Chat Log: Unit 3 Survival/Migration

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Monday, September 10, 2012 Undergrads

8:06 PM: HOST: Hi Carol
8:07 PM: HOST: what would you like to chat about this eve?
8:08 PM: Carol: I guess mostly about the Wolf Module stuff, specifically the video sections
8:08 PM: HOST: sure, what are your questions?
8:09 PM: Carol: What exactly is the source information that we're supposed to enter into the green box?
8:09 PM: Carol: About the videos, that is.
8:09 PM: HOST: the number of the clip, so I can go find the same video you used
8:09 PM: Carol: Ohh okay, that makes much more sense.
8:09 PM: HOST: there are 8 clips and you may choose 2
8:10 PM: HOST: some people prefer to take their own videos and upload the video on youTube....or find a video on youTube
8:11 PM: Carol: Huh, where I'm looking, there are a lot more than 8 videos.
8:11 PM: Carol: There's three podcasts, and then several clips on your own dogs.
8:11 PM: HOST: The first podcast is for Module 1. The second for Module 2.....
8:11 PM: Carol: Oh, I gotcha. Okay.
8:12 PM: HOST: If you don't like the video clips on the podcast (they are fuzzy), you may use a couple from the other albums....or find your own.
8:14 PM: Carol: So, just to make sure I'm understanding, I could just put Clip 1 for my first video, and then put the general notes down?
8:14 PM: HOST: Yes, you would view the Clip 1 in the Module 1 podcast.
8:15 PM: HOST: Then you could pick another clip that you like, lets say Clip 8, and write that in the green box on the second line of the table.
8:16 PM: Carol: Okay, makes sense!
8:16 PM: Carol has left the room.
8:16 PM: Carol has entered the room.
8:17 PM: HOST: Glad you are back!
8:17 PM: Carol: Sorry about that! I have a bad habit of closing blackboard.
8:18 PM: HOST: I understand
8:18 PM: HOST: Anything else you would like to chat about?
8:19 PM: Carol: I don't think so! You can see our drafts when we upload them before turning them in, right?
8:19 PM: Carol: Or would it be okay if I emailed you after module one to get some feedback?
8:21 PM: HOST: Yes, I will be happy to respond with coaching tips
8:22 PM: Carol: Awesome! Okay. I don't think it will take me too long to finish the first one when I get a chance to sit down and do it.
8:27 PM: HOST: good, keep it short and sweet! pace yourself at no more than 30 min per worksheet
8:28 PM: Carol: Good to know, will do. Haha, I was glad when you posted that announcement saying module one should take 3 weeks, module 2 should take 2, etc
8:28 PM: Carol: It was like oh, that's a relief.
8:28 PM: Carol: *relief
8:29 PM: HOST: I was concerned when one student said he surfed the web for 6 hours to find 2 video clips of dogs!
8:30 PM: HOST: that was not my intent.....keep in mind the main goal, which is to practice separating observation from inference
8:30 PM: Carol: Hahaha, oh goodness, I think I would have just gone home and recorded my dog for five minutes
instead.
8:32 PM:  HOST: good! use common sense!
8:34 PM: Carol: Oh, one more thing. I currently have 9 points for participation so far. Do you think I'm on the right track?
8:34 PM: Carol: I get stressed out when it's all up to me, haha.
8:36 PM: HOST: Yes! 7 points for this first part of the course is tops! So you exceeded my expectations!
8:36 PM: Carol: Oh okay, whoo! good to know
8:36 PM: HOST: The folks I am concerned about are the ones who have not even attended one chat.
8:37 PM: Carol: Oh, I have another question. I posted for one BLOG question, but I'm not sure how many points I made on it.
8:38 PM: Carol: I'm probably going to answer a unit 2 question, just to be safe, but once I make seven points on those, I can wait until the next part of the course?
8:40 PM: HOST: yes, you can pace yourself. Remember that you earn BLOG points separate from chat participation points
8:41 PM: Carol: Gotcha. And I need 28 total by the end.
8:43 PM: HOST: yes!
8:43 PM: HOST: hopefully your participation will be rewarding, so by the end you will be doing it for intrinsic reward of the fun of learning, not just to collect points!
8:44 PM: Carol: Is it possible to earn them all in one fell swoop?
8:44 PM: Carol: Yeah, I like the questions so far. Being responsible for my own grade just makes me a bit twitchy about it all, haha
8:45 PM: HOST: I understand. However, this is preparing you for the workplace in the world after you graduate. When you become an employer, would you want to hire the person that works steadily throughout a whole 3-month period or the one who works in fits and starts and only watches the time clock to get a salary?
8:52 PM: Carol: Very true, that is a more helpful way to think about it.
8:54 PM: HOST: I chuckled about a cartoon in the Sunday paper. Linus was so worried about having not done his homework, that he totally missed the lesson for the day!
8:56 PM: Carol: Hahaha, sounds like something I would do
9:00 PM: HOST: Looks like our chat time is up....anything else before we sign off?
9:07 PM: Carol: I think I'm good! Thank you though, Dr. P
9:08 PM: Carol: I'll talk to you next week!

