

“Some Tips for Collaboration and Some Meditations on Equality”

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Outline

1. Theory Groups

2. Synthesis Groups

3. Breakout Groups

Research

- Diana Crane
- Randall Collins
- Jenny Uglow
- Michael Farrell
- Ugo Corte
- Nicholas Mullins

Theory Groups

Prime social movers

High infant mortality

“Sociological Unicorn” (3-6/gen)

Nucleus of a SIM

Robust social dynamics

E.g.: Phage group, Skinnerians, Bourbaki, Quantums

Resilience Alliance



They Get Away: Isolation and Insulation

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Personality Selectivity

Delbruk: The great social filter

Zuckerman: “Scientific truffle dog”

RA: “Good Island Personalities”

Access to Ample Resources

- Cutting-edge research technologies
- Diverse expertise and skills
- Diverse life experiences
- \$\$\$ to meet, organize, and engage in collective action
- Graduate students

Rituals, Playfulness, Fun Facility Equality and Lower Social Barriers

- 1) Quantum: Ping pong
- 2) Phage: Camping
- 3) RA: Limericks & Secret Societies

Farrell: Not ancillary, but crucial

Social Solidarity and Emotional Energy

“Alone among unsympathetic companions, I hold certain views and standards timidly, half ashamed to avow them and half doubtful they can after all be right. Put back among my friends in half an hour — ten minutes — these same views and standards become once more indisputable. The opinion of this little circle outweighs those of a thousand outsiders” — C.S. Lewis

Group Flow

“Another moment that we had that was fantastic was when I thought we became like more or less a collective brain, or a collective soul. We were sitting out on the porch—about five or six of us. . . . And we started to talk, and then suddenly after a while you couldn’t any longer feel who talked about what, it was like a unified experience. It was pretty amazing. And that generated so many of the new hypotheses—just that 45 minutes or so. ...it was, I wouldn’t say another level of consciousness, but level of communication that generated new insights. And you couldn’t really say afterwards who had said what. That was fantastic.” – RA Scientist

Instrumental Intimacy

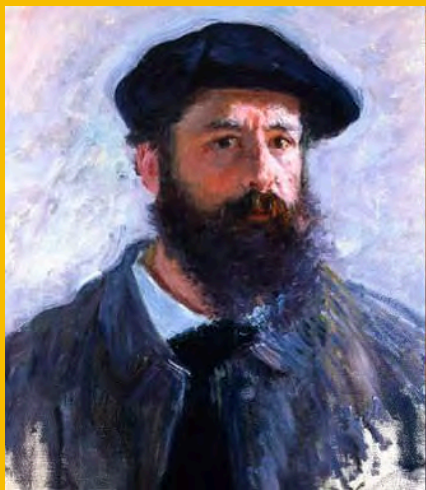
You know people so well that one of them makes a head gesture like that [nodding] and it communicates a whole sub-routine of knowledge at once...an enormous volume of information per unit time gets transmitted. Because you know the people so well and there is a lot of systematic trust relations that have been built up. -- RA Member

“The unpayable debt that I owe him was not influence as it is usually understood, but sheer encouragement. He was for a long time my only audience. Only from him did I ever get the idea that my stuff could be more than a private hobby.”

—Tolkien of Lewis

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Monet and Renoir, 1869



Escalating Reciprocity

“Encouraged by your kind-hearted comments, I wanted to send you another chapter of the dream book before I leave Berlin ... I shall change whatever you want and gratefully accept contributions. I am so immensely glad that you are giving me the gift of the Other, a critic and reader – and one of your quality at that.” - Freud to Fleiss (1898)

I know most of the people here would walk a long mile for any one of their colleagues, personally. And scientifically, if any one of these people asks me for help, I do it.

- RA Member

Synthesis Centers

BALBOA BUILDING

735

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Scientific Synthesis

Integrates ideas, methods, and data across disparate forms of expertise, scales and study systems to increase the generality or empirical soundness of scientific explanations.

- (*Hampton and Parker 2011*)

- 1) Hyper-specialization
- 2) Data overload
- 3) Transformative research
- 4) Complex problems

Synthesis Groups

- 10-15 people
- 5-10 days
- Several days, several times, several years
- Interdisciplinary
- Cross-sectorial
- Intense, engaged, F2F

National Research Centers:

- 1) NCEAS
- 2) SESYNC
- 3) NESCENT



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Success in Synthesis

1. Propinquity
2. Isolation
3. Focus
4. Formality and informality
5. Balanced participation
6. Small groups (full meetings)

NCEAS Research

- 1% most highly cited institutions
- 6X rate of increase in co-authorship
- Changes in attitudes and behaviors
- Differ in substance, scope and ambition
- More engaged, embedded and directed
- Measureable career effects

Ensuring Diversity: A Stoichiometric Perspective

- Jr./Sr.
- Gender
- Sector

Trust and Solidarity

- Span disciplines, institutions, nations
- Leave local contexts and enter F2F at center
- **Result:** trust, leadership roles, division of labor
- Accomplished in three ways
 - Testing mettle
 - Informal interactions
 - Group symbols and rituals
- **Allows for:** trust, equality, bridging of social groups, and operational division of labor
- **Trading zones, pidgin, Creole**

Benefits of Diversity: Jr/Sr Relations

- Distinct division of labor
- **Sr. Scientists:** socialization, networking, institutional memory, orientation in the field, asking important questions
- **Jr. Scientists:** fresh ideas and techniques, labor, energy, asking challenging questions
- Ground practice while admitting creative insights
- **Essential tension** (Kuhn, 1977)

Encourage Diverse Viewpoints & Avoid False Consensus

Manage Power Relations

Provide Incentives
&
Beware “The Coarse Woody
Debris Phenomenon”

