2 day lesson sequence on the psychological theories of emotion

National Standards for High School Psychology Curricula
Standard Area: Emotion

Content Standard 1: Perspectives on emotion

1.1 Explain the biological and cognitive components of emotion.
1.2 Discuss psychological research on basic human emotions.
1.3 Differentiate among theories of emotional experience.

Content Standard 2: Emotional interpretation and expression

2.1 Explain how biological factors influence emotional interpretation and expression.
2.3 Explain how other environmental factors influence emotional interpretation and expression.

Broad Objective: The purpose of this two day lesson sequence is to help the students understand and be able to analyze the physiological, cognitive, behavioral and labeling aspects of an emotional situation. Additionally students will extend this new knowledge to apply the psychological theories of emotion to their own real life examples.

Resources (files within folder)

- Lesson presentation: emotion theories and drawings (.pdf format: originally a Smart Notebook file)
- Theories of emotion graphical notes sheet (word doc)
- Emotion research readings (word doc)
- Little reading quiz (word doc)

Day 1: Introduce the "What, Why and How?" objective (Slide 1 in presentation)

- **What are we doing?** Analyzing the parts of our emotions.
- **Why are we doing it?** Because most science claims that there is more than one thing going on when we have an emotion.
- **How will we do it?**
    - Little Reading Quiz (p. 361-375): Daily class routine: Students have been assigned the included pages from the textbook (Ciccarelli & White AP Psychology) and are asked two questions, chosen at random, from the reading calendar. The students choose one of the two questions and answer it in a brief constructed response. After the quiz-sheet is collected, go over the answers and discuss as a class. Questions for this day range from the Yerkes-Dodson inverted U theory to set point and hunger.
    - Biodot demonstration: As a demonstration of physiological arousal, pass out Biodot skin thermometer stickers to each student. Discuss the idea of the physiological side of emotion. Brainstorm other physiological indicators with students. Tell students to wear biodot for at least the rest of class as we will check back to measure and investigate changes in skin temperature.

- Facial Expressions Demonstration: (Slide 1) As a demonstration of behavioral expressions, select 10 volunteers from class and meet with them privately in hallway outside of class. Assign them each one of the following emotions, happiness, surprise, jealousy, disgust, pride, sadness, love, fear, anger and contempt. Tell them that they are going to be called in one at a time to demonstrate this facial expression in front of the class. Return to classroom alone and distribute senteo smart response controllers to the rest of the class. Instruct that the volunteers will be coming in to demonstrate emotional facial expression one by one. It is the job of the remainder of the class to select from the choices (slide 2) as the volunteers are demonstrating that emotion. As students come in the Smart-Notebook software tallies up the votes live. After all volunteers have demonstrated, go back and check the results in pie chart form and discuss how or why the facial expressions were understandable or not. Segue into discussion of display rules, automatic processing of emotion (these displays of emotion were not) and the work of Paul Ekman. (slide 3)
- Emotion wheel: As a demonstration of the subjective label of emotional situation discuss the work of Robert Plutchik. (slide 4) View and discuss Plutchik's emotion wheel and discuss its 3D shape. (slide 5) Relate the behavioral expression of emotion to the subjective label via the overlaid visual on slide 6.
    - Have student check their biodot and compare it to the chart on slide 7. Discuss: Anyone very relaxed? Anyone very stressed?
- Emotional cartoon drawings: Transition to demonstrate the interplay between these three parts, as well as the cognitive interpretation of the situation, via asking students for examples of emotional situations and drawing those situations on the board, then discussing/identifying the parts of the emotion. Slides 8-11 demonstrate how these improvisational drawings go in class. Slide 8 shows road rage when I was cut off in a roundabout. Slide 9 shows jealously as a girl has lost her boyfriend to another girl. Slide 10 shows disgust as a student tells the class about how his finger was run over by an ice skate. (ugh!) Slide 11 shows how I would react if my wife tells me she was pregnant. Typically only one or two of these are drawn in class as the students watch, ask for the parts, i.e. "What would be the physiological arousal in this situation? Where in the body would it be?"
    - From slide 13, instruct the students use the remainder of class (10-15 minutes) to create their own emotional drawing and label their own parts via the emotional situation sheet, attached below. Instruct them that their Little reading Quiz on the following class will ask them two questions again, one of which will definitely be to explain how their cartoon drawing works according to Schachter-Singer theory. (Slide 14)

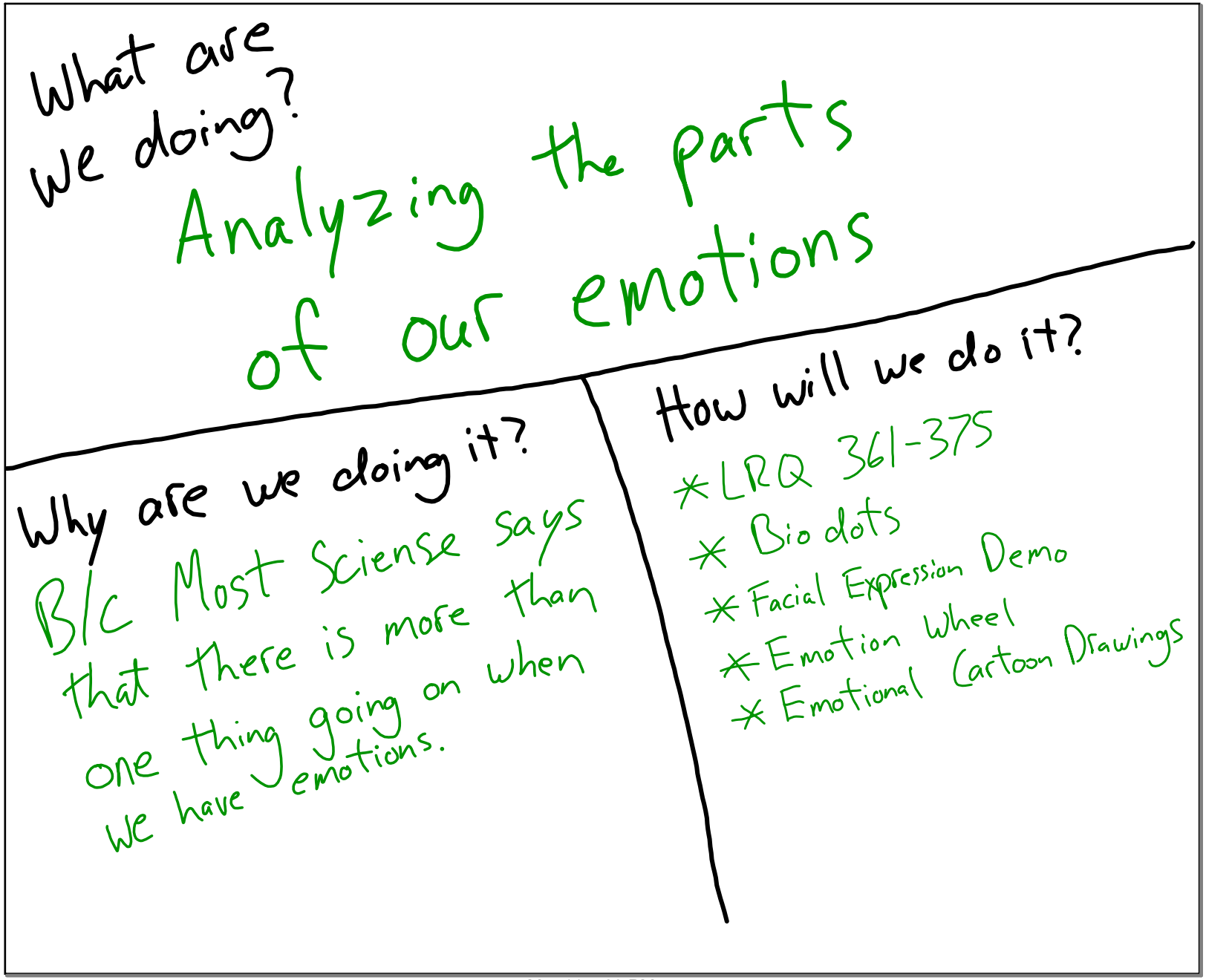
Day 2: Introduce the "What, Why and How?" objective (Slide 15)

- **What are we doing?** Evaluating psychological emotion theories.

