



"Eliminating Chaos Through Process"

MCL & Associates, Inc.

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A Veteran-Owned Company

* **Return on Investment (ROI):**

Whose Are We Talking About? What to Do About It?

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before the

PMI WDC and PMI CVC

Quantico and Fredericksburg Outreach Group

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PRESENTATION OUTLINE

I. Introduction

A. Objective

A more in-depth exploration of how to strategically foster cooperative behavior for your project.

B. My Background

1. Private Mediator & Conflict Analyst:

- a) Lefcowitz & Vogler, Partner
- b) President, Pittsburgh Chapter, SPIDR (Society for Professionals in Dispute Resolution).
- c) Non-Attorney Member, Pennsylvania Bar Association, Committee on Alternative Dispute Resolution

2. MS Access and Oracle Developer

3. Program/Project Manager and Operations Researcher and Systems Analyst (ORSA), Senior Data / Business Analyst:

- a) Lead Consultant/Project Manager, Peridot Solutions, LLC
- b) MCL & Associates, Inc., CEO

C. Thesis Statement

- The traditional definition of Return of Investment (ROI) is that it *equals* the Gain from Investment (Gain) minus the Cost of Investment (Cost), divided by the Cost:

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$$ROI = \frac{Gain - Cost}{Cost}$$

However, while this equation is *presented as a forward looking, it is actually backward looking*; it only allows us to calculate the ROI after it has already happened. Thus, the true definition of ROI should be, ROI *because* Gain minus Cost, divided by the Cost:

$$ROI \because \frac{Gain - Cost}{Cost}$$

Additionally, we know – both intuitively and anecdotally – individual decisions are actually made on the basis of a similar – and often completely subjective – predictive calculation based upon what we *anticipate* will be true in the future: the *anticipated* Gain, minus *anticipated* Cost, divided by the *anticipated* Cost, *hence* the *anticipated* ROI:

$$\frac{Gain_a - Cost_a}{Cost_a} \therefore ROI_a$$

As players in the stock market and other gamblers have learned, what we anticipate to be true often turns out to be substantially false. Either our considered conclusions are not logically tautological, or they are based upon unexamined assumptions that – in fact – are either faulty or substantially false.

- As a consequence, our own calculation of Cost-Benefit are often incorrect because they are clouded by the our inability to distinguish between our “wants” and our “needs”.
 - ✓ Wants are 1). Symptom specific, 2). emotional and often tied to immediate gratification, 3). below the surface (and not discussed or not clearly communicated), and 4). based on perception and, therefore , often not quantifiable.
 - ✓ Needs – on the other hand – are 1). Solution specific, 2). rational (based on situational problem-solving and tied to a long-term solution), 3). above the surface (based on a situation and problem), and based on facts and often quantifiable (in terms of implications).
- Wants are often tactical, *in the moment* calculations; needs are often strategic, *further ranging* calculations. More often than not, we confuse wants and needs because we do not have the tools readily at-hand that force us to distinguish one from the other, helping us to resist the pressures of perceived time constraints, and the seduction of immediate gratification.

These propel us to *backward-looking* tools based upon our belief system rather than *forward-looking* tools based upon a considered and calculated series of actions whose purpose is to facilitate a particular series of outcomes.
- Therefore, most people, most of the time tend to think – and to respond to events – in a tactical problem-solving mode, rather than a strategic problem-solving mode.

I propose to present a tool set that I believe can aid us in remediating that all too human tendency.

It is not a magic cure or panacea; it requires time, patience, and practice to use well.

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II. Project and Program Solutions

A. The Nature of Projects and Programs:

1. Definition of Projects and Programs

- ✓ Projects are, “a temporary endeavor undertaken to create a unique product or service” (PMI, 2000, p. 4).
- ✓ Programs are, “a group of related projects managed in a coordinated way. Programs usually include an element of ongoing work (PMI, 2000, p. 10).

2. Projects are cooperative human endeavors.

3. Rhetorical questions:

- ✓ “When is the last time anyone has experienced complete cooperation on a project or program?”
- ✓ What is the likelihood that you will experience uncooperative behavior on a project or program?