Monday, September 10, 2012  grads
8:01 PM: Chris has entered the room.
8:01 PM: Cade: not a drop. bone dry here. no rain in several weeks now
8:01 PM: Cade: yall get any?
8:01 PM: HOST: we turned off the air conditioners and opened all the windows...no rain
8:01 PM: HOST: Hi Chris!
8:01 PM: Cade: best sleep ever with cool air like that
8:02 PM: Chris: Hi!
8:02 PM: HOST: So does anyone have any burning questions you want to bring up before we dive into Unit 3 Survival/migration?
8:02 PM: Celia: I do!
8:03 PM: HOST: shoot!
8:04 PM: Celia: I don't really understand how the clock shift experiment made the butterflies go west. Are the butterflies "assuming" (sorry, little folk-psych) it's a certain time and looking for the sunset in the wrong place?
8:05 PM: HOST: they adjust for the height of the sun, depending on the "clock" that is set by the photoperiod
8:05 PM: Chris: I think its less assumption and more instinct - the sun also drives reproduction in some mammals
8:05 PM: HOST: so if it is noon, they fly a different direction relative to the sun compared to when it is 6 pm
8:06 PM: Celia: So it's less the placement of the sun and more the difference between the sun position and the horizon?
8:06 PM: HOST: yes, the angle
8:06 PM: Celia: Ok, that makes a little more sense. Thanks!
8:07 PM: HOST: bees have the same mechanism
8:08 PM: HOST: want to talk about what evidence we would need to decide whether this behavioral response is fixed instinct or flexible learning?
8:09 PM: Celia: I actually think I understand the evidence pretty well.
8:09 PM: Celia: This was one of the quiz questions, right?
8:09 PM: Chris: The curveball question
8:10 PM: HOST: chuckle, Chris, how would you answer that question? lets see if Celia agrees
8:12 PM: Chris: you could gather evidence on what time of year the migration occurs and compare that over time - i think history of migration provides a lot of evidence - you could see if climate change has delayed or accelerated migration times
8:12 PM: Chris: also look at resources - why do they migrate
8:13 PM: Chris: what benefits outweigh the costs
8:13 PM: Chris: I think behavioral response is instinct if a costly trip proves to be more beneficial than costly
8:13 PM: HOST: hmmm, that seems to be getting more at a FUNCTION than a DEVELOPMENT perspective
8:13 PM: HOST: Celia, what do you think? is this a proximate or ultimate question?
8:14 PM: Celia: I think if we want to determine whether it's learned or instinct we need to look at more of a proximate perspective
8:15 PM: Celia: Development makes sense to a point, but I think cause makes more sense.
8:15 PM: Celia: In this case, "What stimuli elicits the response (migrating)?"
8:16 PM: Cade: photoperiod
8:16 PM: HOST: I agree, what is the evidence we talked about in lecture for Unit 2? ....to distinguish between instinct and learning?
8:18 PM: Chris: short term vs long term
8:18 PM: Cade: heritability, change in time over a lifetime
8:19 PM: Celia: I'm not 100% sure this is what you're getting at, but instinct can be acted upon by selection. But that seems more of an ultimate function...
8:20 PM: HOST: The reason we need to "nail down" the heritability using the PD perspective, is because IF the variation is learned, it will not be subject to natural selection....I agree
8:20 PM: Chris: also VHDP
8:20 PM: HOST: so if monarchs raised in the lab show the same orientation relative to the sun compass as wild monarchs, would that be evidence the mechanism is highly heritable?
8:21 PM: Cade: yes
8:21 PM: Chris: yes
8:21 PM: Celia: Yes, especially because the control group showed normal behavior
8:22 PM: Celia: Dugatkin (34) says for a trait to be acted upon by selection there must be variation in the trait, fitness consequences for the trait, and a mode of inheritance for the trait
8:22 PM: HOST: if the wild monarchs find their way to the target site without prior experience, the first time, would that be evidence for heritability?
8:22 PM: Chris: yes it would
8:22 PM: Celia: I would argue that we can support all three, if there's individuals who overwinter (variation), fitness consequences (those who don't migrate die), and the control group shows it's heritable.
8:23 PM: Cade: yes, they had no opportunity to learn the path
8:23 PM: HOST: and if monarchs from different populations migrate in different directions (e.g. Calif monarch migrate west and Canada monarchs migrate south), would that be evidence?
8:24 PM: HOST: Celia, good application of the logic of natural selection!
8:24 PM: Celia: Yes, definitely. The two populations are showing evidence of selection for different traits.
8:25 PM: HOST: so variation in the genotypes....but how could we test that the variation is indeed genetic?
8:25 PM: Cade: controlled breeding
8:25 PM: Chris: proximate cause
8:25 PM: Celia: What if you transplanted some individuals?
8:25 PM: HOST: Celia, good thinking!
8:25 PM: Celia: Your California butterflies would still go west, and the Canadian would still go south
8:26 PM: Chris: so yeah - testing in different areas under different conditions
8:26 PM: HOST: Anyone ready to move on to another Q?
8:26 PM: Cade: sure
8:27 PM: Chris: for Q2.3 - does anyone think social transmission requires a level of respect or trust for learning to take place?