- **Why are we doing it?** Because there are many ways that the parts of emotion work together.
- **How will we do it?**
    - Little Reading Quiz (p 376-388) Daily class routine: Students have been assigned the included pages from the textbook (Ciccarelli & White AP Psychology) and are asked two questions, chosen at random, from the reading calendar. The students choose one of the two questions and answer it in a brief constructed response. After the quiz-sheet is collected, go over the answers and discuss as a class. This day's questions ask the students to explain how the emotional situation that they drew would work according to leading psychological theories. Students were told ahead of time that Schachter-Singer theory will be the first option. This theory was emphasized because students have had trouble with it in the past. Any of the other theories can be chosen for the second option.
    - Drawing/Theory Breakdown: As a class, share and review one-another's drawing of an emotional situation. Proceed through the shower monster scenario (slides 16-24) to highlight an example of one situation as explained by the 6 different emotion theories. As we proceed through the example continually ask "How does your situation work according to…" theory. Use the student participation and class discussion to work out any student misconceptions.
    - In-Class Reading: From slide 25, introduce the readings on emotional research (attached below) and instruct students to answer the attached questions in their notes. Give 15 minutes for the reading and notes. Discuss reactions to the research (ethics, creative operationalization etc) afterward. Students typically have a reaction to both of these experiments.
    - Closure: "Cute Girl on A Footbridge" video: Show students the youtube video "Cute girl on a Footbridge" (created in class by my former students) which reenacts an experiment by Dutton and Aron on emotional misattribution via the Schachter-Singer theory. Wrap up class by discussing real world implications of this: i.e. ski club romance, happy people at coffee shops etc.

Assessment:

- Formative: Daily "Little Reading Quizzes," and emotional situation cartoon drawing sheet.
- Summative: During the next class period students will take a 15 questions unit quiz which includes material from these two lessons.


What are we doing?
Analyzing the parts of our emotions
Why are we doing it?
B/C Most Sciense says that there is more than one thing going on when we have emotions.
How will we do it?
*LRQ 361-375
* Bio dots
* Facial Expression Demo
* Emotion Wheel
* Emotional Cartoon Drawings

Mar 11-5:09 PM

1 What emotion is this?

A Happiness

B Surprise

C Jealousy

D Disgust

E Pride

F Sadness

G Love

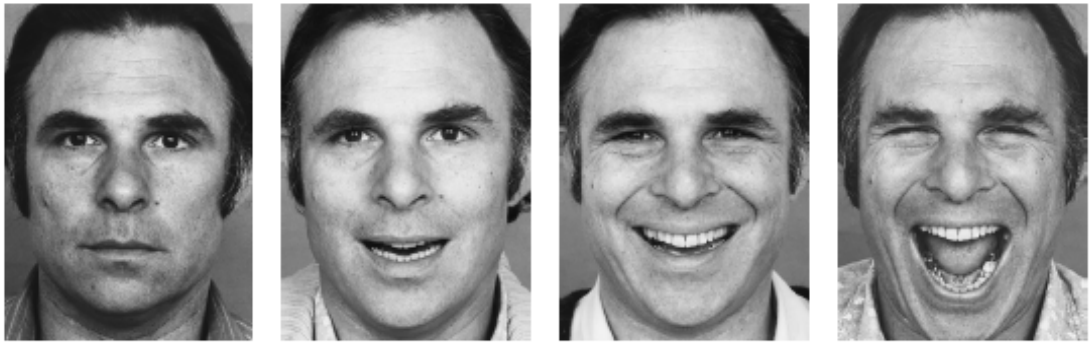
H Fear

I Anger

J Contempt

Dec 10-10:14 AM

Paul Ekman



Behavioral Expressions



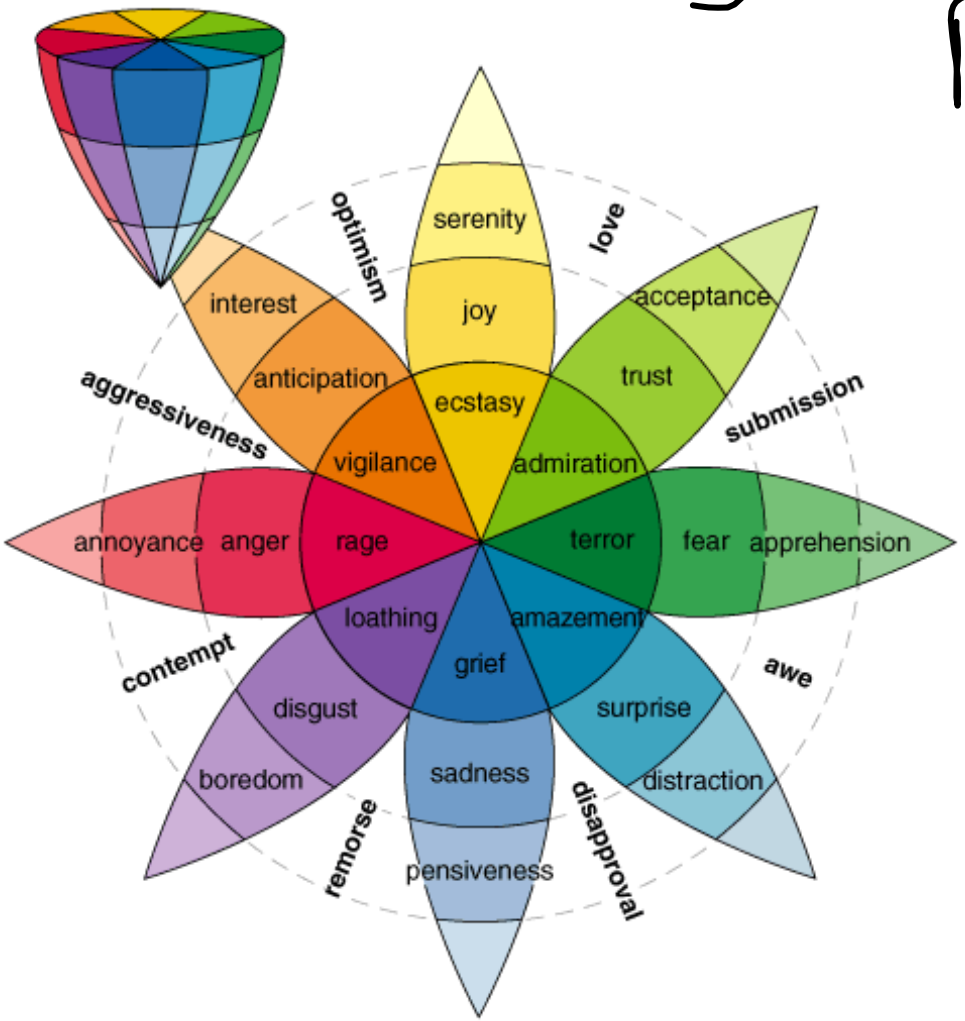
TV Show "Lie to Me"