4. Why?: limited resources.

B. The Nature of Human Condition?

1. In reality, we are all competing with each other to solve our own problems, and we all derive our livelihood to solve someone else’s; we are all jockeying to build coalitions and alliances to influence others toward those ends.

2. Intergroup conflict and interpersonal conflict occurs when there is competition for limited resources.

3. Therefore, to constant human state is to in a constant state of flux between competitive behavior and cooperative behavior.

4. Manifested by:

- a) Egocentric Universe /Survival Instinct (Self-Interest)
- b) Fight-Freeze-Flight
- c) Obedience to Authority (Milgram, 1974)
- d) Xenophobia
- e) Mirror Imaging (White)

C. Rational and Irrational / Functional and Dysfunctional Conflict

1. Rational and Irrational Conflict

- a. Conflict theory, too, distinguishes between conflict that is “rational” and conflict that is “irrational” (Coser, pp. 48 – 55).
- b. Rational conflict ceases: “if the actor can find equally satisfying ways to achieve his end” (Coser, p. 50).
- c. For irrational conflict, however, there are no alternative outcomes, because the actor’s conflict objective cannot be satisfied with its successful attainment.

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- d. An irrational conflict is always dysfunctional, because it invests resources in an outcome that can never resolve the real need motivating action. However, rational conflict is not always functional
- 2. Functional and Dysfunctional
 - A. Conflict theory distinguishes between functional and dysfunctional conflict (Coser, pp. 72 – 81).
 - B. Conflict is not always bad. It provides a beneficial functional purpose, and therefore is not necessarily dysfunctional.
 - C. For example, business conflicts over scarce resources or tight timelines for deliverables may act as a catalyst for new ideas that result in more efficient, more cost-effective, and less time-consuming methods.
 - D. Conflict often forces members of a group to think “outside the circle” for new solutions.
- III. Testing Conflict/Cooperation Theories
 - A. Muzafer Sherif: Realistic Conflict Theory and Superordinate Goals
 - The Robbers Cave Experiment (Robber’s Cave State Park, OK), 1954:
 - ✓ Two groups of twelve-year-old boys
 - 22 boys in the study were unknown to each other:
 - ◆ all from white middleclass, Protestant, two-parent psychologically screened for “well-adjusted” backgrounds,
 - ◆ none knew each other prior to the study, and
 - ◆ randomly assigned to one of two groups
 - individually picked up by bus on successive days in the summer of 1954 and transported to Scouts of America camp in the Robbers Cave State Park.
 - ✓ Stage 1: Intragroup Formation (week one)
 - the groups were kept separate from each other; they did know of each other’s existence,
 - encouraged to bond as two individual groups through the pursuit of common goals that required co-operative discussion, planning and execution,
 - the boys developed an attachment to their groups, establishing their own cultures and group norms, by doing various activities together like hiking, swimming, etc.
 - the boys chose names for their groups, The Eagles and The Rattlers, and stenciled them onto shirts and flags.
 - ✓ Stage 2: Intergroup Friction (week two)
 - the groups were brought into contact with the other; signs of intergroup conflict began to appear with taunting and name calling,
 - the groups were deliberately into competition with each other in conditions that would create frustration between them,

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- a series of competitive activities (e.g. baseball, tug-of-war etc.) were arranged with a trophy being awarded on the basis of accumulated team score,
 - there were also individual prizes for the winning group such as a medal and a multi-bladed pocket knife, with no consolation prizes being given to the "losers."
 - situations were also devised whereby one group gained at the expense of the other. For example, one group was delayed getting to a picnic and when they arrived the other group had eaten their food.
 - As the competition wore on, this expression took a more direct route. The Eagles burned the Rattler's flag. Then the next day, the Rattler's ransacked The Eagle's cabin, overturned beds, and stole private property.
 - The groups became so aggressive with each other that the researchers had to physically separate them.
- ✓ Cooling Off Period (2 days)
- the boys listed features of the two groups.
 - The boys tended to characterize their own in-group in very favorable terms, and the other out-group in very unfavorable terms.
- ✓ Stage 3: Integration
- First the experimenters tried seven activities in which the two groups were brought together, such as watching a film, rearranging the mess hall tables, and shooting firecrackers, but none of these worked, in fact, some only exacerbated the conflict.
 - Superordinate Goals: group valued outcomes that cannot be successfully achieved by the efforts and resources of one group alone, producing a state of recognized interdependency.
 - ◆ the boys were told the drinking water supply had been attacked by vandals. After the two groups successfully worked together to unblock a faucet, the first seeds of peace were sown.
 - ◆ the second problem the two groups had to club together to pay for the movie they wanted to watch. Both groups also agreed on which movie they should watch.
 - ◆ On a trip to another location, the boys helped to jump start a "stalled" truck
 - ◆ the groups 'accidentally' came across more problems over the next few days. The key thing about each of them was that they involved superordinate goals: boys from both groups worked together to achieve something they all had an interest in. Finally all the boys decided to travel home together in the same bus. Peace had broken out all over.
- Third, and most successful, of Superordinate goal experiments

