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Leadership and Followership

Ulysses S. Grant

Julius Caesar crossing the Rubicon, starting a civil war

SEARCH AND RESCUE TOPICS are educational essays on backcountry ground search and rescue in the mid-Appalachian mountains of North America, though the principles should be applicable globally. They draw on the experiences of the members and Groups of the Appalachian Search and Rescue Conference (ASRC). They are less formal than traditional textbook chapters. Sometimes they digress, but always for an educational purpose. SAR Topics provide the knowledge needed to meet the training standards of the ASRC (www.asrc. net). They cover all levels from Field Team Member to Search Manager. SAR Topics are freely available online in PDF. They are covered by a Creative Commons license (see last page) so you can print and hand out to your SAR team or share with friends without fear of copyright violation. When all Topics are completed, they will form a complete textbook for Ground Search and Rescue as practiced in the central Appalachians and surrounding areas.

PERSONAL CHARACTERISTICS

THERE IS NO SUCH THING as leadership.

That is, there is no one character or personality trait, there is no one skill, that is "leadership."

The ability to lead effectively requires a combination of aptitudes, character traits, skills, experience. and luck. And the particular combination of those things depends on the setting.

In order to approach this large, ill-defined subject, we will look at it from many different but complementary aspects. I hope that, after reading this chapter, you'll find yourself, not in a confused slumber, but with at least a basic grasp of this complex and vitally-important topic.

Note that in this chapter we are discussing leadership more than management; management will be discussed in more detail in the chapter on search tactic and team management, and the chapter on search and incident management.

LEADERSHIP CHARACTERISTICS

ULYSSES S. GRANT WAS a very highly regarded. general in the Civil War. An aggressive and competent military leader, he won the crucial battles of Shiloh and Vicksburg. Abraham Lincoln then gave him overall command of the Union Army which, heretofore struggling, quickly won the war for the Union. His strategies are still studied in military academies across the world.

He became President in 1869, and in this role was *not* highly regarded. His ratings have crept up in recent decades, based mostly on his strong support for civil rights. But his ratings started from a very low point: in 1948, Arthur Schlesinger Sr., writing in *Life* magazine, rated

Field Team Member (FTM)

Demonstrate the following abilities in the field:
(1) Function as a member of a grid team, sweep team, and hasty team, and understand his/her role and duties in each type of search pattern;
(2) Accompany a dog handler on a simple search task.

Act effectively and efficiently as litter captain in a non-technical evacuation, including the proper use of toenailing, laddering, and rotation of litter bearers.

Act effectively and efficiently as litter team member on a semi-technical evacuation and describe the personal equipment required for the rescuer's safety.

Field Team Leader (FTL)

Field Team Leader standards define the minimum requirements necessary to lead an organized search team for missing person search, ground portion of missing aircraft search, and non-technical and semi-technical rescue.

Search Tactics
a. List and explain in detail five responsibilities of the Field Team Leader when carrying out a field task.

Rescue Operations
a. Describe how to formulate a rescue plan.
b. List and describe four major factors a team leader must consider once a subject is located.

c. Describe the manpower and equipment requirements and the team organizational structure necessary to accomplish an advanced semi-technical rescue operation.

Demonstrate the ability to properly brief a field team before a task, including:
...
(2) Obtaining information from the team members, such as team member medical problems, and other relevant input; and
(3) Adequately evaluating team members' abilities to do the task.
(4) Demonstrate the ability to debrief properly a field team after a task,

Demonstrate the ability to direct a six person litter team safely in rigging a Z-haul system (3:1 system), a 4:1 hauling system, a "brute force" hauling system, and, using the systems, to move a litter a minimum of 100 feet up a 45 degree slope.

Serve competently in all positions on a semi-technical rescue, including:
(1) Serving as rope team leader with tree-wrap brakes, Figure-8, and brake bar rack

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Search Manager IV (SM-IV)

Search
a. Brief a field team leader properly before a task
...

d. Debrief a field team leader properly after a task
...

f. Handle the media in an appropriate manner

Search Manager III (SM-III)

SAR Operations
...
e. Demonstrate an understanding of the individuals or groups listed below including how they impact a SAR incident, what their concerns are, how to interact with them, when and how to effectively use them, and how to mitigate against inappropriate external influences.
(1) Psychics
(2) Media
(3) Family and friends of the subject(s)

f. Describe the role of the Search Manager in relation to the Legal Responsible Agent (RA) in the following situations:
(1) When the RA is uncooperative
(2) When the mission involves or expands into other jurisdictions

Search Management
...
b. Demonstrate the ability to develop and manage a staff and describe when, where, and why various functions should be assigned to which

staff positions ...
c. Demonstrate the ability to communicate with the staff by means of briefings, meetings, and written communications.
d. Describe the internal staff information flow system, including verbal, written and electronic communications, required to insure that information is properly collected, evaluated, disseminated, utilized, and stored throughout the incident.
e. Demonstrate the ability to work within a unified command system.

Blind Monks Examining an Elephant, an 1888 ukiyo-e print by Hanabusa Itcho

him as #28 of 29 presidents.

We can look back further, to Rome's Gaius Julius Caesar, widely regarded as one of the greatest generals of all time: *Veni, vedi, vici.** But when he returned his army from Gaul† to Rome, he decided to continue across the Rubicon River despite the edicts of the Roman Senate.‡ This precipitated a civil war that he won. But he ended up getting assassinated for his excesses as a ruler. (*Et tu, Brute?*§)

You can argue that if he wasn't assassinated he would have been a great civil leader, but part of being a great leader is making sure you don't get killed by your erstwhile allies.

If we wish to draw direct parallels to search and rescue, we might suspect that someone who is a great Field Team Leader might not necessarily do as well as the administrative head of a SAR group.

But a more general parallel is: leadership in one role or domain doesn't necessarily translate into another role or domain.

After considering Grant and Julius Caesar, we should review Scottish philosopher Thomas Carlyle's theory of history. In the 1840s, he proposed that only great men,¶ such as Napoleon, who was defeated by Wellington at Waterloo just a few years prior (1815), could shift the powerful currents of history. Due to their charisma, intelligence, wisdom or political skill, they can make lasting changes to history. And certainly Napoleon, though finally defeated, made major changes to the political geography of Europe that persist today.

But in the 1860s, Herbert Spencer, an English philosopher, challenged this. He posited that such "great men" were a product of their times, and that if Napoleon had never existed, some other person would have filled his role. Today, more historians believe Spencer.

Practice Makes Perfect

Malcolm Gladwell has authored multiple popular books, including 11-week #1 bestselling *Outliers: The Story of Success*, which posits that "genius" is really just experience. As the popular joke goes: A man walking on West 59th Street in New York, bordering Central Park, asked another man on the street, "How do you get to Carnegie Hall?" The man answered, "Practice."

And Gladwell, after his research, contended that great musicians were great simply because they practiced so much; if you just practice the violin 10,000 hours, you, too can solo at

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* "I came, I saw, I conquered."

† Roughly, today's France.

‡ The Rubicon was the traditional boundary of Rome proper, as opposed to the provinces of the Empire, and armies weren't allowed in Rome proper. They should have put up a marker; today nobody knows what river corresponds with the Romans' Rubicon.

§ "and you, too, Brutus?" Marcus Junius Brutus the Younger was one of the group that assassinated Caeser. The words come from Shakespeare's play Julius Caesar, but there is no evidence Caesar actually said this.

¶ Sorry, no great women; this *was* 1840s Europe. Perhaps this is an example of *confirmation bias*, to be discussed later; they ignored examples such as Boudicca, Queen Nefertiti, Cleopatra, Catherine the Great, and Empress We Zetian.
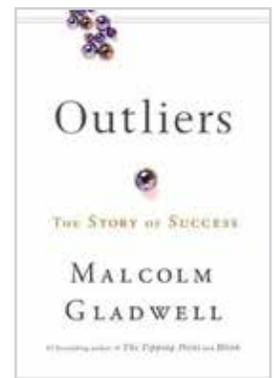
Statue of Tartini in Piran, Slovenia

Le Songe de Tartini par Louis-Léopold Boilly 1824

Paganini Tomb, Parma, Italy

Carnegie Hall. But Gladwell's contention has been called into question. Steven Pinker, in the *New York Times* wrote, "The reasoning in 'Outliers,' which consists of cherry-picked anecdotes, post-hoc sophistry and false dichotomies, had me gnawing on my Kindle."

"How do you get to Carnegie Hall?" "Practice!"

But there is more to it than that. The Declaration of Independence says "All men are created equal…" but the founding fathers were thinking about equality before the law, not equality in the sense of equal abilities.

If you were in an industrial accident, and lost both hands, it is unlikely that 10,000 hours of trying to the play the violin would lead to a solo appearance at Carnegie* Hall. Perhaps, in 50 years, prosthetics will advance and prove this wrong, but for right now, we can all probably accept this statement. More subtle physical disabilities may lead to the same result: if you have cerebral palsy and weak hands, you won't be able to make it all the way through the Tchaikovsky Violin Concerto.

And it's not just physical disabilities that bar you from Carnegie Hall. If you have Alzheimer's dementia, you may not be able to remember the notes. Or, what if you're tone deaf?

So, to get to Carnegie Hall, you need 10,000 hours of practice, but also the underlying physical and mental capabilities to allow that practice to be effective.

At the other end of the spectrum,

there are other people who, rather than lacking the essential physical or mental characteristics for a skill, have them in excess.

To continue with the violin-playing analogy (about as far from SAR as you can get, but nonetheless useful), let us consider the case of Tartini, a rockstar-level violinist of the 1700s. His level of playing was so far beyond others that it was rumored – nay, bruited about widely – that he was in league with the Devil himself. Tartini himself supported this contention by relating a dream, a story which became embedded in the popular culture of the time:

One night, in the year 1713 I dreamed I had made a pact with the devil for my soul. Everything went as I wished: my new servant anticipated my every desire. Among other things, I gave him my violin to see if he could play. How great was my astonishment on hearing a sonata so wonderful and so beautiful, played with such great art and intelligence, as I had never even conceived in my boldest flights of fantasy. I felt enraptured, transported, enchanted: my breath failed me, and - I awoke. I immediately grasped my violin in order to retain, in part at least, the impression of my dream. In vain! The music which I at this time composed is indeed the best that I ever wrote, and I still call it the "Devil's Trill", but the difference between it and that which so moved me is so great that I would have destroyed my instrument and have said farewell to music forever if it had been possible for me to live without the enjoyment it affords me.

Another violinist of the next century was such a great violin player that, still today, his name is almost a synonym for "virtuoso": Niccolo Paganini.

Paganini gives us no story of a dream-like meeting with the devil. He is not today considered as being in the first rank of composers. However, one of his works, the Caprice No. 24 in A minor, is considered the most difficult ever written for violin. Not only is it difficult, it has a haunting quality that has fascinated other composers to this day. It lives on in many works by later and more famous composers, many of which are considered among the composer's best works. Some contend that this one tune, like his virtuosic skill, resulted from a deal with the devil. Wikipedia lists 33 works based on Caprice No. 24. Here are a few particularly worth a listen:

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* I didn't realize this until I moved to the Pittsburgh area, where Andrew Carnegie lived, and where you find Carnegie-Mellon University, and the small borough of Carnegie, just outside the Pittsburgh city limits, where I now live. The correct pronunciation is not CAR-neg-ie, it's Car-NEG-ie. That's the way Andrew pronounced his name.

SOFT STUFF

To some, leadership means how to brief and debrief a search team, how to ensure that people hold up their end of the litter, and making sure the belays are done properly. This chapter is not about what that kind of stuff, what I call *operational management*. You'll read about operational management in the other relevant chapters.

This chapter is about people skills. Psychology. Sociology. Politics. That sort of "soft" but very, very important stuff.

If you don't think this soft stuff is important, then this chapter is aimed directly at **you**.

PERSONAL CHARACTERISTICS

▶ Leadership expertise in one field may not transfer to another field; a great FTL may not make a good team administrative leader, and vice versa.
▶ "Practice makes perfect": In *Outliers*, Malcom Gladwell says it takes 10,000 hours of practice to become a "genius" (expert) at whatever you want to do, for instance, playing the violin. Does this apply to leadership?
▶ Some of us have physical or mental abilities or disabilities that make us more or less suited for some leadership roles. Nonetheless, practice can make us better at those leadership tasks we must assume, such as leading a search team of spontaneous volunteers.

- Johannes Brahms – Variations on a Theme of Paganini, Op. 35
- Franz Liszt – the sixth and last of his Études d'exécution transcendante d'après Paganini for solo piano, S.140 (1838) – revised and republished in 1851 as Six Grandes Études de Paganini, S.141
- Sergei Rachmaninoff – Rhapsody on a Theme of Paganini, Op. 43

When we look at the case of Paganini, we find some evidence of physical characteristics of Ehlers-Danlos Syndrome or Marfan Syndrome: tall, thin, with long and double-jointed* fingers. If we accept this – and there is fairly persuasive evidence – then Paganini had a natural endowment that set him far above other violin players. But in a sense, this really *was* a deal with the Devil. Those with Ehler-Danlos or Marfan Syndrome tend to suffer from a variety of life-shortening illnesses, not the least of which is a tendency for the aorta, the main blood vessel coming out of the heart, to rip asunder ("aortic dissection"). Paganini died in 1840, at age 57. As of 2012, the cause of his death is still in dispute,† but his burial in consecrated ground was delayed for 36 years due to suspicion that the Devil had indeed taken his soul.

