

- **Know all the answers to all the homework assignments: 1-4**
- Emotions are considered 'multi-component' with 4 broad component elements (based on the definition by Keltner) – be able to list the components
- Understand if Ekman's model is a discrete or dimensional model of emotion and what those terms mean. What are Ekman's big 6 emotions? What are typical dimensions shown to define emotion?
- Understand the component process model of anger. What is the relationship between facial display and appraisal in this model?

#### Darwinian Model

- Understand the importance of the concepts of functionalism and universality to this model
- Be able to explain both of the above from an evolutionary perspective
- Know adaptation/ natural selection/ environment of evolutionary adaptedness/ selection pressures
- What types of research evidence (broadly speaking) demonstrates functionalism and universality?
- Understand the concept of a superordinate neural program --- how does it link emotion and information processing? how can this concept be tied to evolutionary models?
- How are animal studies used to address the evolutionary model
- How has Paul Ekman's work contributed to the evolutionary model? What has he claimed about the basic 6 emotions and how has he provided research support for his claims?
- Facial action coding system ... what is it and why does it matter to Ekman's research
- How do elements of facial display relate to specific elements of an experience --- use component process theory to understand this.
- Can we control all elements of emotional display? Know the Duchenne smile and its relevance to Ekman's work on micro-facial movements
- Robert Plutchik offers an important argument to the evolutionary model regarding behavior – what is it? What kind of research has been conducted to support his view?
- Klaus Scherer studied appraisal from an evolutionary perspective. How did he conduct his studies and what did he find? How is this relevant to the evolutionary perspective?
- Ekman is well known for having individuals hold facial expressions --- what is his purpose in doing this typically?
- Be able to discuss the role of body posture/ facial expression in causing emotional responses. Be able to offer at least one example.

#### Physiological Theory

- 'Emotions use the body as their theatre' -- explain this quote from the James/ physiological point of view

- Be able to articulate William James' theory of emotion. Including what he would say about cognition and profiles of physiological response associated with emotion
- In what ways does the evolutionary model and Jamesian model overlap?
- If I were to say 'Change your Body/ Change your Emotion' --- be able to discuss why this is consistent with James' theories and one specific way you might be able to do this (based on research)
- Know who Carl Lange and Walter Cannon are. What was one of Cannon's major discoveries?
- What organ did Cannon's believed to be central to emotion? What were his three basic claims against James? Understand the truth/ falsity of each of his claims... based on subsequent research
- Understand the autonomic nervous system and its two subsystems. Link fight/ flight and rest/digest to the subsystems.
- Understand what happens to the cardiovascular system, digestive system, pupils, sweat glands, immune system when each subsystem is activated
- Understand which bodily changes are most sensitive to distinguishing sympathetic/ parasympathetic response and therefore most useful to studying ANS responses. Know the one indicator of parasympathetic response
- Understand what John Caccioppo's meta-analysis offers that is relevant to Cannon's critique of James' theory --- you should know the specific results of Caccioppo.
- Know emotional response coherence – What is the relevance of this work to Cannon's critique of James? Research suggests quite a bit of individual variability --- remember what part of the brain would be responsible for these differences?
- Was Cannon right or wrong? Explain Was James right or wrong?
- How can stress be defined? How it related to emotion?
- Know the stages of the general adaptation syndrome – who discovered it?
- Understand the physical responses to acute, prolonged and very prolonged stress – know the elements of the HPA ... and its role in stress/ immunity/ illness
- Understand the role of cortisol in stress; its impact on body and brain
- What are the two broad pathways to helping reduce stress?
- Understand the role of the vagus nerve in parasympathetic response and how it has been used therapeutically. Why is it called the social organ?

#### Brain Theories

- Understand the methods used for assessing brain function and structure. .. differentiate them
- Understand the three levels of the triune brain set forth by Maclean
- Be able to relate Papez' early theory of limbic function to Cannon's theory of emotion. Understand the linkage to Maclean's view of the triune brain. These are key historical theories. What key brain structure is different in Papez' theory and modern theories of limbic function. What one minor change to Papez' theory has emerged from modern research on fear (LaDoux)
- Do contemporary thinkers believe there is a distinct limbic system? Explain.

