\*Development of foraging skills in two orangutan populations: needing to learn or

needing to grow? – not so interesting

**1. The dark side of the red ape: male-mediated lethal female competition in Bornean orangutans** (2016) – super interesting!!!

* Major result: Female orangutan attacks other female orangutans, supported by one other male, and the other male protected the victim.
* Theme: lethal attacks/ lethal aggression in female orangutans—aggressive behaviors that have a potential attempt to kill the other, fatal threat.
* Methods: filed observations in the wild (at Tuanan in Indonesia).
* Results: “Four adult individuals, two females and two males, as well as one immature male were involved in the attacks reported here.” Sidony-- Target of the aggression; suffered fatal injuries; protected her infant and tried to escape multiple times but did not actively defend herself. Kondor: main attacker. **What happened**: Sidony chased, hit, and bit Kondor, who was repeatedly approaching Sidony’s ca. 7-yearold daughter, whereas Kondor persisted in her attempts to approach.
* Discussion: “Ekko’s behavior can be explained as his investment in maintaining the association with Kondor” – to show off his masculinity.
* Questions/ brainstorming:
  + has sexual assault in orangutans or in chimpanzees ever observed? If so, how does it look like? Rape? Normally, is it the male who starts the assault or female to male? Always opposite sex or some homosexual assaults also exist?
  + Why did Kondor & Ekko attack Sidony exactly? Especially, since Ekko had an attempt to have sexual interaction with Sidony?
  + Why “wild orangutan males and females have never been reported to form coalitions before”? does this mean that they are somehow civilized in the way to take care of more fragile population: females?

**2. Novelty -- Wild VS captive orangutans (2015)**

*"Captivity effect"* on the innovation in captive orangutans

Field Observations

“While neophilia refers to the seeking, approaching, and exploration of novelty, neophobia refers to avoidance of, reluctance to approach, or even fear of, novelty”

* Methods:
  + The rationale behind choosing these objects? (Plastic fruits, flowers and an orangutan doll)
  + Why plastic objects and why not try some even more novel ones like a KFC logo/McDonald's logo, plastic human clothes, or a human baby doll instead of orangutan doll?

\*Possible explanations: Plastic flowers were chosen because their colors stood out against the otherwise green canopy but also might be **visually recognized** from a distance as a potential food item. Orangutans occasionally feed on flowers from multiple different species familiar to them. The red quadratic flag represented a shape–color combination not naturally occurring in orangutan habitats. It was placed above the platform in order to **draw attention** to the location and the explorable plastic fruits on the platform below it.

**3. Observational social learning and socially induced practice of routine skills in immature wild orangutans (2016)**

* Social learning in immatures by observing the peers in various contexts.
* The forms of observational learning are yet unknown.
* Behavioral variation cannot be explained by environmental or ecological differences.
* Peering: (attentive close range watching).
* The aim of the study: The aim of the present study was to examine the role of peering (attentive close range watching) in the skill acquisition process in immature orang-utans, including widespread and routine skills such as the processing of common food items or nest building.
* Method: a correlational approach.
* Begging counts as social learning ???
* “most peering happened in the feeding context”
* “If immature orangutans learn by observing others, peering should be followed by increased levels of exploratory behaviors or feeding attempts with the same food item, especially in unskilled foragers (dependent immatures).”
* “peering rates would reflect the learner's competence and should therefore decrease with increasing age and feeding competence.”
* “If peering is a means of social learning, with increasing age immatures should peer more frequently at other individuals with potentially new techniques compared to their (familiar) mothers.”
* Food nesting scenarios
* “young dependent immatures exclusively peered at their mothers, they increasingly peered at others as they got older.”

**\*\*4. How to explain the unusually late age at skill competence among humans (2012)**

* Some assumptions: the time needed to learn the skills OR energy allocation
* “the human lifestyle with the complex foraging niche is made possible by two processes: (i) the mammal-wide correlated evolution between brain size and life history, and (ii) the intergenerational resource transfers made possible by cooperative breeding and hunting”.
* food transfers (foraging, elaborative hunting) complex foraging niches -- The complexity of the foraging niche – learning time to exceed the time needed to reach sexual maturity.

**The Suaq Team – Schuppli’s team**

**5. Einstein in the realm of orangutans (documentation) video**

Logistics: it was super long trip with different transportations from Menden Indonesia to the camp.

What the orangutan Julia eats: eating durian with a part of the branch as a straw to suck the juice out of the fruit on a tree (eating tool using skill)

The graph “food plan of orangutans” (10’49’’): older they get, more various of food they consume (50types –2Y to 250 types —11Y)

Natural pedagogy in orangutans: the mom presents how to use the tool to obtain the fruit to the infant. The second graph (23’38’’): the infants’ novelty (trying new things) is three times higher with moms’ illustrations and their observations than without mom’s illustrations.

Heading to the orangutan habitat while it’s still dark to be able to get there by the time they wake up to collect their (age. 60-70 Y) urine to test pregnancy (Q: until what time they can get pregnant).

Pregnancy & prenatal facts in orangutans: 1. takes long to get pregnant. 2. Infants eat not only normal food but also mother’s milk.

Orangutans drop things from the tree to see the reaction of the researchers – intention to play with people?

Drinking on the tree: after raining, Julia drinks water between the gaps of the branch of the tree.

Playing (social interaction): graph (30’08’’)—they play with their moms more before the age of 4, after 4Y they play with their peers more.

Food resource (the graph at 40’41’’): at the age of 7, the daughter has the same food resources as the mom has, and become higher after 7Y.

Environmental destroy: cutting the trees, palm tree oil production …

Why they are becoming lesser?