If Paganini had certain inborn advantages for a player of the violin, he certainly studied music hard from his earliest childhood – and if you start early, it's easier to get to the 10,000-hour level. The combination resulted in level of virtuosity not seen before. In concert, Paganini famously could break a violin string, and keep playing the piece on the remaining three

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* "Double-jointed" is a common term for finger (or other) joints that are quite lax: they are much more flexible than those of the average human.

† Kijewski, H., et al. (2012). "[Illness and death of the violin virtuoso Nicolo Paganini--interpretation based on new hair investigations]." Arch Kriminol 229(1-2): 11-24.

strings; break another string, and continue playing on the two remaining; and when the third string broke, finish the piece playing on one string. Even if you've never tried to play the violin, you should appreciate the mastery this requires. One also suspects he did quite a bit of preparation for this trick, and there are accusations he deliberately made small cuts in some of his strings. Nonetheless, showmanship is a skill like leadership, and is likely also built from both natural talent and practice. No violinist since has been able to reproduce this feat.

In 1986, violinist Midori finished a concert at Tanglewood after breaking two strings; but she did so by quickly borrowing others' violins (check the YouTube video). We should perhaps forgive her for not continuing to play her damaged violin; she was only 14 at the time.

The same principles apply to both violin-playing and search and rescue leadership. Your particular inborn physical and mental aptitudes and character traits will condition your SAR leadership – and followership – capabilities. What does this say for SAR leadership abilities? As George Orwell famously said in *Animal Farm*, we are all equal, but some of us are more equal than others.

Let's not give up on Gladwell entirely though. Perhaps 10,000 hours of practice is not *sufficient* for expertise. But perhaps it is *necessary*. And no matter your level of natural talent for leadership or followership, practice will make you better.

Let's now take a detour into the cognitive science that help explain the role of practice in preventing errors, and the implications for leadership and followership:

Task Switching

From cognitive science observations of emergency physicians in busy Emergency Departments, we know that being interrupted makes you more likely to make errors.* Since the chaos in a busy ED is not that different from that of a busy search base or rescue scene, it's reasonable to generalize this to SAR personnel.

With rare exceptions for well-practiced tasks, humans can't really multi-task… what we really do is termed *task-switching;* we switch back and forth rapidly between tasks.† And no matter how good you think you are at "multitasking," task switching makes you more likely to make a mistake, as it involves interruption, even if just self-interruption, although some people are better at task switching than others.

It's common knowledge in Emergency Departments that some people are suited for working there and some aren't.‡ I find that the vast majority of interns going into the specialty of Physical Medicine and Rehabilitation (Physiatry) hate their ED rotations, and perform poorly, as they can't task-switch very well. The practice of physiatry doesn't require much in the way of task-switching, so the fact that they don't fit well into the ED is not an impediment to their career plans. Their time in the ED may just solidify their choice of physiatry as a specialty.

Some people excel at task-switching. I once saw one of my emergency medicine partners sitting at a computer typing one of his ED notes, at the same time as he was listening to a paramedic report on a handheld radio, and turn to the nurse who was standing there waiting to talk to him: "Well? What do you need?"

Not all of us will have such a talent for task-switching. Only those who have facility with task switching enjoy (or at least tolerate) the busy ED environment, or the busy SAR environment, with their requirements for frequent

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* Chisholm CD, Collison EK, Nelson DR, Cordell WH. Emergency department workplace interruptions: are emergency physicians "interrupt-driven" and "multitasking"? Acad Emerg Med 2000;7:1239-43.

† Skaugset LM, Farrell S, Carney M, et al. Can You Multitask? Evidence and Limitations of Task Switching and Multitasking in Emergency Medicine. Annals of Emergency Medicine 2015.

‡ Perina DG, Brunett CP, Caro DA, et al. The 2011 model of the clinical practice of emergency medicine. Academic Emergency Medicine 2012;19:e19-e40.

task switching.§

Multitasking

We also know that humans can only truly multitask when one of the processes is practiced so much that it becomes automatic. An example is walking and talking at the same time. A good example of where true multitasking doesn't occur is driving and texting on your phone.

People popularly talk of repeated practice moving a task such as tying a Figure 8 knot to "muscle memory." Even if the memory isn't really in the muscle but still in the brain, the phrase is succinct and gets the idea across.

Interestingly, the most likely error during task switching, especially late in the task, is to not complete the last subtask. For example, you are interrupted as you are tying a Figure 8 knot and you forget to tie the backup. (Which is one of the reasons for the best practice of *always* having someone else check any rigging or tie-ins.) But once you practice enough to move into muscle memory not only the Figure 8 knot. but backing it up as well, you're much less likely to forget to back up your knot, even if you're interrupted while tying it.

And practice may not only be required to

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§ There have been a few exceptions, including one PM+R intern who liked the ED so much he came back for an elective. I suspect if there is a mass shooting at his office he is likely to be one of the best responders.

Task Switching and Multitasking

- ▶ "Multitasking" is rare; mostly what we do is better termed task-switching.
- ▶ Interruptions make task-switching necessary, and make error more likely.
- ▶ It takes extensive practice to move skills into "muscle memory," but that allows true multitasking, such as walking while talking, or perhaps tying a Figure 8 knot while discussing the evacuation route.
- ▶ Some people have a natural facility for task-switching and are suited for jobs such as working in a busy Emergency Department, helping to run things at a busy search base, or managing a complex rescue. Some people don't.
- ▶ Stressful drills requiring task-switching may improve members' task-switching capabilities.

make perfect, it may also make automatic, meaning task-switching and multitasking are easier, especially in stressful environments with many interruptions. Given the forgoing discussion of the psychology of task-switching, consider an educational strategy that supports learning task-switching. Have trainees practice tying Figure 8s and backing them up (or other skills) in a nice, comfortable environment with no distractions. Drill both trainees and older members in their skills with gradually increasing environmental distractions of weather, noise and interruptions until the skills move into "muscle memory." Drill not only simple psychomotor skills like Figure 8 knots, but more complex psychomotor skills such as belaying, and cognitive skills such as land navigation or leadership decisions, in progressively more stressful situations.

After a drill with interruptions and stressors, discuss multitasking and task switching and have members reflect on their experience with this during the drill. This may not make members better multitaskers in itself, but it may raise consciousness of the need for drill, and make members more aware of the risks of task-switching.

As a leader, try to minimize the amount of task switching you have to do. Part of leadership is delegating tasks to others; while this increases your span of control, it also frees your mind and decreases your need for task switching, making you less likely to make an error.

And perhaps, if a PM+R intern joins your team and is obviously flailing, it might be best to point this person at other opportunities for public service in the outdoors, such as trail maintenance.

What Makes a Leader?

When someone says "search and rescue leader" you get a mental image of a very buff, muscular guy. (It's always a guy.) Based on movie portrayals, this guy has serious emotional issues, but can climb 5.11 (very hard) cliffs with one hand tied behind his back. He's crabby but can order people around very well, occasionally punching out an obstreperous team member.

But real life is not like the movies. Good SAR team leaders may be assertive... but most SAR team members are that way. Instead of punching out obstreperous members, good leaders work around the problems and gently redirect members, getting them to contribute to the group effort. What sets good SAR leaders apart is their ability to get respect and trust from SAR team members, to encourage them to do their best, and to be cool, calm and collected when the shit hits the fan. We call this *people skills*.

Decision-Making

Once you get beyond movie stereotypes and you start thinking deeply about SAR leadership, you probably get quickly to a simple proposition: *How do I avoid making bad mistakes?*

There are few things that can do more to demolish your self-confidence, and the confidence of those you are trying to lead, than an obvious blunder.

Abraham Lincoln once said "If the end brings me out all right, then what is said against me won't matter. If I'm wrong, ten angels swearing I was right won't make a difference."*

No bones about it, making the right decision under time pressure and in a chaotic environment is one of the hardest things humans can do. People often join SAR teams to better handle emergencies in other parts of their lives, whether at work or at play in the outdoors. While learning self-rescue skills is OK, perhaps the most valuable thing SAR team members learn is how to make good decisions in bad situations.

Sources of Power

Until recently, the scientific study of such decision making was quite bogus:† empty theorizing that didn't fit the facts. Psychologists came up with all sorts of elegant stories about how we make decisions, and then each one was in turn demolished.

There continues to be lots of literature on decision-making, some of which is academic esoteric work, and some of which is directed at the general public, and most of it bogus. The most interesting recent non-bogus work comes from psychologist Gary Klein: his 1998 book *Sources of Power*. If you want to be a SAR Field Team Leader or even just a Field Team Member, you should read this book.

Klein rejected the traditional academic ivory-tower methods of bringing subjects into a lab, presenting them with information and then seeing what decisions they make. Instead, he wanted to study real decision-making in the real world.

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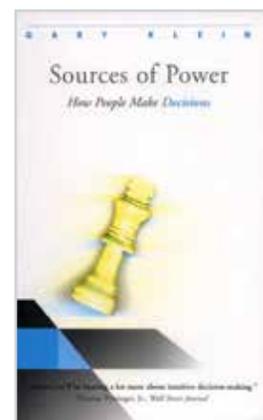
* This quote will also appear later in this chapter. It's on purpose, and the quote is worth repeating.

† Sometimes, while sitting in the back row at a scientific presentation, attendees will whisper to each other: "The bogons are flying." This apparently refers to the elementary particles of bogosity.

Starting in 1974, he worked for the Air Force, studying how pilots develop expertise. In 1985, he started studying how firefighters make life-and-death decisions under extreme time pressure. That led to others studies, with pilots, nurses, military leaders, nuclear power plant operators, chess masters, and experts in a range of other domains. This showed that traditional decision-making models were quite useless in explaining how these people actually made decisions when stressed, and in particular, how they usually made the *right* decisions. For instance, if you are commander of an AWACS* plane, how do you make a split-second decision about that aircraft incoming on radar? Is it hostile and you should order your fighters to shoot it down, or is it a commercial-carrier aircraft full of civilians? He calls this naturalistic decision making.

Klein came up with a new decision-making model called Recognition-Primed Decisionmaking (RPD), which is much more successful at describing real-life decision-making, especially the kind you will have to do in the field on search and rescue operations. A better understanding of how we make these decisions well help you learn better, and do a better job of teaching others, to make the right decisions when you need to make a critical choice *now*.

Klein identifies traditional decision-making sources of power:

- deductive logical thinking
- analysis of probabilities, and
- statistical methods.

We certainly use these methods in search planning, in Base, or increasingly, via remote planning.

But the sources of power that you need in a *field* search and rescue setting are usually not analytical at all. Klein identifies these other sources of power:

- intuition,
- mental simulation,
- metaphor, and
- storytelling.

Klein says: *the power of intuition enables us to size up a situation quickly. The power of mental simulation lets us imagine how a course of action might be carried out. The power of metaphor lets*

us draw on our experience by suggesting parallels between the current situation and something else we have come across. The power of storytelling helps us consolidate our experiences to make them available in the future, either to ourselves or to others.

Klein says *Our results seem to hold even when there is not much time pressure* so one suspects expert search managers use intuition as much as statistical search data.

Here are a few more quotes from the book that will give you a flavor of what this means:

We try to understand how people handle all of the typical confusions and pressures of their environments, such as missing information, time constraints, vague goals, and changing conditions.

…be skeptical of courses in formal methods of decision making. They are teaching methods people seldom use.

…we do not make someone an expert through training in formal methods of analysis. Quite the contrary is true, in fact: we run the risk of slowing the development of skills. If the purpose is to train people in time-pressured decision making, we might require that the trainee make rapid responses rather than ponder all the implications.
…
The part of intuition that involves pattern matching and recognition of familiar and typical cases can be trained. If you want people to size up situations quickly and accurately, you need to expand their experience base. One way is to arrange for a person to receive more difficult cases.

Another approach is to develop a training program, perhaps with exercises and realistic scenarios, so the person has a chance to size up numerous situations very quickly. A good simulation can sometimes provide more training value than direct experience. A good simulation lets you stop the action, back up to see what went on, and cram many trials together so a person can develop a sense of typicality. Another training strategy is to compile stories of difficult cases and make these the training materials.†

Klein does like after-action debriefs/critiques: *Cognitive critiques help the squad leaders reflect on what went well and not so well during an exercise, and to use this reflection to increase how much they learned from experience. The critique is a simple exercise, consisting of questions about how the squad leader had estimated the situation*

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* Airborne early Warning And Control.

† You will note in the other chapters tales from my and others' experience. This is a deliberate attempt to follow this advice.

(Was it accurate?), uncertainty (Where was it a problem, and how was it handled?), intent and rationale (What was the focus of the effort?), and contingencies (reactions to what-if probes).

A bottom line take-home message: we learn to make the right decisions not so much from lectures, and certainly not from reading chapters like this or self-help books. Klein says: *One application of the RPD model is to be skeptical of courses or books about powerful methods for making effective decisions, thirty days guaranteed or your money back.*

Mind Traps

KLEIN RIGHTLY EMPHASIZES the roles of intuition, pattern-matching and mental simulation to support good decision-making under pressure.

However, a colleague of mine, an emergency physician named Doug McGee, gives a lecture where he talks about the mental traps that can lead an emergency physician to error. The lecture is about emergency physicians and sick* patients, but the lessons can be generalized to anyone dealing with critical decisions under time pressure.

There is a saying "When you hear hoofbeats, think horses, not zebras." Most of the time, in the USA, it holds: "common things are common." However, you might be wrong, especially if there was a zebra breakout at a nearby animal park.

A *heuristic* is a rule of thumb,† something that you use as a general rule for taking care of common issues in your work or even in your daily life. They make our mental life more efficient, which in general a good thing.

But Doug says "heuristics kill." He gives three examples: *premature closure*, *attribution bias*, and *confirmation bias*.

