

2011 APA Education Leadership Conference

Leading in the Era of Team Science and Collaboration

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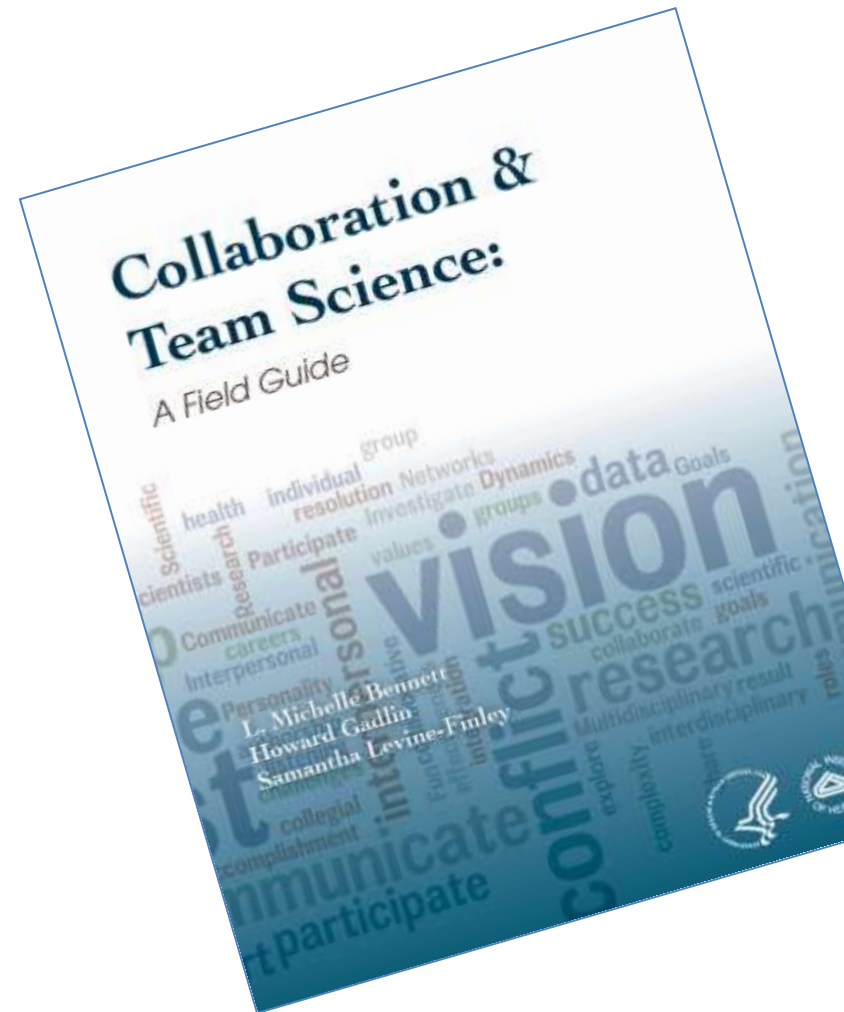
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Who Are We & What Brought Us Here?

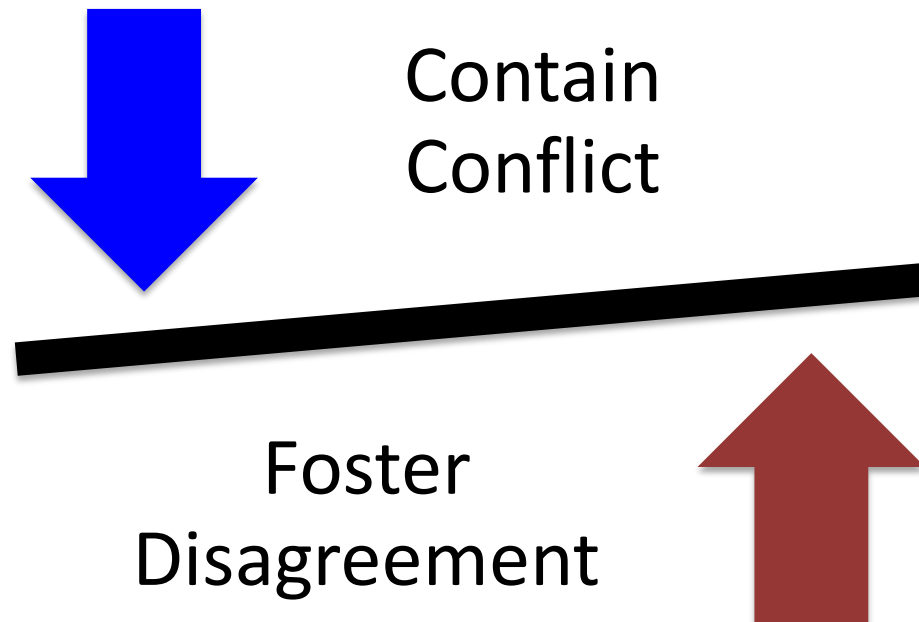
- *Interested in:*
 - Conflict and how to resolve it
 - Implementing strategies for avoiding conflict
 - Understanding what makes great collaborations and teams successful
 - Sharing those elements that contribute to successful participation in and leadership of collaborations and multidisciplinary research teams



