Herrmann Brain Dominance Instrument
OUR FOUR DIFFERENT SELVES

A
- Analyses
- Quantifies
- Is Logical
- Is Focused
- Is Realistic
- Likes Numbers
- Knows about Numbers
- Knows how Things Work
- Takes Preventative Action
- Establishes Procedures
- Gets Things Done
- Is Reliable
- Organises
- Is Neat
- Is Timely
- Plans

B
- Infers
- Imagines
- Speculates
- Takes Risks
- Is Impulsive
- Breaks Rules
- Likes Change
- Is Curious/Plays
- Is Sensitive to Others
- Likes to Teach
- Touches a lot
- Is Supportive
- Is Expressive
- Is Emotional
- Talks a lot
- Feels

C

D

1990-1997 The Ned Herrmann Group
Team assembly

Top down

Bottom up

Social dynamics
Cheruvelil
I don’t do touchy-feely stuff like that.

Are you serious? I am NOT doing that.

Why aren’t we doing science?

Scientists aren’t like other people.

We are different.

Students are very comfortable talking to me; they can knock on my door any time.
Acceptable team building activities in ecology

Cheruvelil
What makes a great team
paired discussion and round robin
Productivity

Smith 2007

Figure 2.1  Group Performance

high performers

cooperative

traditional

pseudo type
Pseudo Learning Group

Students in a pseudo learning group are assigned to work together but they have no interest in doing so. They believe they will be evaluated by being ranked in terms of highest performer to lowest performer. On the surface these students talk to each other, but under the surface they are competing. They see each other as rivals who must be defeated, and they block or interfere with each other’s learning, hide information from each other, attempt to mislead and confuse each other, and distrust each other. These students would achieve more if they were working alone.

Traditional Classroom Learning Group

Students in a traditional classroom learning group are assigned to work together and accept that they must do so. But because assignments are structured, very little joint work is required. These students believe that they will be evaluated and rewarded as individuals, not as members of the group, so they interact primarily to clarify how assignments are to be done. They seek each other’s help, but have no motivation to teach what they know to their groupmtes. Helping and sharing are minimized. Some students loaf, seeking a free ride on the efforts of more conscientious groupmates. The conscientious members feel exploited and do less. The result is that the sum of the whole is more than the potential of some of the members, but the harder working, more conscientious students would perform better if they worked alone.

Cooperative Learning Groups

Students in cooperative learning groups are assigned to work together and, given the complexity of the task and the necessity for diverse perspectives, they are relieved to do so. They know that their success depends on the efforts of all group members. The group format is clearly defined: (1) The group goal of maximizing all members’ learning provides a compelling common purpose that motivates members to roll up their sleeves and accomplish something beyond their individual achievements. (2) Group members hold themselves and each other accountable for doing high-quality work to achieve their mutual goals. (3) Group members work face-to-face to produce joint work-products. They do real work together. Students promote each other’s success through helping, sharing, assisting, explaining, and encouraging. They provide both academic and personal support based on a commitment to and caring about each other. (4) Group members are taught teamwork skills and are expected to use them to coordinate their efforts and achieve their goals. Both task and team-building skills are emphasized. All members share responsibility for providing leadership. (5) Groups analyze how effectively they are achieving their goals and how well members are working together. There is an emphasis on continual improvement of the quality of learning and teamwork processes. For a recent guide to success in active learning, see Striving for Excellence in College (Brown and Keeley, 1997).

High-Performance Cooperative Learning Group

A high-performance cooperative learning group meets all the criteria for being a cooperative learning group and outperforms all reasonable expectations, given its membership. What differentiates the high-performance group from the cooperative learning group is the level of commitment members have to each other and the group’s success. Jennifer Futernick, who is part of a high-performing, rapid-response team at McKinsey & Company, calls the emotional bond together of her teammates a form of love (Katzenbach and Smith, 1993). Ken Hoepner of the Burlington Northern Intermodal Transport Team stated: “Not only did we trust each other, not only did we respect each other, but we gave a damn about the rest of the people on this team. If we saw somebody vulnerable, we were there to help” (Katzenbach and Smith, 1993). Members’ mutual concern for each other’s personal growth enables high-performance cooperative groups to perform far above expectations, and also to have lots of fun. The bad news about extraordinarily high-performance cooperative learning groups is that they are rare. Most groups never achieve this level of development.