You see something that you've seen many times before, and you deal with it the way you always have. You check the wrap-3-pull-2 webbing anchor on a tree, and the angles are right, the knot's tied correctly, and backed up properly. The tree is large and well-rooted. The direction of the belay is fine. You give a thumbs-up to the relatively-new member who is going to be using this anchor for belaying a litter coming

up a steep slope. But you didn't check the uphill side of the tree where there is a very large hole with rotten wood inside. This problem was *premature closure*.

A related concept comes from the study of human error: the *wrong but strong* error. Have you ever entered a room and tried to flip on the light switch, only to realize that the room light is already on? Maybe not, but how about this one: during the first week of January, have you ever written down the date but written the date using December's year instead of the new year?

Klein would tell us that enough experience would lead you to have the intuition to check the other side of that tree. True, but maybe there are ways to avoid these errors as you're working toward that level of experience. *Crew resource management* is a gift to the rest of the world from the massively-safe aircraft industry, will be discussed a bit later. It says you should use a checklist, at least a formal checklist in your mind, and one of those checklist items in your mind should be "check the tree anchor completely."

To avoid premature closure, you need to cultivate the attitude of "Yes, this is very much most likely, but what could I be missing? And what are the consequences if I miss it? What's the worst thing I could be missing? Is there anything here that doesn't quite fit?" Cultivate second thoughts. Don't let them paralyze you with "analysis paralysis," but let them, briefly, have their say.

Another heuristic-type error comes from *attribution bias*.

Let's say you are inspecting a rope as you coil it up after a training session. As you learned in the *Nontechnical and Semi-Tech Evac*s chapter, you are running it through your hands as you coil it up. As it slides through your hand, you feel a bump, and stop coiling to look at the rope. You see a bit of mud sticking to the rope. Having found the cause, you use your finger to flick off the lump of mud. You continue coiling the rope. However, what you didn't realize that under that lump of mud was a partial break in the rope's core and the lump wasn't just a bit of mud, it was also an effect of the bunched-up core. You attributed it to the lump of mud, but it was really from the damage to the core underneath that made the mud stick right there. Another concept that applies in this example of both *premature closure* and *attribution bias* is *satisfaction of search*: once we have found an

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* Emergency physicians tend to divide emergency department patients into three categories: not-sick, sick, and sick-sick.

† There also is a "rule of two thumbs" in search planning: on a standard USGS topographic map, a good size for a search segment to assign to a field team is the area covered by your two thumbs.
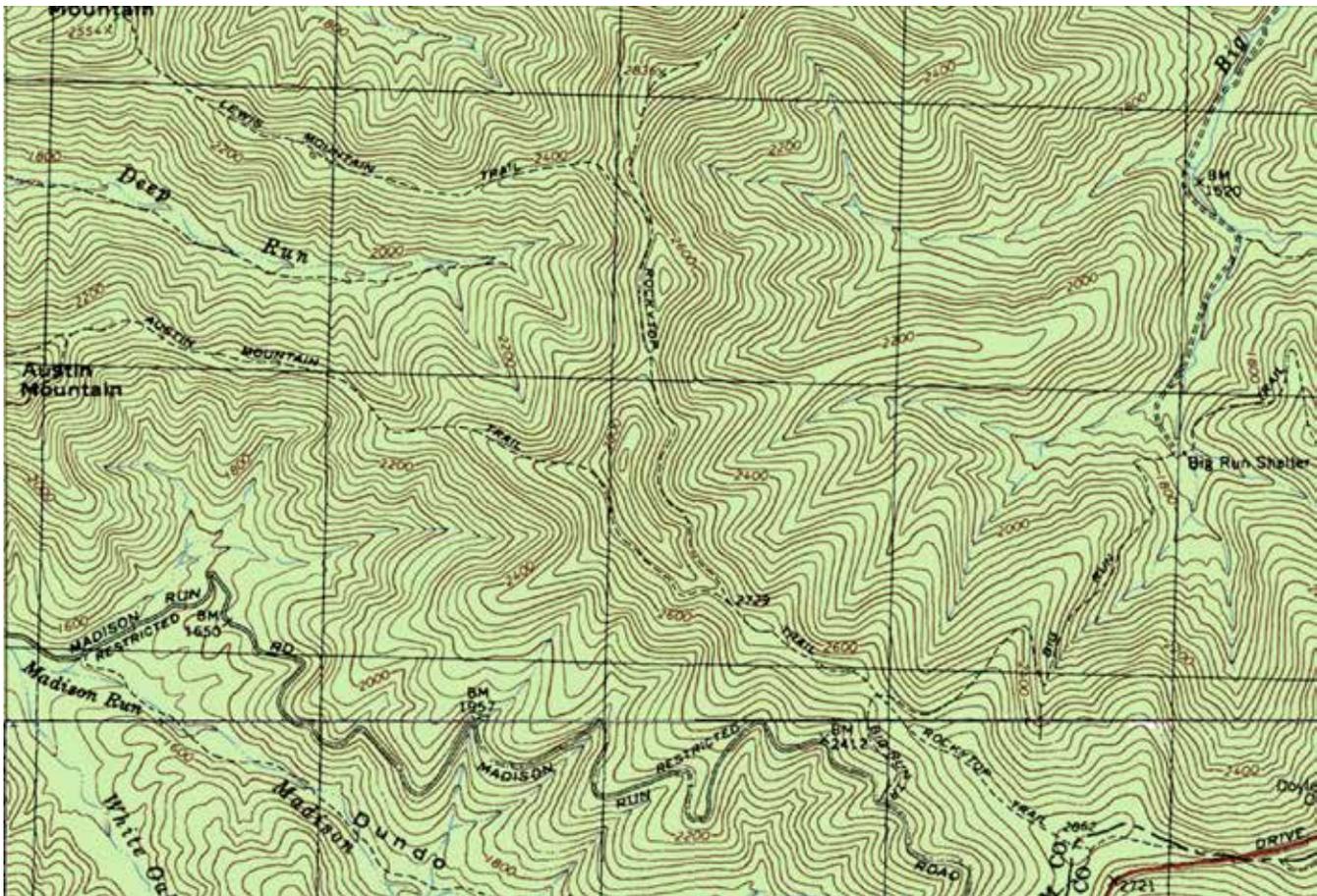
answer to whatever confronted us, we are satisfied and don't dig deeper.

Once we have come to a conclusion, we tend to ignore information that refutes that conclusion. We call this *confirmation bias*.

Let's assume that you're looking for a hiker with an injured ankle. The hiker has a map and a cellphone but no GPS. And because of all the reflections in the mountains, you can't get a location fix from cellphone towers. The hiker says "I started at the Appalachian Trail right next to Skyline Drive, and then turned down the Rockytop Trail. I went, I don't know, maybe a half mile or a mile and then turned right on the Big Run trail. I was walking down this for another half mile or mile when I twisted my ankle, heard a pop, and now I can't walk. I'm right on the trail." However, a hasty team has hiked the entire Big Run Trail, down to the old shelter then back up the northern half of the Big Run Trail back up to the Appalachian Trail, with no sign of the hiker.

You contact the hiker again. "That first right turn that you made, did you look at the trail signpost?" "I don't remember. I think so." "Did you turn just a little bit right or a sharp right." "Let me look at the map. It was a sharp turn, I'm pretty sure." "Have you been going downhill since you turned right?" "A little bit, not too much." "Are you on a ridge or on a valley?" "Oh, I'm definitely on a ridge, it's sort of breezy up here." "How far downhill have you gone since the turn?" "Not very much downhill, mostly level with a bit of downhill."

You send a hasty team along the Rockytop Trail and find the injured hiker about 2/3 of a mile down that trail. This is an example of *confirmation bias*: you tend to ignore incoming information that doesn't quite jive with what your mental model of the situation predicts. Some psychologists might point at this also as an example of *anchoring* or an *anchoring bias*: you stick with your initial mental model and are reluctant to move away from it until the evidence becomes overwhelming that you must; or sometimes not even then.

Another heuristic trap, specific to the outdoors, has been identified by Ian McCammon of the National Outdoor Leadership School. In a paper presented at a 2002 conference about

snow, he points out the psychological effects of, among other things, a winter day with deep powder snow, blue skies and sun.* While he was talking specifically about recreational skiers' perception of avalanche danger, it is reasonable to extend this insight to any outdoor recreation or ground SAR setting. He cites other research that shows that 83% of avalanche accidents were caused by decision-making errors (though, as discussed later, we may reasonably be concerned that this figure may be influenced by retrospectoscope/hindsight bias, which we will discuss later).

He specifically identifies four heuristics that affect our perception of risk in the outdoors:

- **Familiarity**: the tendency to believe that our behavior is correct to the extent that we have have done it before. So if you've been out hiking in this general area before, and never had an accident or been forced to bivvy in a storm, then even on a SAR operation in this same area, you believe you're not going to have an accident or have to bivvy in a storm. McCammon found that familiar terrain tended to make people discount even known risks, more so than unfamiliar terrain.

- **Social proof**: the tendency to believe that a behavior is correct to the extent that other people are engaged in it. I can think of an example from a Blue Ridge Mountain Rescue Group summer training on Old Rag Mountain in Shenandoah National Park. We had been on the summit, which is quite exposed. We saw a summer thunderstorm with lots of lightning heading right towards us. We quickly gathered our gear and headed down the Saddle Trail to lower and safer elevations. As we went down the trail, we passed recreational hikers heading up the trail. We pointed out that, if a hardcore mountain rescue team was heading away from the summit, maybe they should follow us down. "No, there are lots of people who are doing the circuit hike today, we'll be fine."

- **Commitment**: is the tendency to believe that a behavior is correct to the extent that it is consistent with a prior commitment we have made. "We came here to make the summit, and we're going to make the summit, no matter how late we get back." "We drove three hours to do the Old Rag Ridge Trail, and we're doing to do this hike regardless of the weather." Many outdoor disasters with multiple deaths have been attributed to this sort of heuristic trap, which becomes engrained in people's minds at the subconscious level, and can be very hard to even consciously notice, much less to counter.

- **Scarcity**: if you want to go backcountry powder skiing, you have to do it when the powder is fresh. If you want to do the Old Rag circuit hike on the first warm, sunny day of spring, then when that day arrives, you really, **really** want to take advantage of it. I could say that this applies to your recreational pursuits and not your SAR pursuits. But if you're going out on a search, you **do** want to find the person while he or she is still alive, so actually it applies in spades.†

Any discussion of decision-making in the outdoor setting, whether outdoor recreation or search and rescue, has to mention the classic 1973 book *Hazards in Mountaineering*.‡ If a bit dated, and oriented to climbing in the Alps, the whole book is worth a read for anyone who ventures into the great outdoors.

The most important enduring lesson appears in the first pages of the introduction: dividing hazards into *objective* and *subjective* hazards.

Objective hazards are those in the environment. Rockfall, avalanches, slippery rocks or ice, swift-running streams, steep slopes and cliffs, stinging nettles and poison ivy, and sharp branches just waiting to poke out the eye of a nighttime searcher.

Subjective hazards are those we bring with us:

These hazards emanate from the mountaineer and his spiritual and bodily shortcomings, such as overestimation of his powers of orientation, of his capacity of observation and his knowledge of elementary alpine experience, combined with lack of efficiency and underestimation of difficulties or overestimation of his own skill. The right choice of a climbing companion is also of supreme importance.

Whereas purely objective hazards are the same for every mountaineer, subjective hazards vary according to the individual. They can, however, be reduced to a minimum or

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* McCammon, I. (2002). Evidence of heuristic traps in recreational avalanche accidents. Proceedings ISSW. Another recent study by Ross Otto shows that blue skies and your favorite sports team winning makes you more likely to take risks, specifically buying Lotto tickets: Otto, A. R., et al. (2016). "Unexpected but Incidental Positive Outcomes Predict Real-World Gambling." Psychol Sci: 0956797615618366.

† This phrase, from the early 20th century in North America, reflects the craze then for card game contract bridge, in which cards of the spades suit rank highest.

‡ Paulcke, W. and H. Dumler (1973). Hazards in Mountaineering. New York, Oxford University Press.

eliminated altogether by resolute self-control.

The authors go on to point out that most mountaineering disasters require a combination of not only objective but subjective hazards.

Situational Awareness

Situational awareness is a key term in the literature of human error. Doug Mcgee, in his "heuristic kill" presentation, talks about three levels of situational awareness:

1 **Perception**: If you are leading Filed Team Bravo, you know how many members are in your team. You know where they are at all times. This is often called accountability, and when you can report that all your team members are present, you can say "Team Bravo has par."*

If you're the Ops Chief in Base on a search, you know how many teams you have out, and roughly where they are. You know if any are late in reporting their status.

2 **Comprehension**: If you're FTL for Team Bravo, you know, at least roughly, members' capabilities and vulnerabilities. If you're out on a search task, you know who you are looking for, and have at least some ideas on why he or she might be lost.

One team member is lagging. You investigate, and decide he is simply in poor aerobic condition after the flu last week, nothing more serious. You decide there is no need to abort the task, you can just slow the pace a bit.

If you're the Ops Chief in Base, you have a feel for the overall strategy and goals, and how well your teams are likely to accomplish them.

3 **Projection to the Future**: For Team Bravo, you're keeping an eye on the condition of your team members. Another member who is lagging, on investigation, is recovering from a sprained ankle. You are concerned about getting the task done before dusk and an approaching storm. When you stop for lunch, you use your wilderness first aid knowledge and some duct tape to tape up his ankle, after which he can keep up with the team without difficulty.