Mar 11-5:02 PM

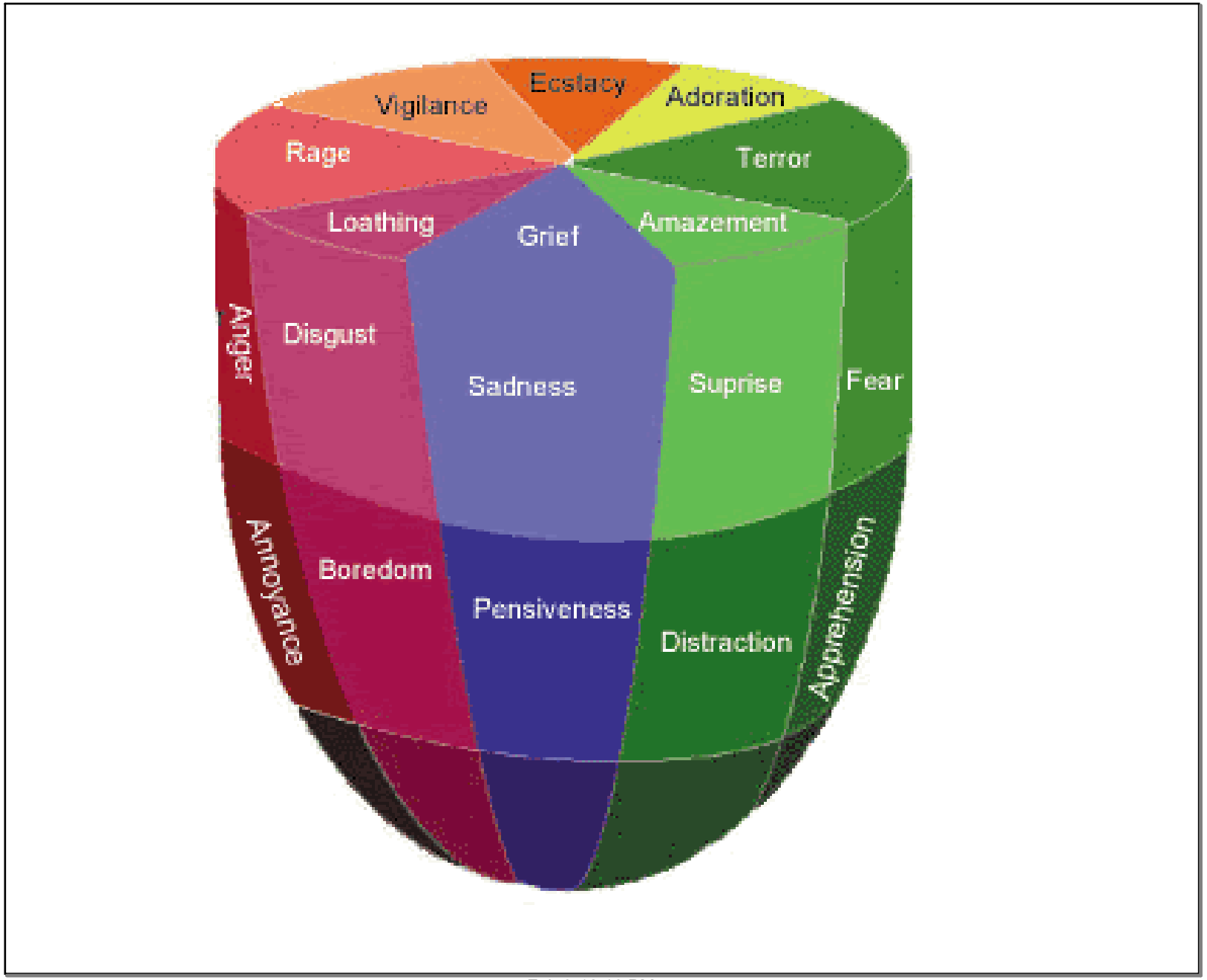
Subjective labelling



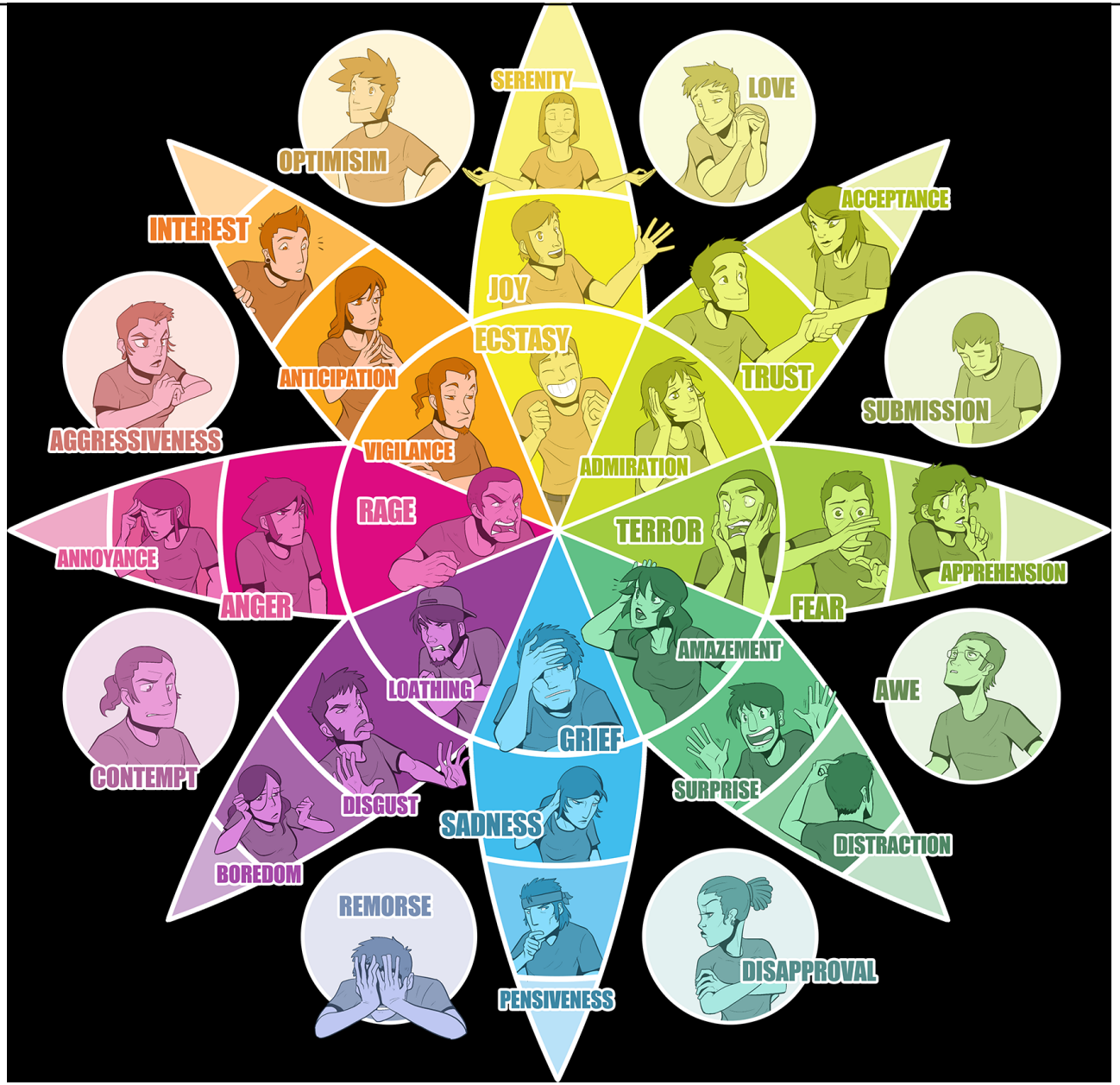
Robert Plutchik



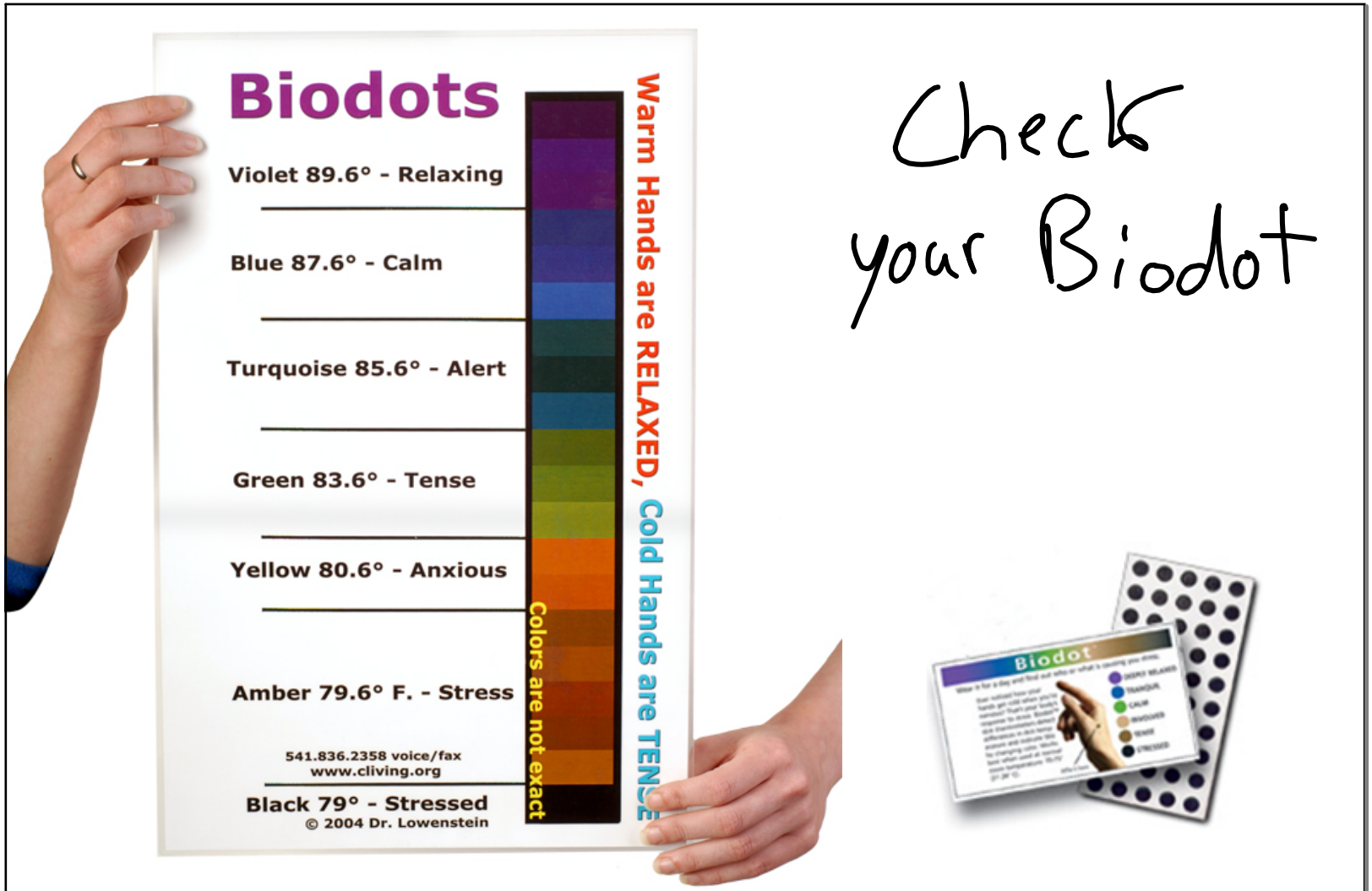
Feb 3-12:20 PM


Ecstacy
Vigilance
Adoration
Rage
Terror
Loathing
Grief
Amazement
Anger
Disgust
Sadness
Suprise
Fear
Annoyance
Boredom
Pensiveness
Distraction
Apprehension