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B. The Prisoners Dilemma (No Communication):

- ✓ Puzzles devised and discussed by Merrill Flood and Melvin Dresher in 1950, as part of the Rand Corporation's investigations into game theory
- ✓ The title "prisoner's dilemma" and the version with prison sentences as payoffs are due to Albert Tucker, who wanted to make Flood and Dresher's ideas more accessible to an audience of Stanford psychologists.

		PRISONER A	
		Cooperation	Non-Cooperation
PRISONER B	Cooperation	-2 / -2	0 / -5
	Non-Cooperation	-5 / 0	-4 / -4

Figure 1: Prisoners Dilemma Rewards, As Presented (No Communication)

- ✓ Presented as a zero-sum game:
 - two prisoners are being held for trial, but prosecutor doesn't have enough evidence to convict either prisoner,
 - they are being held in separate cells with no means of communication,
 - the prosecutor offers each of them a deal,
 - He also disclosed to each that the deal was made to the other,
 - The deal he offered is this:
 - ◆ if you will confess that the two of you committed the crime and the other guy denies it, we will let you go free and send him up for five years.
 - ◆ if you both deny the crime, we have enough circumstantial evidence to put both of you away for two years.
 - ◆ if both of you confess to the crime, then you'll both get 4 year sentences.

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✓ In fact, it is a Non-zero-sum game:

		PRISONER A	
		Cooperation	Non-Cooperation
PRISONER B	Cooperation	0 / 0	0 / -5
	Non-Cooperation	-5 / 0	-4 / -4

Figure 2: Prisoners' Dilemma; Reality (No Communication)

C. The Prisoners Dilemma (Communication):

1. Researchers ask the question, "Does the Prisoners' Dilemma reflect the majority of "real-world" situations?
 - ✓ Are there no other factors that might drive behavior?
 - ✓ Is communication truly never possible?
 - ✓ Does a single, cooperate/non-cooperate choice really describe most social interactions?
 - ✓ Is there a way for the game to be played that maximizes the players' winnings?

		PLAYER A	
		Cooperation	Non-Cooperation
PLAYER B	Cooperation	+2 / +2	0 / +5
	Non-Cooperation	+5 / 0	-5 / -5

Figure 3: Prisoners Dilemma Rewards (Communication)

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2. It was discovered that the most optimal decision pattern was to initially cooperate followed by a “tit-for-tat” strategy that allowed players to communicate with each other through non-verbal behavior. At tit-for-tat strategy that allows verbal communication between the players results in even greater rewards for the participants.
3. Unilateral Initiatives (UI) - An intentional act initiated, without expectation of a reciprocal obligation, whose purpose is to communicate the willingness to engage in cooperative behavior.

