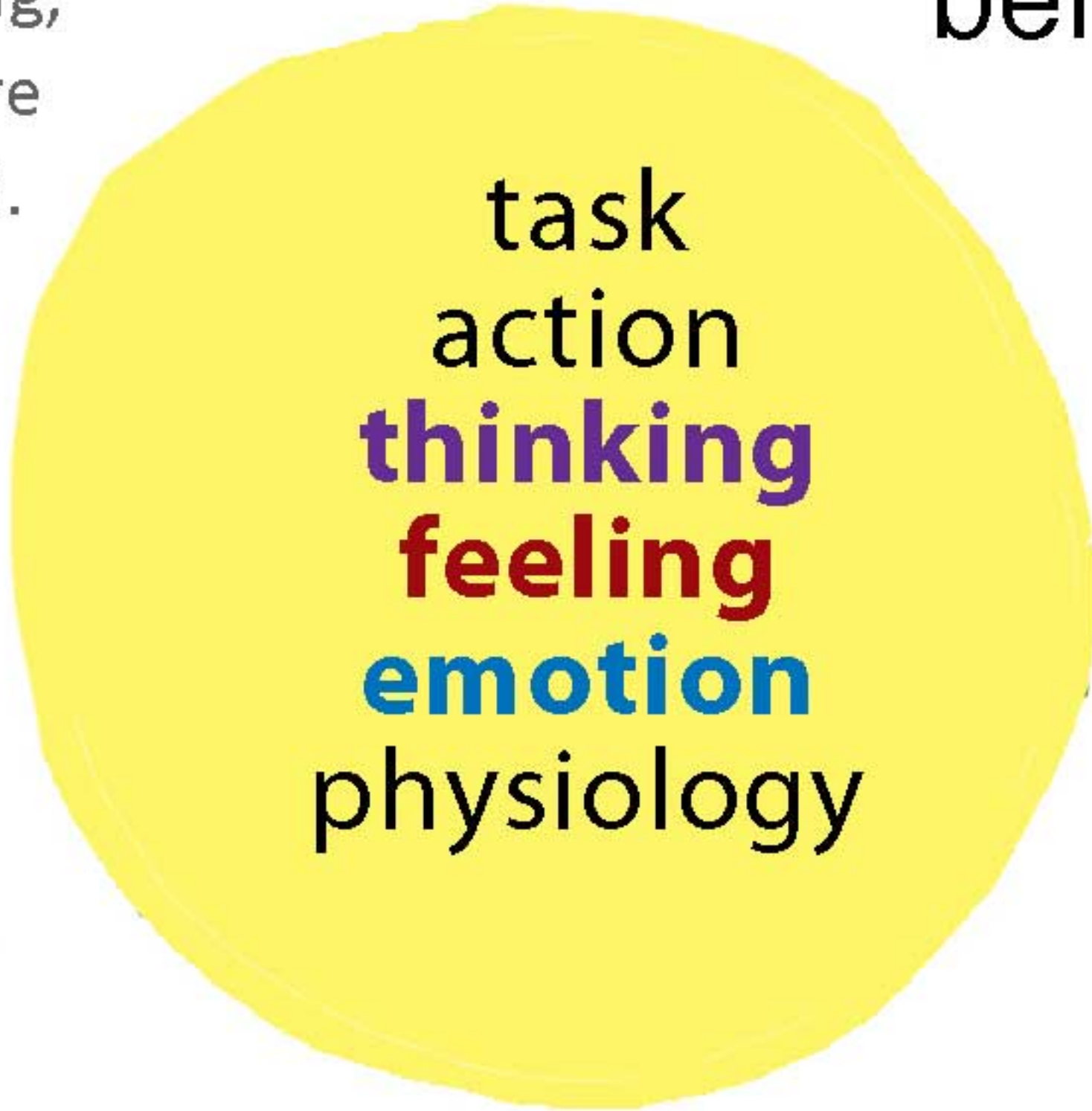
Reinforcement





Thinking, feeling,  
and emotion are  
interconnected.