8:28 PM: HOST: Interesting question!
8:28 PM: Cade: i would think it depends on the situation
8:28 PM: HOST: lets think about some of the examples of social transmission
8:28 PM: Chris: I feel there must be a level of trust
8:28 PM: Chris: such as that between a mother and offspring
8:28 PM: HOST: which example are you thinking of, Chris?
8:29 PM: Cade: what about juveniles watching adults hunting in the trees? Not really any trust involved there
8:29 PM: Cade: referring to chimps
8:30 PM: Celia: I don't know that I agree with that. For an animal to do something that harms its own fitness to harm another, that would be considered spite. (See Foster et. al 2001, "Spite: Hamilton’s unproven theory").
8:30 PM: Chris: I feel like herd or pack animals do look to leaders for guidance, to me that exhibits a level of trust or assurance or whatever you want to call it
8:30 PM: Chris: maybe so
8:31 PM: Cade: i would agree (hence my 'however you'd define it' comment)
8:32 PM: Chris: I am thinking about big cats in learning to hunt - they trust their mother - she is their sole provider so they look to her for everything
8:32 PM: Cade: I don't know that they would follow a random member of a pride when given the choice
8:31 PM: HOST: how could you measure "trust" in terms of behavior, Chris?
8:32 PM: Chris: how could you measure "trust" in terms of behavior, Chris?
8:32 PM: Celia: Frankly, I don't think we can even consider "trust" as a factor. We really don't have any empirical evidence for "trust", it's a human emotion we've projected on animals.
8:32 PM: Celia: We may see evidence of codependence, but I don't know that we can necessarily call it "trust".
8:32 PM: Chris: I think the easiest analogy is an elephant herd
8:32 PM: Cade: I would agree (hence my 'however you'd define it' comment)
8:33 PM: Chris: elephants follow the matriarch through some pretty damning conditions to find water and never stop
8:33 PM: Cade: *empirical sorry
8:34 PM: Chris: I feel like herd or pack animals do look to leaders for guidance, to me that exhibits a level of trust or assurance or whatever you want to call it
8:34 PM: HOST: Chris, I have no doubt that elephants experience emotions similar to what we identify as trust in humans
8:35 PM: HOST: I am thinking of an incidence at Dinosaur Valley park, where Sybille and I were walking across the river on stepping stones...I tried to urge her on and she refused, turning back.
8:35 PM: Cade: how would you describe it from a scientific perspective. the word 'trust' seems kind of folksy
8:35 PM: HOST: did she mistrust me or herself?
8:36 PM: Chris: i agree, its not the best term but I think in Dr. Packards example she may have mistrusted the situation and not understood why you wanted her to follow, but did she eventually cross or was the path abandoned?
8:36 PM: Chris: would "guidance" be more scientific than trust?
8:37 PM: HOST: it all depends on whether you can define the unit of behavior in a manner that another trained observed would also accurately record in the same way
8:38 PM: Cade: that makes sense. kind of a continuity of terminology or something
8:38 PM: HOST: this is why we are practicing identifying and defining units of behavior "body language" in the Wolf Inquiry
8:38 PM: HOST: yes, in science, we need to make sure our instruments are calibrated
8:39 PM: HOST: so what I measure as "59 degrees" here in College Station is the same as what you measure in E.
Texas
8:39 PM: Celia: What about some cases where it might look like trust, but it might not be? For example, dolphin and tuna commonly associate in the wild. Do the dolphins "trust" the tuna, or do they realize that if they hang around the tuna, they'll find food (i.e. more of a stimulus-reward case, where tuna=fish)?
8:40 PM: Cade: I would think that to be a behavioral adaptation
8:40 PM: Chris: I agree - one dolphin may have learned it and passed it on
8:40 PM: Celia: But it could "look" like trust to an untrained observer. Not trying to nit-pick -- I just think this is a question where things can get un-scientific very quickly. :)
8:41 PM: HOST: Chris, what evidence would you need to decide that the dolphin/fish association was due to social transmission or individual trial/error learning?
8:43 PM: Chris: If a juvenile dolphin perhaps in fine tuning his hunting technique followed a group of tuna and discovered the bounty
8:43 PM: Chris: Then perhaps did trial and error by following other fish and learning they did not provide as much
8:47 PM: HOST: I agree, so you could compare the hunting behavior of lone dolphins with those that are in social groups
8:47 PM: Chris: Correct
8:47 PM: Chris: Perhaps lone dolphins have a harder time finding food
8:48 PM: HOST: But even if they are in a social group, how would you know that one dolphin is learning by watching another dolphin? As opposed to learning that they catch more fish when other dolphins are around?
8:49 PM: HOST: This is very relevant to the questions of whether wolf parents have to teach their offspring to hunt
8:49 PM: Chris: I think hunting is an instinct and not learned
8:49 PM: HOST: So what was the evidence that was collected in the example of the social transmission between rats re. sources of food?
