

Understanding and Addressing Faultlines

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Broader Picture

- The mix of people in a science team matters!
 - Group composition research
- Multi-disciplinary attention
 - Psychology
 - Sociology
 - Organizational Behavior
 - Computer Science
- Faultlines is a way to understand the effects of group composition



Generational Differences



Gender Differences



Google



Occupational & Functional Differences



Co-Authors Pace of Work Slower Than Yours?





You Get A Faultline!

Pharmaceutical – Biotech Science Team





Faultlines

A Science Team Example From Academia

Faultlines occur when group members align along one or more demographic characteristics causing a group to split into fairly homogeneous subgroups (*adapted from Lau & Murnighan, 1998*).

Group A –WEAK FAU

Untenured	Tenured
Female	Female

Untenured	Tenured
Male	Male

Group B –STRONG FAU

Untenured	Tenured
Male	Female

Untenured	Tenured
Male	Female

What We Know:

Group Conflict & Beyond

- Faultlines are responsible for all sorts of dysfunctions:
 - Breakdowns in communication (*Lau & Murnighan, 2005*)
 - Lack of trust (*Polzer et al., 2006*)
 - Poor decisions (*Sawyer et al., 2006*)
 - Performance decrements (*Bezrukova et al., 2007; 2009; 2012*)
- Faultlines escalate conflict (*Li & Hambrick, 2005; Jehn & Bezrukova, 2010*) and more...

What We Know: Qualifier 1

- but ...
 - Levels of conflict: Between or within the group? (*Lau & Murnighan, 2005; Thatcher et al., 2003*)
 - Type of conflict: Relationship or task conflict? (*Choi & Sy, 2009*)

What about creative conflict in science teams?

- “Skunk works”





Qualifier 2: Noticing Faultlines

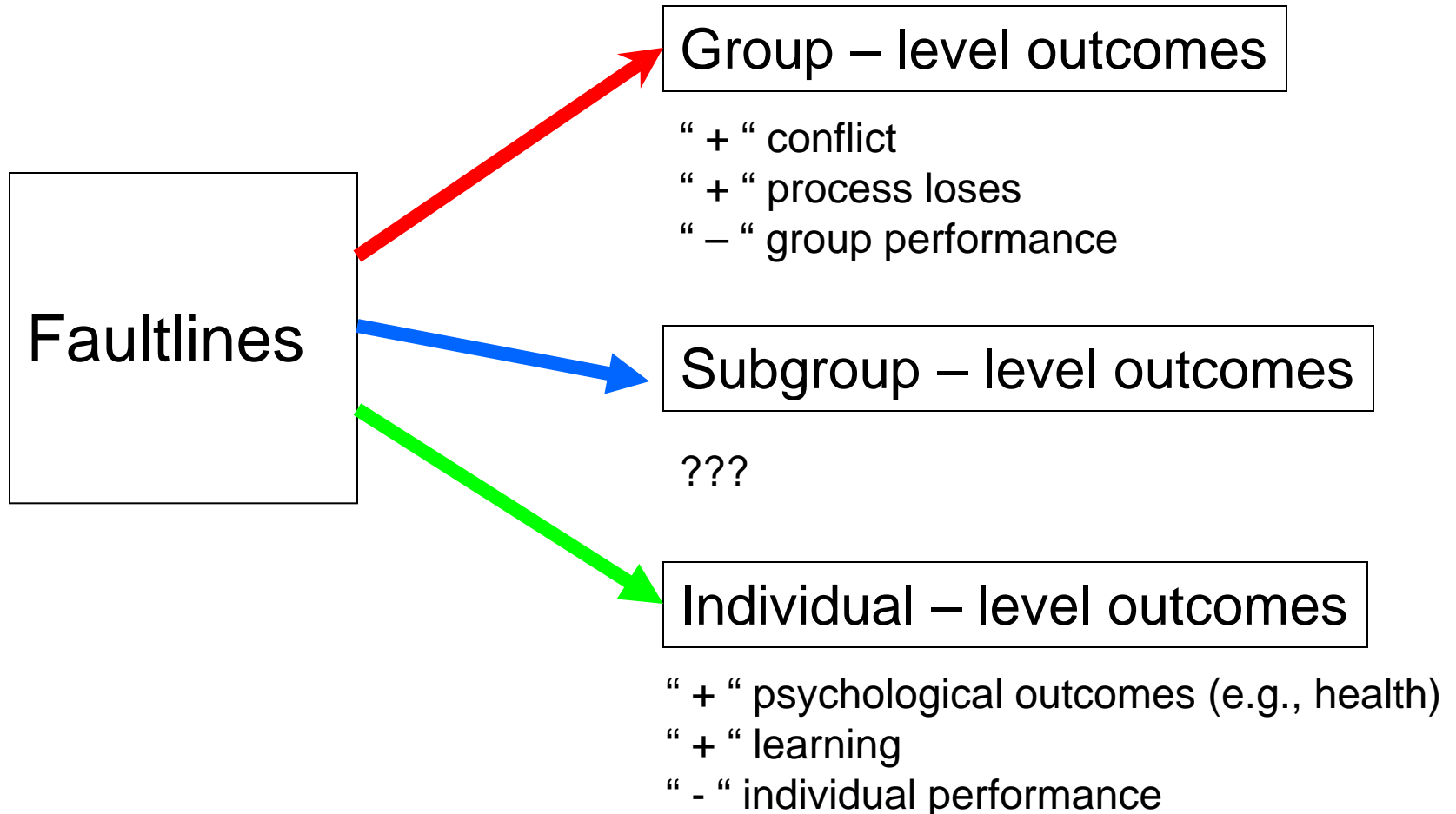
- **Dormant Faultlines** – objective demographics align
- **Active Faultlines** – perceived subgroups based on demographic alignment



Qualifier 3: Types of Faultlines Work The Same Or Not?

- Demographic faultlines (*Lau & Murnighan, 1998*)
 - e.g., age, gender, race, tenure
- Social category vs Informational faultlines (e.g., *Bezrukova et al., 2009*)
 - e.g., age, race, gender
 - e.g., work experience, educational background
- Surface vs Deep-level faultlines (e.g., *Phillips et al., 2004*)
 - + e.g., abilities, conscientiousness, pace of work
- Separation-, Disparity-, & Variety-based faultlines (*Carton & Cummings, 2012; Harrison & Klein, 2007*)
 - Attributes could represent more than one type of faultlines:

Qualifier 4: Multilevel Effects





Strategies to Promote Positive Dynamics

- **We are all in this together!** (*Bezrukova et al 2009; Rico et al 2012*)
 - Superordinate team identification & superordinate goals
 - Multilevel perspective – alignment of result-oriented cultures across levels (*Bezrukova et al 2012*)
- **Create a cross cut!** (*Homan et al., 2008; Rico et al., 2012*)
 - reward system or task role assignment that cut across
- **Find a common enemy** (*Spell & Bezrukova, 2013*)
 - External conflict that unities the team



What We Do Not Know

- What are the multilevel effects of faultlines?
 - Institution, team, subgroup, & individual performance?
- Can faultlines ever be helpful?
 - What about health effects of faultlines?
- What are the implications of faultlines for multi-team systems (MTS)?
 - and beyond MTS? How do macro-faultlines affect research institutions?

Thank you!

GEOGRAPHY

race/ethnicity

Class

FAULT LINES

Generation

GENDER