- Be able to identify the location of the basic structures of the 'limbic system' that we discussed in class
- What is the impact of stimulating or removing the amygdala/ what is its central function
- Understand what Joseph LeDoux learned studying rats --- about the amygdala and the cortex and fear; Understand the direct and indirect route to processing fear inducing input from the environment according to LeDoux work. Can we respond to a fearful stimulus in the absence of conscious thought about that stimulus? How does this relate back to James & Cannon?
- What is the central function of the hippocampus/ its role in emotion. How do the amygdala and hippocampus work together? Relate dysfunction in this area to the disorder of depression.
- The insula is key in our visceral experience of emotion--- how might this relate to James' theory?/ what other emotions are linked to the insula
- What is the role of the prefrontal cortex and cingulate cortex in emotion/ what is meant by executive control/ how is it important to decision making. What happens emotionally when someone loses their prefrontal functions (lobotomy or injury/ illness).
- Understand the role of the VTA and nucleus accumbens in our reward system... be attuned particularly to the role of anticipation
- Be familiar with lateralization as it relates to emotion & action choices/ can it be argued that this was an evolutionary adaptation
- Know dopamine/ serotonin/ oxytocin/ cortisol relevance to emotion --- basics. Relate dopamine/ endorphins to social relationship & reproduction. Relate serotonin to mental health and to 'gut reactions'. What is the 'trust' hormone? Why?

#### Cognitive Theories

- How did Plato impact the field of emotion?
- Understand how Magna Arnold's arguments reintroduced the importance of cognition into the study of emotion. Understand first movement and second movement cognition --- relate this back to our brain theories --- what other theorists have recognized this difference?
- Richard Lazarus extends Magna's arguments in what ways? How has Lazarus demonstrated that the specific nature of cognition gives rise to specific emotion?
- Understand Stanley Schacter's misattribution model. What is its relevance to arguments about specific versus general profiles of physiological arousal and the implication for evolutionary arguments. Know his famous study with epinephrine. What have we learned from the misattribution studies about diffuse arousal/ anxiety?
- Understand Robert Zajonc work using subliminal exposure to emotional photos and its relationship to primary and secondary appraisal. Again, relate this back to our brain theories
- Be familiar with the discussion that years of research emerged from semantics around the use of the word 'emotion' and the clarification of levels of processing (primary/ secondary).
- Know the concept of learned helplessness and its relationship to cognition. How is cognition related to the subjective experience of emotion?
- Describe how categorical and prototypical understandings of emotion relate to regulation

- What is the Yerkes-Dodson Law
- How does emotion impact attention? Memory? Role of level of SNS arousal and encoding/ role of mood in triggering recall/ role of mood in shaping attention. Are our high emotion memories more detailed? More accurate?
- Understand role of mood on judgments of blame and on creative solutions
- Understand the role of peripheral and central routes of processing information – understand the role of mood in motivating each type of processing. Would you want to make a really important decision when you're happy? Why or why not?
- Understand the somatic marker hypothesis – how does emotion impact decision making? And what part of the brain would be involved in this process?
- When rating preferences is it better to think through all the pros and cons? What leads to the most liking? What about AFTER we've made a choice (remember Dan Gilbert's research on the TED talk shown in class). We think we are happier with more choices? Is that true?
- Related this to the use of gut reactions/ emotional reaction for rating preferences, understand how use of the emotional system is used in making moral choices (the trolley choice) and can backfire in gambling choices