8:50 PM: HOST: Who was the author of that study?
8:50 PM: HOST: (Chris, I encourage you to keep an open mind about hunting being an instinct, and to read the sources provided for modules 2 & 3 of the wolf inquiry)
8:50 PM: Celia: Dugatkin also gives a good example of "learning to hunt" in meerkats. (175)
8:51 PM: Chris: Okay
8:51 PM: Celia: In that case it's really more teaching than instinct
8:51 PM: Chris: It is teaching by the adult, or learning by the junior?
8:52 PM: Celia: I guess it's a little of both -- teaching by an older "helper", and learning by a younger meerkat
8:53 PM: HOST: Does the older helper modify its own behavior in a manner that rewards the learning of the junior?
8:54 PM: Chris: Yes, they sometimes take the stingers off scorpions
8:54 PM: Celia: The helper does modify it's behavior. If the junior is struggling, the helper will further incapacitate the prey. If the junior is making progress, the helper will bring progressively more "difficult" prey.
8:55 PM: HOST: That is pretty convincing evidence!
8:55 PM: Cade: Seems a pretty clear case of teaching
8:55 PM: Chris: Agreed
8:56 PM: HOST: Chris, do you see how Celia defined the behaviors in a way that another person could decide if they agreed or disagreed?
8:56 PM: Chris: Yes
8:56 PM: HOST: When we use words like "teaching" or "trust"...they have fuzzy meanings, which may differ to each person in the conversation, depending on experience
8:57 PM: HOST: This is what we call "inference"
8:57 PM: HOST: When we specify what is the actual behavior we are talking about, then we are moving into "observation"
8:57 PM: Chris: I see the importance of speaking in clear, scientific terms
8:58 PM: HOST: Keep this in mind as you are doing the Wolf Inquiry, that is the main take home message of that learning activity
8:58 PM: Cade: Goes back to dr. p's comment about temperature in degrees
8:58 PM: HOST: Yes, we have to calibrate our own observation skills
8:58 PM: Chris: Opkay
8:59 PM: HOST: it is not easy, but it can be done....we did observer reliability tests this summer when we were scoring the videos from the study of the sable antelope
8:59 PM: Celia: Yep. It has to be a consistent measure. For example, when doing dolphin ethograms we often measure "distance from mother" versus "precociousness". It's a concrete and measureable unit that every observer can agree on.
8:59 PM: HOST: looks like our chat time is about up. Anything else before we sign off?
8:59 PM: Cade: i'm good. thank you
9:00 PM: Chris: I think I am good
9:00 PM: Celia: I just had one little thing -- are our participation points going to be tallied at the end of the unit? I saw one session scored but not the next.
9:00 PM: Cade: i was wondering that too
9:00 PM: HOST: Celia, the participation points will be scored at the end of Part 1
9:01 PM: Celia: Ok, thanks!
9:01 PM: HOST: that is the most efficient way for me to keep track of it
9:01 PM: Cade: makes sense
9:01 PM: HOST: remember in chat that the criteria are concepts, examples and sources
9:02 PM: HOST: we have been a little light on sources, so I would encourage you to pay more attention to the authors of the studies we chat about
9:02 PM: Chris: Thanks, good advice
9:02 PM: Celia: Yes, I did see that. I've been trying to make a point of including those things, but I'm not sure if it's enough.
9:03 PM: HOST: Celia, I thought you were doing well tonight on both concepts and examples
9:03 PM: Cade: i try to when i have time, since i don't have them memorized. chats usually move quite quickly so by the time i've found it, 3 more topics have passed lol
9:03 PM: Celia: I'm also not sure if a citation from the text counts as a source.
9:03 PM: HOST: I liked the way you cited the page in Dugatkin
9:04 PM: HOST: remember that in scholarly writing, a secondary source like a textbook is a guide to the primary sources
9:04 PM: HOST: so as grad students, it is important to start working on the names of key authors
9:04 PM: HOST: once you start paying attention to the people side of science, you will find it makes more sense
9:04 PM: Chris: Ah, I'm horrible with names! I'll have to pen them down as I read
9:05 PM: HOST: Chris, pick out one example that you like for each Question, and make a note of that author/date
9:05 PM: Chris: Okay
9:05 PM: HOST: if names come hard for you, all the more reason to practice in chat
9:06 PM: HOST: being able to name primary authors is a really important skill in scholarship
9:06 PM: Chris: Thank you
9:07 PM: HOST: remember that the notes you make now can be used for the open book final exam
9:07 PM: Celia: Are typed notes ok, or will they all have to be handwritten? I usually type my notes up for clarity.
9:07 PM: Chris: incentive!
9:07 PM: Cade: I have mine typed up as well
9:08 PM: HOST: typed notes are okay, just no copy and paste
9:08 PM: Celia: Ok
9:08 PM: Cade: exam will be proctored anyway, right
9:09 PM: HOST: yes, exam is proctored, we will work out all those details in the last part of the course
9:09 PM: Cade: k, sounds like a plan
9:09 PM: HOST: have a wonderful rest of the evening!
9:10 PM: Cade: you too. thank you
9:10 PM: Cade has left the room.
9:10 PM: Celia: Thanks, you too!
9:10 PM: Celia has left the room.
9:10 PM: HOST: Hasta la vista!
Wednesday, September 12, 2012 undergrad