As Ops Chief, you are keeping track of the progress of your teams, and projecting when they might be done, given the approach dusk and approaching storm. One team seems

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* The term "par" comes from the fire service, but is used in other domains as well. When a team leader says "Team Bravo has PAR" this means that your Personnel Accountability Report doesn't have to report anyone missing.

particularly slow, and so you are considering shortening their task over the radio, and assigning another team to quickly get out and do the second half of their task. If there is a find, you know which teams are strong enough you can direct to the find, and which teams you should probably get out of the field before tonight's predicted storm.

For efficiency and safety, regardless of what your role might be, your goal, for you and all others around you, should be **Level 3 Situational Awareness**. To support this, you can

• **Change the environment**: Make sure every member of team Bravo has a copy of the Task Assignment Form, or at least a map with the task marked on it, or at least a map of the area. And maybe a compass and/or GPS or cell-phone GPS app.

Make sure Base has maps and ICS briefing forms posted up where anyone can easily read them.

• **Directly improve team member and staff awareness:** For your Field Team Members, you can brief them with all that stuff that's running through the back of your head, not just the official briefing: "Looking at the map, and talking with Ginny here who knows the area, we have a pretty hard and potentially dangerous task. It's a straight shot down this single rocky trail, which goes the length of this small wilderness area. It's a long way from one end to the other. And once we reach the halfway point. the fastest way out is forwards. And we only have – let's see – 6 hours until sundown. And here [showing everyone the weather map on your phone] is this big storm heading this way, predicted to hit us about 8 PM. So much as we want to move fast, I think it's better if we load up with some extra warm clothing and shelter. I know we talk a lot about bivouacs and rarely do it, but ever there's ever a time to prepare for a bivvy, this is it. And if we make a find, even if Base decides to to a night evac in a storm, I'll give odds that we'll have to bivvy for a fair while until a full evac team can get to us."

You can also insist, when you are leading a combined Teams Bravo, Alfa, Charlie, and Foxtrot on a mixed semi-technical and non-technical evac, that all belay team and litter rotation calls are shouted quite loudly, and echoed loudly, so everyone has better awareness of what's going on from minute to minute.

Most of the members on this combined team are from your SAR group, which makes this

CT scan of the chest: can you find the white cancer nodule?

fairly easy. During group trainings, you've kept in mind the maxim "old habits die hard," and you've been a stickler for members calling out those calls nice and loud, so as to make it an "old habit."

In Base, you can make sure that you carefully monitor all teams' progress, provide them with updated weather forecasts about the storm, and prepare contingency plans in case any of the teams need to bivvy.

- **Monitor for slow deterioration**: Have you every heard how to boil a lobster humanely? You put it in water, then slowly bring the water to a boil. The lobster never notices the gradually increasing heat until it quietly dies of heatstroke. Turns out this is totally bogus – actually it seems to make the lobsters suffer more – but it's such a great analogy for a "slow disaster," I'm going to use it. I'm not going to give examples for slow deterioration, as the stories are too long and complicated for a short teaching story. Talk to me or other long-time SAR people sometime when you aren't in a hurry. A suggestion, though: as you're about a third of a way through your task in the field, or your shift in Base, just ask "lobster?" and see if it applies.

Suggestions for assessing for slow deterioration:

- **Learn to appreciate subtle signs**: if your heart rate goes up a bit and it's not from exertion, or see signs of anxiety in your team members or Base staff, that might indicate that the water temperature is increasing.
- **Value the right data point at the right time**: if the time for the storm's arrival moves up from 8 PM to 7 PM, you might want to start planning in case it moves up to 6 PM or even **5** PM.
- **Avoid harmful heuristics**: especially as the water gets warmer, start looking at alternate explanations for things.
- **Consider a "broad differential"**: Differential diagnosis is a medical term that indicates different possible causes for signs or symptoms. When you are out on a SAR task or in Base and you are "getting in the weeds" (to use a golf metaphor), think about all the different possible causes, not just the common ones.

747 cockpit, which is easy to learn compared to SAR leadership.

In the airline industry, training called *cockpit*

resource management, later called *crew resource management* or simply *CRM*, is designed to reduce errors and has been shown to help reduce them. This kind of training has been used in many other situations to reduce error. Much of this is focused on increasing situational awareness in the 747 cockpit, the nuclear power station control station, or in our case, in Base or in the field.

Situational awareness is improved by requiring subordinates to speak up, especially when from a culture that almost worships authority. This has been a source of airplane tragedies: copilots not speaking up when they perceive a hazard because "it's simply not done." Think of North Korea, or other authoritarian societies. We will discuss this in more detail later.

The Gorilla in the Room

Later work by Gary Klein and others has focused on selective attention. The most famous example of this is a psychology experiment carried out by Christopher Chabris and Daniel Simons. They asked subjects to watch a short video in which teams, wearing black and white t-shirts, pass a basketball around. Subjects were asked to count the number of passes made by one of the teams. In one of the videos, a woman in a gorilla suit walks through the room. Subjects were closely focused on the basketball, and half of them didn't even notice the gorilla in the room. Check out the video on YouTube.

Radiologists are really, really good at finding small cancers and the like. Did you find the small cancer nodule at the bottom left of the picture at the top of the previous page? Good. But did you know that over two thirds of radiologists missed the gorilla at the top right? You did see it, right?

Trafton Drew and his colleagues published a study in 2013 that used this image to test radiologists. Here's the abstract of his study:

Researchers have shown that people often miss the occurrence of an unexpected yet salient event if they are engaged in a different task, a phenomenon known as inattentional blindness. However, demonstrations of inattentional blindness have typically involved naive observers engaged in an unfamiliar task. What about expert searchers who have spent years honing their ability to detect small abnormalities in specific types of images? We asked 24 radiologists to

perform a familiar lung-nodule detection task. A gorilla, 48 times the size of the average nodule, was inserted in the last case that was presented. Eighty-three percent of the radiologists did not see the gorilla. Eye tracking revealed that the majority of those who missed the gorilla looked directly at its location. Thus, even expert searchers, operating in their domain of expertise, are vulnerable to inattentional blindness.

Narrowing of attention and "inattentional blindness" can lead to decreased situational awareness, missing important but subtle clues. And when people are stressed, their attention narrows.

Which means that people who are comfortable in the outdoors, and not stressed by the outdoors, make the best search and rescue team members. If you're leading a search team of untrained volunteers who are not comfortable in the woods, then you should assume that they might not see as many clues as trained SAR team members, solely due to the narrowing of attention from the stress of being in the great outdoors. They also might not be as safe at rescue tasks. My favorite story about this (although I have several) is a cave rescue in southwestern Pennsylvania years ago.

Laurel Caverns is partly commercial and partly wild. The management offers tours along the lighted and graded paths, but also offers guided tours into the wilder sections of the cave; visitors can rent gear at the cave entrance building.

The cave is predominantly horizontal, but there's some scrambling over large rocks and up and down steep slopes, and people can and do fall. As it relates to the technical aspects of the rescue, I've described this story in the chapter on *Nontechnical and Semi-tech Evacs.* But now let's look at it from a different view.

A National Cave Rescue Commission Orientation to Cave Rescue class was going on in the cave, when a 17 year old girl nearby climbed up and then fell off a rock at a place called The Post Office. There was no field phone wire strung, and the cave rescue paramedic who responded sent out a note to the surface. The note said the patient had fallen onto her head, had altered mental status, was bleeding from the mouth, had one unresponsive pupil, and had injured her hip/thigh and right leg. The

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* Drew, T., et al. (2013). "The invisible gorilla strikes again: sustained inattentional blindness in expert observers." Psychol Sci 24(9): 1848-1853.

above-ground coordinator though it would be appropriate to have a physician at the scene, so I and one of my emergency medicine residents flew out to the cave on our medical helicopter.

Turns out she wasn't as badly injured as first appeared. Quoting directly from *Nontechnical and Semi-tech Evacs:*

> However, rescuers, mostly from the local fire department, started grumbling about how the doctors were interfering with the rescue. And despite our entreaties for them to take their time as the urgency was now much lower, the fire department members kept rushing things. And one sprained his ankle badly enough he had to be helped out of the cave. And another fell and injured himself somehow, not too seriously as I remember, but I don't remember the details.
>
> Perhaps this was due to some of the rescuer's narrow mindset: "our job is to get the patient out of the hazardous environment to an ambulance and anything that interferes with this job is bad." No real thoughts that the overall goal is the well-being of the patient. Note, that's "patient" and not "victim" even if you're a first-aider or just a non-medical rescuer.

Perhaps they had narrowing of attention because of being in such an unfamiliar environment? The cavers on the rescue were not grumbling about the doctors getting in the way, were not rushing, and had no injuries.

In terms of the cognitive biases we discussed earlier, this could be seen as an example of *confirmation bias* or *anchoring*: "No matter what those doctors say, we need to get this girl out of here ASAP! She's badly injured!"

Bottom line:

- We learn from seeing things happen, good or bad, and from hearing stories about other similar situations. Which means you'll learn some from reading and from classes, but more from realistic field practices, and even more from sitting around at dinner or at a bar BSing with experienced SAR people.
- Initially, learning works best in a less stressful setting, but practicing in realistically stressful simulations means better decision-making, less narrowing of attention, and better performance on real operations.

- Inexperienced people may get narrowing of attention so severe that they miss the big picture, or even dangers that are right in front of them. And, if narrowing of attention is a problem for radiologists who have had years of postgraduate training in radiology, and are sitting in a warm, dry room with no distractions, just imagine what that means for you, regardless of your experience, when you're cold, tired, hungry, thirsty, and sleep-deprived.

Human Nature

If you want to lead SAR team members, it's best if you develop at least a basic understanding of people in general, and SAR team members in particular. The more you know about human nature, the more likely you'll avoid mistakes when trying to lead people. Human nature changes but slowly over historical time, and so there is value in looking at modern but also ancient views of human nature.

Artes Liberales

There are many sources of information about human nature in world literature. Getting a *Bachelor of Arts* (BA) college degree is not a bad way to get familiar with some of this literature. The "arts" of a Bachelor of Arts degree refers to The Liberal Arts – literally, the arts appropriate to a free person, as opposed to a slave.

The Latin term *artes liberales* dates to the Roman Empire, though the concept dates back to Classical Greece. It means those skills needed to participate in civic life: serving on juries, defending yourself in court, and serving in the military. Grammar (writing), rhetoric (which in classical terms included not only public speaking, but understanding human nature and being able to organize and express thoughts) and logic formed the core of the classical liberal arts. Interestingly, during Roman times, roughly equal numbers of boys and girls were educated in the Liberal Arts. Things have changed over the past 2500 years or so, but the core ideas of being able to participate in public life, and the implicit understanding that this will prepare you to be a leader, continues to this day.

The Bard

What if you're not interested in spending lots of money and four years of your life to get a BA to become a better Field Team Leader? Or perhaps you already have a BA, and feel like you forgot everything you learned in undergraduate school? And you want to learn a bit more about human nature? Simple. Attend or read Shakespeare's plays. All of them.

Much of the English language we use today we owe directly to his plays, and his aphorisms are some of the most-quoted in any language.

- *The fool doth think he is wise, but the wise man knows himself to be a fool.*
- *But love is blind, and lovers cannot see.*
- *Having nothing, nothing can he lose.*
- *Cowards die many times before their deaths; The valiant never taste of death but once.*
- *Though this be madness, yet there is method in 't.*
- *Wisely and slow; they stumble that run fast.*
- *Some rise by sin, and some by virtue fall.*
- *The better part of valour is discretion.*
- *Be not afraid of greatness: some are born great, some achieve greatness and some have greatness thrust upon them.*
- *Love all, trust a few, do wrong to none.*
- *All the world's a stage, And all the men and women merely players; They have their exits and their entrances; And one man in his time plays many parts, His acts being seven ages.*
- *It is not in the stars to hold our destiny but in ourselves.*
- *Better three hours too soon than a minute too late.*
- *God has given you one face, and you make yourself another.*
- *Ignorance is the curse of God; knowledge is the wing wherewith we fly to heaven.*
- *There is nothing either good or bad but thinking makes it so.*
- *To thine own self be true, and it must follow, as the night the day, thou canst not then be false to any man.*

The Prince

Smart people have been pondering human nature for millennia, and many have set down
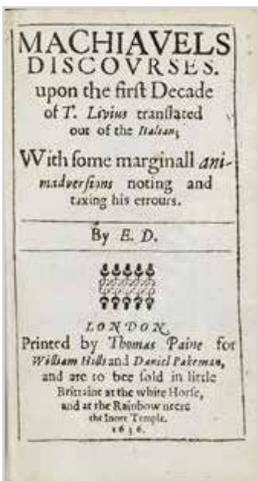
their ideas in books. If you ask many people about leadership books, they will come up with the 1632 book *The Prince* by Niccolò Machiavelli. You can't go wrong reading it. It's available free online (thanks to Project Gutenberg) in an excellent English translation, and it's an easy, fast read, so no excuses.

The SAR team environment may not be as violent as 16th century Renaissance Italy (dog teams possibly excepted). So some of his advice, such as assassinating all your rivals immediately on taking power, should be taken with a grain of salt. Nevertheless, some of Machiavelli's advice is worth taking to heart.

"Machiavellian" is now seen as a synonym for being a manipulative leader, an autocrat, a tyrant. "The end justifies the means." "It is better to be feared than loved if you cannot be both."

However, it is better to see *The Prince* as a reaction to the moralistic exhortations to leaders common in Machiavelli's time and before. If it's possible to summarize his contention in a phrase: don't try to be a saint; for the good of your people, acknowledge the imperfections of human nature, and concentrate on being an effective leader. Here is just a snippet that will give the flavor of Machiavelli's advice:

> As for the ways a prince can form an opinion of his servant, there is one test that never fails. When you see the servant thinking more of his own interests than of yours, and seeking inwardly his own profit in everything, such a man will never make a good servant, nor will you ever be able to trust him. He who has the state of another in his hands ought never to think of himself, but always of his prince, and never pay any attention to matters in which the prince is not concerned.

