

## Developing Judgment and Decision Making in Our Staff

Tod Schimelpfenig and Liz Tuohy, NOLS  
WRMC 2009 Workshop



*"Judgment in my estimation is the greatest safety factor you can have. Not only while the students are taking your course but for their safety after they leave your school and might do some of these things on their own."*

**Paul Petzoldt**



### Judgment

- Reasoning In Uncertainty
  - Missing Data,
  - Conflicting Information,
  - Time Pressure,
  - Unclear Threats
  - Possibility Of Harm
- Highly Valued In Both  
Medicine And Outdoor  
Leadership



### Premises of Workshop:

- Decision making skills can be developed if we are intentional in reflecting on the decision making process.
- Reflecting can be challenging if it reaches deep personal values of competence and responsibility.
- Knowing that, we need to figure out ways to develop judgment in our staff.

### Workshop Goal:

- To help you become a more skilled and astute coach of decision making skills when supervising your staff.

Who are you and what type of program do you work in?

Why did you decide to come to this workshop?

What is one thing you are hoping to take back to your organization from the workshop?

### Discussion in groups of 4

- Premise: judgment can be developed when we are intentional in our decision making and reflect on our decisions.
- Question: In your organization, what factors prevent a regular and effective reflection process?

### Three steps towards developing judgment in your staff

1. Create an organizational structure and culture supporting the development of judgment.
2. Coach your staff.
3. Reflect on your decision making.

### Organizational Structure, Culture

- Structure
  - Clarify standards for decision making.
  - Scheduled regular debriefs or staff check-ins.
  - Use decision making models.
- Culture
  - Is it comfortable to discuss decisions at your organization?
  - Is the atmosphere growth-oriented or punitive?
  - Does the culture emphasize analyzing decisions AND changing habits over time?
  - Do administrators role model reflection and growth?
  - How often are legal threats considered while making decisions or reflecting on them?

### Coaching

- An incredible learning opportunity based on personal and real situations
- Much easier if you have a common language
- Includes emotional risk
- For this workshop we are assuming some debrief skill and experience.



### Reflecting On Your Own Decisions

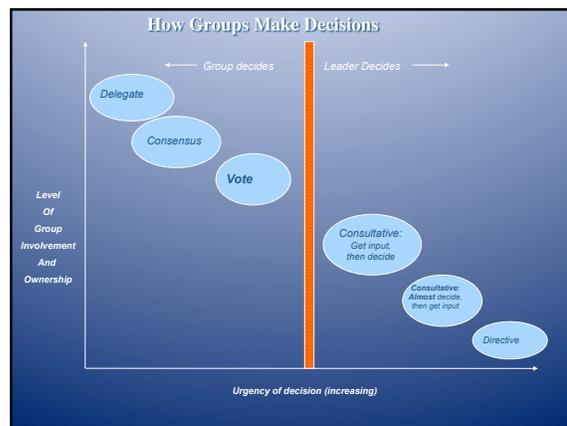
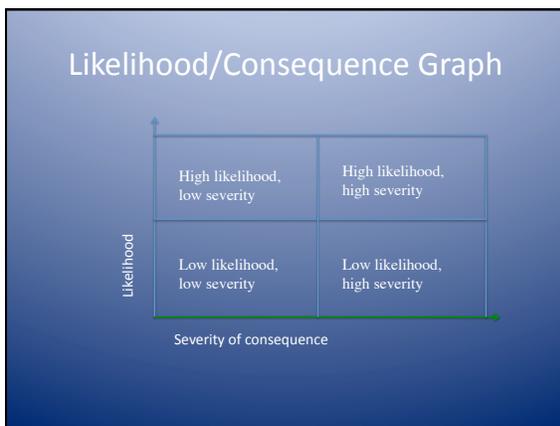
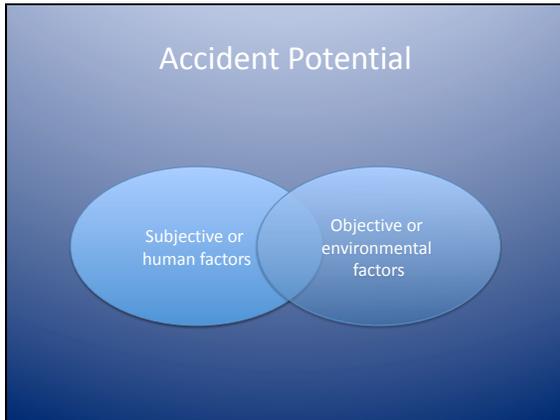
- Is integral to being an insightful and empathetic coach
- Is a learnable skill that requires practice.