teamscience.nih.gov

Productive Collision

“A process by which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible.”



Some Problems that Lend Themselves to Collaboration

- Ill-defined problems or disagreements regarding definition
- Multiple stakeholders with vested interests
- Disparity of power or resources among stakeholders
- Different levels of expertise and different levels of access to relevant information
- Problems characterized by technical complexity and scientific uncertainty
- Differing perspectives on a problem leading to adversarial relations
- Unsuccessful unilateral efforts
- Existing processes that are insufficient to address problems

Reasons to Collaborate

- Access to expertise or particular skills
- Access to equipment or resources
- Cross-fertilization across disciplines
- Improved access to funding
- Learning tacit knowledge about a technique
- Obtaining prestige, visibility or recognition
- Enhancing trainee education



Leading in the Era of Team Science

- Building a Team
- Shared Vision
- Setting Expectations
- Trust
- Harnessing Diversity
- Leading Teams and Collaborations
- Challenges to Anticipate

Key Elements to be Aware of when Building a Team

Establishing Research Teams

- Successful research teams can be initiated both from the top down and from the bottom up
- Regardless of approach, support from the top is critical for team success

Model of Team Development



Adjourning and Transforming

Forming



Storming



Norming



Performing



Storming is Important



Adjourning and Transforming

Forming

Threats:

- **Power**
- **Status**
- **Autonomy**



Performing

Norming

Challenges:

- trust, personality styles, style under stress, style in conflict, competition for power, autonomy, status, language, culture, and poor listening



Storming is Important

- Creates a new framework for the team
- Provides source of energy
- Is not “optional” – must occur, so make the most of it
- If you don't – the team will not mature past a superficial level of interaction

We are a Team

<http://www.youtube.com/watch?v=pGFGD5pj03M>



"I make a pretty good team!"

Developing a Shared Vision



- Everyone can describe the “big picture”
- Each team member can state his/her research goal and how it relates to the “bigger picture”
- Have the group discuss each members accomplishments and challenges in achieving the goal – and how they relate to the overall mission
- Instill ownership of roles and responsibility for attaining goals
- Team accepts responsibility and accountability for both accomplishments and failures – without blaming.

Elevator Speech

- You are in the elevator with a member of your institution's leadership who just acquired a 1M gift from a donor. She is looking for projects to fund and she asks you to explain the value of your project and the expected outcome.
- **What do you say?**
(you have 30 seconds)

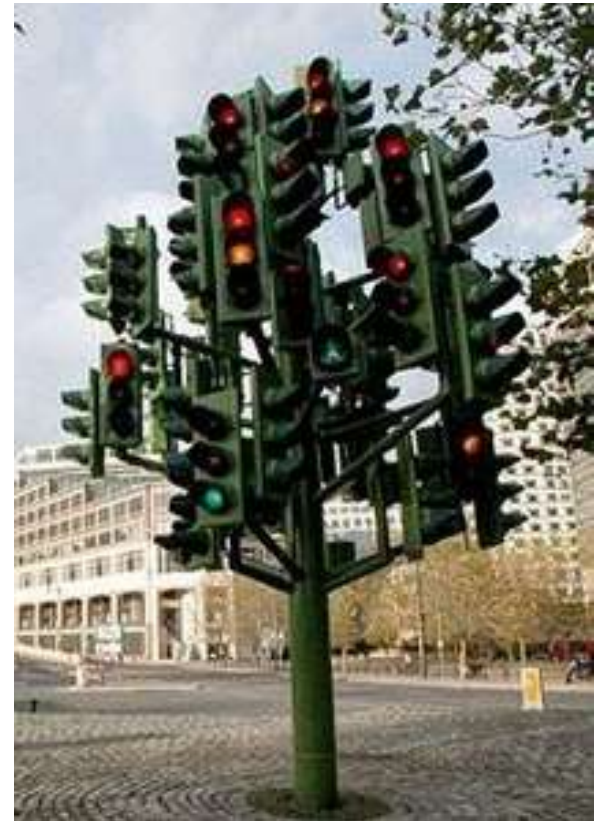


Leaders Set Expectations

Provides a scaffold for building deeper trust

There are no secrets or surprises and there is a strong platform for discussion

- Communication
- Regular Meetings with Clear Agendas
- Authorship
- Conduct of Investigation, Research...
- Technical Support
- Career Development
- Evaluation Criteria, etc....