7:42 PM: HOST has entered the room.
7:51 PM: HOST: howdy!
8:10 PM: Connie has entered the room.
8:12 PM: HOST: Hi Connie!
8:12 PM: Connie: Hey Dr. P!
8:13 PM: HOST: How are you this eve?
8:13 PM: Connie: I am doing well. And you?
8:17 PM: HOST: I am chatting with the grads, so I hope you are not feeling neglected!
8:17 PM: HOST: What would you like to chat about this eve?
8:18 PM: Connie: No, it's fine! I honestly don't have much to talk about lol. But I had told you I'd be showing up tonight, so I wanted to make sure I did.
8:19 PM: HOST: Want to chat about the wolf inquiry activity?
8:19 PM: Connie has left the room.
8:20 PM: Connie has entered the room.
8:21 PM: Connie: Sure! Sorry, I lost my chat window trying to pull up the inquiry info... I'll be right back after I get it pulled up.
8:21 PM: HOST: glad you are back!
8:21 PM: HOST: OK
8:21 PM: Connie has left the room.
8:27 PM: Connie has entered the room.
8:28 PM: Connie: I can't seem to figure out how to have the inquiry information open while the chat window is open too. Oh well. I skimed through it again, and it seems fairly logical. I honestly haven't spent much time on it yet. Is there anything that students typically seem to get stuck on?
8:31 PM: HOST: If you get stuck, post a message on the elearning discussion thread and we will help you through it
8:31 PM: HOST: sometimes it helps to have two browsers open at the same time, one for the inquiry website and one for the elearning chat
8:41 PM: Connie: I figured out how to have both windows open, but I seem to be chatting with myself...
8:44 PM: HOST: Sorry, how far have you gotten with the wolf inquiry?
8:58 PM: Connie: Well I'm either having technical issues again, or you're still busy with the grad students. No worries either way. The inquiry stuff is making sense to me so far. =) I'll chat with you again on Monday, and I'll shoot you an email if I run into any issues before then. Thanks Dr. P! Have a good night!
8:59 PM: Connie has left the room.
9:05 PM: HOST has left the room.