behavior

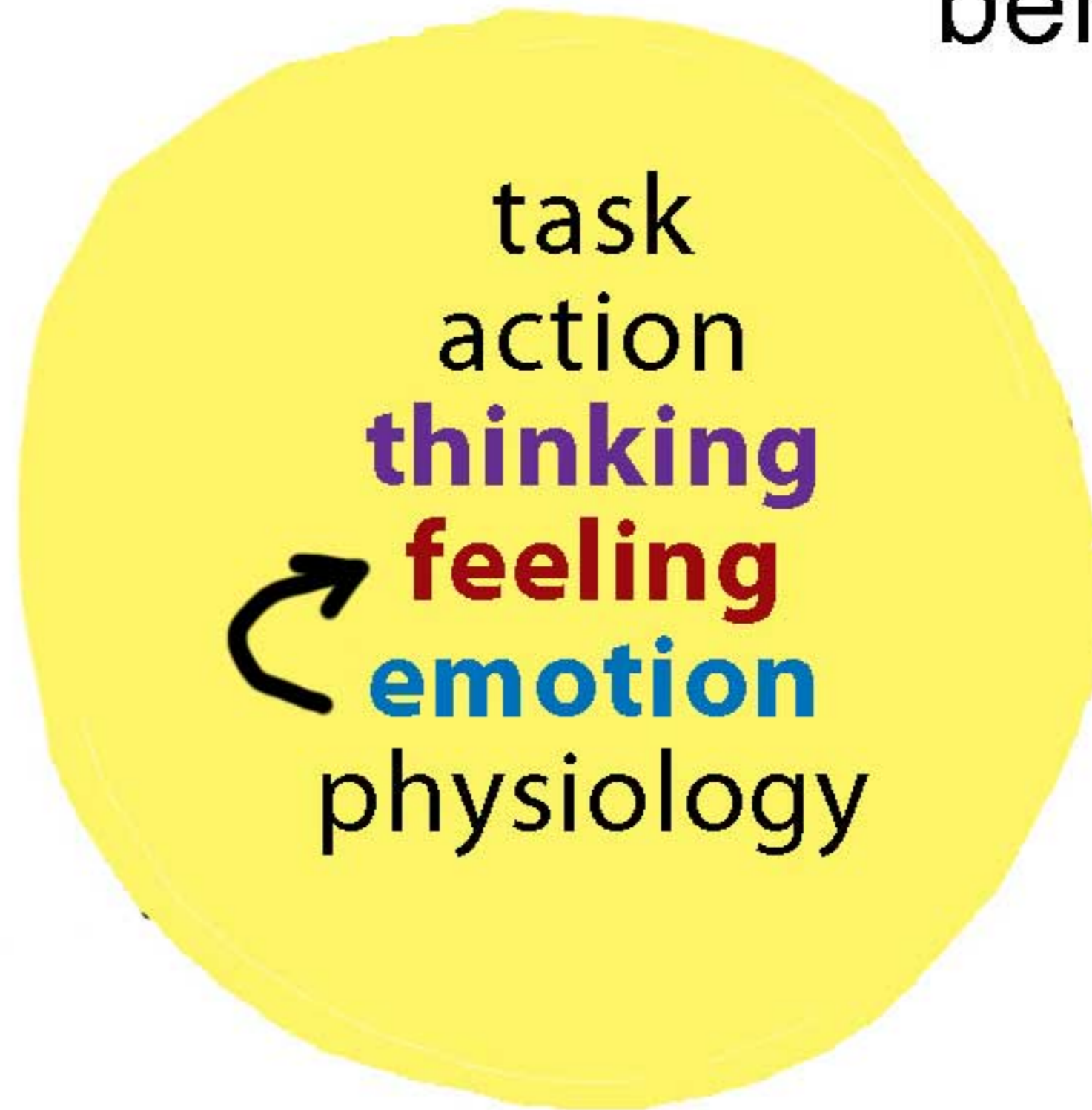


task  
action  
**thinking**  
**feeling**  
**emotion**  
physiology

"In the same way, [comparing smell and color] we postulate that our smell world would also be only a smear of shades of inchoate sensations set up in our noses if we did not have the circuits in our smell pathway that select specific types of molecule stimulated activity to give them a quality we can identify as distinct from all the rest."