Trust: One Definition

- Degree of risk one is willing to take, or the extent to which one is willing to rely on another person based on assessment of their ability to perform, their honesty, their reliability, and/or their intentions, including their willingness to take into account the interests of another.

Leaders Need to Build Team Trust

- Underpins the success of the team
- Enables open communication and debate
- Provides an environment where opinions are shared and consensus can be reached
- Facilitates data sharing and discussion of next steps
- Team members are willing to train and teach each other to further the mission of the group
- Colleagues believe others' motives are for the greater good

Types of Trust

- *Calculus based trust* – built on calculations of the relative rewards for trusting or losses for not trusting
- *Identity based trust* – built on an assumption of perceived compatibility of values, common goals, emotional/intellectual connection
- *Competence based trust* – built on the confidence in people's skills and abilities, allowing them to make decisions and train others

Trust: Challenges

- It takes time to build
- “Calculus-based” trust may need to be established before true “identity” or “competence” trust develops
- Betrayal can destroy trust slowly over time or instantly



Trust and the Team

- Trust goes hand-in-hand with your scientific confidence in the results generated by your:
 - Trainee, Collaborator, Colleague, etc...
- If trust is never established or damaged once formed...confidence will slip
- The relationship itself drives your perception of other's technical and intellectual abilities
- Trust affects how one assesses the future behavior of another person and how one interprets their past and present actions.

Trust – How To

- Build trust slowly over time with shared experiences
- Engage in activities that build trust:
 - Weekly data meetings or case conferences for professional discussion and exchange
 - Teach and train others, and receive instruction and assistance from others
 - Develop a process to handle disagreements over medical issues or science or other lab issues
 - See and experience that team members follow through on their commitments
- Team building exercises (“ropes and ladders”) are not sufficient

Prenuptials for Scientists: Collaborative Research Agreements

Categories to cover

- Goals and Vision of the Collaboration
 - Including...when is the project/collaboration “over”?
- Who Will Do What?
 - Expectations, responsibility and accountability
- Authorship, Credit
 - Criteria, attribution, public comment, media, IP
- Contingencies and Communicating
 - What if ...? and Rules of engagement
- Conflict of Interest
 - How will you ID conflicts? And resolve them?

Harnessing Diversity

The Value of Diversity

Diversity is an asset when it is assumed that insights, skills, and experiences developed as members of different identity groups are a valuable resource that the workgroup can use to rethink its primary tasks and strategies.