> On the other hand, to keep his servant honest, the prince ought to study him, honoring him, enriching him, doing him kindnesses, sharing with him the honors and cares; and at the same time let him see that he cannot stand alone, so that many honors not make him desire more, many riches not make him wish for more, and that many cares may make him dread changes. When, therefore, servants and princes are this way, they can trust each other; but when it is otherwise, the end will always be disastrous for either one or the other.

It is worth mentioning that, despite the ruthlessness advised in *The Prince,* in his other book *Discourses on the First Ten Books of Titus Livy,*

(AKA *The Discourses*) Machiavelli states this is only justified in the service of the greater good of your people, and states "... the governments of the people are better than those of princes."

If you are a SAR team leader, you have to recognize that you have less power than a Italian Renaissance prince. You also have less power than a military general. I have paraphrased part of Sun Tzu's *The Art of War* as *The Art of Search* (www.pitt.edu/~kconover/the_art_of_search.htm). However, his advice that you should position your troops ready for battle with no easy retreat, so that running away is not a viable option, might not apply to your SAR team. As a SAR leader, when your members may disagree and get up and leave, you're not allowed to shoot them, so gentler leadership styles may be your only viable options.

The Selfish Gene

FROM LITERATURE, let us now move on to science. Over the past few decades, there are (at least) two scientific developments that may help us understand human nature better. Both are based on the the theory of *evolution by natural selection*, made famous by Charles Darwin's 1859 book *On the Origin of Species*. One of the terms that encapsulates the lessons of this foundational book is Herbert Spencer's phrase "survival of the fittest" from his 1864 *Principles of Biology*. But fittest what? Fittest individual? Fittest group of individuals? Fittest species? Most recently the emphasis has been on the fittest genes, which are the individual units of inherited characteristics.

Gene selection was made famous by Richard Dawkins' bestselling 1976 book, *The Selfish Gene*. Dawkins, very persuasively, laid out the concept that selection operates *not* at the level of the species, but at the level of the *gene*: thus, the *selfish gene*.

Dawkins explained altruistic behavior (such as people volunteering for SAR teams) in terms of genes. By volunteering to help others, our genes are protecting other copies of those same genes, and making it more likely that those genes will survive and prosper, even at the cost of time and effort, and some risk to our own copies of those genes. This may correspond to what psychologists refer to as the "need to be needed." And in some SAR people *(whackers*)*

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* In Emergency Medical Services (EMS), a colleague of mine, Knox Walk, defined it this way. "A whacker is a volunteer EMT who has one of those

Daring is fine!

Reckless impetuosity is stupid!

It is therefore wise to discover and learn from the experience of others and to match boldness to mature consideration, ability to good sense.

True courage is shown only by one who is fully aware of all the consequences of his actions.

—Wilhelm Paulcke, *from Hazards in Mountaineering*

this gene-driven motivation can become overwhelming.

Gene selection also helps explain why individuals are competitive as well as cooperative, the degree of cooperation depending on how many genes you share. Your peers share some of your genes, and your family shares even more of your genes. But none of them share all your genes, and those few individual genes lead you to assure their survival by driving you to compete. By achieving higher status, you will more likely reproduce and pass on all your genes. So our genes drive us to excel at difficult things and stand out from our peers. As with the gene-driven "need to be needed," this gene-driven "need to succeed" is likely strong in SAR team members.

Sociobiology

Another related concept is that of the evolution of *behavior*. If Gregor Mendel could, in the 1850s, trace the inheritance of the characteristics of pea plants, why can't we trace the evolution of our own psychological characteristics? Indeed, people are trying to do this.

We can look back to the study of *animal* behavior, and in particular how this behavior evolved in response to evolutionary pressures. Charles Darwin studied animal behavior in the late 1800s, but *ethology* as a science really got started in the 1930s with Nikolaas Tinbergen, Konrad Lorenz and Karl von Frisch.

In 1975, biologist E.O. Wilson published the book *Sociobiology: The New Synthesis*, with an emphasis on the evolution of *human* behavior from a social perspective. Wilson's term hasn't taken root, and the term *evolutionary psychology* seems more in vogue today. Nonetheless, his book remains one of the central, though controversial, pillars of this science, and is certainly the most famous.

To relate this to SAR, there has been some sociobiological* focus on certain psychological traits that develop in adolescence and persist through young adulthood and possibly even further. One of those is risk-taking. Teenagers, "everyone knows," engage in risky behavior: driving too fast, drinking alcohol to excess, and the like. Or maybe joining a SAR team.

Until evolutionary psychology came along, most researchers saw risk-taking by adolescents as maladaptive, a bad thing. But the evolutionary psychologists (evolved psychologists?) have had an insight: if this behavior is pervasive, maybe it has adaptive value. Maybe it's actually a good thing. Indeed, there is increasing evidence to support this contention. For example: it turns out that adolescents are actually *more* averse to known risks than adults. But they are attracted to the unknown: to explore, in many meanings of the word "explore." And kids raised in stable, nurturing environments tend to be more risk-averse, while those raised in poorly-supportive environments take more risks.

Margo Wilson (no relation to E.O. Wilson) was a professor in the Department of Psychology, Neuroscience and Behaviour at McMaster University in Hamilton, Ontario. Her particular interest was investigating the social and psychological basis of murders, particularly in nearby Detroit, Michigan. As a result of these investigations, she produced a landmark paper titled *Competitiveness, Risk Taking, and Violence: The Young Male Syndrome.†* The first line of the paper's abstract reads:

> *Sexual selection theory suggests that willingness to participate in risky or violent competitive interactions should be observed primarily in those age-sex classes that have experienced the most intense reproductive competition (fitness variance) during the species' evolutionary history, and in those*

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magnetic rotating lights for the top of his car that's so big that the car rotates around underneath it."

* I am very happy I finally got to use this word in a sentence.

† This is not "irritable male syndrome," which is related to seasonal testosterone decreases in rams (male sheep). Some have opined this may be seen with human "male menopause" = andropause. Which brings up a question; if we can use the term "irritable male syndrome" for human males, should we call PMS (PreMenstrual Syndrome) "irritable female syndrome"?

individuals whose present circumstances are predictive of reproductive failure.

An evolutionary explanation goes something like this. Groups of humans that had adolescents who were eager to explore found more and better foraging and hunting grounds, so more of them survived. And groups that had adolescents who, when the group was under higher stress, became more adventurous, also survived better. And when the tribe was in particularly bad straits, aggressive young males would adventure farther and kill the competitors, providing an evolutionary benefit to the tribe and their selfish genes. The same may apply in inner-city gang-ridden areas.

When this "adult male syndrome" occurs to excess in an individual, though, it can be maladaptive, at least for a search and rescue team. The popular term for this is "testosterone poisoning."

Classical Greece

Both selfish-gene-ology and evolutionary psychology scientifically support what classical Romans and Greeks could have told you millennia ago: adolescents and young adults, especially in times of stress, are willing to take big risks but usually in anticipation of a big payoff in the end.

An ancient Greek teacher tells us, as an example of this, about a kid he tutored, named Ἀλέξανδρος ὁ Μέγας. At age 8 this kid saw a horse that his father's trainers had given up on as too wild; he dove right in, and in the end, managed to tame that horse.

Starting at age 20, this kid and his horse Bucephalus conquered the known civilized world. We call him Alexander the Great. The teacher was Aristotle.

Personality

Sometimes we talk about a "cult of personality" for someone with great *charisma*, that is, the ability to highly-motivate many followers. Examples abound. An Indian man, inspired by British ideals he likely learned in law school in London, led India to independence from the British Empire through peaceful means. A German man, reacting to the humiliating terms of the Congress of Vienna at the end of World War I, led poverty-stricken Germany to greatness, and then to ruin, through decidedly non-peaceful means. Both were noted for their charisma.

As brought to us by Shakespeare, on Friday, 25 October 1415, King Henry V of England gave his St. Crispin's Day speech, probably the most famous motivational speech in English, whereupon his highly-motivated men went out to win the Battle of Agincourt.

For a more recent example, think of Ronald Reagan acting in the 1940 film *Knute Rockne, All American* urging the Notre Dame football team to "win one for the Gipper" as he is dying. Or of Reverend Jim Jones and his Peoples Temple religion, who moved en masse to Jonestown, Guyana. In 1978 he shot and killed a U.S. Senator and then poisoned a thousand followers, including three hundred children. This left us the doubtful legacy of the phrase "drink the Kool-Aid."

The modern use of the term charisma can be traced to sociologist Max Weber, who in his 1925 book *Wirtschaft und Gesellschaft* (Economy and Society) said (translated from the German):

Charisma is a certain quality of an individual personality by virtue of which he is set apart from ordinary men and treated as endowed with supernatural, superhuman, or at least specifically exceptional powers or qualities. These are such as are not accessible to the ordinary person, but are regarded as of divine origin or as exemplary, and on the basis of them the individual concerned is treated as a leader.

Weber distinguished charisma, which had definite religious overtones, from legal authority in a bureaucracy or command structure, or a leadership role steeped in tradition, as in a primitive tribe.

There have been attempts to analyze charisma, and to reproduce it. None are all that persuasive.

In the 2007 book *It*, Joseph Roach, a professor of English and theatre at Yale, notes that Marcus Fabius Quintilianus (Quintilian), the Roman rhetorician from Hispania, thought "It was ethos, the compellingly singular character of the great orator," and for Baldassare Castiglione, author of the best-selling 1528 book *Il Cortegiano* (*The Book of the Courtier*) "It was sprezzatura, the courtly possessor of
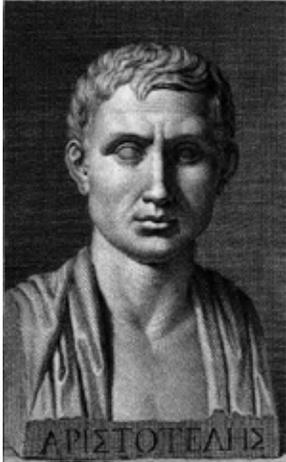
Aristotle

Alexander

Mohandas Karamchand ("Mahatma") Gandhi during the Salt March, 1930

Adolph Hitler, speaking before the Bundestag, declares war on the United States, 11 December 1941

which turned every head when he, and he alone, suavely entered a room." The phrase "stage presence" comes to mind, but while this ability to rivet attention may be necessary to highly-motivate masses of people, it is probably not sufficient.

Some say that charismatic speakers tend to use a lot of metaphors and use words to create images, but is this cause or effect? Others say that the charismatic use nonverbal communication to exude their charisma, and cite the need for good posture, a smile that touches the eyes, and physically touching people.

I'm not sure that charisma is required to be a good SAR leader, except in small amounts. If you want to increase your charisma quotient, taking a public-speaking or acting course will help. Maybe. But if charisma is just good people skills taken to the nth degree, perhaps just reading this chapter will help.

CONTENTIOUSNESS

CONTENTIOUSNESS: (\kən-'ten(t)-shəs-nes\), adj.

1 *tending to argument or strife; quarrelsome: a contentious crew.*

2 *causing, involving, or characterized by argument or controversy: contentious issues.*

3 *Law. pertaining to causes between contending parties.*

   [1400–50; late ME contenciose < L contentiōsus, equiv. to contenti(ō) CONTENTION + -ōsus -OUS]

—*con·ten'·tious·ly, adv.*

—*con·ten'·tious·ness, n.*

—*Syn. 1. disputatious, argumentative.*

Slime molds are interesting creatures. They usually consist of microscopic individual cells in amoeba form, which go their separate ways. But when food or water become scarce, they

THE EMPIRE OF ALEXANDER
334–323 B.C.

aggregate together as a visible organism. This syncytium (many cells joined together; basically a large bag of cytoplasm with many nuclei) is better at finding food, and can, if conditions are bad enough, produce spores that can survive prolonged drought or food scarcity.

Some (including dog handlers I know) have compared SAR dog teams to slime molds. They say that, given their druthers,* dog handlers, like the individual cells of a slime mold, would tend to go their own way. But under pressure from outside sources that want to see teams rather than individual handlers, they temporarily join into teams, the half-life of which is just a few years.

Perhaps this is unfair to dog handlers. After all, the same is true of non-dog SAR teams, if not to the same degree. Indeed, voluntary associations of whatever type tend to grow and prosper but many of them go on to wither and die, although the problem seems a bit more acute for SAR teams.

Why is this?

Perhaps because of contentiousness.

Russ Sarver, one of the dog handlers with my Allegheny Mountain Rescue Group once told me "If you have three dog handlers in a room, the only thing you'll be able to get two of them to agree to is that the third one is wrong." There seems to be something about SAR team members, particularly dog

Fruiting bodies of slime molds

* "druthers" comes from the phrase "I'd rather do this than that."

handlers, that makes them prone to start growling at each other.

When you are having a group discussion and one person keeps speaking up, hitting the same point over and over, it may be necessary to cut this person off. But not at the knees. The nice way to do this is to spend a couple of minutes summarizing this person's points, and then say something like "and now I'd like to hear from some other people." A more formal way to deal with this is to note that, given limited time and the need to hear different points, you'll now follow at least the spirit of parliamentary procedure as set forth in Robert's Rules of Order. This means people get to speak once on the issue, and for no more than three minutes (or whatever).