Groups and Teams

I’ve been using the term team in reference to projects and group in reference to learning, but I will use these two terms interchangeably throughout this book. Though the traditional literature focuses on groups, recently some writers have been making distinctions between groups and teams. For example, Table 2.1 presents Katzenbach and Smith’s (1993) summary of the major differences between working groups and teams.

Are there any surprises in this list, from your perspective? Many students emphasize the importance of a strong leader, but Katzenbach and Smith indicate that real teams, as opposed to working groups, have shared leadership roles. Also, the literature on high-performance teams indicates that they are composed of members with complementary skills; that is, they’re diverse.

Regardless of whether you call them groups or teams, as we move from the information age (where knowledge workers ruled) to the conceptual age (where creators and empathizers will rule), the horizontal element of the T-shaped person will become more and more important. Expertise involving analysis is still important of course, but provides only one pillar (or column in engineering teams) of the T-shaped person.

Importance of Diversity

Often we must work with people who are different from us or difficult to work with but whose skills, talents, expertise, and experience are essential to the project. Working with a diverse group may seem impossible at times, but look at the example of Phil Jackson, former head coach of the Chicago Bulls basketball team. Can you imagine a more diverse group than one made up of Dennis Rodman, Michael Jordan, and Scottie Pippen? Phil Jackson is an expert at managing diversity.
1. Diverse viewpoints
   a. Avoid passes
   b. Perspectives
   c. Opinions furth
   d. Not consen
   e. More on testing

2. Power relations — epistemology

Box 1 in Hampton and Parker
3. Personal incentives
4. Group cohesion
5. Establish clear expectations
2-way

Scientist

Journalist

Scient. Policy Makers

Teachers

Message box, Nancy Baron & COMPASS SeaWeb
Scientists Vs. Everyone Else

- Background
- Supporting Details
- Results/Conclusions

- Bottom-line
- So What?
- Supporting Info.
Why bother?

finding
control, interpret interpret
required
new ideas
real outreach
make work useful
Public trust in the scientific community

![Bar chart showing percent expressing great deal of confidence in different fields: Medicine, Scientific community, U.S. Supreme Court, Education, Press, TV, Organized labor.](source: NSF's Science & Engineering Indicators – 2002)
Information is not enough...

N. Baron & COMPASS
So What?

N. Baron & COMPASS
Message → So What?

- Policy Makers: Does this support or refute my legislation? Do my voters care?
- Managers: Will this help me solve problems on the ground?
- NGOs: How does this relate to our programmatic agenda?
- Scientists: How does this relate to my research? Is it groundbreaking?
- Media: Is it news? Will it sell?
- Public: Why does this matter to me, my family, my community?
N. Baron & COMPASS

Benefits?
- Reduce the adverse health effects of global warming (w/ co-benefits of cleaning up air quality)
- Take care of current populations without compromising health for future generations (“sustainable health”)

Problems?
There is a large regional difference in disease burdens due to global warming.

So What?
Those most at risk from global warming, are also the least responsible for causing the problem. Herein lies an enormous global ethical challenge.

Solutions?
The US should sign the Kyoto protocol and join the rest of the world in confronting climate change.
Personally, I’ve made easy choices as a first step (e.g. hybrid car, mini-fluorescents, etc.)

J. Patz, 2005 Leopold Fellow
Audience: U.S. National Media
“Those most vulnerable to climate change are not the ones responsible for causing it,” said the study’s lead author, Jonathan Patz, a professor at the university’s Gaylord Nelson Institute for Environmental Studies and its department of population health sciences. “Our energy-consuming lifestyles are having lethal impacts on other people around the world, especially the poor.”
Problems?

Benefits?

Issue

Solutions?

So What?

Audience: ?
Message Box
What is important about this prospective research?

Writing exercise (see "discussion rules" handout)

One person volunteer to keep time

Independent work on message box for small group project-- 10 min

Pass to left for editing - 5 min

Repeat

Caucus and synthesize into single slide - 20 min