Roadmap

Course Logistics

Bipolar Disorder and Related Disorders

Emotion in Bipolar Disorder

Take-Away Qs
Outreach Project

- Individual Feedback on Canvas this Week
Course Logistics

Exam 2 - Not So Distant Future (TUES 3/19)

Exam Review Sheet Handed Out Next Week in Class

Review Opportunities:

(1) Office Hours
(2) Email
(3) Canvas Chat Last-Minute Questions Day Before with Prof. Gruber
Course Logistics

Questions?

About anything course-related
Roadmap

Course Logistics

Bipolar Disorder and Related Disorders

Emotion in Bipolar Disorder

Take-Away Qs & Expert Interview
Bipolar Disorders

- Bipolar I Disorder
- Bipolar II Disorder
- Cyclothymic Disorder

Depressive Disorders

- Major Depressive Disorder
- Dysthymia (Persistent Depressive Disorder)
- Mixed Anxiety/Depressive Disorder
- Premenstrual Dysphoric Disorder
- Disruptive Mood Dysregulation Disorder
What is the difference between “happiness” and mania?
“When you’re high it’s tremendous. The ideas and feelings are fast and fleeting like shooting stars...feelings of ease, intensity, power, well-being, financial omnipotence, and euphoria pervade one’s marrow.”

Kay Jamison, Unquiet Mind (p. 67).
“For no reason, I started to feel incredibly good. I didn’t sleep much. I just walked around with this wonderful feeling. One day I was passing a diner and I knew how it felt to be a lion. I went into the diner and said ‘Bring me a steak, a raw steak, don’t cook it.’ I started eating it. The other customers made like they were revolted, watching me. So I began to see that maybe it was a little strange. I went to the Dean and said ‘Get me down off this.’”

Theodore Roethke (1908-1963), American Poet
Mania: Diagnostic Criteria

I. Abnormally/Persistently
Elevated Mood
(may also be irritable)

II. Associated Symptoms
- Inflated self-esteem or grandiosity
- Decreased need for sleep
- Pressured Speech
- Increased physical activity and energy
- Racing thoughts
- Increase in goal-directed activity

III. Causes Impairment
Bipolar Disorder

**Significant Impairment**

- Highest suicide rate (up to 29%) of all psychiatric disorders
- 1/2 inpatient mental health care costs
- 6th leading cause of worldwide disability by World Health Organization
<table>
<thead>
<tr>
<th>DSM-5</th>
<th>SEVERITY OF SYMPTOMS</th>
</tr>
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<tbody>
<tr>
<td><strong>Cyclothymia</strong></td>
<td><strong>Bipolar II Disorder</strong></td>
</tr>
<tr>
<td>Hypomanic symptoms (no episode)</td>
<td>Hypomanic Episode</td>
</tr>
<tr>
<td>Depressive symptoms (no episode)</td>
<td>Depressive Episode</td>
</tr>
<tr>
<td>Prevalence of Bipolar I and II Disorder</td>
<td></td>
</tr>
<tr>
<td>---------------------------------</td>
<td></td>
</tr>
<tr>
<td>Adults</td>
<td>2%</td>
</tr>
<tr>
<td>Youth</td>
<td>1-2%</td>
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</tbody>
</table>

Axelson et al., 2011; Merikangas et al., 2006
## “FIND” Guidelines

<table>
<thead>
<tr>
<th>F</th>
<th>Most days of the week (frequency)</th>
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<tbody>
<tr>
<td>I</td>
<td>Severe enough to cause extreme disturbance in 1 domain or moderate disturbance in 2 domains (Intensity)</td>
</tr>
<tr>
<td>N</td>
<td>3-4 times per day (number)</td>
</tr>
<tr>
<td>D</td>
<td>4 or more hours per day (duration)</td>
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Kowatch et al., 2005
Diagnosis in Youth

“When I feel happy, I get real bouncy... I’m hopping all over the place, and my mind seems to be focused on one thing for a short time. Sometimes, I don’t necessarily feel bouncy, just kind of light and airy, like a butterfly. I sort of flit and float from place to place, physically and in my mind.

When I feel depressed, I’m like...dead. I just sit there lifelessly, and my body just sort of flops around, like a Beanie Baby. Also, my mind just sort of drifts away and wonders aimlessly into space.”
## National Trends in Outpatient Diagnosis of Bipolar Disorder in Youth

<table>
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<tbody>
<tr>
<td>Adult office-based visits</td>
<td>905 (per 100,000)</td>
<td>1679 (per 100,000)</td>
</tr>
<tr>
<td>Youth office-based visits</td>
<td>25 (per 100,000)</td>
<td>1003 (per 100,000)</td>
</tr>
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Moreno et al., 2007
Differences: Bipolar Disorder in Youth from “Normal” Adolescence?
Lauren Weinstock, Ph.D.
Associate Professor
Department of Psychiatry and Human Behavior
Brown University

Suicidality in Bipolar Disorders, Treatment for Suicide and BD
Roadmap

Course Logistics

Bipolar Disorder and Related Disorders

Emotion in Bipolar Disorder

Take-Away Qs & Expert Interview
<table>
<thead>
<tr>
<th>Emotion &amp; Psychopathology</th>
<th>1. Extremes</th>
<th>Greater intensity of emotional displays, greater amplitude of emotional reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2. Absences</td>
<td>Lower intensity of emotional displays (or absent); decreased amplitude of emotional reactivity (or absent)</td>
</tr>
<tr>
<td></td>
<td>3. Disjunctions</td>
<td>Emotion as a multi-component system (experience, behavior, physiology). Channels ideally cohere together. Disjunction involves mis-match between channel(s) of emotion with other channel(s).</td>
</tr>
</tbody>
</table>