(Shepherd 2014: 87)

behavior



"This system [interactions between the olfactory cortex and olfactory bulb] learns. The basic cortical circuit has the ability to improve its performance with repeated exposure to different smells ... These changes with learning enable the system to improve its ability to match an input pattern to a stored pattern, so that finer discrimination between more similar smell molecules can occur"

(Shepherd 2014: 103)

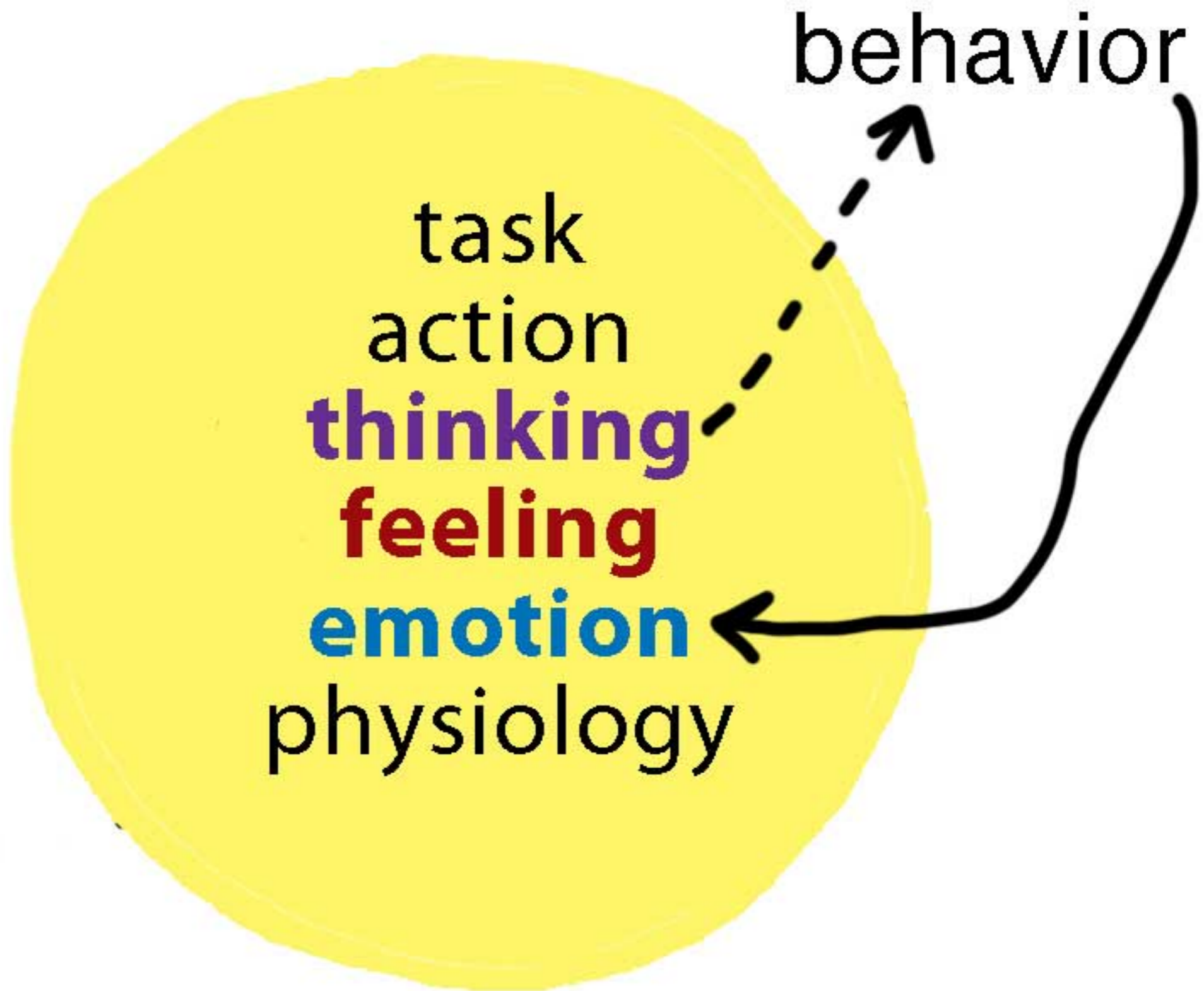


