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Ethogram:

Behavioral State	Description
Scratching	Animal scratches a body part either with its own paws or onto something in the environment
Rest	Animal sits or lies immobile
Grooming	Animal licks themselves repeatedly
Locomote(LOC)	Animal runs, walks, or climbs around exhibit. Animal walks back and forth over same area repeatedly
Pacing	Animal is alert looking at surroundings
Sentry	Kicking up dirt or other behavior demonstrating aggression/territoriality

Behavioral Event	Description
Yawns	Animal opens mouth wide and inhales indicating it is yawning
Rolling over	Animal when laying down rolls onto back and does a 180-degree flip to its other side
Noise	Animal makes noise (slightly roars or purrs)

Data Sheets:

Individual	Scratching (s)	Rest (s)	Grooming (s)	Locomote (s)	Pacing (s)	Sentry (s)	Demonstrating Territoriality
#1 Amur Tiger	30	510	30	150	180	300	0
#2 African Lion	0	0	0	480	420	270	30

Individual	# of yawns	# of times rolling over	# of noises
#1 Amur Tiger	3	2	1
#2 African Lion	0	0	4

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Psych 449

Zoo Project

The Amur tiger (*Panthera tigris*), also known as the Siberian tiger, is the largest cat species in the world. The Amur tiger is critically endangered, with only a few hundred individuals remaining in the wild. These tigers are solitary animals, typically living alone, and only come together for mating or when a mother is caring for her cubs. In contrast, African lions (*Panthera leo*) are very social animals that live in groups known as prides. A pride is typically made up of related females, their cubs, and one or more adult males. The females do most of the hunting, while the males are responsible for defending the pride's territory. Given the highly social nature of African lions, I would expect to observe more locomotion, sentry behavior, and territorial displays compared to the Amur tiger, which I will expect to exhibit longer durations of resting and pacing due to its solitary nature and lack of social interaction.

To observe the behavior of the animals and test this hypothesis, I will employ continuous sampling to observe the male Amur tiger and the male African lion. I will focus on one animal at a time, observing it continuously for 20 minutes, and recording the duration of each behavior listed on the ethogram. Continuous sampling ensures that every instance of the observed behaviors is captured, providing a comprehensive and detailed record of the animal's activity. This method is particularly useful when comparing the behaviors of two specific individuals, as it allows for precise tracking and direct comparison.

Observed distinct behavioral differences between the male Amur tiger and the African lion, which aligned with my expectations based on their differing social structures and natural behaviors. The Amur tiger, a solitary animal, spent significantly more time resting and less time engaging in active behaviors such as moving or pacing. It appeared more lethargic, with extended periods of lying down and occasional yawning, which may suggest it was either tired or experiencing boredom. In contrast, the African lion, being a social and territorial species, spent much more time moving, pacing, and demonstrating territorial behaviors, such as kicking up dirt and roaring. These actions are likely linked to the lion's need to maintain its territory and assert dominance within its environment. The lion's more active nature, marked by these territorial displays, is in line with its role within the pride and its instinctual behaviors.

These observations supported my hypothesis, given the solitary nature of the tiger and the social, territorial nature of the lion. However, I was surprised by the similarity in the amount of time both animals spent in a sentry or alert state. I expected the African lion to spend significantly more time in this alert state due to its territorial behavior. However, I found that the time difference between the two animals was only 30 seconds. I speculate that this might be due to the captive Amur tiger's potential boredom or stress, which could have been caused by a lack of enrichment, leading to increased alertness to surroundings.

While observing the Amur tiger, I noticed a lack of enrichment activities in his enclosure, and he appeared generally uneasy, bored, and restless. If enrichment were increased, it is likely that the Amur tiger would become more engaged with his environment, potentially reducing the

time spent resting and increasing his activity levels. This added mental and physical stimulation could help alleviate his stress and boredom. On the other hand, decreasing enrichment could lead to greater inactivity and increased boredom, with the Amur tiger becoming more lethargic and exhibiting behaviors such as pacing and excessive resting.

Lions, due to their social nature, would be most affected by the addition of other individuals. This would likely result in increased group interactions and cooperative behaviors within the pride. In contrast, limiting social interactions would likely lead to increased stress, boredom, and agitation in the lions, as they rely on social dynamics for stimulation and engagement.

One important factor to consider regarding my observations is the timing of my visit to the zoo. I arrived around 4 pm and stayed until sunset, which coincided closely with the animals' feeding time. This timing could have influenced the behavior I observed, as the animals may have been experiencing increased restlessness or uneasiness due to hunger or the anticipation of food. In many zoo species, animals may exhibit more noticeable behaviors such as pacing, increased vocalizations, or changes in social dynamics. Additionally, the approaching nightfall might have triggered natural shifts in behavior, as many animals begin to prepare for the evening or enter more solitary, inactive states. This could have affected the overall energy levels and interactions of the animals I observed.

From this zoo exercise, I learned the importance of careful observation and detailed notetaking when analyzing animal behavior. By focusing on the specific actions and interactions of both the Amur tiger and the African lion, I was able to gain a deeper understanding of how

they express their natural tendencies in a controlled environment. Continuous sampling allowed me to capture a comprehensive picture of each animal's activity and compare the behavioral patterns between the two species. I realized how being attentive to subtle changes in behavior, can reveal insights into the animals' emotional states, environmental stressors, or natural instincts. Observations provide the foundation for interpreting how an animal might respond to its surroundings, both in captivity and in the wild.