D. Charles E. Osgood: Graduated Reciprocation in Tension-Reduction (GRIT)

- ✓ Conceived as having the opposite effect as an arms race
- ✓ Not a quick-fix solution; requires time and patience
- ✓ Low-cost, low risk strategy for reducing-tension
- ✓ GRIT:
 - Make a conciliatory statement: express a desire to work through the conflict
 - Announce behavioral initiatives: tell what you're willing to do to reduce the conflict
 - Execute the initiatives as announced: do what you said you would do
 - Invite but don't demand reciprocation: will they take steps to fix it?(usually not since they don't take fault)
 - Continue initiative performance: keep on, even if they aren't willing to contribute
 - Make the initiatives susceptible to verification: can the other person verify its truthfulness
 - Maintain the ability to retaliate: (foreign relations standpoint); don't give up the availability to punish
 - Make punishments precise and in kind: "precise" (tied to some specific deed) "in kind" (roughly proportional to the wrong done)
 - Diversify initiatives: don't depend on only one thing in case you backslide
 - Match positive reciprocation: if you keep it up, in time the other person should soften; creates a spiral of positive behaviors

IV. Problem-Solving Approaches

A. Getting to Yes; Fisher and Ury

1. Separate the people from the problem
 - ✓ Clarifying perceptions
 - ✓ Recognizing and legitimizing emotions
 - ✓ Communicating clearly (Listen first to understand, then speak to be understood)
2. Focus on interests, not positions
 - ✓ Ask questions to explore interests

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- ✓ Talk about your own interests

3. Generate options for mutual gain

- ✓ Brainstorming
- ✓ Broadening options
- ✓ Looking for mutual gain
- ✓ Making their decision easy

4. Insist on using objective criteria

- ✓ Fair standards
- ✓ Fair procedures

B. Yes But...

1. What if they are more powerful?

- ✓ Prepare a BATNA (Best Alternative to a Negotiated Agreement) prior to the negotiation i.e. a Red Line which will not be crossed
- ✓ Make the most of your assets: the better your BATNA the greater your power

2. What if they won't play?

- ✓ Use principled negotiation; encourage them to do the same
- ✓ Refuse to retaliate; redirect personal attacks on the problem (Negotial Jujitsu).
- ✓ Involve a third party to fuse the views of the opposing parties

3. What if they use dirty tricks?

- ✓ Resist the urge toward appeasement or reciprocal dirty tricks.
- ✓ Use a 3-pronged approach:
 - Recognition of the trick being played (so that you can ignore it)
 - Drawing attention to the trick being played
 - Negotiation about the negotiation itself i.e. about the rules with which the negotiation will be conducted

B. SPIN Selling (Situation, Problem, Implication, Need-Payoff); Neil Rackham

1. Situation: Ask questions that deal with the facts about the decision-maker's (buyer's) existing situation.
2. Problem: Ask questions about the decision-maker's pain and focus the decision-maker on this pain while clarifying the problem, before asking implication questions. . These give Implied Needs. Probe to distinguish between needs and wants by asking probing questions. Again:

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- Needs are 1). Solution specific, 2). rational (based on situational problem), 3). above the surface (based on a situation and problem), and based on facts and often measurable (in terms of implications).
 - Wants – on the other hand – are 1). product neutral, 2). emotional , 3). below the surface (and not discussed or not clearly communicated), and 4). based on perception and, therefore , often not measurable.
3. Implication: Ask questions that discuss the effects of the problem, before talking about solutions, and develop the seriousness of the problem to increase the buyer's motivation to change.
 4. Need-Payoff: Discuss explicit needs and the benefits your solutions offers, rather than forcing you to explain the benefits to the buyer. Getting the decision-maker to state the benefits has greater impact while sounding a lot less pushy. What these questions do is probe for explicit needs.

C. Shoji Shiba; Center of Quality Management (7 Step Problem Solving)

1. Definition : What is the Real Problem?
2. Data Collection: What Do We Know?
3. Cause Analysis: Why?
4. Solution Planning Implementation
5. Evaluation of Effects: Go Back to the Data
6. Standardization: Can we Use the Solution More Broadly?
7. Evaluation of Process: Lessons Learned.

