Human Emotion

Emotion and Health
Stress and Resilience
Roadmap

Course Logistics

Stress

Resilience

Take-Away Qs & Expert Interview
Course Logistics

Reading Response
You are done! :)

Extra Credit Options
1. Experts in Emotion (last week to complete)
2. Twitter responses (due last day class)
Course Logistics

Exam 2
Graded, on Canvas
5% Gruber Boost :)

Exam 3
Study Guide In Class
Course Logistics

Last Official Full day of Lecture :(
But two more weeks of class after today

WEEK 14 (next week)
- Exam 3
- Discuss E.I. (+ in class EC attendance option)

WEEK 15 (final week)
Outreach Project - week after
Optional extra credit presentations
Roadmap

Course Logistics

Stress

Resilience

Take-Away Qs & Expert Interview
What is Stress?
What is Stress?

Degree to which people have to change and readjust their lives in response to a external event
What Causes Stress?

Both “good” and “bad” things can cause significant stress
Emotional Effects of Stress

When motivated to perform well, the way your body responds to the stressor can either IMPROVE or INHIBIT your performance.

Improving Performance: Challenge
Inhibiting Performance: Threat
# Emotional Effects of Stress

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<thead>
<tr>
<th></th>
<th>Challenge</th>
<th>Threat</th>
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<tbody>
<tr>
<td><strong>Physiological Patterns</strong></td>
<td>↑ Heart Rate</td>
<td>↑ Heart Rate</td>
</tr>
<tr>
<td></td>
<td>↑ Cardiac Output</td>
<td>↓ Cardiac Output</td>
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<tr>
<td></td>
<td>(Blood Circulating in Torso)</td>
<td></td>
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<tr>
<td><strong>Performance Implications</strong></td>
<td>↑ blood flow to brain</td>
<td>↓ blood flow to brain</td>
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<tr>
<td></td>
<td>↑ cognitive &amp; physical performance</td>
<td>↓ cognitive &amp; physical performance</td>
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Emotional Effects of Stress

What you expect is what you get …
… it all comes down to how you appraise the situation:

If you perceive that your …

<table>
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<tr>
<th>Personal Resources</th>
<th>Situational Demands</th>
<th>Personal Resources</th>
<th>Situational Demands</th>
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Challenge        Threat
Emotional Stress & Physical Immunity

Psychological stress decreases immune functioning, making you more susceptible to disease.
Emotional Stress & Physical Immunity
Cohen, Tyrrell, & Smith (1991)

“HOTEL STUDY”

420 healthy adults invited to stay a week in a hotel
Completed measures of life stress
Were exposed to common cold viruses through nasal spray
Monitored for 7 days post-exposure
Emotional Stress & Physical Immunity

% of Participants Who Got Sick

Quartile of Stress Index

Lowest
Low-Middle
High-Middle
Highest
Emotional Stress & Physical Immunity

Chronic stress predicts:
Hypertension
Type II Diabetes
Weakened immune system
Robert Sapolsky = My Science Hero
Lighter Side of Stress?
Lighter Side of Stress?

But sometimes …

Stress = Thriving

2 Aspects of “Positive” Stress:

- Acute stressors (instead of chronic)
- Complete relaxation in between stressors
Lighter Side of Stress?
Epel, McEwen, & Ickovics (1998)

Compared to no stress or chronic stress, intermittent stressors lead to:

More effective coping with subsequent stressors
Healthier immune system
Longer cell life
Lighter Side of Stress?
Epel, McEwen, & Ickovics (1998)

Compared to no stress or chronic stress, intermittent stressors lead to:

Responding positively to past stressors leads to perception of benefiting from stressors

Viewing stressors as a challenge improves responses to subsequent stressors
Weekly Reading

Dr. Judith Moskowitz
Associate Professor in Residence
Department of Medicine
Osher Center for Integrative Medicine
University of California, San Francisco

Stress, Positive Emotion, and Coping
Roadmap

Course Logistics

Stress

Resilience

Take-Away Qs & Expert Interview
Weekly Reading

Dr. George Bonanno
Professor of Clinical Psychology
Teachers College, Columbia University

Loss, Trauma, and Human Resilience
Bad Things Happen
Bad Things Happen
Bad Things Happen
Trauma and Emotional Health

Assessing

Often focuses on extreme responses to trauma

Bonanno (2004); Bonanno, Westphal & Mancini (2011)
Post-Traumatic Stress Disorder: DSM Criteria

I. Stressor: Person exposed to traumatic event

II. Intrusive Recollection: Traumatic event persistently re-experienced

III. Avoidant/Numbing: Persistent avoidance of traumatic stimuli and general numbing response.

IV. Hyper-arousal: Persistent symptoms of increased arousal

V. Duration: Must last at least 1 month.

VI. Impairment: Causes clinically significant impairment in social, occupational, or other important areas of functioning
Trauma and Emotional Health

Limitations

- Emphasis on psychopathology leads to sampling bias

- What about the rest of the population?

Bonanno (2004); Bonanno, Westphal & Mancini (2011)
Traumatic Event

Disruption in Functioning

Psychopathology

Average response

Image courtesy of George Bonanno
Traumatic Event

1 year

2 years

Disruption in Functioning

Chronic (5-30%)

Delayed (0-15%)

Recovery (15-25%)

Resilient (35-55%)
Traumatic Event

Disruption in Functioning

Chronic (5-30%)

Delayed (0-15%)

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Resilient (35-55%)
Resiliency

Definition

Individual’s tendency to cope with stress and adversity

An occurrence of rebounding or bouncing back
Resiliency and Adjustment

- Associated with absence of symptoms & distress
- Increased level of mental health & functioning
- Increased positive adjustment, as rated by close friends and relatives
- Increased positive experiences, including positive images of self and comfort

Bonanno et al., 2004; 2005; Lam et al., 2012
Why are Some More Resilient Than Others?

Features

- Flexible use of regulatory strategies and behaviors
- 3 components
  1. Context sensitivity
  2. Repertoire
  3. Use of feedback

Bonanno et al (2004); Bonanno & Burton (2012)
Context Sensitivity: Definition

- Matching regulatory behavior to situational demands
- Fitting behaviors to the context
Repertoire: Definition

- Tool box of possible regulatory behaviors and strategies

- Not all strategies are inherently good or bad

- Example: suppression

- Requires *expressive flexibility* and *positive emotion signalling*
Expressive Flexibility is Important

Gupta & Bonanno (2011)

Married
Bereaved (Asymptomatic)
Bereaved (Complicated Grief)
Positive Emotion Signalling is Important

Laughter following bereavement predicts better outcomes

(1) 45 Adults: Death of Spouse in Past 6 months
   - Question: Does laughter promote healing?

(2) Interview with Spouses
   - “Tell me about your relationship with your deceased partner.”
   - 6 minutes to share narrative

(3) Coded expressions of laughter
   - Laughter predicts reduced grief at 14 & 25 mos. post-loss

Bonanno & Keltner (1997)
Bad Things Happen
And Coping Matters
Roadmap

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Take-Away Qs & Expert Interview
Experts In Emotion

*EXTRA CREDIT OPPORTUNITY*
Experts In Emotion
Interview

Dr. Judith Moskowitz
Associate Professor in Residence
Department of Medicine
Osher Center for Integrative Medicine
University of California, San Francisco

Emotion and Physical Health
Experts In Emotion
Interview

Dr. George Bonanno
Professor of Clinical Psychology
Teachers College, Columbia University

Emotion and Resilience
Thank You!

Psychology 3131
Professor June Gruber