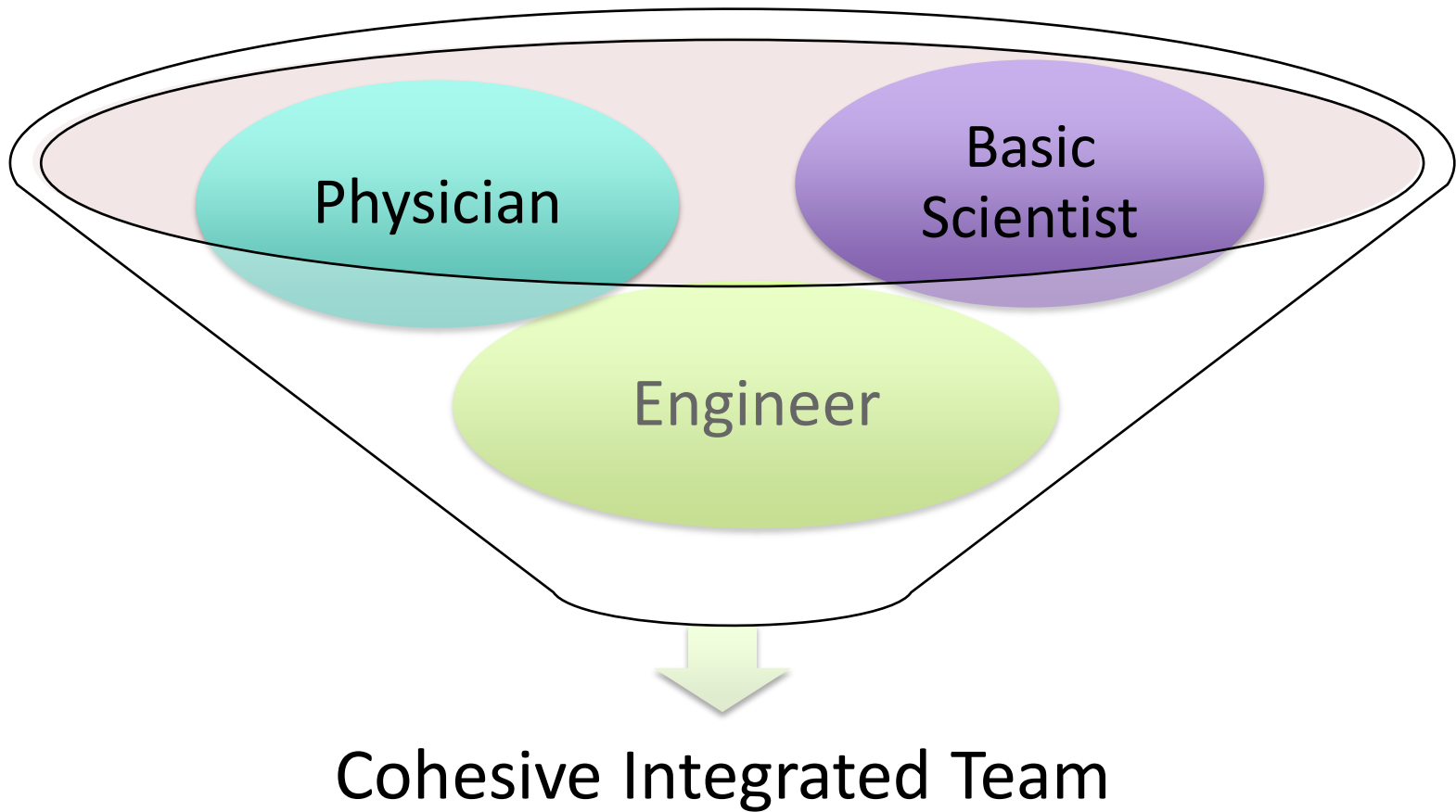
Diversity of Cultures

Physicians vs Basic Scientists

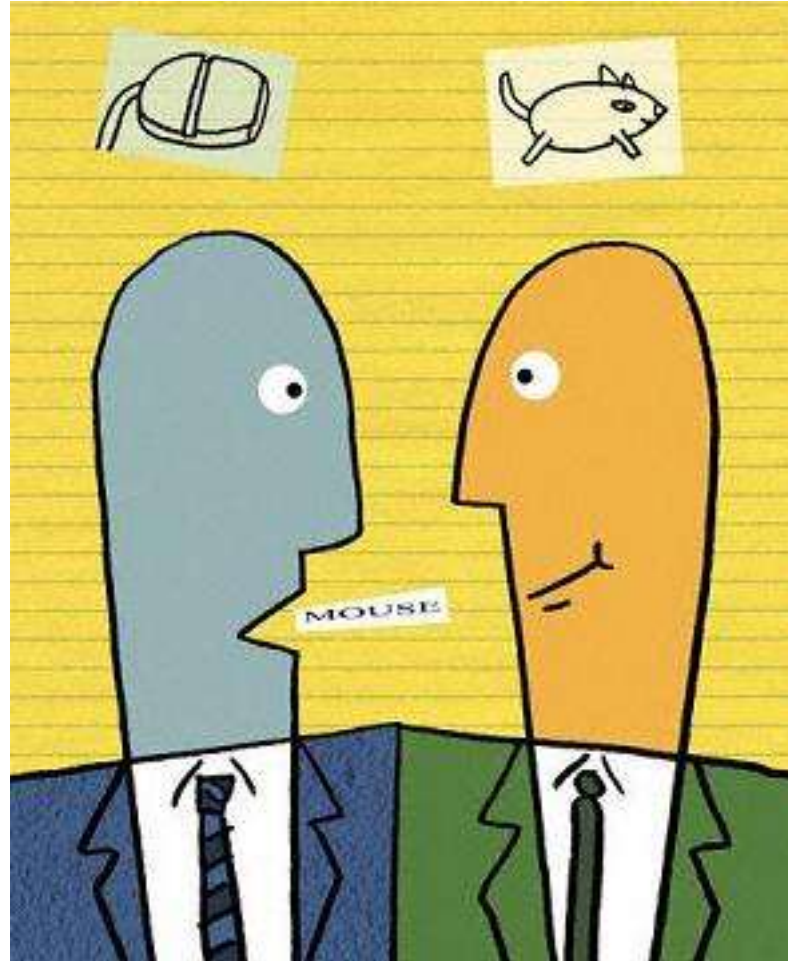
- Need for immediate action vs avoiding a rush to judgment
- Adherence to standards of practice vs encouragement to challenge existing paradigms
- Respect for hierarchy and expert authority vs encouragement to critique accepted wisdom
- Errors as mortal threats vs inevitable manifestations of the creative process
- Application of sci knowledge vs discovery of...
- Focus on unique vs focus on common
- Uncontrollable studies vs controllable studies
- Commitment to the physician's oath vs commitment to the search for truth
- Suits and ties vs jeans and t-shirts
- Perceptions and frames of reference