Wednesday, September 12, 2012 grads

8:00 PM: Cassie: How was everyone's week so far?
8:01 PM: HOST: Sybille and I got her a new lease and nose collar for her speaking engagement in class tomorrow
8:01 PM: Cassie: Exciting. How's she like it?
8:02 PM: HOST: she would much rather run free free as the wind
8:02 PM: HOST: OK. lets get started!
8:02 PM: HOST: Anything you want to bring up before we focus in on stress and migration?
8:03 PM: Clark: nothing in particular
8:03 PM: Cassie: Not at the moment
8:03 PM: HOST: OK. Unit 3 is meant to nail down the concepts of CDEF
8:03 PM: HOST: using examples from species that can escape intolerable conditions by migrating or not
8:04 PM: Carl has entered the room.
8:04 PM: HOST: lets work on our sources for BLOG1 Q's , since we have been a little light on that for past chats
8:05 PM: Clark: ok
8:05 PM: HOST: Want to pick and choose BLOG1 Q's or work through them in order?
8:05 PM: Clark: i have no preference
8:06 PM: Cassie: me neither
8:06 PM: HOST: Carl?
8:06 PM: Carl: yes, I'm here
8:06 PM: HOST: Let's go in order
8:07 PM: HOST: Q3.1 compare FP and SP on adaptations to stress?
8:07 PM: Cassie: Folk Psychology assumes that animals and humans respond the same way to stress.
8:08 PM: HOST: good, and SP?
8:09 PM: Cassie: Scientific Perspective is based on the animal's adaptations to stress given its environment (either long or short-term)
8:09 PM: Cassie: Based on the animal's actual behavior and physiological responses
8:09 PM: HOST: so how does that relate to the comfort zone, acute and chronic responses?
8:10 PM: Clark: physiological response is acute and the chronic response is a 'healing' response
8:11 PM: Cassie: Animals will respond in a way necessary to return itself to it's "comfort zone" whenever possible, either by behavioral means (moving to shade) or physiologic means (though they are connected).
8:11 PM: HOST: good on concept! favorite example?
8:12 PM: Carl: how about a whitetail deer staying in thick cover to avoid human contact?
8:14 PM: Clark: what about wildebeest migration
8:14 PM: HOST: Carl, we are working on responses to stressful climatic conditions, in the past history of the species
8:14 PM: Cassie: When a dog's temperature gets too high (above about 105 degrees F) it will begin to pant to decrease it's body temperature.
8:14 PM: HOST: Clark, how would you use the example of wildebeest migration to clarify the distinction between FP and SP?
8:15 PM: HOST: Cassie, does the dog know it will decrease its body temp when it starts to pant?
8:15 PM: Clark: they migrate in search of food (grass) and water. physiological stressors here would be hunger and thirst.
8:16 PM: Carl: I would say no, it is a physiological response (dog)
8:16 PM: Cassie: No, it is a physiological response that increases air flow which cools down the blood in the circulatory system.
8:17 PM: HOST: I agree, panting is a behavior, and I like the way you bring in the systems perspective on the physiology.....more like a thermostat, an instinctive reflexive response when body temperature rises above a threshold
8:18 PM: HOST: Clark, I have difficulty thinking of hunger and thirst as a stressor... "stressor" is a term scientists use to refer to physical events outside the body
8:19 PM: HOST: wouldn't it be lack of food and water at the end of the dry season?
8:19 PM: Clark: yes, i was unsure how to describe the physiological component
8:20 PM: HOST: think in terms of "systems"! that is the transition we are working toward with the wolf inquiry Module 1
8:20 PM: Cassie: It would start with an environmental stressor (lack of food, predator, temperature) then advance to a physiological response, then a behavioral response.
8:20 PM: Clark: ok
8:20 PM: HOST: lets work on a source for this....which page in Dugatkin talks about stress responses?
8:22 PM: Cassie: 525 discusses stress hormones
8:22 PM: HOST: good, the adrenal system is key
8:22 PM: HOST: ready to move on to Q3.2?
8:22 PM: Cassie: 555 has information about coping styles.
8:22 PM: Cassie: sure
8:22 PM: Carl: can I ask a logistical question?
8:23 PM: HOST: Carl, sure
8:23 PM: Carl: Which Blog questions are due on the 21st? Also can we discuss the A2 draft that is due friday?
8:24 PM: HOST: Cassie and Clark, how would you answer Carl's question about the BLOG1 Q's?
8:25 PM: HOST: Carl, what would you like to clarify about A2, the wolf inquiry?
8:25 PM: Caleb has entered the room.
8:25 PM: **Clark**: You just need to shoot for a accumulating the full 7 points. This may be from just a couple posts or several. Its a cummulative effect based on content and the criteria specified for grading