Emergency Services Workers

Jeff Mitchell is largely responsible for bringing the idea of *critical incident stress* to the emergency services world. Those of us in emergency services who deal with really bad stuff, like the death of children, or multiple deaths with dismemberment, get hit really hard, emotionally. An *acute stress reaction* from this stress can be as disabling as a broken leg. But we don't talk about our emotional stress. It's just *not done*. So the emotional stress just festers. Until something gives. You might quit your SAR team as a result (I know some ASRC members who dealt with a bad plane crash and then quit right afterwards.) Or, it might result in symptoms of chest pain that lead you into a long series of medical tests. Or it might lead to marital stress leading to divorce. Or even suicide. When it gets that bad we call it *post-traumatic stress disorder*.

Being a firefighter and a clinical psychologist gave Jeff a unique perspective on this. He realized that many standard psychotherapy methods would not work with emergency services workers. (Police officer: "This is bullshit." [exits room]) He put together a list of psychological characteristics of emergency services workers to help figure out interventions that might actually work. According to Jeff, emergency services workers:

- have obsessive/compulsive personality traits
- need to be in control
- are risk oriented
- are action-oriented
- need to be needed
- are dedicated

If you are a clinical psychologist, this list is intimidating. Jeff developed techniques to deal with these kind of people, not the least of which is to use "peers" to provide some psychological intervention. Peers in this context means people with street cred: other emergency services workers, people who have "been there, done that."

Those personality traits are not necessarily a bad thing, unless you're a clinical psychologist. They are probably essential for SAR team members: without them, people might not survive. Think of them as SAR survival traits. If you aren't willing to accept some element of risk, you won't be able to handle the vertical rescue portion of your training. If you aren't at least a bit obsessive-compulsive, you'll forget to back up that knot and you will go splat and die.

However, these personality traits also present issues for the cohesiveness of groups. Imagine a room full of people who all "need to be needed" and are really, really dedicated to the group; who are all "I'm in charge" control freaks who insist on things being their way; who are very action-oriented and not hesitant to speak their minds… actually, you probably don't need to imagine this, you can probably just remember the last meeting of your SAR group. In such a room, the opportunities for conflict are rife.*

Stress management is a topic for another chapter. But Jeff's insight into the personalities of emergency services workers, including SAR team members, can be useful in other ways.

Given his insights, what can we do to prevent conflict, and allow such groups to work smoothly, despite the confrontational personalities of the members? There's an old saying that *you can catch more flies with honey than vinegar*, so we can work, both at the group and individual level, to interact better with others.†

Team leaders can learn techniques for managing by consensus and developing trust, discussed later in this chapter.

As an individual member, you can learn to temper your inner whacker. Working to become a kinder, gentler and less-assertive (at least less overtly assertive) SAR person makes you a better asset to the team. Learning more about effective interpersonal relationships will also help.

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* If you didn't have a good feeling for the meaning of "rife" perhaps now you do.

† Actually, vinegar works better than honey for catching fruit flies. Add a drop of dish detergent to a saucer of vinegar, so the flies get stuck in the vinegar and drown.

There are many ways to improve yourself in this way. Reading the Jefferson Bible is a good place to start. It's Thomas Jefferson's excerpts from the New Testament with Jesus's moral teachings, without what he regarded as religious superstition. Reading (or seeing on stage) all of Shakespeare's plays can give you an excellent overview of human nature.

Another way to deal with this is to learn a bit about more detailed:

Personality Typing

There's that old adage "know thyself." On the Internet, you can find many (too many) ways to test yourself and learn what kind of personality you have. There are multiple well-accepted personality-assessment tools. There are the Minnesota Multiphasic Personality Inventory (MMPI), the Myers-Briggs Type Indicator, the Herrmann Brain Dominance Instrument, the Keirsey Temperament Sorter and the Hartman Personality Profile. Just to name a few.

One of the most popular personality typing method is called DISC.* I had to do it for our Department of Emergency Medicine Retreat as I was writing this chapter, so that's why I picked it for a more detailed look. As far as I can tell, the Myers-Briggs is the other most popular one, though there are more criticisms of Myers-Briggs than DISC.

All of these methods have their proponents and detractors. My take is there is probably some truth in all of them, and none are completely true. (Sounds a little bit like an ecumenical/interfaith† view of religion, which is a good analogy.)

Some insist that the four-element DISC model is just plain wrong, and that the only one that really fits the observed data is a five-axis system, The *Big Five personality traits*, also known as the *five factor model (FFM)*.‡ On the other hand, there are also those who insist that Aristotle originally categorized the world into five elements: earth, air, water, fire and tzatziki

sauce.§

The DISC theory is that people's personalities can be measured along four different axes (D, I, S and C) and that the results can then be used to classify you into personality types based on how you score on each of the axes.

DISC theory was invented by William Moulton Marston, a Renaissance man who was a psychologist, invented the modern lie detector, and was an artist for DC Comics; he created the character Wonder Woman.

Marston, in his 1928 book *Emotions of Normal People*, called the four axes

- **Dominance**: produces activity in an antagonistic environment
- **Inducement**: produces activity in a favorable environment
- **Submission**: produces passivity in a favorable environment
- **Compliance**: produces passivity in an antagonistic environment.

Today, with a somewhat more positive slant, we call these **dominance**, **influence**, **steadiness**, and **compliance**; in this case, unlike many Bowdlerized and politically-correct terms,¶ this is probably a justifiable change.

Lest we think this is something new under the sun, we should note that the classical Greeks also used a 4-axis system, but also came up with more poetic names for the axes: **sanguine** (optimistic and social), **choleric** (short-tempered or irritable), **melancholic** (analytical and quiet), and **phlegmatic** (relaxed and peaceful).

The Greek physician Hippocrates (c. 460 – c. 370 BC wrote about these four axes, and suspected they related to four main types of body fluids, which gave us their names:

- **Yellow bile** (Greek: χολή, chole): **choleric**
- **Black bile** (Greek: μέλαινα χολή, melaina chole): **melancholic**

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* If you spell it with a small i, thus: DiSC® it's a registered trademark of a company marketing this testing, one which is used by many companies, and indeed this is the version I had to complete.

† The adjective ecumenical refers to interdenominational initiatives that encourage greater cooperation among Christian churches and their members, generally saying that "we all worship the same God in slightly different ways." Interfaith refers to the same reconciliation between different religions. This is sometimes contrasted to the alternative "**YOU ARE ALL HERETICS AND YOU WILL BURN IN HELL FOR ALL ETERNITY!**" The dialogue between proponents of these different personality theories is, unfortunately, still at the "you are all infidels" stage.

‡ For a parallel example in religion, read up on Monophysitism.

§ Americans know this as gyro sauce, but any proper Greek (and Aristotle was **the** proper Greek) know's it's *tzatziki* sauce.

¶ I'm sure you can think of many examples. One of my favorites, from a street near my house: the yellow diamond-shaped warning sign used to say "DEAF CHILD" which is perfect for quick recognition by a passing motorist. The sign now says "HEARING IMPAIRED CHILD." Sigh. Perhaps if we want to be even more precise, the sign could say "MILDLY-TO-MODERATELY HEARING IMPAIRED CHILD." There is a parallel with a problem in science and engineering when *precision* gets confused with *accuracy*. For an EMS/medical example, let's consider blood pressure. A blood pressure of 119/81 is more *precise* than a blood pressure of 120/80. Is it more *accurate*? Probably not. BP cuffs wrap slightly differently each time, a BP changes depending on whether you're leaning to the left or to the right, and how your arm is twisted. Does the difference matter clinically (which means in terms of patient care, as opposed to research)? Probably not. There's also a question here of *information design*: which is easier to comprehend? Especially when you're driving by at 35 miles per hour? MILDLY-TO-MODERATELY HEARING IMPAIRED CHILD or DEAF CHILD? Which is easier to read and comprehend when you're cold, tired, and slightly hypothermic, 119/81 or 120/80? As Sir Francis Bacon observed back his 1620 *Novum Organon* (Book II), *We are more likely to reach the truth through error than through confusion* (translated from the Latin).

- **Phlegm** (Greek: φλέγμα, phlegma): **phlegmatic**, and
- **Blood** (Greek: αἷμα, haima): **sanguine**.

We've moved on from this biochemical theory, but we really haven't moved on from the four-axis theory of personalities, and these four terms for describing people are still current. Here are the equivalencies:

Dominance: Choleric
Influence: Sanguine
Steadiness: Melancholic
Compliance: Phlegmatic

The four classical temperaments have figured in art and literature for thousands of years. Continuing our musical sub-theme, the Danish composer Carl Nielsen wrote of his Symphony #2, Op. 16, composed in 1902:

The idea for the symphony The Four Temperaments came to me many years ago in a village hostelry in Zealand. In the parlour where I was having some beer with my wife and some friends there hung a most comical picture; it was divided into four parts, representing the four temperaments and provided with titles: "the Choleric", "the Phlegmatic" "the Melancholic" and
"the Sanguine." *The choleric man was on horseback; he had a sword in his hand with which he was fencing fiercely at the empty air, his eyes were nearly rolling out of his head, his hair was flowing wildly round his face, which was so full of fury and devilish hate that I involuntarily burst into laughter. The other three pictures were in the same style and my friends and I were greatly amused at their naïvety, their exaggerated expressions and their comic gravity. But how oddly things can often turn out! I who had laughed so loudly and derisively at these pictures found my thoughts constantly returning to them and one fine day it became clear to me that these humble pictures had a sort of essence or idea and - mark well - even some musical potential into the bargain! A little later I began to work out the first movement of the symphony, but I had to be careful that it didn't fence at empty air, and I naturally hoped that my listeners wouldn't turn the tables and laugh at me…*

For a later concert, he wrote:

The four movements of the symphony are built on the concept of the four human character types: the Impetuous (Allegro collerico), the Indolent (Allegro flemmatico), the Melancholy (Andante malincolico) and the Cheerful or naïve (Allegro sanguineo). – But the impetuous man can have his milder moments, the melancholy man his impetuous or brighter ones and the boisterous, cheerful man can become contemplative, even quite serious; but only for a little while. The lazy, indolent man, on the other hand, only emerges from his phlegmatic state with the greatest of difficulty, so this movement is both brief (he can't be bothered) and uniform in its progress.

It is said that our personality types really don't change much if at all over our lives, unless we experience some sort of life-altering experience. I suspect that being a SAR team member is a good way to collect life-altering experiences; if you are reading this, your personality is probably more likely to change than the average person.

Most proponents of this method insist that they are *not* measuring personality types, but our behaviors at work. Indeed, if you look at the questions you have to answer on a DISC test, most tests ask something like *In my work environment, it is most important to me…* and *In my work environment, it is least important to me…* or *When you are at work, which of the following four words best and least describe you?*

A fair number of people say this is bunk and DISC really *is* a good test of your personality.

In our emergency physician and advanced practitioner* group, we had a variety of personality type. The leaders tended to have high scores on the **D** axis (duh); most of our staff had high **C** ratings, and I had a high **I** rating which is probably why I'm writing this chapter.

I suspect that earlier in my life, like when I and three others founded the Appalachian Search and Rescue Conference, or back when I started the Pennsylvania Search and Rescue Council, the Blue Ridge Mountain Rescue Group, the Shenandoah Mountain Rescue Group, and the Allegheny Mountain Rescue Group, my D scores would have been higher.

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* For a long time, Physician Assistants (PA-C) and Nurse Practitioners (CRNP) were jointly referred to, at least informally, as midlevel providers or just midlevels. Now, the politically correct term seems to be Advanced Providers, Advanced Practice Practitioners, Advanced Practitioners, or since we're talking slang here, just APs. This leaves unanswered the question of "What is a Basic Practitioner?"

At least I think others would have ascribed me higher D scores. Now that I'm an old fart I try to temper my D-ness, emphasizing more teaching and mentoring and supporting. And writing textbook chapters.

Adrian, an emergency physician who ran the retreat session discussing our DISC results, pointed out that there is no correlation whatsoever between DISC scores and how fast we saw patients in the ED. That's a big deal these days: rating ER docs on their efficiency at seeing patients. It's probably reasonable to extend this to SAR in general, so there is no reason to assume that high or low scores on one of these axes means anything about your abilities at common SAR tasks, though high D types tend to seek out leadership positions.

He pointed out the advantage of knowing people's personality type: if you go to Mike, the head of physician and AP staff at my Emergency Department who is a high D person, and he's short with you, don't take it personally, that's just the way he is. (He's a very personable and likeable guy, even if, as he says, he slams the phone down a lot.*)

A few of the things said of a high D (choleric) person:

- an extrovert
- a doer
- an optimist
- a born leader
- dynamic and active
- compulsive need for change
- must correct wrongs
- strong-willed and decisive
- unemotional
- not easily discouraged
- independent and self-sufficient
- exudes confidence
    but also
- little tolerance for mistakes
- doesn't analyze details
- bored by trivia
- may make rash decisions
- may be rude or tactless
- manipulates people
- demanding of others
- end justifies the means
- team may become his or her religion
- demands loyalty in the ranks

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* I did see him once punch a computer monitor. But this was in the early days of speech recognition, and I agreed that the computer was asking for it.

This sounds like a lot of SAR people, right? Does that mean that SAR teams tend to have too many chiefs? Perhaps so, and perhaps learning to control one's D-ness/choleric temperament is one of the keys to long-term success for your SAR team.

If you buy into the DISC concept, though, high-D people may also be distinguished by the amount of I, S and C that they have.

It is worthwhile to know that leaders tend to have high D scores. It is also worthwhile for leaders to know that their members have different personality types, and that different personality types respond differently to different leadership tactics.

People who are high-D tend to end up in administrative positions with SAR teams, but I suspect you have to have a high score in more than D to tolerate all the administrivia involved in helping to run a SAR team.