### Outline: The Rest Of The Workshop

- Phase 1: Decision Making Models: from simple to advanced
- Phase 2: Coaching Practice (including Emotional Risk Awareness)
- Phase 3: Personal/Organizational Reflection

### Phase 1: Decision Making Models



- ### Pitfalls in Group Decisions - Group Think
- **Group size effect**
    - Members of small groups affect each other more than larger groups.
    - In large groups the tendency is to agree with the group.
  - **Risk polarization** is an inclination for groups to take more (or less) risks than individuals.
  - **Support theory** says that the time spent discussing a risk can increase the group's perception of its probability.
  - **Attribution theory** says groups make riskier decisions because the consequences of a decision are borne by the group, not an individual.
  - In the **information cascade** model the group makes a poor decision based on imbedded misinformation.

### How Groups Make Decisions

#### How People Make Decisions

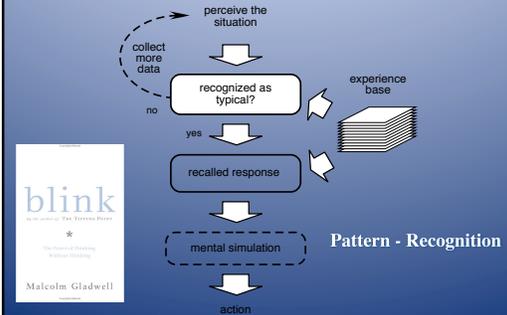
- Random Choice
- Expertise Model
- Heuristics
- Analytical Model

A photograph showing a group of hikers with large backpacks crossing a river by wading. They are using poles for stability in the water.

### Random Choice

- Without the experience, information or the expertise to decide between alternatives, a guess may be a good choice.
- The consequences should not be serious.
- Sometimes action, which gives you experience and information, is better than endless discussion.

### Expert Decision Model - Expert Intuition



From Ian McCommon, NOLS Leadership Educators Notebook 2004

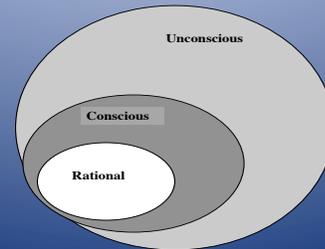
### Traps in the Expertise Model

- You're not an expert (expert halo trap).
- Distorted pattern recognition.
- Premature closure.



### Rules of Thumb, Heuristics, Axioms, Postulates

- Problem-solving aids adopted from experience.



Sex, Drugs and White Death. McCommon 2004.

### Rules of Thumb, Heuristics, Axioms, Postulates

Recognizing patterns, applying axioms

- The "golden hour"
- Occam's razor v Hickum's Dictum.
- Red and yellow kill a fellow, red and black, venom lack.
- 70-90% of diagnoses can be made from history?
- Whumping or collapsing in snowpack.
- The 30/30 lightning rule
- Pain, SOB, Bloody Sputum = Pulmonary Embolus



### Traps in Heuristics, Axioms, Postulates

- They may not be accurate.
- They may not be specific.
- Distorted pattern recognition.
- Wrong prototype.

### Protocols, Algorithms, Decision-Making Aids

Teach the young and remind the old

Cue	Description
Avalanches	In the area in the last 48 hrs.
Loading	By snow, wind or rain in the last 48 hrs.
Path	Identifiable by a novice.
Terrain trap	Gullies, trees, cliffs or other features that increase severity of being caught.
Rating	Considerable or higher hazard on the current avalanche bulletin.
Unstable snow	Collapsing, cracking, hollow snow or other clear evidence of instability.
Thaw instability	Recent warming of the snow surface due to sun, rain, or warm air.

Table 1. An example of a simple decision framework based on obvious clues. Users simply add up the number of clues that apply to the slope. The acronym ALP TRUTH is a handy memory aid.

### Protocols, Algorithms, Decision-Making Aids

**Seamanship**

Human Factors:

- Experience
- Ability to operate in these conditions
- Ability to operate in these conditions
- Skills (navigation, rescue, etc.)
- Communication (level of familiarity, listening & mutual respect)
- Attitude (schedule, pressure & goals)
- Physical strength, health & wellness

Seaman Conditions:

- Weather (forecast, actual)
- Visibility
- Currents
- Tides
- Wind
- Waves
- Ice
- Obstacles
- Boat condition
- Equipment (load, storage, condition, and safety gear)

Legend:

- RED light - STOP: A hazardous situation exists.
- YELLOW light - CAUTION: There is a potential hazard, but much uncertainty as to whether an emergency exists.
- GREEN light - IS OK: No hazard is obvious.