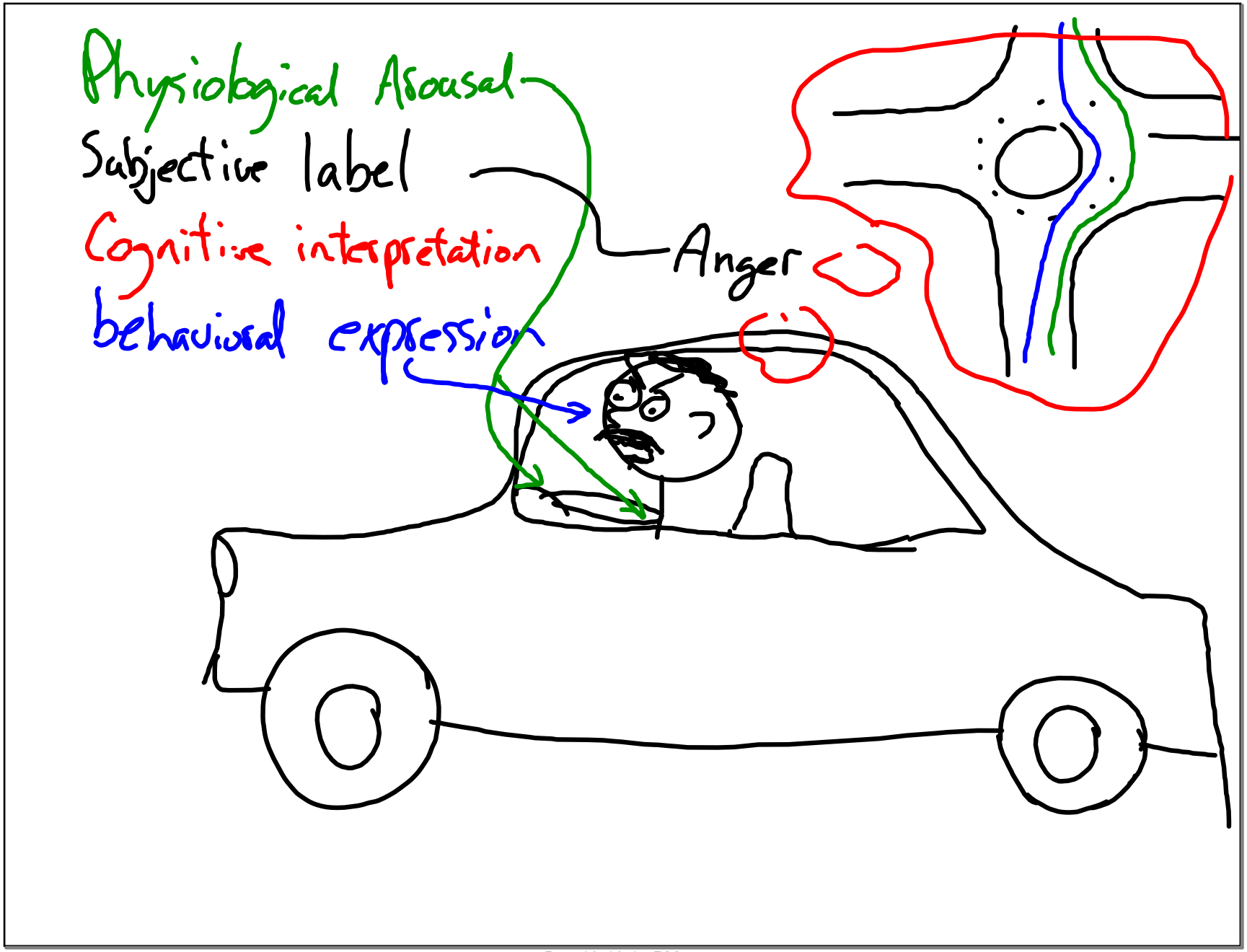
Feb 3-12:16 PM


SERENITY
LOVE
OPTIMISIM
INTEREST
ACCEPTANCE
JOY
ECSTASY
TRUST
ANTICIPATION
SUBMISSION
AGGRESSIVENESS
VIGILANCE
ADMIRATION
RAGE
TERROR
ANNOYANCE
APPREHENSION
ANGER
FEAR
AMAZEMENT
LOATHING
AWE
GRIEF
CONTEMPT
SURPRISE
DISGUST
SADNESS
DISTRACTION
BOREDOM
REMORSE
DISAPPROVAL
PENSIVENESS

