“If no one turned round when we entered, answered when we spoke, or minded what we did, but if every person we met 'cut us dead,' and acted as if we were non-existing things, a kind of rage and impotent despair would ere long well up in us, from which the cruelest bodily tortures would be a relief; for these would make us feel that, however bad might be our plight, we had not sunk to such a depth as to be unworthy of attention at all.” (James, 1890/1950, p. 293-294).
Ostracism is Universal

• Used by:
  – Animals - lions, wolves, primates, bees
  – Children - playgrounds, friends
  – Governments - banishment
  – Tribes - social death
  – Institutions – religious (excommunication), military (silencing), educational (time-out), prisons (solitary confinement).
  – Dyads - interpersonal ostracism = the silent treatment

Types of Ostracism?

• Three modes:
  – Physical ostracism: ignored and excluded through physical separation or isolation.
  – Social ostracism: ignored and excluded in the presence of others.
  – Cyber ostracism: ostracism through media other than face-to-face, when recognition and communication is anticipated within an acceptable time frame, but doesn't occur.
Theory of Ostracism

- Ostracism: being **ignored** and **excluded**
- Ostracism signals **danger**
  - Ostracism in animals, tribal humans = death
  - ∴ Adaptive to detect ostracism quickly, less costly to make false alarm errors
- Ostracism is, therefore, **reflexively** perceived as **painful**
  - The pain motivates a response
  - The magnitude of the pain is generally unaffected by personality/situational factors
- Ostracism deprives individuals a sense of **belonging, self-esteem, control, and meaningful existence**.
- The **reflective** response aims to **fortify thwarted need(s)**
  - Fortifying **belonging/self-esteem** leads to **pro-social** reactions
  - Fortifying **control/existence** leads to **anti-social** reactions

The Social Shock of Ostracism

- autistic child’s response to unresponsive person (still face) **[courtesy of Jacqueline Nadel]**
Still Face With Down’s Syndrome Child

- Down Syndrome child’s response to still face
  [courtesy of Jacqueline Nadel]

Chimps

- Bonobo chimpanzee’s response to inattention
  [courtesy of Josep Call]
Ball Tossing Paradigm

Cyberball Paradigm

- A virtual ball-toss game that was conducted over the Internet
  - More efficient
  - Begins search for minimal necessary conditions

Williams, Cheung, & Choi, JPSP (2000)
Williams & Jarvis, Behavioral Research Methods, (in press)
Oblivious Ostracism Conditions - the participant, kept walking to each group and saying “Hello...I'm Melissa; it's nice to meet you” and after about 1 minute of being in the world, she said out loud, “I'm bored, nobody reacting to me!...” She said that she was tired of no one paying any attention to her that she wanted to go and see if she could bump into someone, she said she tried to get into a group, but the people were so close together that she couldn’t break through.

Then she said she saw the walker so she decided to stand in front of him and make him crash into her, she wasn’t standing with her hands in front of her face or anything, but firmly as if standing her ground, and then she said “he just walked right through me as if i didn’t exist.” She said she felt like a spirit. As soon as she came out of the world and I asked her if she felt dizzy or motion sick, she looked me right in the eyes and her face had sunk and she said, “I have never felt so rejected in my life.”
Stage 1: Reflexive

- The reflexive reaction to ostracism is unmitigated distress and pain, regardless of:
  - The target’s personality,
  - The target’s attributions, or
  - The social/situational context

Cyberball: Ostracism & Aversive Impact

- The more that the individual was ostracized, the more aversive it was.
- There was a main effect for trait self-esteem (Rosenberg), but it did not interact with the ostracism manipulation.

N=1410, from 67 countries
How Low Can We Go?

• When will ostracism NOT matter?
• What are the necessary conditions?

Ostracized by a computer?

• What would happen if you were ostracized but you knew it as just a computer program?
• Participants show strong negative impact on four needs, and lower mood. In fact, there were...
  – No differences between being ostracized by people or computer.
  – No differences between scripted or unscripted conditions.
• Similar to Clifford Nass’s findings with human-computer interactions.

The KKK Won’t Let Me Play

- 2 (ostracism vs. inclusion) x 3 (ingroup vs. respected outgroup vs. despised outgroup) between-subjects design
  - Labor Party, Liberal Party, KKK of Australia
- Used Cyberball to manipulate ostracism
- Study of “Personality and the groups you support”

Gonsalkorale & Williams, under review

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**KKK: Results**

*Cell Phone Text Messaging*
- On self-report need levels, Collectivism vs. Individualism - no main effects, nor interactions.
- Ingroup/Outgroup (smokers/non-smokers) - successfully manipulated, but no main effects; no interactions.

*Observed only main effects for ostracism on need satisfaction levels, $p < .001$. Smith & Williams, *Group Dynamics* (2004)*

**Not Necessary to See Others Interacting**

- Observed only main effects for ostracism on need satisfaction levels, $p < .001$. Smith & Williams, *Group Dynamics* (2004)*
**Cyberball & Cyberbomb**

- Stripping meaning away further.
- At what point do the stimuli evoke the ostracism response?
  - Three conditions
    - No meaning
    - Create your own story
    - Mentally visualize squares as people, sphere as ball
Minimal World

Inclusion

Ostracism

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Minimal World Results

• No meaning:
  – No effects on needs or moods, except control.

• Create your own story:
  – Involves people:
    • Affects all four needs and moods
  – Doesn’t involve people:
    • No effects on needs or moods, except control

• Visualize people:
  – Lowers need satisfaction levels, increases sadness and anger.