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### Protocols, Algorithms and Decision Making Aids

Pre-determined decisions

Abdominal pain that is:

- > 12 hours, especially if constant.
- Localized.
- With guarding, tenderness, distension, rigidity.
- Made worse by movement or foot strike.

Associated S/S:

- Blood in vomit, feces, urine.
- Persistent anorexia, vomiting, diarrhea >24 hours.
- Fever >102°F (39°C).
- S/S shock.
- Possible pregnancy.

### Traps with Protocols

- The cook stops thinking
- The protocol is not accurate
- Is it based on sound science, educated guess, expert opinion, myth?

### A Simple Analytical Decision Model

Flowchart:

- identify objectives
- examine available information
- compare alternatives
- decide

Pyramid Diagram:

- Scene Size Up
- Life threats ABCDE
- Head to Toe | Vital Signs | History
- Problem List and Plan
- Interventions/Treatment
- Monitor

From Ian McCammon, NOLS Leadership Educators Notebook 2004

### Analytical Traps

- Inability to identify the pertinent variables.
- Intuition or guess masquerading as analysis.
- Overestimate the probability of an event which is easily and vividly imagined.
- Correlation is not causation.
- Easily remembered or available information has more weight.

### Analytical Traps

- Looking for information to confirm our biases or desired outcomes.
- Information presented early, or late, has more weight.
- The use of known facts to draw inferences about the unknown.
- The probability of an event or the weight of evidence is inappropriately influenced by the detail in a discussion.

### Phase 2: Coaching Practice

#### Scenario #1

You, a program manager, are about to debrief Tod, a senior trip leader who just ran a 10-day backpacking trip with ten high school students.

At the post-trip lunch, you hear students talk about being scared from the "lightning on top of the mountain climb."

There was no mention of lightning in the course log or in any near-miss report.

The log for the peak climb day states "we had a great day; we climbed the mountain."

This incident concerns you.

### Coaching Scenario #1

1. Debrief Preparation Exercise
  - 30 Minute Workshop Break
2. Role Play (Tod and Liz)
3. Scenario Wrap Up

### Activity 1: How would you prepare for this conversation?

Your goals are to:

1. Find out what happened.
2. If appropriate, have the trip leader learn something.
3. If appropriate, deliver your program's boundaries and prevent another similar incident.

In groups of four, spend ten minutes discussing this question. We will draw on a few of these answers after the break.



### Scenario #2

- A group of 10 students and two instructors were on a 10-day early summer backpacking trip in the Sierras.
- They were hiking in two different groups, and encountered a river crossing.
- One group crossed and finished their day at a pre-designated campsite.
- The other group decided it was too hazardous to cross; set up camp and waited until the next morning (when the water was lower) to cross.
- No one got hurt in either group, and the river crossings did not meet your organization's definition of a "near miss."
- The instructors moved on with the trip without talking about the decisions.

### Coaching Scenario #2

1. Role play, in groups of four (10 minutes)
2. Debrief the role play, in groups of four (5 minutes)
3. Wrap up scenario, in full group (5 minutes)

### Managing Emotional Risk in Judgment Coaching

- Respect that these risks are scary and real for people.
- There is an ideal level of risk to engage the learning process. However sometimes you need to challenge people past their ideal learning curve.
- You can't wait for big incidents to discuss judgment.
- Whenever possible, focus conversations on actions instead of character.

### Managing Emotional Risk in Judgment Coaching

- Use models.
- Use ongoing, specific feedback in a 6:1 positive: critical ratio.
- How can you help this person feel respected and supported? It's different for different people.
- "What can WE do differently next time?"

### Managing Emotional Risk (cont.)

- Be prepared to offer clear boundaries, even if it means firing someone.
- Know how deep to go in a given conversation, and when.
- Recognize the emotions that YOU bring to the conversation.

### Phase 3: Personal/Organizational Reflection

### Reflective Practice

- The cultivation of the observing self in the moment of the decision.
- Intentional attentiveness to raw thoughts, sensations, emotions, judgments and heuristics.

#### Motivation

- The development of judgment requires honest self-evaluation in a motivated learner.

