Our Contribution to Continual Learning

Our project aims to create multiple cyclic representations of time. For RL these timeframes will be held in relation to a task or <u>tasks</u>.

In CL there is need to give tasks unique, retrievable, and <u>shared</u> representation in the latent model space. By associating tasks with timeframes particular to the task, we may be able to create better task-action mappings in the model.

"Tasks" here may be made up of multiple subtasks. The full distribution of a problem, I will call the "problem" while the "task" are the smallest unit of some max state-action mapping. Every task will likely have some unique time frame in which it cycles. Such as the bird visiting feeding location A, which replenishes every 10 minutes.

While feeding location B replenishes every 15 minutes

The feeding of both these site would constitute two different tasks with two different time cycles associated to them

If taking a page from striatal Beat frequency model, these task time cycles intiate @ some stimulas associated w/ the task and so could have a very literal attachment to tho "frame" of the cyclic timeframe