Some have tried to map these axes to an x,y plot on a graph; others assign a score on each axis and then match them with one of the fifteen classic patterns, identified by those who turned Marston's theory into practical testing instruments. These are:

Achiever	Developer	Persuader
Agent	Inspirational	Practitioner
Appraiser	Investigator	Promoter
Counselor	Objective Thinker	Result-oriented
Creative	Perfectionist	Specialist

My profile fits the Practitioner type. Given this is an assessment of my behavior while working in the Emergency Department as an emergency physician, I guess that's OK. I suspect if I answered the questions related to what I do in SAR and disaster work, my profile might have matched a different type.

Details of these personality types are beyond the scope of this chapter, but for those who are interested, a Web search for "DISC fifteen patterns" will quickly provide the characteristics of each of these personality types.

Doing so is probably a worthwhile home-study project, but trying to memorize this material seems to be a lot of work for not much benefit. As we learned in the section *Sources of Power*, book learning on this scale probably doesn't make you a better leader. But recognizing that there are different personalities, and what works with one personality type

sometimes doesn't work with a different personality type, is an important lesson.

In emergency services training, we tend to group training and certification into several ascending levels:

- **Awareness**
- **Operations**
- **Technician**
- **Specialist**

Reading here about different personality types, and perhaps browsing a website that explains some about the DISC personality types, gets you to the Awareness level. You can't go beyond this from book- or Web-learning; you'll have to interact with people on training or real operations.

Lest this DISC stuff seem a worthless academic exercise, it's worth noting that many large companies, rightly or wrongly, use DISC profiles to screen applicants for suitability for various jobs.

The Mandate of Heaven

Francis Fukuyama is a well-known American historian and political and economic theorist. His politics are hard to classify; he was considered a neoconservative and was associated with the Reagan administration, but more recently was critical of the Bush administration's aggressive military policies. He also believes that unequal distribution of wealth is what has caused South America to lag behind North America in development.

From our viewpoint, what matters more is his historical analysis of government in general, presented in two widely-acclaimed books, *The Origins of Political Order* in 2011, and *Political Order and Political Decay: From the Industrial Revolution to the Present Day* in 2014.

Anyone who wants to be in charge of a SAR team should read both of these books, as governing a SAR team is not unlike governing a small country. One particular concept that Fukuyama details comes from classical China: the *Mandate of Heaven*. This concept originated over 3000 years ago and has guided Chinese society ever since.

The emperor or empress could only rule as long as he or she had this mandate. Although it sounds religious, it was more cultural and philosophical. Wikipedia says "The Mandate of Heaven depends on whether an emperor is sufficiently virtuous to rule; if he does not fulfill

his obligations as emperor, then he loses the Mandate and thus the right to be emperor."

Fukuyama points out that the mandate was a nebulous approbation of society, and that there was no Pope or Grand Mufti or Caliph to award this distinction. It was based on the Confucian ideal of *Rectification of Names*: if you're the Emperor, you have to act like other good Emperors or you really *aren't* an emperor and you no longer have the Mandate of Heaven.

If you're leading a field team, or a SAR team, then you, too, need the Mandate of Heaven. It is given to you by your team members.

For those who live in the USA rather than China, it's probably better to talk about the *consent of the governed*, which is found in Article 21 of the United Nation's 1948 Universal Declaration of Human Rights: "The will of the people shall be the basis of the authority of government." Perhaps more importantly for US residents, the Declaration of Independence states:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness.

*That to secure these rights, Governments are instituted among Men, deriving their just powers from the **consent of the governed**, That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness.*

Revolutions do occur in SAR teams from time to time. But, unlike residents of an autocratic country, SAR team members can leave their team without having to leave their homes and travel to a foreign country. A more common reaction for SAR teams is for lots of members to leave and then form a new team that eventually supersedes the original team. I have been through this before. 'Tis a consummation, Devoutly not to be wished.

A Pair of Coveys

In 1989, Stephen R. Covey published the book *The 7 Habits of Highly Effective People: Powerful Lessons in Personal Change*. We have used this

A superior man, in regard to what he does not know, shows a cautious reserve. If names be not correct, language is not in accordance with the truth of things. If language be not in accordance with the truth of things, affairs cannot be carried on to success. When affairs cannot be carried on to success, proprieties and music do not flourish. When proprieties and music do not flourish, punishments will not be properly awarded. When punishments are not properly awarded, the people do not know how to move hand or foot. Therefore a superior man considers it necessary that the names he uses may be spoken appropriately, and also that what he speaks may be carried out appropriately. What the superior man requires is just that in his words there may be nothing incorrect.
—Confucius, Analects, Book XIII, Chapter 3, verses 4-7, translated by James Legge.

as required reading for leadership sessions for our emergency medicine residents. The amazon.com blurb for it notes that it has sold over 25 million copies in 40 languages, but even more impressive is that on amazon.com the 25th anniversary edition has 3,408 reviews and a 4.5-star rating, on one of the few websites where you can trust those star ratings. If you're looking to move up in the corporate world, this is pretty much required reading. I hate to provide spoilers, but here are the seven habits.

The first three habits, Covey tells us, move us from dependence to independence through a process of self-mastery.

- Habit 1: Be Proactive
- Habit 2: Begin with the End in Mind
- Habit 3: Put First Things First

The next three habits are those that help you interact well with others.

- Habit 4: Think Win/Win
- Habit 5: Seek First to Understand, Then to Be Understood
- Habit 6: Synergize

The final habit is to continuously re-invent yourself; analyze your behavior and your team's performance and improve. Invest in yourself and your team. Don't be the person who killed the goose that laid the golden eggs.

- Habit 7: Sharpen the Saw

Read the book. It's not that long, used copies are cheap, and electronic versions are available.

Perhaps even more relevant to the current discussion about leadership of volunteer SAR teams is a book by his son, Stephen M.R. Covey: *The Speed of Trust: the One Thing That Changes Everything.* It's aimed at businesses, but the lessons apply quite well to SAR leaders as well.

In the Foreword, Covey *père** writes:

This book shows that while ethics is [sic]† *fundamentally important and necessary, it is absolutely insufficient.*

…

Financial success comes from success in the marketplace, and success in the marketplace comes from success in the workplace. The heart and soul of all of this is trust.

…

Low trust causes friction, whether it is

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* *Père* is a high-falutin' way to impress people with your knowledge of French. It just means "father"; it's often paired with *fils*, meaning son.

† [sic] in a quote means that you're quoting the author precisely, even if you know your high school English teacher would not approve of the original wording. In this case, *ethics* is considered singular when referring to a field of study, but plural for a person's or company's moral standards. If he had written *while ethics are fundamentally important and necessary, they are absolutely insufficient* he would have not been downgraded by the English teacher.

caused by unethical behavior or by ethical but incompetent behavior (because even good intentions can never take the place of bad judgment).

… as Stephen points out, the greatest trust-building key is "results." Results build brand loyalty. Results inspire and fire up a winning culture. The consistent production of results not only causes customers to increase their reorders, it also compels them to consistently recommend you to others. Thus, your customers become your key promoters, your key sales and marketing people. In addition, results win the confidence of practical-minded executives and workforces.

…

Trust is like the aquifer – the huge water pool under the earth that feeds all of the sub-surface wells. In business and in life, these wells are often called innovation, complementary teams, collaboration, empowerment, Six Sigma, and other expressions of Total Quality Management, brand loyalty, or other strategic initiatives.

At the very beginning of the book, Covey *fils* says:

While corporate scandals, terrorist threats, office politics, and broken relationships have created low trust on almost every front, I contend that the ability to establish, grow, extend, and restore trust is not only vital to our personal and interpersonal well-being; it is the key leadership competency of the new global economy.

Covey points out that ethics and trust should be a big deal for business people: MBA students and convicts in a minimum-security prison score the same on an ethical dilemma test. One would hope that SAR team members score a bit higher.

Covey gives numerous anecdotes that illustrate how trust can decrease cost and increase speed of business operations, or on the other hand, distrust can slow things and make them more expensive. For example, consider how, since 9/11, the speed of air travel has decreased due to distrust of airplane passengers. The airplanes go at the same speed, but the TSA screening process slows everything down. And, we pay an extra security tax on every airline ticket.

Covey gives a positive example:

Consider the example of Warren Buffett – CEO of Berkshire Hathaway (and generally considered one of the most trusted leaders

in the world)—who recently completed a major acquisition of McLane Distribution (a $23 billion company) from Wal-Mart. Warren Buffett wrote: "We did no 'due diligence.' We knew everything would be exactly as Wal-Mart said it would be – and it was." Imagine – less than one month (instead of six months or longer), and no "due diligence" costs (instead of the millions typically spent)! High trust, high speed, low cost.

Most of the book is devoted to techniques to create and maintain trust.

Covey identifies 13 behaviors that engender trust. First are five character behaviors:

1 Talk Straight. *Be honest. Tell the truth. Let people know where you stand. Use simple language. Call things what they are. Demonstrate integrity. Don't manipulate people nor distort facts. Don't spin the truth. Don't leave false impressions.*

2 Demonstrate Respect. *Genuinely care for others. Show you care. Respect the dignity of every person and every role. Treat everyone with respect, especially those who can't do anything for you.*

Show kindness in the little things. Don't fake caring. Don't attempt to be "efficient" with people.

3 Create Transparency. *Tell the truth in a way people can verify. Get real and genuine. Be open and authentic. Err on the side of disclosure. Operate on the premise of, "What you see is what you get." Don't have hidden agendas. Don't hide information.*

4 Right Wrongs. *Make things right when you're wrong. Apologize quickly. Make restitution where possible. Practice "service recoveries." Demonstrate personal humility. Don't cover things up. Don't let personal pride get in the way of doing the right thing.*

5 Show Loyalty. *Give credit to others. Speak about people as if they were present. Represent others who aren't there to speak for themselves. Don't badmouth others behind their backs. Don't disclose others' private information.*

Next are five competence behaviors:

6 Deliver Results. *Establish a track record of results. Get the right things done. Make things happen. Accomplish what you're hired to do. Be on time and within budget. Don't overpromise and underdeliver. Don't make excuses for not delivering.*

7 Get Better. *Continuously improve. Increase your capabilities. Be a constant learner. Develop feedback systems – both formal and informal. Act upon the feedback you receive. Thank people for feedback. Don't consider yourself above feedback. Don't assume your knowledge and skills will be sufficient for tomorrow's challenges.*

8 Confront Reality. *Take issues head on, even the "undiscussables." Address the tough stuff directly. Acknowledge the unsaid. Lead out courageously in conversation. Remove the "sword from their hands." Don't skirt the real issues. Don't bury your head in the sand.*

9 Clarify Expectations. *Disclose and reveal expectations. Discuss them. Validate them. Renegotiate them if needed and possible. Don't violate expectations. Don't assume that expectations are clear or shared.*

10 Practice Accountability. *Hold yourself accountable. Hold others accountable. Take responsibility for results. Be clear on how you'll communicate how you're doing –and how others are doing. Don't avoid or shirk responsibility. Don't blame others or point fingers when things go wrong.*

Finally, three behaviors that partake of both character *and* competence:

11 Listen First. *Listen before you speak.*

Understand. Diagnose. Listen with your ears… and your eyes and heart. Find out what the most important behaviors are to the people you're working with. Don't assume you know what matters most to others. Don't presume you have all the answers – or all the questions.

12 Keep Commitments. *Say what you're going to do. Then do what you say you're going to do. Make commitments carefully and keep them at all costs. Make keeping commitments the symbol of your honor. Don't break confidences. Don't attempt to "PR" your way out of a commitment you've broken.*

13 Extend Trust. *Demonstrate a propensity to trust. Extend trust abundantly to those who have earned your trust. Extend trust conditionally to those who are earning your trust. Learn how to appropriately extend trust to others based on the situation, risk, and character/ competence of the people involved. But have a propensity to trust. Don't withhold trust because there is risk involved.*

Read the book. It's not that long, used copies are cheap, and electronic versions are available.

Power Vacuum

One problem with high-D/choleric people is that they can end up in leadership positions and then drive other high-D people out of the tribe/ team/government/whatever.

A hypothetical Martian observer would consider this behavior, and the behavior of raccoons screaming at each other in the night to see who gets the territory, and deer stags clashing their antlers to see who gets to mate with the does, and lump them all together.

However, in human societies, this can cause problems. If the alpha-male leader chases away all potential competitors and then dies, and has not yet produced descendants, who will take over? Who will be sub-leaders? What if there are three potential successors, none of which has an ironclad claim to the throne?

The question of succession to power has plagued all human societies, and some of our most famous wars were over succession struggles. The bloody book and video series

Game of Thrones is based fairly closely on *The Wars of the Roses* for the Plantagenet throne of England, held in the 1400s between the House of Lancaster, whose symbol was the red rose, and the House of York, whose symbol was the white rose.

A less-famous but still famous war was the *War of the Spanish Succession* in the 1700s; but if you search Wikipedia for "war of succession" you get a list of twenty-three (23) wars of the xxxx succession, and a list of another thirteen (13) wars of succession that have a name other than "war of succession." One of the reasons primogeniture (succession of the eldest male child) took hold in Europe was that it cut down on those "wars of the xxxx succession."

As I write this, there is a war of succession in Syria. Bashar al-Assad no longer has the Mandate of Heaven and the consent of the governed. But it is not at all clear who will succeed him.

I have been in SAR long enough that I have seen several "wars of the xxxx succession."