behavior

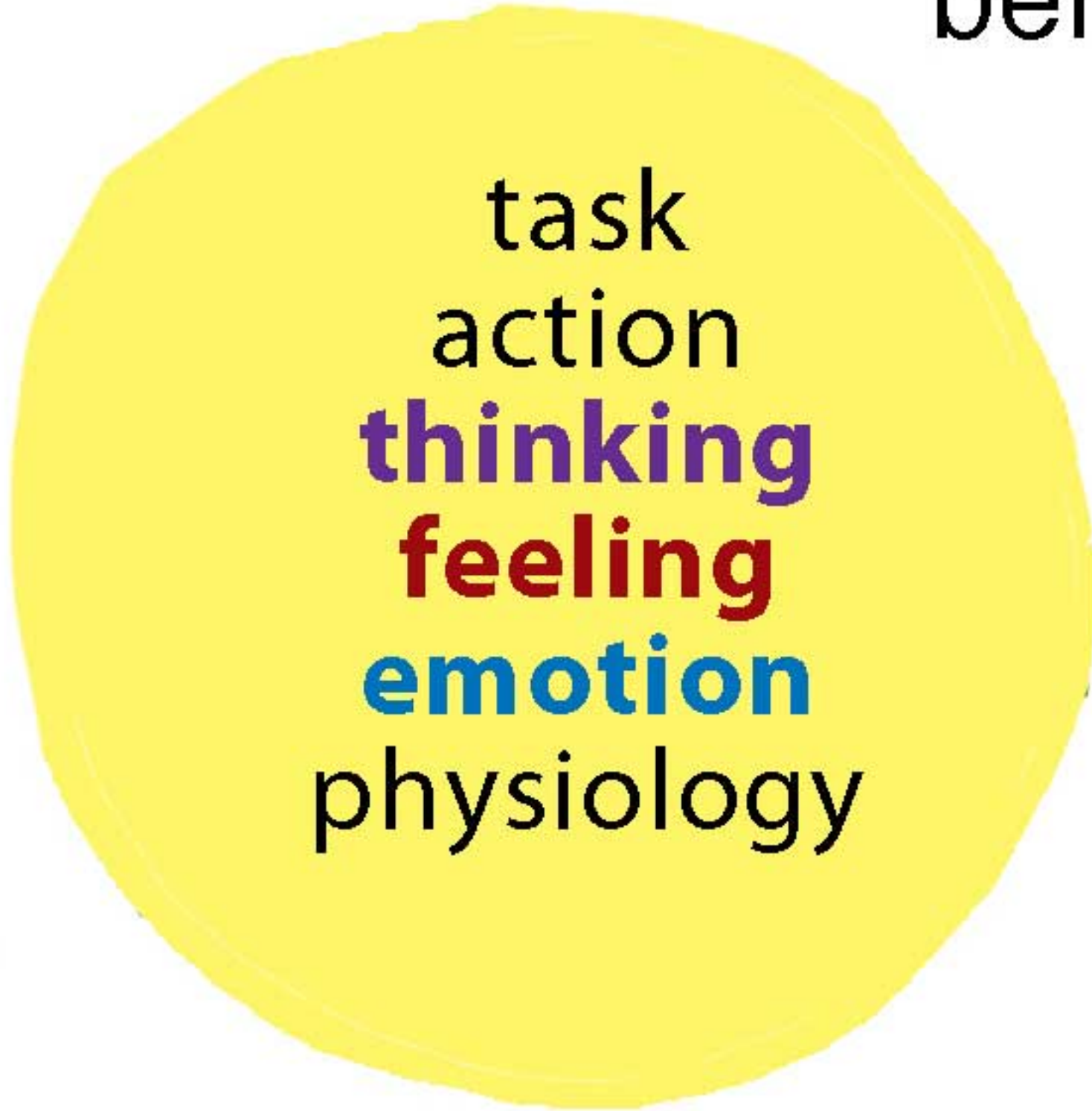


"The reason for this [olfactory pathway probably being the most heavily modified pathway in the brain] appears to be that our perception of food smells is heavily dependent on our behavioral state: whether we are hungry or full, angry or sad, craving for something or repulsed by it, suspicious of a new food or eager for novelty. The smell image has to be modified by the behavioral state."

(Shepherd 2014: 98)