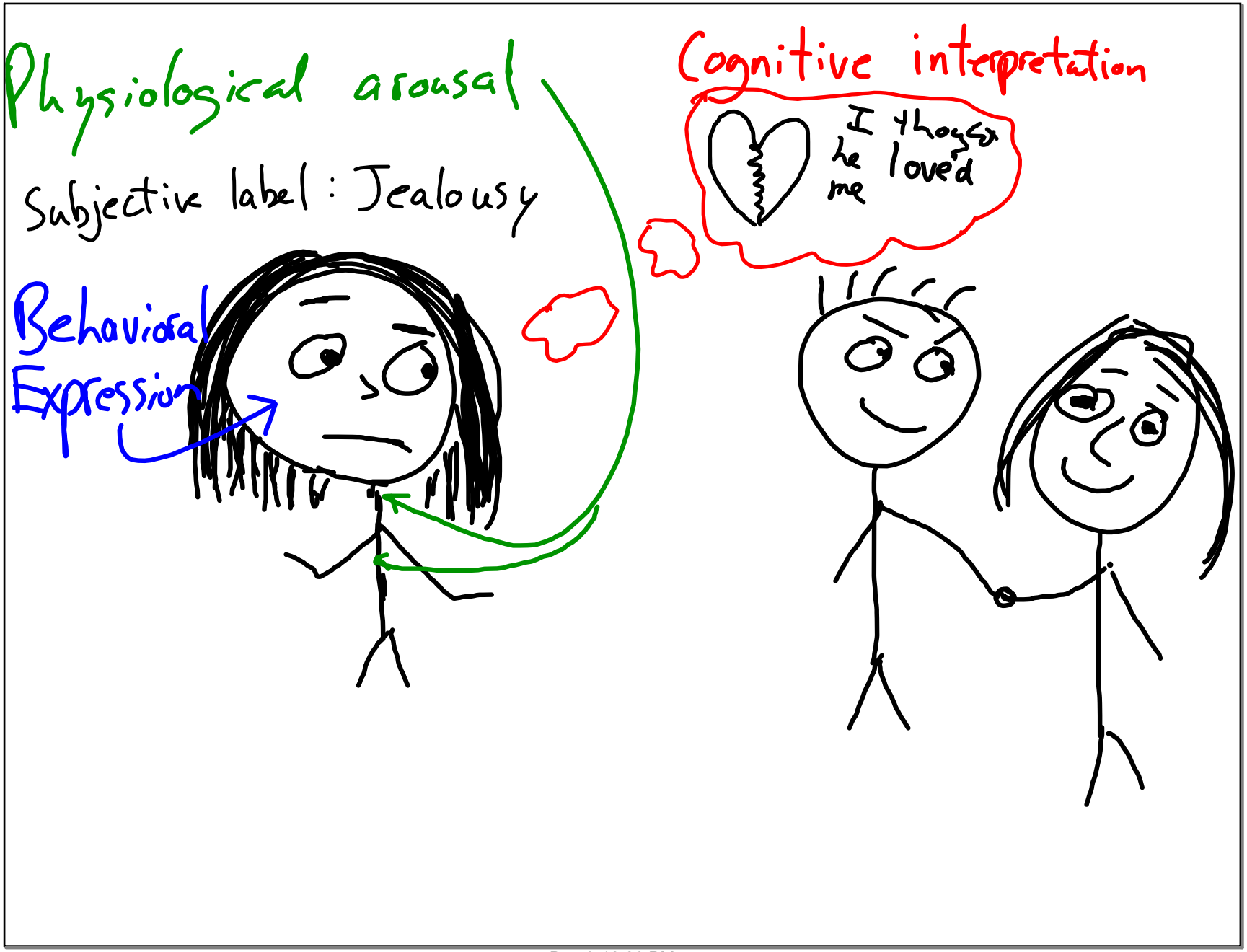
Feb 3-12:11 PM


Biodots
Violet 89.6° - Relaxing
Blue 87.6° - Calm
Turquoise 85.6° - Alert
Green 83.6° - Tense
Yellow 80.6° - Anxious
Amber 79.6° F. - Stress
541.836.2358 voice/fax
www.cliving.org
Black 79° - Stressed
© 2004 Dr. Lowenstein
Warm Hands are RELAXED, Cold Hands are TENSE
Colors are not exact
Check your Biodot
Biodot