D. Problem-Solving Strategies:

	<u>RATIONAL</u>	<u>IRRATIONAL</u>
<u>RATIONAL</u>	<ul style="list-style-type: none"> •Negotiation •Joint Planning 	<ul style="list-style-type: none"> •Mediation •Unilateral Initiatives •GRIT •Superordinate Goals
<u>IRRATIONAL</u>	<ul style="list-style-type: none"> •Mediation •Unilateral Initiatives •GRIT •Superordinate Goals 	<ul style="list-style-type: none"> •Force •Arbitration

Figure 4: Problem-Solving Strategies

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V. Strategic Problem-Solving: Unifying What We Know:

A. Unified SPIN Situation Step

- ✓ Shoji Shiba Step 1: Definition; What is the Real Problem?
- ✓ Shoji Shiba Step 2: Data Collection; What Do We Know?
- ✓ Shoji Shiba Step 3: Cause Analysis; Why? Formulate initial BATNAs.
- ✓ Additional Step: Solution Planning (Shoji Shiba Step 4, without implementation).
- ✓ Shoji Shiba Step 5: Evaluation of Effects; Go Back to Data Collection (Step 2)
- ✓ Additional Step: Go Back to Problem Definition (Step 1)

B. Unified SPIN Problem Step

- ✓ Shoji Shiba Step 1: Definition; What is the Real Problem?
- ✓ Shoji Shiba Step 2: Data Collection; What Do We Know?
- ✓ Shoji Shiba Step 3: Cause Analysis; Why? Validate initial BATNAs.
- ✓ Additional Step: Solution Planning (Shoji Shiba Step 4, without implementation)
- ✓ Shoji Shiba Step 5: Evaluation of Effects; Go Back to Data Collection (Step 2)
- ✓ Additional Step: Go Back to Problem Definition (Step 1)

C. Unified SPIN Implication Step

- ✓ Shoji Shiba Step 1: Definition; What is the Real Problem?
- ✓ Shoji Shiba Step 2: Data Collection; What Do We Know?
- ✓ Shoji Shiba Step 3: Cause Analysis; Why? Confirm BATNAs.
- ✓ Additional Step: Solution Planning (Shoji Shiba Step 4, without implementation)
- ✓ Shoji Shiba Step 5: Evaluation of Effects; Go Back to Data Collection (Step 2)
- ✓ Additional Step: Go Back to Problem Definition (Step 1)

D. Unified SPIN Need-Pay-off Step

- ✓ Shoji Shiba Step 4: Solution Planning Implementation
- ✓ Shoji Shiba Step 6: Standardization: Can we Use the Solution More Broadly?
- ✓ Shoji Shiba Step 7: Evaluation of Process: Lessons Learned.

VI. Attitude Game Changers

A. Recognize your own emotional state; are you:

- ✓ Hungry?
- ✓ Angry?
- ✓ Lonely?
- ✓ Tired?

B. Resist problem-solve over-reach; 80 percent of something is better than 100 percent of nothing

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- C. Understand your role and responsibilities; stay in your appropriate swim-land
 - D. Network extensively within your problem-solving universe
 - E. Build trust through verbal and non-verbal communication
 - F. Promote cooperative behavior through action; i.e., always attempt to solve other's problems, particularly when it is at little cost to you, even when there is no direct pay-off.
 - G. If cooperative behavior has a direct cost, negotiate. Prepare, validate and confirm BATNAs (Best Alternative to a Negotiated Agreement).
 - H. Influence by attempting to build consensus.
 - I. Always give credit for success to others credit; always take responsibility for failures of others under your direct control.
 - J. Never lie, but be judicious in how you tell the truth.
 - K. Always keep a promise or commitment.
 - L. Don't be afraid to admit that you don't know something, but use it as a means to invite mentoring.
 - M. In addition to mentoring downwards, always offer to mentor upwards and laterally.
 - N. Move on psychologically – and if necessary, physically – when you lose.
- VII. Summary
- A. The definition of ROI is situational and time-sensitive; it depends upon who you are asking, what information they have, and when you are asking it.
 - B. Human constraints are the ever-present factor in all human endeavors; including yourself.
 - C. We need to problem-solve strategically, rather than tactically problem-solve
 - D. Have a plan, and be prepared to adjust it when your assumption-base proves to be incorrect
 - E. We need to consistently practice what we preach
 - F. Mentor, mentor, mentor