behavior

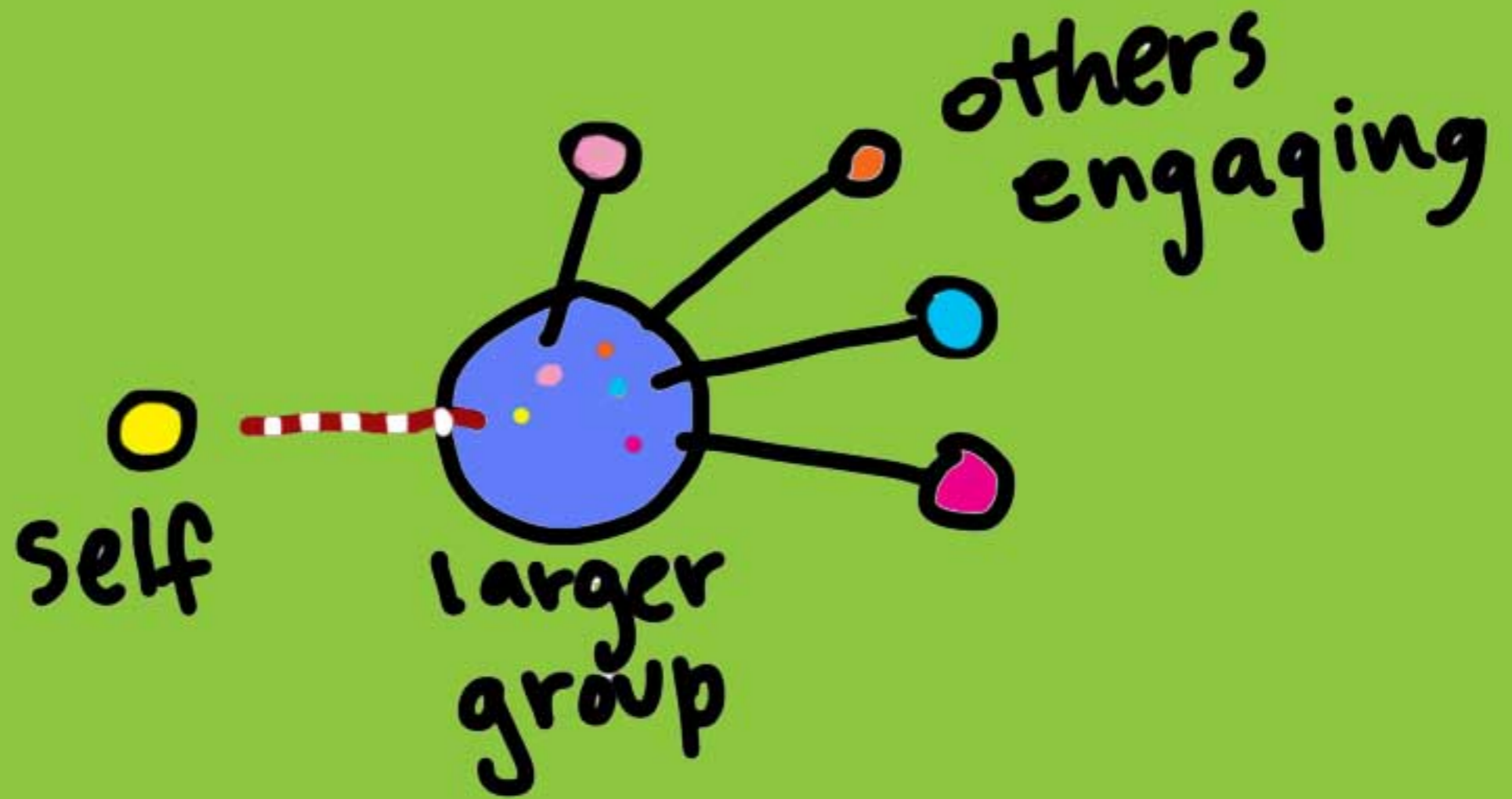


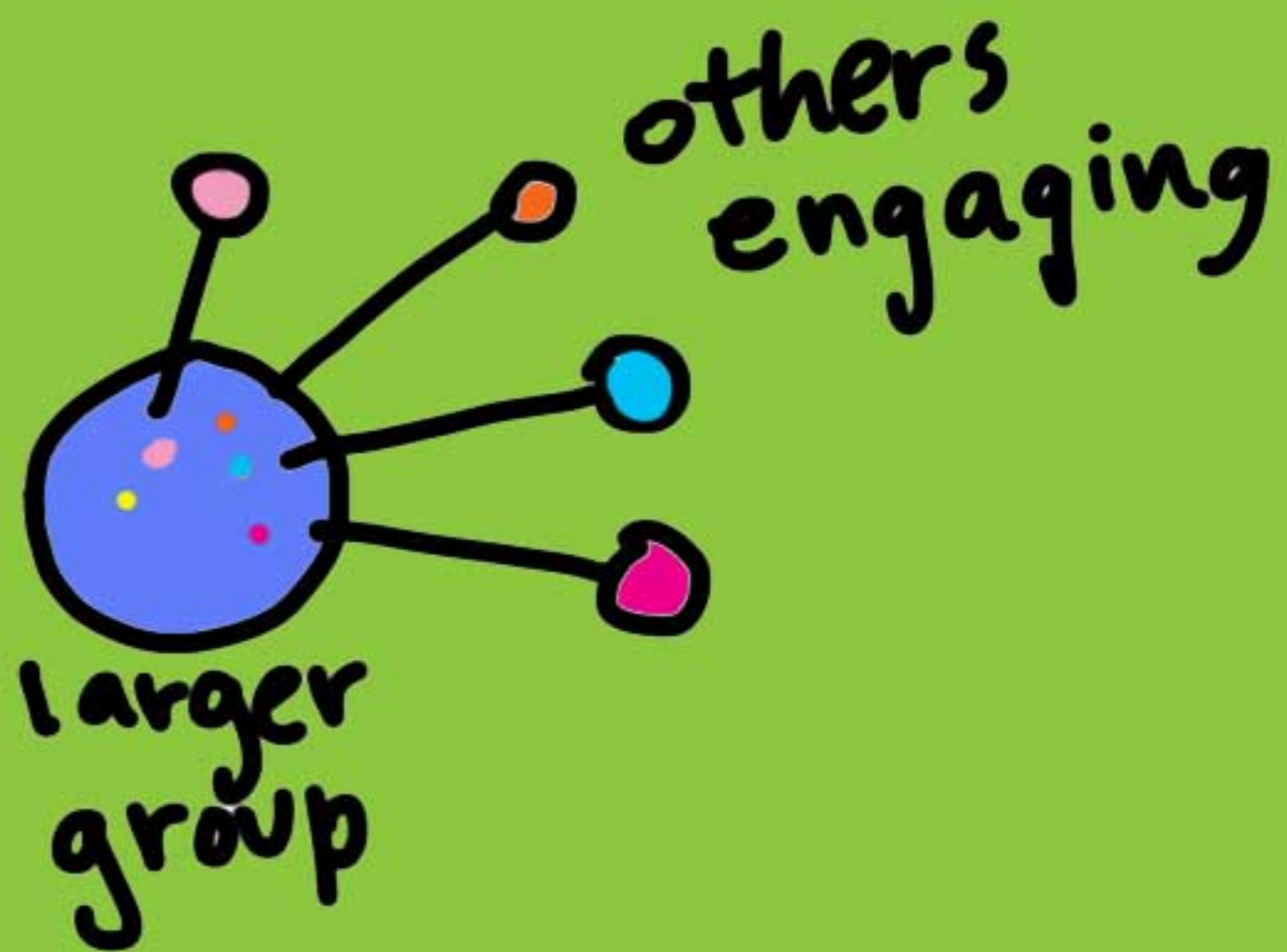
task  
action  
**thinking**  
**feeling**  
**emotion**  
physiology