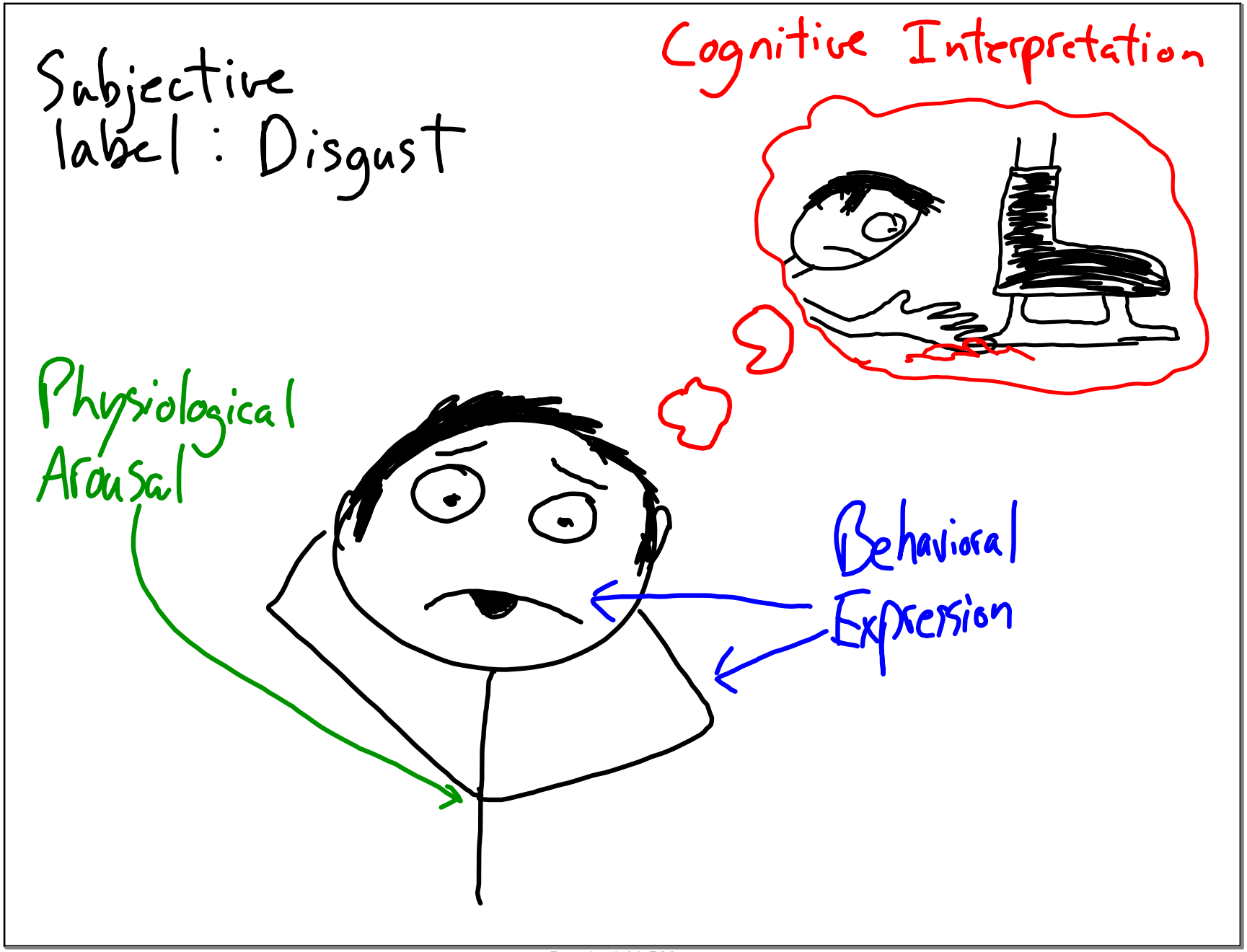
Mar 11-5:06 PM



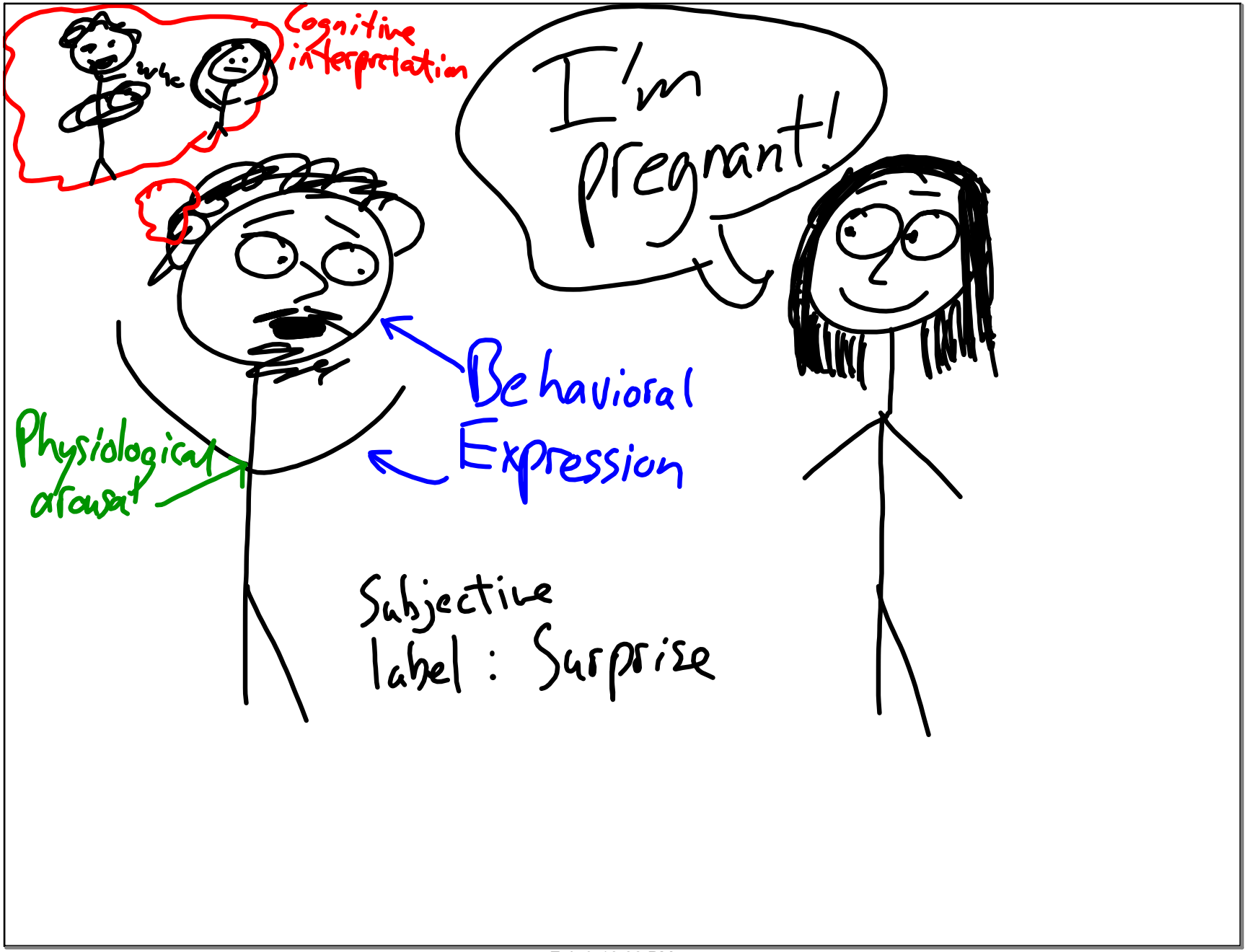
Dec 10-12:14 PM


Physiological arousal
Subjective label: Jealousy
Behavioral Expression
Cognitive interpretation
I thought he loved me