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**Does Relational Devaluation Matter?**

**Cardiovascular Effects**

- Ostracism led to increased blood pressure:
  - $\uparrow$ BP (DP = 3.3mmHg), $p < .05$.

*Williams & Zadro, SPSP, 2004*
Effects of Unintentional and Intentional Ostracism

- fMRI scans showing activation of the Anterior Cingulate Cortex during Cyberball Ostracism (same area activated during physical pain).
- ACC activation was highly correlated with self-reported distress ($r = .88$).
- Right Ventral Prefrontal Cortex activated only during Intentional Ostracism.


Ostracism by Attractive and Unattractive Others

- 84 participants played Cyberball with 2 other players of opposite gender
  - Who were previously rated as being attractive or ugly
  - Included or Ostracized

- Results
  - Only a main effect for ostracism affected 4 needs and moods.
  - No main effects or interactions with physical attractiveness

- Keep in mind; this study assessed only immediate reactions.
First Sign of Moderation: Ostracism by Stigmatized Others

Personality / Individual Differences

- As yet, our studies have found no moderation of reflexive reactions to ostracism for the following individual differences:
  - Loneliness
  - Extraversion/Introversion
  - Collectivism/Individualism
  - Self-esteem
  - Narcissism
  - Social phobia
  - Rejection sensitivity
  - Need for belonging
  - Attachment style
When Do Individual Differences and Social Factors Play a Role?

- In **coping** with the pain (reflective stage).
- After the initial pain, the speed of coping, and the coping path will be influenced by
  - individual differences
  - situational factors

Stage 2: Reflective

- The reflective reactions to ostracism are in service of fortifying the thwarted need(s).
- This is a coping stage.
  - Social situational factors, appraisals, and individual differences *should* matter.
- Two general coping paths:
  - One that fortifies belonging/self-esteem
  - One that fortifies control/meaningful existence
- Two general response patterns:
  - Social susceptibility
  - Anti-social provocation
Social Anxiety Moderates Reflective Responses

- Normals and highly socially anxious individuals played Cyberball, either included or ostracized.
- Need levels measured immediately and 45-minutes later.
- Normals returned to high need levels after 45-min.
- Socially anxious participants did not bounce back to normal levels, even 45-min later.

Zadro, Boland, & Richardson, (2006, JESP).
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Social Phobia Moderates Reflective, But Not Reflexive Self-Regulation

- Normals and socially anxious individuals played Cyberball, either included or ostracized.
- Self-regulation was assessed immediately following Cyberball, and 15 minutes later.
  - Amount of junk food eaten
  - Amount of healthy, but not-so-tasty, food eaten
- Ostracism impaired self-regulation for all participants immediately following Cyberball game.
- Ostracism had no lasting effect on normals, but continued to impair self-regulation in high socially anxious individuals.

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Pro-Social Susceptibility: Ostracism leads to indiscriminate attraction

Compared to included individuals, ostracized individuals are more attracted to groups, regardless of how dubious they might be...

With Amy Wheaton, 2001

Pro-social susceptibility: Ostracism leads to conformity to unanimously incorrect Others

Conformity

% of Trials Conformed to

Group Membership

Included Ostracized

Williams, Cheung, & Choi, 2000 (JPSP, Study 2)

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Pro-social susceptibility: Ostracism increases compliance

Carter & Williams, MPA, (2005)

Pro-social susceptibility: Ostracism increases persuasion (conditionally)

• Partially ostracized participants are more susceptible to persuasive message, if it fulfills belonging needs.
• Moderation at the partial ostracism level?
• Full blown ostracism produces something like cognitive numbness.

Chen, Carter-Sowell, & Williams, MPA, 2006
Evidence of Fortifying Belonging and Self-esteem

- Ostracism increases attempts to engage in behaviors that will re-establish the individuals acceptance into the group.
- Generally, these are pro-social acts:
  - *Females work harder* on collective task than on coactive task (Williams & Sommer, 1997)
  - *They conform more when ostracized* (Williams, Cheung, & Choi, 2000)
  - *Liking new groups* (Wheaton, 2001)
  - More likely to mimic a *good organizational citizen* (Ouwerkerk et al, 2003)
  - More likely to engage in *unconscious mimicry*, especially with ingroup members (Lakin & Chartrand, 2005).
  - More socially attentive (Gardner, Pickett, & Brewer, 2000; Pickett, Gardner, & Knowles, 2004)
  - Ostracized individuals are more susceptible to compliance tactics (Carter & Williams, 2005)
  - The vast literature on the *effectiveness of ‘time-out’* disciplinary procedures.

But, other research finds exclusion $\rightarrow$ self-defeating, anti-social, aggressive behavior

- Makes people “stupider” (Baumeister et al, 2005)
- Invokes a state of cognitive deconstruction (Twenge, et al, 2003)
- Reduces self-regulation (Baumeister, et al, 2005)
- Causes self-defeating behavior (Oikawa, Kumagai, & Ohbuchi, 2004)
- Decreases pro-social behaviors (Tice, et al, 2002)
- Increases anti-social behaviors (Twenge, et al, 2001)
- Can lead to generalized aggression against similar group members to those who did ostracism – mass violence (Gaertner & Iuzzini, 2004).
Friends Ostracizing Stranger: The Third Wheel

- Only ostracized third wheels
  - exerted more control on naive participant (Study 1), and
  - had higher desire for control (Study 2)

Ostracism and Control
Deprivation Leads to Ostracism

Warburton, Williams, & Cairns, JESP, 2006
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Thanks!