#### Presence

- Cultivate the mental stability to be open, curious, flexible and present when faced with anxiety, uncertainty and chaos.
- Repetitive training, like a WFR scenario, or transceiver drills, can be helpful.

### Reflective Practice

- See information as novel and describe it before rendering judgment.
- Welcome new data even if it disconfirms an initial hypothesis
- "Absolute diagnosis are unsafe, and are made at the expense of a clear conscience." Osler
- Don't confuse educated guesses, rumors, myth with fact.
- See from multiple perspectives. What is this? What else could it be?
- Intentionally consider other explanations.

### Decision Reflection

Identify in pairs a significant field decision you've made in last year and the process that you went through in making it.

- Use a decision making model to identify factors you used in making this decision.
- Can you identify one trap in which you fell, or to which you are susceptible?
- What emotional risk do you feel when evaluating the decision you made?

### Action Plan

- 5 minutes, individually on paper:
- Please describe three measurable steps that you can take to develop judgment in your staff.
- What will your challenges be?
- Name one way that your organization is currently good at developing staff judgment.

### Wrap Up

#### Workshop Goal:

To help you become a more skilled and astute coach of decision making skills when supervising your staff.

#### Two frameworks to remember:

1. To develop judgment in your staff, you need to work at three levels:
  1. Organizational structure and culture.
  2. Coaching
  3. Personal reflection.
2. To coach effectively while supervising you need to :
  1. Think analytically.
  2. Use intuition to gather more information.
  3. Follow through to a clear conclusion.

## Where to find these models

**Subjective/Objective Accident Potential:** NOLS Risk Management for Outdoor Leaders and NOLS Wilderness Educator Notebook

**Likelihood/Consequence Graph:** NOLS Wilderness Educator Notebook

**Peer Group Decision Making:** NOLS Leadership Educator Notebook or NOLS Risk Management for Outdoor Leaders

**Group Decision Making Traps:** NOLS Leadership Educator Notebook and NOLS Risk Management for Outdoor Leaders

**Individual Decision Making Strategies:** NOLS Leadership Educator Notebook and NOLS Risk Management for Outdoor Leaders

**Individual Decision Making Traps:** NOLS Leadership Educator Notebook and NOLS Risk Management for Outdoor Leaders



### Protocols, Algorithms, Decision-Aids

#### Travel Plans, Evacuation Plans

**Travel Plan Template**

Leader: \_\_\_\_\_ Date: \_\_\_\_\_

Group Members: \_\_\_\_\_

**Gear:**

<input type="checkbox"/> Maps & Compass	<input type="checkbox"/> Stove & Pump	<input type="checkbox"/> Bear Spray
<input type="checkbox"/> First Aid	<input type="checkbox"/> Fuel	<input type="checkbox"/>
<input type="checkbox"/> Shelter	<input type="checkbox"/> Food	<input type="checkbox"/>

Objective: \_\_\_\_\_

Waypoint 1: \_\_\_\_\_

Waypoint 2: \_\_\_\_\_

Waypoint 3: \_\_\_\_\_

ETP: \_\_\_\_\_ PTA: \_\_\_\_\_

Note: Describe (road rules, obstacles, elevation, significant obstacles, etc.)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Contingency Plan (weather, lost, medical problems)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Has the organization given thought to what their standards for judgment might be?

Outside of a clear blunder, we are evaluated throughout our careers on subjective but communal perceptions of how we handle situations.

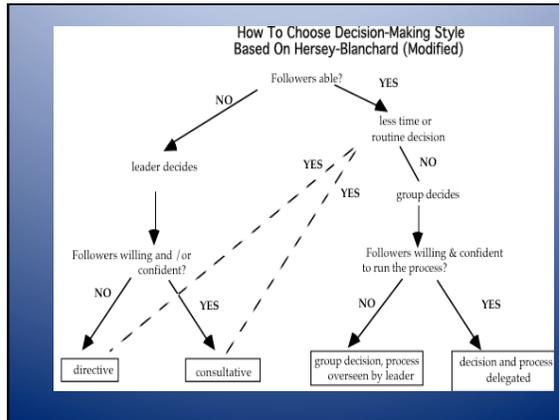
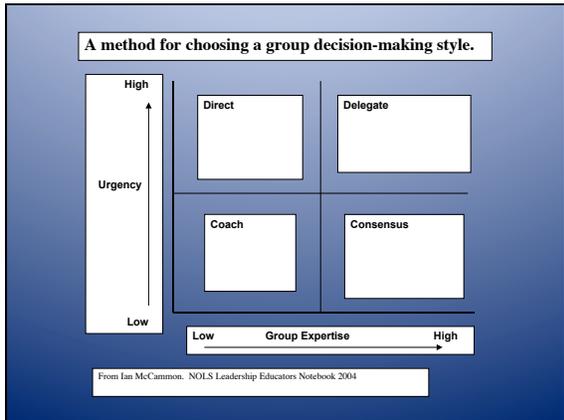
What is the standard for an outdoor leader? Avoiding harm to the health or wellbeing of a student or staff member seems a clear boundary. Harm to the environment? Harm to the equipment? Failure to achieve your educational objectives?