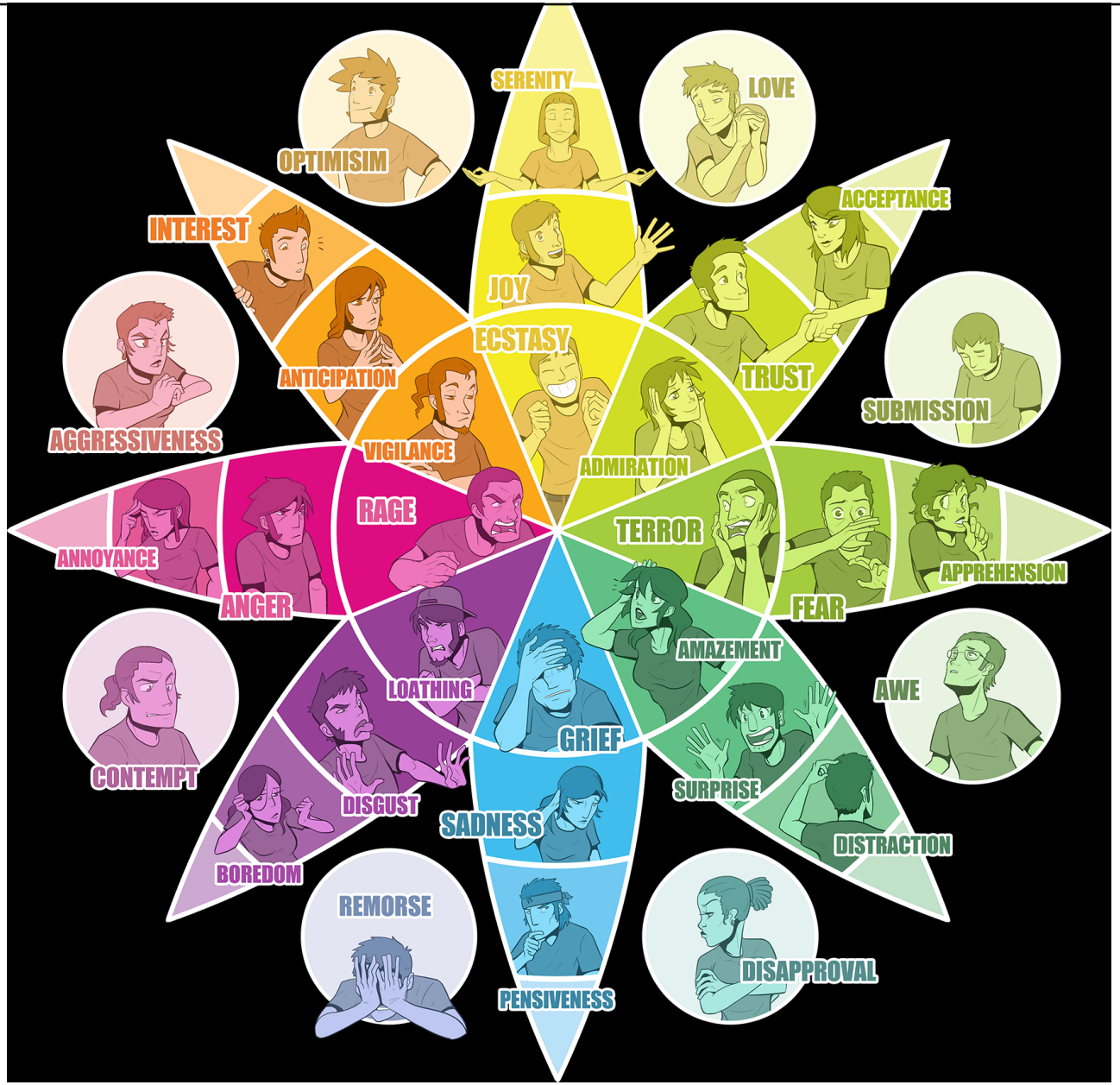
Dec 8-12:26 PM


Subjective
label : Disgust
Cognitive Interpretation
Physiological
Arousal
Behavioral
Expression

Dec 14-1:09 PM


Cognitive interpretation
I'm pregnant!
Behavioral Expression
Physiological arousal
Subjective label: Surprise

Feb 3-12:22 PM


SERENITY
LOVE
OPTIMISIM
INTEREST
ACCEPTANCE
JOY
ECSTASY
TRUST
ANTICIPATION
SUBMISSION
AGGRESSIVENESS
VIGILANCE
ADMIRATION
RAGE
TERROR
ANNOYANCE
APPREHENSION
ANGER
FEAR
AMAZEMENT
LOATHING
AWE
GRIEF
CONTEMPT
SURPRISE
DISGUST
DISTRACTION
SADNESS
BOREDOM
REMORSE
DISAPPROVAL
PENSIVENESS

Feb 3-12:11 PM

Now draw your own emotional situation and label the parts

* Subjective label
* Physiological arousal
* Behavioral expression
* Cognitive interpretation

Dec 11-3:33 PM

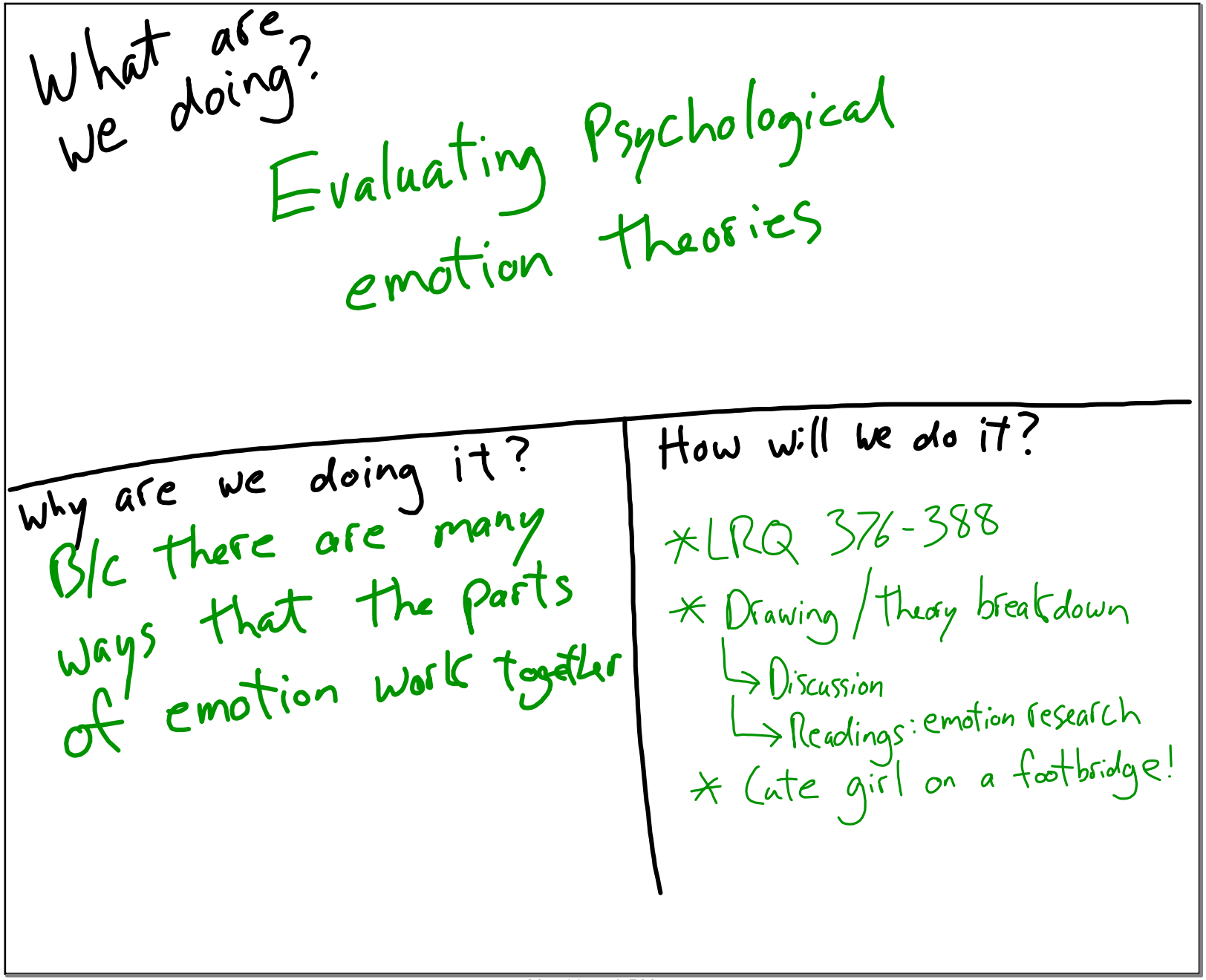
LRQ next time

? →

How does your cartoon drawing of an emotional situation work according to...

Common Sense Theory
James-Lange theory
Cannon-Bard Theory
* → Schachter-Singer theory
Facial Feedback theory
Cognitive appraisal theory

Dec 12-10:14 AM


What are we doing?
Evaluating Psychological emotion theories
Why are we doing it?
B/c there are many ways that the parts of emotion work together
How will we do it?
*LRQ 376-388
* Drawing / theory breakdown
↳ Discussion
↳ Readings: emotion research
* Cute girl on a footbridge!