Establish Clear Expectations (Early On)

- Authorship
- Data Sharing
- Intellectual Property

Order the Discussion

- Physical layout matters
- Focus and flexibility
- “Homework”

Sociometer



Devices

- Infrared
- Microphones
- Accelerator
- Bluetooth

Measurements

- Speaking metrics
- Bodily energetics
- F2F networks
- Spatial data
- Vocal and posture mirroring

Scientific Creativity: Three Data Streams



Sociometers

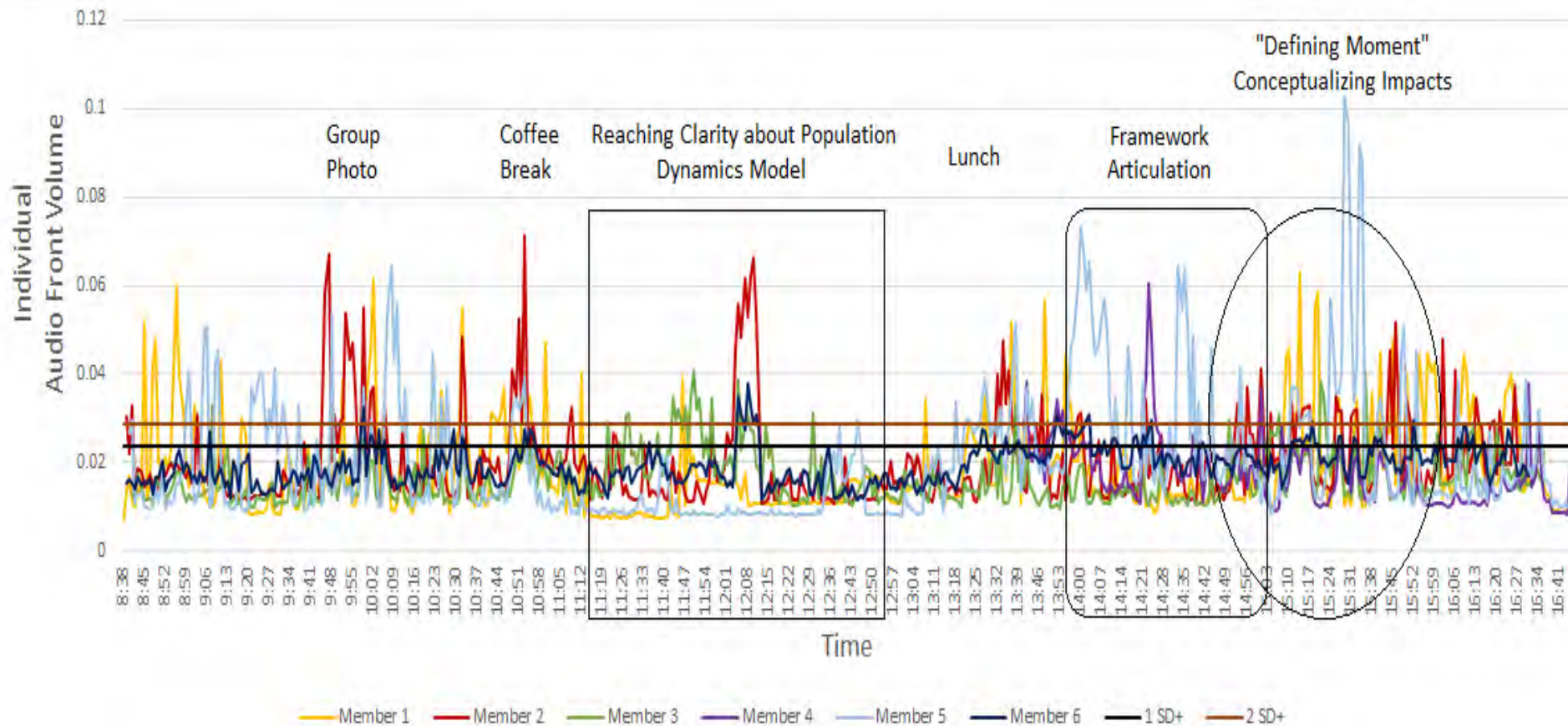


Ethnography



Daily Surveys
(*KEYs Index*, Amable 1999)

Average Per Minute Front Volume: Group 3, Day 2



Correlations of Daily Sociometric Speech Participation Data and Daily Survey Data

		Today, I Felt...				
Speech Overlap	Correlation	My Work Was Creative	The Group was Creative	Involved in My Work	Imaginative	I Enjoyed My Work
		0.065	0.014	0.000	0.271*	0.129
	Sig.					
Mean Front Volume	Correlation	0.652	0.925	1.000	0.057	0.371
	Sig.	-0.173	-0.132	-0.259*	-0.329**	-.283**
Self turns	Correlation	0.230	0.362	0.070	0.020	0.046
	Sig.	.290**	.309**	.447***	0.167	.385***
Speaking Segments	Correlation	0.041	0.029	0.001	0.248	0.006
	Sig.	.292**	.294**	.386***	0.167	.405***
Mean Speaking Segment Length	Correlation	0.039	0.039	0.006	0.246	0.003
	Sig.	-0.237*	-.302**	-.355**	-.476***	-.341*
Successful Interruptions	Correlation	0.098	0.033	0.012	0.000	0.015
	Sig.	0.239*	0.189	0.133	0.115	.312**
N=50		0.094	0.188	0.359	0.428	0.028

A Handful of Guiding Principles

1. Face-to-face (intensive *or* extensive) – create an island for yourself
2. Social and physical isolation
3. Keep it small
4. Time (x 2)
5. Rituals, identities, and informality
6. Playfulness & Fun
7. Balance diversities (stoichiometry – not representational)
8. Beware the ‘band of brothers’ (x2)

Thanks!

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