Gruber & Keltner (2007)
# Tale of Two Views (of Mania)

<table>
<thead>
<tr>
<th>“Positive-To-All”</th>
<th>“Positive-to-Positive”</th>
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</thead>
<tbody>
<tr>
<td>Increased response during presence and absence of emotional stimuli (e.g., “Tonic-Level”).</td>
<td>Increased response to positive emotional stimuli (e.g., “Affective-Reactivity”).</td>
</tr>
<tr>
<td>Mania heightened reactivity across positive, negative, &amp; neutral stimuli.</td>
<td>Mania heightened reactivity to positive stimuli only.</td>
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Gruber et al (2008)
Risk for Mania and Positive Emotional Responding: Too Much of a Good Thing?

June Gruber  
University of California, Berkeley

Sheri L. Johnson  
University of Miami

Christopher Oveis and Dacher Keltner  
University of California, Berkeley

Although positive emotion research has begun to flourish, the extremes of positive emotion remain understudied. The present research used a multimethod approach to examine positive emotional disturbance by comparing participants at high and low risk for episodes of mania, which involves elevations in positive emotionality. Ninety participants were recruited into a high or low mania risk group according to responses on the Hypomanic Personality Scale. Participants’ subjective, expressive, and physiological emotional responses were gathered while they watched two positive, two negative, and one neutral film clip. Results suggested that participants at high risk for mania reported elevated positive emotion and irritability and also exhibited elevated cardiac vagal tone across positive, negative, and neutral films. Discussion focuses on the implications these findings have for the diagnosis and prevention of bipolar...
Experimental Procedure

Baseline

<table>
<thead>
<tr>
<th>Current Symptoms</th>
<th>Acclimation</th>
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<tr>
<td>(5 minutes)</td>
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</table>

Watched Film Clips

<table>
<thead>
<tr>
<th>Film Clip</th>
<th>Duration</th>
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<tbody>
<tr>
<td>NEUTRAL (Sitting in Kitchen)</td>
<td>90 sec</td>
</tr>
<tr>
<td>HAPPY (Wins Gold Medal)</td>
<td>150 sec</td>
</tr>
<tr>
<td>PRIDE (College Symbols)</td>
<td>140 sec</td>
</tr>
<tr>
<td>SAD (Child's Father Dies)</td>
<td>170 sec</td>
</tr>
<tr>
<td>DISGUST (Digging in Toilet)</td>
<td>60 sec</td>
</tr>
</tbody>
</table>

Gruber et al (2008)
Multi-Method Assessment of Emotion

Self-Reported Emotion

**Positive Emotion:**
Happy, Pride, Amusement, Compassion, Love, Gratitude.

**Negative Emotion:**
Sadness, Fear, Disgust, Anger, Shame, Embarrassment.

Emotional Behavior

**Positive Emotion:**
Happy, Pride, Amusement.

**Negative Emotion:**
Sadness, Fear, Disgust, Anger.

Peripheral Physiology

Heart Rate,
Skin Conductance,
Cardiac Vagal Tone (RSA),
Finger/ear pulse transit time,
Finger/ear pulse amplitude,
Systolic & diastolic blood pressure,
Pre-ejection period,
Stroke volume,
Cardiac output,
Gross somatic movement.
Mania = Excess Positive Emotion & Vagal Tone?

Gruber et al (2011)
Mania = No Negative Emotion Extremes

Negative Affect (NA)

Heart Rate
Skin Conductance
Skin Temperature
Can Feeling Too Good Be Bad? Positive Emotion Persistence (PEP) in Bipolar Disorder

June Gruber
Yale University

Abstract
Positive emotions are vital to attaining important goals, nurturing social bonds, and promoting cognitive flexibility. However, one question remains relatively unaddressed: Can positive emotions also be a source of dysfunction and negative outcomes? An ideal point of entry to understand how positive emotion can go awry is bipolar disorder, a psychiatric disorder marked by abnormally elevated positive emotion. In this review I provide an overview of recent experimental evidence from individuals at risk for, and diagnosed with, bipolar disorder. I present a novel account of positive-emotion disturbance, referred to as positive emotion persistence (PEP), and consider potential mechanisms. The central thesis guiding PEP is that persistent activation of positive emotion across contexts and not solely in response to positive or rewarding stimuli is a marker of emotion dysfunction...
Bipolar Control Persists Across Contexts (TIMING)

Increased Degree (AMOUNT)

Difficulty Down-Regulating (WAY)

Positive Emotion Persistence (PEP)

Gruber (2011)
The Years of SILENCE Are Past
My Father’s Life with Bipolar Disorder
Stephen P. Hinshaw

An UNQUIET MIND
A MEMOIR OF Moods AND Madness
Kay Redfield Jamison

“An invaluable memoir of manic depression, at once medically knowledgeable, deeply humane and beautifully written...at times poetic, at times straightforward, always unflinchingly honest.”
—The New York Times Book Review
Experts In Emotion

*EXTRA CREDIT OPPORTUNITY*
Experts In Emotion Interview

Dr. Sheri Johnson

Professor of Psychology
University of California, Berkeley

Emotion and Bipolar Disorder
Roadmap

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Bipolar Disorder and Related Disorders

Emotion in Bipolar Disorder

Take-Away Qs
Thank You!

Psychology 3303
Professor June Gruber