Harnessing Diversity

Bringing on new team members

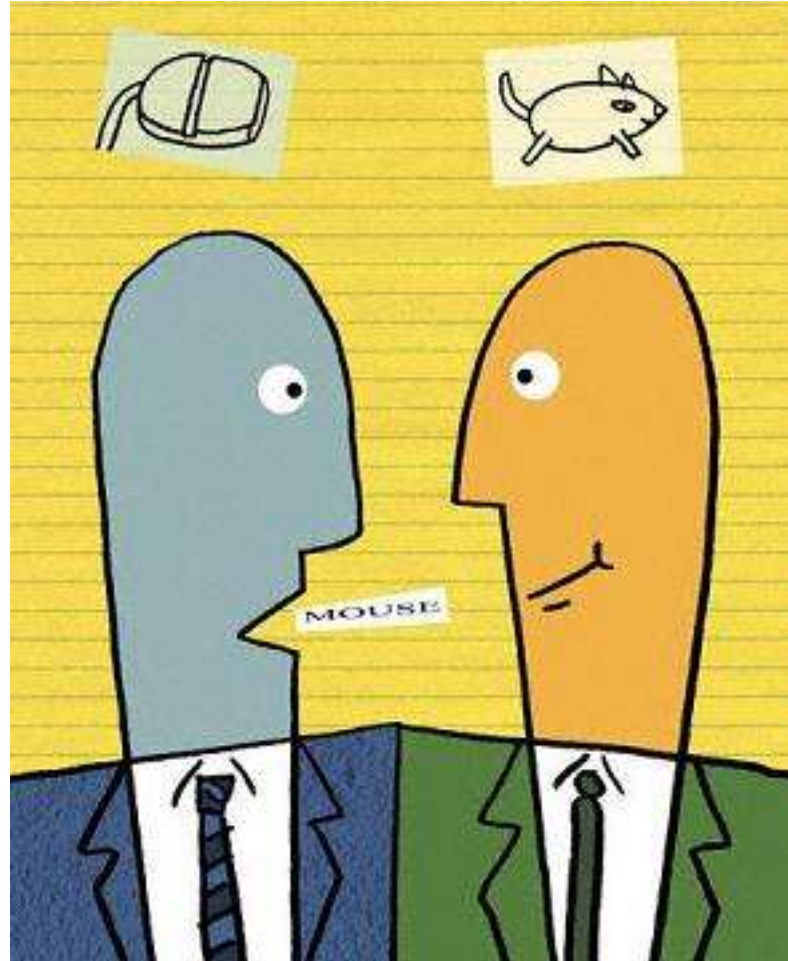


What did you say?



Language of Interdisciplinary Teams

What did you say?



<http://www.youtube.com/watch?v=PbODigCZqL8>

Managing Diversity: Identity Differences

- Styles – expressions and interactions
- Norms – communication, assertiveness
- Values – principles, what matters
- Cognitive framework – how the world is seen

When group members share common goals and values cultural diversity leads to better outcomes regarding group cohesiveness and group performance

Leadership for Collaborations and Team Science

Leaders Must Pull Many Elements Together

- Trust
- Membership (Building a Team)
- Shared Vision
- Getting and Sharing Credit
- Conflict Resolution
- Adversarial Collaboration
- Communication and Negotiation
- Team Dynamics
- Team Networks and Surrounding Systems
- Challenges to the Success of Scientific Teams
- Fun
- Leadership