8:25 PM: **HOST**: Hi Caleb

8:26 PM: **Carl**: which questions are required for the full seven points?

8:26 PM: **Caleb**: Hello Doc

8:26 PM: **Clark**: none in particular, pick and choose

8:27 PM: **HOST**: Carl, these are the BLOG1 q’s posted on the elearning discussion thread

8:27 PM: **HOST**: have you found the button at the bottom of the window that switches to "all" so you can view Units 1-3 at the same time?

8:27 PM: **Clark**: its to your benefit to at least answer all of them at home because they are exam questions for the final. You could post 1.2, 2.4, and 3.3 and earn 7 points, or 2.5 and 3.1 and earn 7 points, just depends on content and the requirements in the grading criteria

8:28 PM: **Caleb**: Good tip Clark.

8:29 PM: **Carl**: ok that makes sense

8:29 PM: **Carl**: thanks

8:29 PM: **Clark**: you’re welcome

8:29 PM: **Carl**: in regards to the wolf inquiry draft:

8:29 PM: **HOST**: Have you found the grading form with the criteria listed?

8:30 PM: **Carl**: where is that located?

8:32 PM: **HOST**: at the top of your discussion window

8:32 PM: **Carl**: got it, are you able to see how many points you have received?

8:33 PM: **HOST**: yes

8:34 PM: **Carl**: ok, and that is under the "my grades" tab?

8:35 PM: **HOST**: Carl, since the others are not benefitting from this line of chat, how about if we switch to a private chat window?

8:35 PM: **Carl**: absolutely, sorry for derailing

8:35 PM: **Caleb**: Can anyone elaborate further on immunity organs being larger in migratory species...

8:36 PM: **Caleb**: I was wondering if it means they have greater immunity or just a broader immunity

8:36 PM: **Caleb**: sure, one second

8:38 PM: **Caleb**: page 450

8:40 PM: **HOST**: are you asking a lower threshold of contracting one disease or greater susceptibility to several diseases?

8:42 PM: **Cassie**: Is a question of hgih resistance to a few things or moderate resistance to many things? I would thing that resistance to, or ability to become resistant to, many things would be more benificial if you are migratory.

8:42 PM: **HOST**: what does Dugatkin say?