task  
action  
↪ **thinking**  
**feeling**  
**emotion**  
physiology









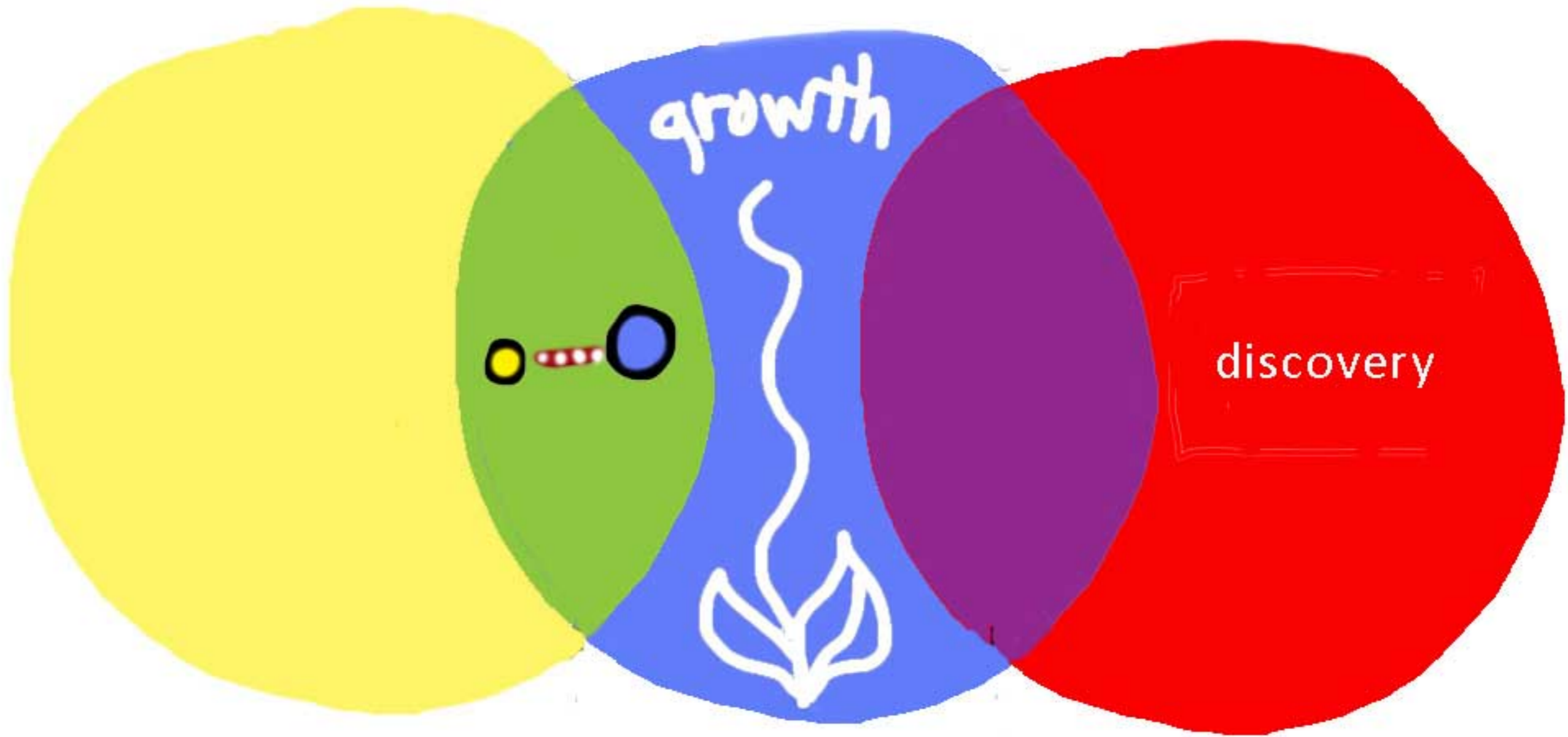
“[for the brain to construct a coherent odor object it must construct a visual object to