Leadership and Awareness

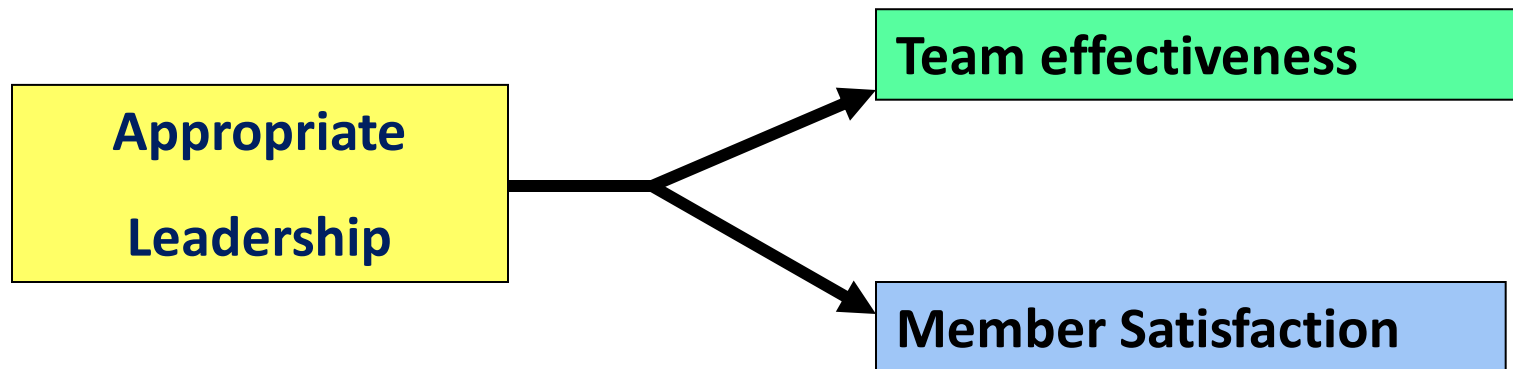
- Self-Awareness Contributes to Strong Leadership
- A Self-Aware Leader:
 - Recognizes the value of self-awareness
 - Helps team participants understand that value and build skills in that area
 - Mentors and coaches a new generation of leaders for whom awareness is in their toolkit

Leading Teams

- Teams have clear leadership
- Leaders articulate their scientific and research vision to the team and, in turn, the team becomes committed to that vision
- Common characteristics of strong leaders:
 - Willing to “lead”, decisive, shares information, communicates well, well-organized, strongly supports staff at all levels, models the collaborative process, links team to others, etc...
- Leaders look for members who will fit into the team’s culture
- There is no formula

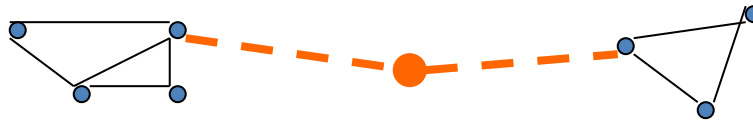
Leading Collaborations Requires Skills

- Constructing a vision of the whole beyond disciplinary or organizational perspectives or boundaries
- Knit together individual vantage points into a new coherent whole looking for gap areas
- Develop skills to overcome process impediments



Collaborative Leaders as Brokers

- Connect people and teams not otherwise linked to each other



- See bridges where others see holes
- Identify and patch structural holes
- Provide “vision advantage” (Burt, 2005):
- Invite alternative ways of thinking to detect new opportunities
- Brokers are seen as experts by all team members and can play important roles as discussion facilitators and conflict mediators