#### Sociocultural Theory

- Know how James Averill thinks about emotion. With what theories do his ideas most strongly conflict? How does culture shape cognitive and behavioral aspects of emotion? What would Averill say about 'overwhelming passion'? Averill studied anger a great deal... what two social goals are commonly found in expressions of anger? Do most people consider anger destructive to relationships? How is that related to their post-anger behavior?
- Be able to compare and contrast cognitive and social constructivist theories.
- According to Averill, can babies experience emotion? Why or why not?
- Culture shapes emotional display. Understand some details of this, including the impact of masking of emotion. In Western culture, what is the biological cost of masking emotion? Is it the same in eastern cultures where emotional intensities are lower?
- Culture shapes understanding of situations and shapes appropriate emotional responses based on those. We discussed three different dimensions of culture relevant to this discussion. Be familiar with each.
  - Understand the differences between collectivist and individualist cultures --- how will each regulate emotion? Particularly understand the role of culture in display rules/ expectations
  - Understand horizontal and vertical power and the impact on emotion with respect to social role
  - Linear versus dialectical epistemology --- understand the philosophical/ emotional differences between these/ be familiar with the study examining couples from these two cultural perspectives

- Know the Sapir-Whorf hypothesis – what is the role of language in the EXPERIENCE of emotion? Do cultures vary in their emotion language? What does this tell us about cultural variation in emotion? Does it have any implications for evolutionary theories?
- Understand hyper and hypo cognized words and how these ideas are relevant to culture
- Are there gender differences in emotional experience? Expression? Do the findings fit with the stereotypes?
- We explored the theory of John Gottman in terms of emotional management and conflict in couples. He identifies 4 predictors of relationship demise: criticizing, stonewalling, contempt, and defensiveness. Understand each and the gender differences found in stonewalling including the biological outcomes of this emotional pattern.

All the theories:

- Which ones are most easily blended/ joined
- Which ones are most at odds
- Understand how Keltner's Levels of Analysis model. There are 4 levels at which we can understand emotional expression – what are they? Different theoretical models apply more easily to the different levels.. understand this. And understand how this is one way for us to integrate the evolutionary/ biological/ cognitive theories WITH the sociocultural
- From the point of Paul Ekman, with part of emotion is MOST universal? That is, most consistent with evolutionary theories. Which parts of emotion can be more influenced by culture? Apply the same questions to Russell's script view of emotion.

Emotion Regulation

- Emotion regulation is correlated with what two things --- what two features help support emotion regulation
- Understand the basic link between emotional intelligence and emotion regulation. What features of Dan Goleman's theory predict positive regulatory outcomes? What is alexithymia? What disorder commonly shows low emotional intelligence and alexithymia?
- Awareness, Modulation, Action are three main goals in emotion regulation. How does 'self relevance' of goals impact emotion? How does knowledge of norms impact emotion? How does awareness of others' emotion help with regulation? What are the two types of empathy we discussed in class?
- Be familiar with Freud's ego defenses and how they relate to emotion regulation. Be familiar with the most mature defenses in particular
- Understand Gross's process model of emotional regulation --- understand the elements and what the premise of the model is
- Understand the difference between situation selection and situation modification. Understand the impact of extreme situation avoidance and also understand the role of personal control (real or imagined) in situation modification

- Understand the role of shifting attention in emotion regulation. Be familiar with studies of distraction and what they tell us about attention and emotion. What are the costs to 'distraction' or 'suppression'? Know what cognitive rebounding is. Is it different for emotion focused thoughts versus neutral thoughts? Why?
- Know what cognitive reappraisal is/ cognitive restructuring. Know the immediate and longer term impacts of cognitive reappraisal. Any limits to the benefits of reappraisal?
- In the discussion of response focused regulation we explored the extremes of emotional expression and emotional suppression. Be familiar with the negative consequences of each
- Understand the biological and social consequences of emotional suppression. Link this to Baumeister's Regulatory Depletion Model. What are the cognitive and social consequences?
- According to work by Pennebaker, how can we engage in emotional expression that is productive in short and long term outcomes? That is, what are the key features to expression that seem most helpful?
- Understand ways that can modify baseline SNS responses and help with emotional regulation
- What is emotional escape? Examples?