Mar 11-5:43 PM



Dec 12-10:51 AM



Dec 12-10:51 AM

Physiological Arousal	• Shaking • tight chest • Sweating, heartbeat
Subjective feeling	Fear
Cognitive Interpretation	"This thing is going to eat me"
Behavioral expression	• Arm flailing • Scream • Facial expression



Dec 13-3:11 PM

Common Sense theory

Simply: the emotion causes the arousal



* Subjective label
* Physiological arousal
~~* Behavioral expression~~
~~* Cognitive interpretation~~

"I'm shaking because I'm afraid

Dec 13-3:11 PM

James-Lange

Simple definition
A Stimulus causes a bodily reaction which produces an emotion



* Subjective label
* Physiological arousal
* ~~Behavioral expression~~
* ~~Cognitive interpretation~~

"I'm afraid because I'm shaking"

Dec 14-7:48 AM

Cannon-Baird Theory

Simplefinition

The bodily reaction and emotion happen at the same time



* Subjective label
* Physiological arousal
* ~~Behavioral expression~~
* ~~Cognitive interpretation~~

"I'm shaking and feel afraid at the same time.

Dec 14-7:48 AM

Schachter-Singer Cognitive arousal theory



Simplefinition

We think about the stimulus and our bodily reaction and decide on how to feel

* Subjective label
  * Physiological arousal
  ~~* Behavioral expression~~
  * Cognitive interpretation

"I perceive the monster to be dangerous and I'm shaking... I'm afraid!"

Dec 14-7:48 AM

Facial Feedback Theory

Simply: Your facial expression changes how you feel



* Subjective label
* ~~Physiological arousal~~
* Behavioral expression
* Cognitive interpretation

"My face is doing crazy things... I'm interpreting the muscle movements and becoming more afraid!"

Dec 13-3:11 PM

Lazarus's Cognitive mediation theory

Simplefinition

Our appraisal of the stimulus determines the emotion



* Subjective label
* ~~Physiological arousal~~
* ~~Behavioral expression~~
* Cognitive interpretation

"I perceive this monster to be dangerous...I'm afraid."

Dec 13-3:11 PM

2 Short readings

for your notes
- Short Summary
- Levels of IV
- Operationalization of DV
- Design or ethics issues

Mar 11-6:24 PM

Name:_____

Theories of Emotion: The cartoon (stick figure) drawing that you do on this sheet will help you to understand this up-coming section of reading by putting your very own emotion example through each of the theories of emotion.

Diagrammed drawing of an emotional situation... Label and describe the...

- Physiological arousal
- Subjective label
- Cognitive interpretation
- Behavioral expression.

Caption: What's happening here? In case your drawing skills are lacking. ;-)

Theories (all listed and compared on 386)	**Give an explanation of the example that you drew on the previous sheet based on this theory.**
Common sense theory	
James-Lange Theory	
Cannon-Bard Theory	
Schachter-Singer (cognitive arousal) theory (AKA Schachter two factor theory)	
Facial Feedback Theory	
Lazarus's cognitive mediational theory (AKA cognitive appraisal theory)	

Name: _____ Period/day:_____ Little Reading Quizzes (LRQ)

	Answer	***__#__/Out of***
Question choice:		/____
Date		Complete sentences and better grammar please! / How? Why? And? This is unclear. Be more specific and thorough.
		Right on!!! Share this with others!!! / You are thinking of something else.
		That's common sense. Show me that you read / Go back and check this out.
Question choice:		/____
Date		Complete sentences and better grammar please! / How? Why? And? This is unclear. Be more specific and thorough.
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Question choice:		/____
Date		Complete sentences and better grammar please! / How? Why? And? This is unclear. Be more specific and thorough.
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Percentage =_____ % Total = /_____

Schachter and Singer's "angry man / happy man" experiment: From AS Psychology UK Curriculum
http://www.holah.karoo.net/schachterstudy.htm

The participants were 184 male college students, taking classes in introductory psychology at Minnesota University. As soon as a participant arrived, he was taken to a private room by the experimenter and told that the aim of the experiment was 'to look at the effects of vitamin injections on visual skills', and was asked if he would mind having an injection of 'Suproxin' (made up name). 184 out of 195 participants agreed to the injection. It was deception, they were not injected with a vitamin. Instead. they were given an injection (by a doctor) of either adrenalin (epinephrine) or a placebo, which was actually a saline solution, which has no side effects at all. The effects of the adrenalin are an increase in blood pressure, heart rate, blood sugar level, respiration rate, and blood flow to the muscles and brain, with an accompanying decrease in blood flow to the skin. This is often experienced as palpitations, tremors, flushing and faster breathing. The effects begin after three minutes and last from ten minutes to an hour.

The participants were then put in one of four experimental conditions:

1. Adrenalin Ignorant - participants were given an adrenalin injection and not told of the effects of the drug.
2. Adrenalin Informed - participants were given an adrenalin injection and warned of the 'side effects' of the drug (hand shake, heart pounding, dry mouth etc.). The participants were therefore prepared for the effects of the adrenalin (although they thought they were to do with the suproxin).
3. Adrenalin Misinformed - participants were given an adrenalin injection and told to expect side effects but were told these would be numb feet and headache. These participants would, therefore, not be expecting the effects of the adrenalin.
4. Control Group - Placebo - participants were given an injection that would have no effect and were given no instructions of what to expect.

Participants were then allocated to either the **euphoria** condition or the **anger** condition.

In the euphoria situation a stooge in a waiting room carried out a number of silly tasks designed to entertain and amuse the participant. In the anger situation a stooge in a waiting room carried out tasks and made comments designed to annoy the participant. The researchers then made observational measures of emotional response through a one-way mirror, and also took self-report measures from the participants.

In the euphoria condition the misinformed participants were feeling happier than all the others. The second happiest group was the ignorant group. This demonstrates that these participants were more susceptible to the stooge because they had no explanation of why their bodies felt as they did. The informed group felt the least happy because they understood why they felt as they did.

In the anger condition, the ignorant group felt the angriest. The second angriest group was the placebo group. The least angry group was those who were informed. Again this shows that participants were more susceptible to the stooge because they had no explanation of why their body felt as it did.

Schachter and Singer argue that their findings support their two-factor theory of emotion. The two-factor theory of emotion states that the physiological arousal in different emotion is entirely the same and we label our arousal according to the cognitions we have available.

Schachter, S & Singer, J.E. (1962) Cognitive, social and physiological determinants of emotional state. Psychological Review, 69, 379-99.

For your notes...

1. **Short summary.**
2. **What were the levels of the independent variable?**
3. **What was the dependent variable? In what ways was it operationally defined?**
4. **Were there any design flaws and/or possible ethical considerations?**

Grin and Bear it: The Influence of Manipulated Facial Expression on The Stress Response.

"**Abstract**: In the study, we investigated whether covertly manipulating positive facial expressions would influence cardiovascular and affective responses to stress. Participants (N = 170) naive to the purpose of the study completed two different stressful tasks while holding chopsticks in their mouths in a manner that produced a Duchenne smile, a standard (Non-Duchenne) smile, or a neutral expression. Awareness was manipulated by explicitly asking half of all participants in the smiling groups to smile (and giving the other half no instructions related to smiling). Findings revealed that all smiling participants, regardless of whether they were aware of smiling, had lower heart rates during stress recovery than the neutral group did, with a slight advantage for those with Duchenne smiles. Participants in the smiling groups who were not explicitly asked to smile reported less of a decrease in positive affect during a stressful task than did the neutral group. These findings show that there are both physiological and psychological benefits from maintaining positive facial expressions during stress."

Figure 1: Face Conditions (L-R) Neutral, Non-Duchenne smile, Duchenne smile



Kraft, T. L., & Pressman, S. D. (2012). Grin and bear it: the influence of manipulated facial expression on the stress response. *Psychological science*, *23*(11), 1372-1378.

For your notes…

1. **Short summary.**
2. **What were the levels of the independent variable?**
3. **What was the dependent variable? In what ways was it operationally defined?**
4. **Were there any design flaws and/or possible ethical considerations?**