remember] An important aspect of such an object is that seeing only a small part of it still enables the system to "fill in" the missing parts.”

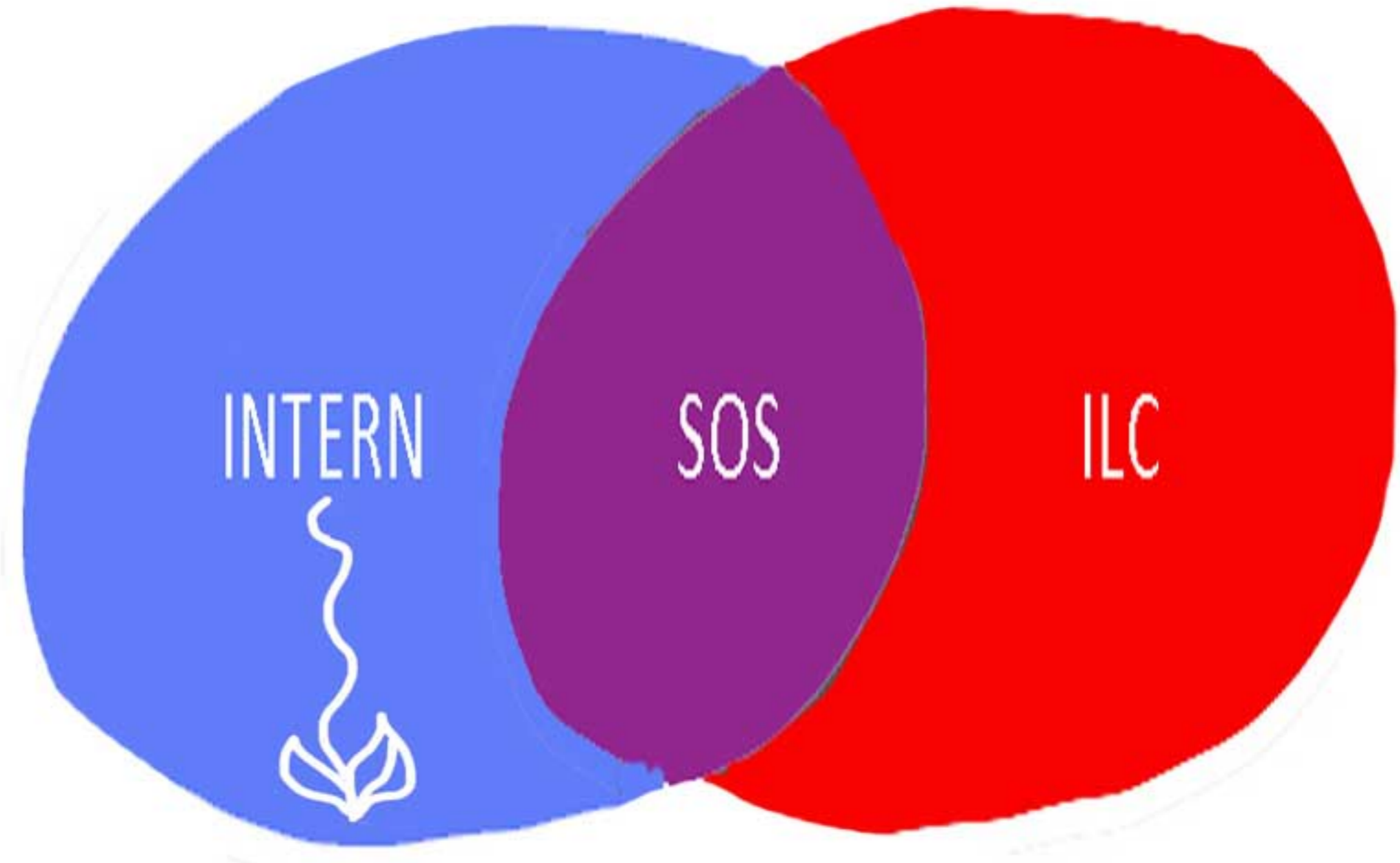
(Shepherd 2014: 103)