Leading Highly Integrated Research Teams

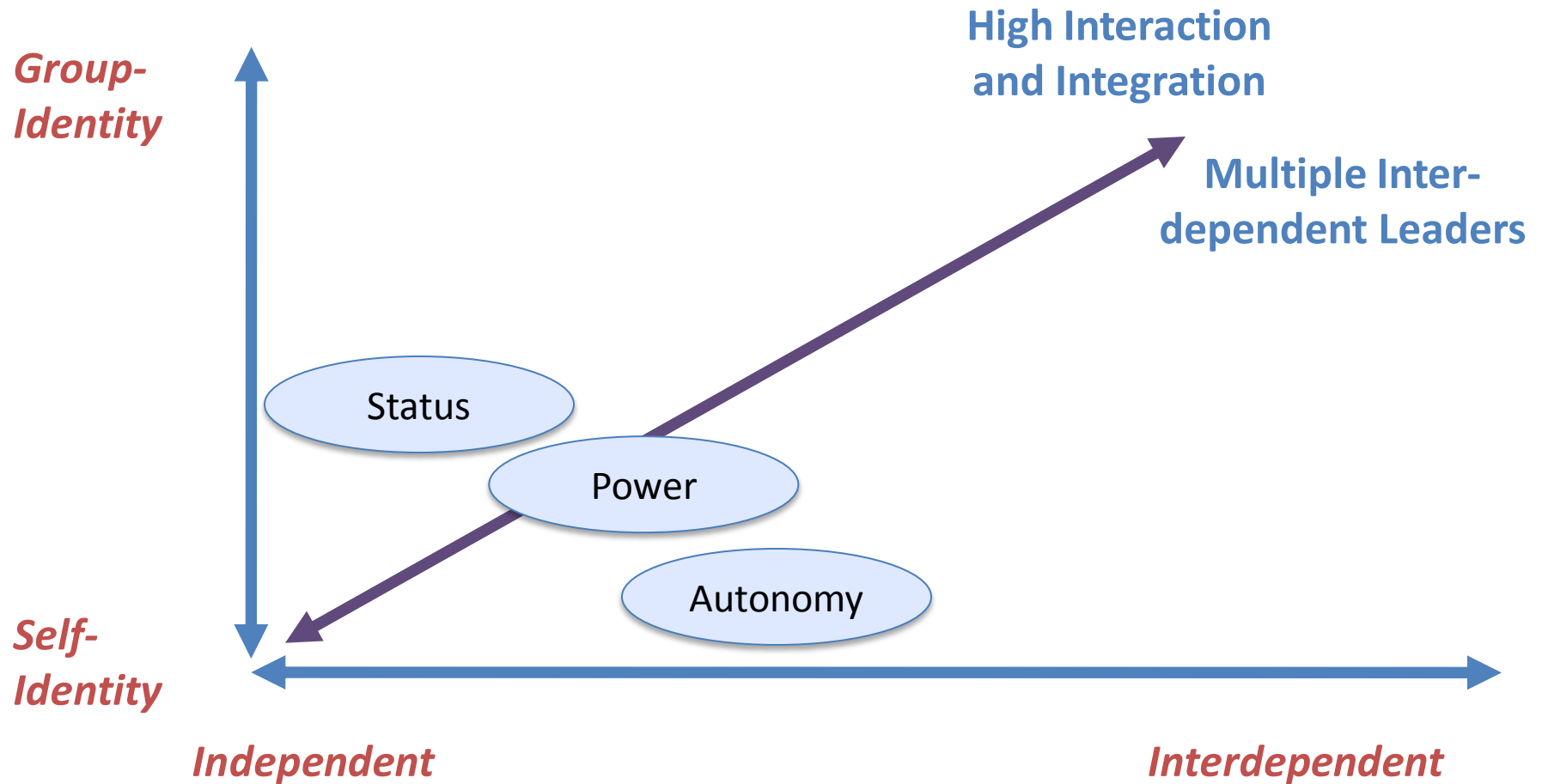
- Cognitive
 - Managing meaning: project conception, vision, goals, shared language while stimulating creativity
- Structural
 - Coordination, information exchange, defining roles and responsibilities, setting expectations, making connections, building the team, getting/sharing credit
- Process
 - Communication, interpersonal dynamics, conflict resolution, adversarial collaboration

Leading a Preemptive Approach

- Define vision, establish trust, identify right team members
- Establish policies and approaches that support collaboration
- Clarify roles, responsibilities, expectations early in the relationship
- Develop scaffolds for the establishment of trust such as written agreements
- Provide support (training, education, ADR, etc..)
- Self-awareness and skill development