8:43 PM: **Caleb**: I would think that larger organs would correlate to immunity to more diseases (but not more in a given area necessarily), just more since they may be immune to five in one area 10 in another then 4 in another, total of 19, while similar species may be immune to same 5 in their habitat

8:44 PM: **Caleb**: I guess my question is better worded, does the increased size of organs give the animal an advantage in survival for a particular environment?

8:44 PM: **Cassie**: It's states "the researched assumed that a larger size in either of these defense organs would provide better immunological resistance to parasites."

8:45 PM: **Cassie**: but how do you define "better?"

8:45 PM: **HOST**: good critical thinking! and do you accept that "assumption"?

8:45 PM: **Carl**: Is it possible that larger organs provide better respiration and circulation for animals who travel long distances and are not related to immune function?

8:46 PM: **HOST**: I really don’t know. How about if we return our focus to behavioral adaptations?

8:46 PM: **Caleb**: better - greater chance of surviving a disease

8:46 PM: **Cassie**: There are numerous other variables to consider that might also alter defensive organ size.

8:46 PM: **Clark**: increased fitness of the genotype
8:46 PM: Caleb: Thankyou Carl / Cassie
8:46 PM: HOST: Who wants to pick our next BLOG1 Q?
8:47 PM: Carl: how about 2.1?
8:47 PM: Carl: intelligence
8:48 PM: Carl: or are we staying on the 3s?
8:49 PM: HOST: We can do Q's from Unit 2 if you want
8:50 PM: Carl: how do you differentiate between learned behavior and instinctual behavior?
8:50 PM: HOST: Q2.1 What is learned intelligence and why has the underlying brain anatomy diverged from fish to reptiles to birds/mammals?
8:51 PM: Carl: "a relatively permanent change in behavior based on experience"
8:51 PM: Carl: dugatkin
8:51 PM: HOST: page?
8:52 PM: HOST: I don't like that statement as a definition! what do the rest of you think?
8:53 PM: HOST: If I broke my leg, that would be a relatively permanent change in my gait due to my experience, but it would not fit the concept of learning!
8:53 PM: Caleb: learned behavior is when a certain behavior produced repeatable results within the memory span of the individual - thus altering future behavior
8:53 PM: Clark: yes, the book def does seem kind of vague
8:53 PM: Cassie: Instinctive behavior is heritable and is done automatically without the animal having any experience with the results.
8:54 PM: HOST: if an archer fish repeatedly nails each cricket coming out of a target, would that be learning or instinct?
8:54 PM: Caleb: instinctual results from evolution, such as certain monkeys that fear snakes, even though they may have never seen one
8:55 PM: Cassie: the archer fish would shoot at the target out of instinct, but it's aim would get better over time so it would be learned.
8:55 PM: HOST: Caleb, are you saying the variation is more due to genotype than experience in the monkey fear response?
8:55 PM: Caleb: yes
8:55 PM: Cassie: I agree! but what is the evidence that spitting is heritable in archer fish?
8:55 PM: Clark: I think with the fish, the response in attacking prey would be instinctual but recognition of the target may be learned
8:56 PM: Cassie: they do it even when there are no other fish around to learn from (without having every seen it done)
8:56 PM: Caleb: evidence is experiment that isolated juveniles and did not let them observe other fish shooting, then if the behavior developed, you would have strong correlation of heritable
8:56 PM: Clark: individual learning could occur
8:57 PM: HOST: so fish raised in a captive environment do it "right" the first time just like wild fish
8:57 PM: HOST: what else?
8:57 PM: HOST: (TIP: why did Lorenz and Tinbergen compare species?)
8:57 PM: Cassie: Though could it have been learned at one point and then those who learned to "shoot" had higher fitness so the trait continued and eventually become inherited?
8:58 PM: Caleb: compare species to see if behavior could be taught
8:59 PM: HOST: lets not overlook the obvious! different fish species are different gene pools!
9:00 PM: HOST: back before they had the technology to measure variation in genotypes, species specific differences were used as evidence for heritable differences....those were the instinctive responses that the zoologists wanted to study because they would be subject to natural selection (in contrast to the learned behaviors)
9:02 PM: HOST: oops, it looks like we are also at the end of our chat time!
9:03 PM: Caleb: have a great night everyon
9:03 PM: HOST: anything else before we sign off for the evening?
9:03 PM: Caleb has left the room.