#### Development of Emotion

- What is a major challenge to studying infants.
- Understand Lewis' model of the development of emotion. What are the newborn expressions? Are they likely linked to higher order thinking? What do these evolve into? On what time frame?
- What is sympathetic crying? When does social smiling emerge in infants & understand one important reason for this particular timing, where do most of the earliest infant smiles occur? What emotion might the startle reflex be related to?
- Know the possible views of newborn basic emotion. The Lewis model is consistent with which view? Which view is inconsistent with an evolutionary perspective?
- Helen Oster offered an interesting idea about infant emotion. What was it?
- How does infant facial display of emotion compare to that of adults/ on what time frame
- Understand the way infant surprise has been used in 'impossible events' research to indicate cognitive understanding. At what age does fear emerge? When does emotion language emerge and what is the earliest function of it? What new emotions can emerge with the development of language and parental feedback about behavior?
- Know interactional synchronicity/ primary intersubjectivity – why is this important in emotional development. Joint attention/ secondary intersubjectivity --- same as above Link this to the Sociocultural Internalization Model
- Know the three attachment styles discussed in class and the basic parenting behaviors associated with each --- including those in the above question. What two fears in infancy are directly linked to attachment
- What are the three inborn aspects of infant emotion we discussed most in class? Relate this to the big 5 personality dimensions we discussed. Can temperament respond to/ be shaped by parenting? Be familiar with the findings discussed in the film shown in class on monkeys. How

is temperament related to later outcomes.. like attachment, moral choices, aggression. Do all cultures view temperamental dimensions the same way?

- What is the impact of emotional suppression in young children? Why are adolescents more emotional than younger children Are older adults more or less emotionally reactive. Why?

### Personality

- Be familiar with the idea of personality as a developmental process --- Erikson's model. What is the role of nature and nurture in these outcomes? How stable is temperament over time? How stable is attachment outcomes (socialization)?
- What might the role of emotion be in determining personality (Theories of Magai and Tomkins). Be able to provide a specific example
- Know the five factors of the big 5 theory of personality. Know the correlates we discussed in class of the dimensions. which ones correlate with positive and negative mood? Which vary with limbic system activation? Be familiar with the changing views of introversion in Western culture due to recent discussions by people like Susan Cain on the TED talk shown in class. According to the film shown in class is extraversion over emphasized in our culture? What are the implications of this? What are the unique gifts of more introverted individuals?
- How does 'neuroticism' play out in social interaction?
- How does personality change over the lifespan? The big 5 factors?
- How is personality and appraisal linked? How is personality and brain firing linked... left/ right differences?

### Mental Health

- What are the 4 D's of disorders?
- Understand the difference between internalizing and externalizing disorders. Examples of each. Which are identified earliest? Relate these classes of disorders to emotion and emotion regulation.
- What are risks to mental health in childhood? What is the impact of multiple risks? What are protective factors in childhood? How are both strongly related to the socialization environment of the child?
- What are the most common disorders in adulthood? Are there gender differences? How are they related to the internalizing/ externalizing dimensions of childhood?
- what are risks to mental health problems in adulthood? Protective Factors? Be familiar with the role of significant stress. And the typical stresses that trigger problems.
- Be familiar with the idea of electroconvulsive therapy for depression. What kinds of depressions might this be used to treat? What is the procedure? What were the outcomes for Sherwin Nuland based on the TED talk we saw in class? Link this to brain function and the kindling hypothesis
- Be familiar with Davidson's model of mental health disorders. He examines the underlying biological/ psychological processes that give rise to dysfunction. He has identified 6 different

processes and linked them to specific brain functions --- suggesting that development shapes the brain and gives rise to individual differences

- What are the two coping dimensions and the brain functions associated with them
- What are the four attentional dimensions and the brain functions associated with them
- Link problems in these areas to: internalizing disorders, depression, ADHD, Panic Disorder, Autism Spectrum Disorders, PTSD and Anxiety. Understand why each of the brain structures would be linked to these disorders.
- Understand how emotion can lead to stress/ or reflect stress thus leading to biological illness