Challenges Leaders can Anticipate

Collaboration Introduces Threats





Collaboration Requires
Letting Go
- Loss is Risky



Trust Provides Safety
- Building Trust Takes Time

Loss Aversion

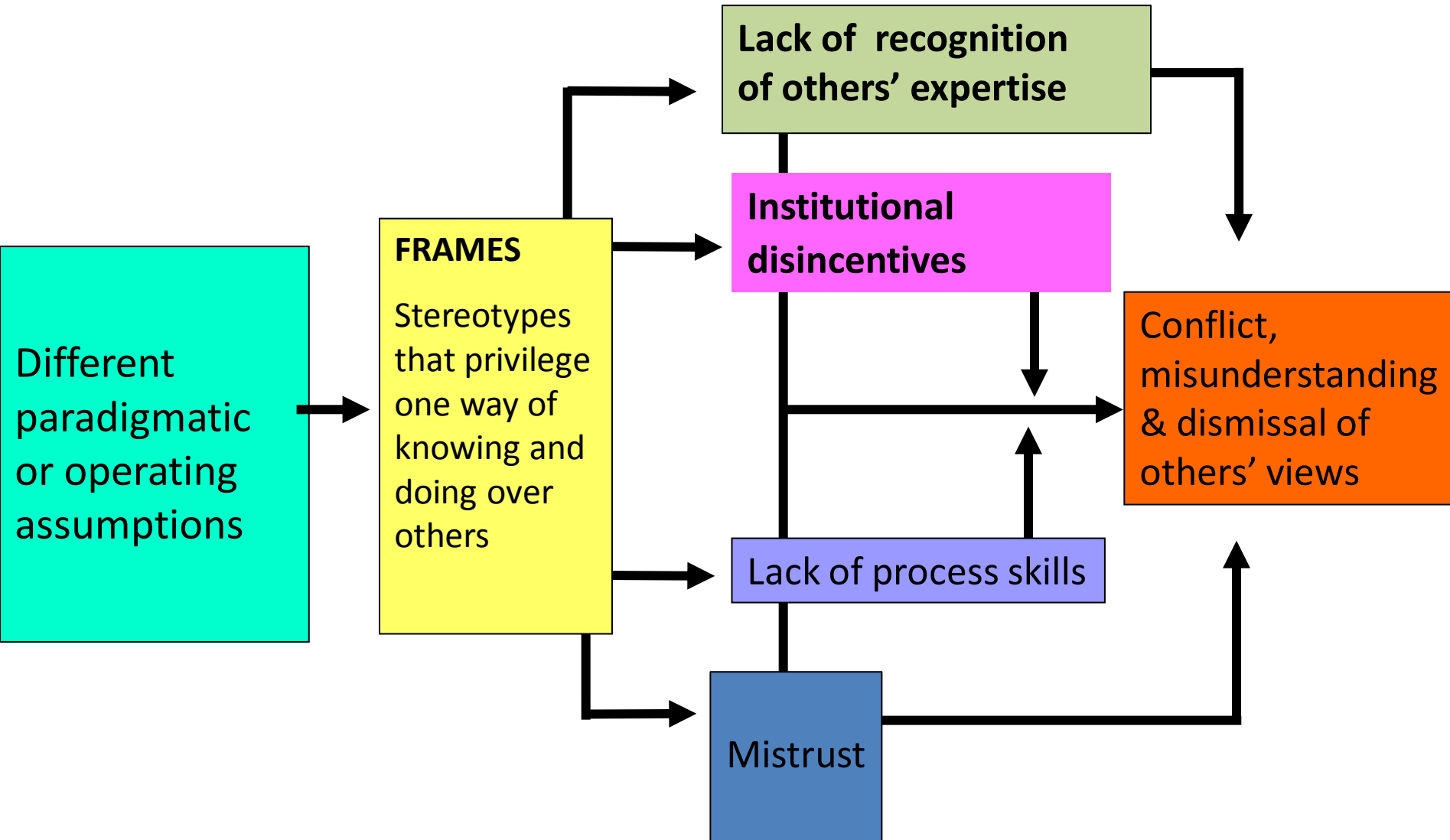
- People attach greater weight to prospective losses than gains, making them reluctant to trade concessions even where it is mutually advantageous
- People are very attuned to *loss of face, status, and ego*
 - Thus, framing a proposal so as to invite the other side to give something up rather than to receive something in return may inadvertently raise recipients' reluctance

No matter what type of collaboration...

Collaborators face difficulties:

- Poor listening and new language
- Conflicts over goals and methods to achieve them
- Squabbles about validity of conceptual frameworks
- Competition for influence, power, recognition, ...
- Threat to ego and/or status
- Inability to integrate diverse perspectives
- Institutional disincentives—stressing disciplinary competence vs. out-of-box thinking
- Difficulty finding funding and publication outlets

Obstacles to Collaboration



Leaders Motivate Team Identity



The Sweet Spot

- Where personal strengths and passions align with essential work in a setting which provides opportunities for challenge and growth.
- Where individuals are the most valued and their contributions most valuable.

Maximize the Value of each Individual:

Aim to increase the overlap among these three circles, while keeping in mind the changing contents within each circle.

Sharing Credit

- Samantha Levine-Finley
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