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BIBLIOGRAPHY

- Bergey, J., Smith, D., Tilley, S., Weiderman, N., & Woods, S. (April 1999). *Why Reengineering Projects Fail (Technical Report, CMU/SEI-99-TR-010,ORSC-99-TR-010)*. Retrieved June 10, 2006, from Carnegie Mellon, Software Engineering Institute (SEI): <http://www.sei.cmu.edu/pub>
- Coser, L. (1956). *The Functions of Social Conflict*. New York: The Free Press.
- Fisher, R., & Ury, W. (1981). *Getting to Yes*. New York: Penguin Books.
- Lefcowitz, M. (2009). *Filling the Skill-Set Gap: a guide to peer-to-peer training*. Retrieved from MCL & Associates, White Paper: <http://www.mcl-associates.com/downloads/GuideToPeer-to-PeerTraining.pdf>
- Lefcowitz, M. (2008). *How to Build an ORSA on a Shoestring*. Retrieved from MCL & Associates, White Paper: <http://www.mcl-associates.com/downloads/HowToBuildAnORSAOnAShoestring.pdf>
- Lefcowitz, M. (2006b, December). *How to fix IT skill shortages and misalignments*. Retrieved from TechRepublic: http://articles.techrepublic.com.com/5100-22_11-6141245.html
- Lefcowitz, M. (2007c). *Implementing Six Sigma: Issues in Suboptimization, Journal of Installation Management (Volume 2, Winter 2007, pp. 18 - 28)*. Retrieved from MCL & Associates: <http://www.mcl-associates.com/downloads/ImplementingSixSigma.pdf>
- Lefcowitz, M. (2007a, November). *Improving the Business Process Model*. Retrieved from MCL & Associates, White Paper: <http://www.mcl-associates.com/downloads/ImprovingTheBusinessProcessModel.pdf>
- Lefcowitz, M. (2011). *Process Improvement on a Shoestring: Using the Ponzio ADS Maturity Model (AMM) As a Kick-Start*. Retrieved from MCL & Associates, White Paper: <http://www.mcl-associates.com/downloads/ProcessImprovementOnaShoestring.pdf>
- Lefcowitz, M. (2007d, September). *Results, Not Service: Optimizing Management and Information Consulting*. Retrieved from MCL & Associates, White Paper: <http://www.mcl-associates.com/downloads/ResultsNotService.pdf>
- Lefcowitz, M. (2007b, October). *TigerTeam: High-Speed, Low-Drag Process Improvement*. Retrieved from MCL & Associates, White Paper: <http://www.mcl-associates.com/downloads/TigerTeam.pdf>
- Lefcowitz, M. (2006a, October). *Why Does Process Improvement Fail?* Retrieved from TechRepublic: http://articles.techrepublic.com.com/5100-22_11-6124484.html
- Milgram, S. (1969). *Obedience to Authority: An Experimental View*. New York: Harper Colophon Books.
- Osgood, C. E. (1962). *An Alternative To War Or Surrender*. Urbana: University of Illinois Press.
- PMI. (2000). *A Guide to the Project Management Body of Knowledge (PMBOK Guide)*. Newtown Square, PA: Project Management Institute (PMI).
- Rackman, N. (1988). *SPIN Selling*. New York: McGraw-Hill.
- Sessions, R. (November 8, 2009). *The IT Complexity Crisis: Danger and Opportunity*. Retrieved from <http://www.objectwatch.com/whitepapers/ITComplexityWhitePaper.pdf>
- Shah, R., & Ward, P. T. (August 2002). *Lean Manufacturing Context, Practice Bundles, and Performance*. Retrieved from Carlson School of Management: <http://carlsonschool.umn.edu/assets/101192.pdf>

Lefcowitz: Return on Investment (ROI): Whose Are We Talking About?
PMI WDC and PMI CVC, Quantico and Fredericksburg Outreach Group

April 3, 2013

Sherif, M. (1967). *Social Interaction: Process and Products*. Chicago: ALDINE Publishing Company.

Sherif, M., Harvey, O. J., White, B. J., Hood, W. R., & Sherif, C. W. (1961). *Intergroup conflict and cooperation: the Robbers Cave experiment*. Norman, OK: University of Oklahoma Book Exchange.

White, R. K. (1970). *Nobody wanted war : misperception in Vietnam and other wars*. Garden City, N.Y.: Doubleday & Co / Anchor Books.