As experienced in tasting labs...

In week 8, I couldn't describe the flavor of a tea tasting, then Natasha described the flavor as the smell of the woods in Woodstock (I grew up in the woods of the town next over, but had medication for bad pollen allergies) and when smelling a provided sample stick I remembered and understood that smell.

During Alana's chocolate tasting lab, Sarah described the flavor of banana and after not tasting it the following inhale I smelled the scent of banana.





# ILC

“Olfaction [smell] thus appears to constitute a ‘dual modality’ in that it explores objectives both in the external world and within the body.” (Auvrey & Spence 1022)

“...perceptions are not based on sensations but rather result from a process of information extraction. The information is abstract and does not depend on the particular sensory modality in which it was generated. Properties of objects can thus be ‘interpreted’ by different sensory channels. As a consequence, sensations are specific to each sensory modality, but perceptions are not.” (Auvrey & Spence 1025)

**What happens when you smell cinnamon while listening to classical music with your eyes closed and then focus on the crunch of an apple slice dipped in vanilla yogurt?**

# ILC to SOS

From *On Food and Cooking:  
The Science and Lore of the Kitchen*

Cinnamon is fresh, pine, citrus, floral, woody, warm,  
and penetrating flavor components, but not distinctive.

“Thus, smelling and tasting need not be defined by receptors and nerves; they can instead be defined by their functions in use. Smelling would be restrained to its main function, that is, the detection of stimuli at a distance by means of their odors.” (Auvrey & Spence 1022)

“The multiplicity of interactions between taste, smell, touch, and the trigeminal system (not to mention hearing and vision) has led numerous researchers to propose flavor as the term for the combinations of these systems, unified by the act of eating (Auvrey & Spence 1026)



Quoted from Week 7 practice experiment: The music had a soothing effect and the scent of the cinnamon provided an incredibly permeating feeling. The participant focused on the apple's texture during chewing and when asked the question of what flavor came up, the participant described the powerful mouthfeel reaction rather than the taste of the apple and vanilla-cinnamon yogurt.

INTERNSHIP

# Principle to practice







Food creates culture.

Flavor is our perception.

Quit tasting.

Smell.

## Bibliography

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Crisinel, A., & Spence, C. (2010). As bitter as a trombone: Synesthetic correspondences in nonsynesthetes between tastes/flavors and musical notes. *Attention, Perception, & Psychophysics*, 72(7), 1994–2002. <https://doi.org/10.3758/APP.72.7.1994>

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