How do we learn what the standard for our judgment will be? Random absorption of organizational culture? Intentional instruction?

How does your organization handle the fact that people make mistakes, and sometimes these mistakes have consequences? Is there an atmosphere of learning, or is punitive, fear and unapproachable?

- ### Restraints at NOLS on Developing Judgment
- Judgment v. Protocols.
  - “Rules are for Fools.”
  - “Technical Courses can’t teach judgment.”
  - The NOLS Culture of “Doing” all the time.
  - Imbalance between task and process.
  - Lack of reflection.

## The Kolb Learning Cycle



### POTENTIAL CAUSES OF ACCIDENTS IN OUTDOOR PURSUITS

A matrix designed by Dan Meyer (1979) and edited by Jed Williamson (1989-2008) ©

Potentially Unsafe Conditions Due To:	Potentially Unsafe Acts Due To:	Potential Errors in Judgment Due To:
<ul style="list-style-type: none"> <li>Falling Objects (Rocks, etc)</li> <li>Inadequate Area Security (Physical, Political, Cultural)</li> <li>Weather</li> <li>Equipment/Clothing</li> <li>Swift/Cold Water</li> <li>Animals/Plants</li> <li>Physical/Psychological Profile of Participants and/or Staff</li> </ul>	<ul style="list-style-type: none"> <li>Inadequate Protection</li> <li>Inadequate Instruction</li> <li>Inadequate Supervision</li> <li>Unsafe Speed (Fast/Slow)</li> <li>Inadequate or Improper Food/Drink / Medications</li> <li>Poor Position</li> <li>Unauthorized/Improper Procedure</li> </ul>	<ul style="list-style-type: none"> <li>Desire to Please Others</li> <li>Trying to Adhere to a Schedule</li> <li>Misperception</li> <li>New or Unexpected Situation (Includes Fear and Panic)</li> <li>Fatigue</li> <li>Distraction</li> <li>Miscommunication</li> <li>Disregarding Instincts</li> </ul>

### "Potential Causes of Accidents in Outdoor Pursuits" with a few common heuristics...

(by Dan Meyer and Jed Williamson 1979-03)

Potentially Unsafe Conditions Due to:	Potentially Unsafe Acts Due to:	Potential Errors in Judgment Due to:
Falling Objects (Rocks, etc) "Always wear a helmet."	Inadequate Protection "Up 1 and 2 down for anchors." "SERENE"	Desire to Please Others
Inadequate Area Security "Stay 1 body length from the edge."	Inadequate Instruction "A little knowledge is a dangerous thing"	Trying to Adhere to a Schedule "When the going gets tough, the tough go camping."
Weather "Red in the morning, sailors take warning..."	Inadequate Supervision "Start hard, finish easy" (ie oversight)	Misperception "Things are not always as they seem." "Assumptions make an ass out of you and me"
Equipment/Clothing "Cotton is the death cloth." "The 10 Essentials"	Unsafe Speed (Fast/Slow) "Speed is safety." "Go slow to go fast" "Ski in Control"	New or Unexpected Situation (Includes Fear and Panic) "Stop & think, make a plan, review the plan, act on the plan." "COMT Failure"
Swift/Cold Water "Wade only if the water is below your knee."	Inadequate or Improper Food/Drink / Medications "Drink Water" "Got to bed warm to sleep warm"	Fatigue
Physical/Psychological Profile of Participants and/or Staff	Physical/Psychological Profile of Participants and/or Staff	Distraction "Look at the map"
Animals/Plants "Red and yellow kill a fellow." "Leaves of three let them be."	Unauthorized/Improper Procedure "Climb high sleep low" "The rabbit comes out of the hole, around the tree and goes back into the hole"	Miscommunication "The problem with communication ... is the illusion that it has been accomplished." (George Bernard Shaw)