Many organizations in the USA have an elected President rather than a monarch who believes in the divine right of kings (a few SAR teams excepted). Many of these organizations have also adopted an elected position of President-Elect; the President-Elect may also serve as Vice-President. At the end of the President's term, the President steps down and the President-Elect takes over.* This prevents a "war of the xxxx succession" but also allows a more gradual transfer of power, with the President-Elect serving what is basically an apprenticeship for one term.

If you're acting as a Field Team Leader, it's a good idea to appoint a successor so if you get disabled, there is no war of succession. To put this in more modern terms, make sure an Assistant Team Leader is designated before you head out.

If you're a Search Manager in Base, make sure you have a relief lined up. If you're administratively in charge of a SAR team, try to line up a successor or two for each of your leadership positions. Avoid the War of [Insert Your Team Name Here] Succession.

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* In some organizations, the immediate past-President also stays on as an officer for a year.

> *The moment there is suspicion about a person's motives, everything he does becomes tainted.*
>
> —*Mahatma Gandhi*

Whackers. I suspect you know the type. Someone who has all of those characteristics of emergency services workers (need to be needed, action-oriented, and the others), to the max.

Fire departments and EMS services are both whacker magnets. I am Chief Medical Officer of the Federal Disaster Medical Assistance Team (DMAT) in Pittsburgh, and it's a whacker magnet, though dealing with Federal bureaucracy quickly weeds out most of the bad whackers. But SAR teams – SAR teams are like *superconducting* whacker magnets.

So having even the tiniest bit of leadership responsibility in a SAR team, even just being a Field Team Member who has to lead search teams of emergent volunteers, means that you need to know the basic tenets of **whacker management**.

We need to see whacker management in the context of the social interactions within a team. So, let's first look at team dynamics from the viewpoint of a sociologist.

Heroic Efforts

Once there was a woman who was a sociology grad student. She wanted to do an ethnographic study of an interesting society that had not been well-studied to date. She chose to study a search and rescue team.

She joined the SAR team as a novice, first covertly studying the team members and their interactions, then later continuing her studies with the team's full knowledge and cooperation. She ended up "going native," becoming an integral member of the team, on which she served for six years. She also dated and then married another team member.

Her book makes a great read for anyone interested in sociology. Reading it will also make you a better search and rescue team member and leader.

The woman is Jennifer Lois, and her study was published as the book *Heroic Efforts: The Emotional Culture of Search and Rescue Volunteers*. She's now a professor in the sociology department at Western Washington University, in the middle of the North Cascade Mountains.

The book focuses on the socialization of new members into the pseudonymous Peak Search

and Rescue Team, and how group member's emotions are managed by the group's social dynamics. She probes deeply into the emotional management involved in dealing with patients and their families; we will focus on these in other chapters.

Lois also discusses the motivations that lead people to join the group, the different social classes of members, and the role of the "hero" in society.

A few quotes from the book will put this in context.

Peak was an organization that required its members to behave heroically. Rescuers had to sacrifice their own interests in order to help strangers in need. Because it could not offer material incentives, nor could it force its members to behave in certain ways, Peak gained members' compliance by using symbolic rewards. The group tightly guarded its only commodity, the status of "hero," and used it to entice aspiring members to conform to the group's norms. Members who did not conform closely enough were made well aware of their peripheral status in the group and thus were not granted the core membership that would allow them to claim the heroic identity of the group as their own. By making heroism an elusive and difficult goal to achieve, Peak ensured members' compliance as well as instilled in them a sense of group dedication.

…

Peak's new members were encouraged to recognize their own unimportance early on and to demonstrate their understanding that membership was not a means to self-glorification. The group first socialized them to downplay arrogance and egoism and to display humility and respect. In this stage, the norms guided members to focus their attention on themselves in an effort to eliminate any attitudes of self-interest. Successful socialization in this stage moved them to peripheral status, where they were next socialized to orient themselves toward the group. Norms in the group-oriented stage encouraged members to focus on group goals by being team players and accepting any role assigned to them. Thus, socialization to group consciousness comprised two
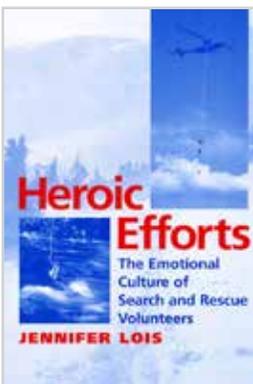
stages: first denying the self and then affirming the group.

…

Members also demonstrated self-denial through actions or attitudes that not only downplayed but actively avoided self-glorification. To fade modestly into the background after a mission showed willingness to renounce self-serving reasons for participation in Peak. Conversely, members who talked to the press about their performance on a rescue without authorization from the group were sanctioned for using the group as a vehicle for self-aggrandizement. This type of grandstanding was one of the most basic infractions members could commit, and members who did so were formally reprimanded on several occasions: the board of directors suspended one violator from all group activity for one month, and threatened another with permanent expulsion.

Members felt that displays of excessive pride endangered the heroic identity of the group. … Indeed, our cultural conceptions, as informed by Greek mythology, show that hubris destroys heroes.

Rescuers also demonstrated the norm of self-denial by resisting the urge to advertise their association with the group. Newer members who overemphasized their affiliation with Peak were suspected of being motivated by a desire for a status boost in the community: taking advantage of the group's heroic status so that they, as individuals, might be viewed as heroes.

…some studies have examined how EMTs, paramedics, military personnel, and police officers seek thrilling experiences and, as such, are drawn to the sometimes dangerous and always unpredictable nature of their work. Other research has examined nonoccupational settings in which individuals undertake risk as part of their leisure activity, such as mountaineering, whitewater rafting, and high-ropes courses. These thrill seekers carefully calculate the dangers and rewards of pursuing high-risk activity…

What are the implications of all of this for you as a SAR leader? Most of the young adults in a SAR team (women as well as men) are still at least in part adolescents, with a strong drive to learn new things and explore their limits. They tend to be good students. But given their penchant to try things "just to see what happens"

it is very important to pose safety rules as **not** arbitrary. A few stories about what happened when people violated a safety rule, and the reasoning behind the rules, will do much more for safety than simply repeating the safety rules. For instance: "We have a rule that everyone who is rigging for a rappel has someone else check their rig before they go over. It might seem mickey-mouse right now, but we want everyone to develop good habits, so when you're sleep-deprived, borderline hypothermic, and it's getting dark, we'll all follow those ingrained habits. Because *that's* when we all tend to make stupid mistakes. The kind of stupid mistakes that have made a number of otherwise smart people go splat and die."

The first principle is based on simple observations: my observations and those of other ~~elderly~~ experienced SAR team colleagues. Some whackers require massive amounts of mentoring and supervision (and maybe an occasional whack on the head). Dealing with them can be quite frustrating. But sometimes, a year or two later, you find that this whacker-member has grown up, and now is one of the most valuable and respected members of your team. This is actually fairly common. If you buy me a beer sometime and nobody else is around I can name multiple instances. If we think in terms of the psychological character of SAR team members, this makes sense.

But there are the other whackers. The ones who, in retrospect, should have been taken out behind the building and shot. (Just kidding. I hope.) Or forced to undergo a formal psychological evaluation before returning to working with the organization. I once was a member of a board of inquiry into such a situation, and had to write the letter to the (now ex-) member informing him of this fact. He never rejoined the organization. However, quite a while later, he contacted me and thanked me. He credited my letter with possibly saving his life. He told me he had been diagnosed as bipolar, started on medication, and was a whole new man after this. I guess we have to count this as a loss, as he never returned to SAR, but it certainly helped *him*.

There have been other situations, though, where members end up leaving the organization under a cloud and never return. Some of these people spend the rest of their lives badmouthing the organization. That indeed is a problem, but likely not as bad as having such a person

still inside the organization causing disruption. I make it a rule to at least try to contact someone who left like this and thank them for their time with the organization. Sometimes I even send them a little memento of the organization. It costs me little time or money. Most often it's wasted, but every now and then I get a thank-you from the person. This probably benefits the person who left and the organization both.

So how do you figure out whether to invest a lot of time and effort in mentoring, or simply take the member out behind the building, or require a formal psychological evaluation? It's not easy and it may take a long time and the input of multiple experienced team members. But the following sections offer some ideas that may help you along the way.

Whackers Are Expected

To some degree, whackers are normal. At certain ages. As discussed in the prior section on evolutionary psychology, we know that, when we are adolescents and young adults, human males and to a lesser (but not insignificant) extent females are supposed to be whackers.

To known risks, adolescents are actually *more* averse than adults. But adolescents are fascinated by the unknown, which may expose them to danger. In earlier millennia, this served a survival purpose: young adults would have the urge to go out and explore, and maybe find new areas with better food. So it's basically good, and it's our best source of recruits. But sometimes it gets out of hand: whackers gone bad.

Stupid whackers seldom turn out well. Smart whackers sometime, even usually, turn out well. But there are different kinds of smart. The kind of smart that you need to overcome whackerness is the ability to learn from your mistakes both at intellectual and interpersonal levels.

You will have to evaluate whackers who want to join your team, or people who hid their whackerness until they joined.

To try to determine if the whacker in question is smart or stupid, one thing you can do, over time, is compare the whacker's statements against reality. If a whacker keeps loudly stating things that are just plain wrong, the whacker's probably stupid. You can also check a whacker's credentials, for instance on application for team membership. Now, nobody remembers 100% of what they've done, so a couple of errors are no big deal. But if the whacker in question claims

to have attended the National Inland SAR School, but his or her name is not on the roster for that year, or claims to have taken ICS up to ICS-400, but can produce no certificates, those are danger signs.

So is there any quick and dirty way to tell how smart someone is, in these terms? Well, a person's self-esteem and confidence are definitely not useful in this regard. Let's now talk more about:

Confidence

Have you ever heard of the Dunning-Kruger effect? It's named after two Cornell University professors. It basically states that some people who have no idea what they are talking about are nonetheless quite confident in what they are doing. Whereas experts on the topic are much less sure about their expertise.

Advice from millennia past encapsulates this. Confucius: "Real knowledge is to know the extent of one's ignorance." Socrates: "I know that I know nothing." Bertrand Russell: "One of the painful things about our time is that those who feel certainty are stupid, and those with any imagination and understanding are filled with doubt and indecision." Dunning and Kruger quoted Charles Darwin in their 1999 paper: "ignorance more frequently begets confidence than does knowledge."

Shakespeare, in *As You Like It*, tells us "The Foole doth thinke he is wise, but the wiseman knowes himselfe to be a Foole." But perhaps the most apropos quote for SAR team fools is Alexander Pope's 1709 poem *An Essay on Criticism* in which we find the oft-quoted "fools rush in where angels fear to tread." Sounds like a recipe for a splat. (That's a technical rope-rescue term.)

David Dunning says, "What's curious is that, in many cases, incompetence does not leave people disoriented, perplexed, or cautious. Instead, the incompetent are often blessed with an inappropriate confidence, buoyed by something that feels to them like knowledge." Dunning goes on: "A whole battery of studies conducted by myself and others have confirmed that people who don't know much about a given set of cognitive, technical, or social skills tend to grossly overestimate their prowess and performance, whether it's grammar, emotional intelligence, logical reasoning, firearm care and safety, debating, or financial knowledge.

College students who hand in exams that will earn them Ds and Fs tend to think their efforts will be worthy of far higher grades; low-performing chess players, bridge players, and medical students, and elderly people applying for a renewed driver's license, similarly overestimate their competence by a long shot."

This doesn't apply to everyone, but certainly to a small subset of people, most of who try join SAR teams. (Or so it seems to those of us who have been a Group Training Officer.)

Some young people exude confidence, have the energy of a 2-month-old puppy, and don't seem to know what they are doing. But they are smart, eager to learn, and do indeed learn quickly. Just like with a puppy, people tend to get tired of them and when they do something bad, whack them on the nose with a rolled-up newspaper. This is probably not the best approach. Why? Because with lots of mentoring (more on that in a subsequent section) these people turn out quite well. It may be frustrating to deal with such a high-energy person as they simply suck up all your time. But in the end it will probably be worth it.

But to be useful, such people have to grow up. And by that I mean that they have to, just like a puppy, learn not only technical skills such as not pooping in the house, but also interpersonal skills. They key here is figuring out whether this person can indeed learn interpersonal skills as well as technical skills. This may require some one-on-one mentoring about interpersonal skills (more on that later, too). This mentoring not only helps the person develop, but also provides an assessment of whether this person is salvageable as a SAR team member.

There are indeed arguments to marshall against this. What about the old military maxim "It is better to be wrong than to be indecisive"? Against this one can muster that other military phrase we have discussed twice before: "He is seldom wrong but never uncertain."

I have actually said this ("seldom wrong") about some of the emergency medicine residents I helped train. All of them grew out of their whackerism, and a great many of them are now among the most prominent physicians in emergency medicine, and some in medicine in general, nationwide. Yes, our #7-ranked emergency medicine residency* is a major whacker magnet. I can't seem to get away from it.

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* Doximity/U.S. News and World Report, 2014.

There is also evidence that people trust doctors and other professional figures who appear confident regardless of their actual competence. Scary.

How do you deal with this need to display confidence? Well, develop confidence by practice, and making mistakes in a supervised setting where your mistakes don't hurt you or others. Ask any business consultant: failure is now "in." Some may say this is just a remnant of all the business failures of the Internet Bubble, but most say that we need to accept that failure is one of the best learning experiences.

Projecting confidence is important. How do you do it without being judged a whacker? The obvious answer, though it may be difficult to achieve. is to never be wrong.

Even if you're right, but something bad happens despite your picking the right option in a bad situation, it's all over. As the Lincoln saying we considered in the *Decision-Making* section goes, "If the end brings me out all right, then what is said against me won't matter. If I'm wrong, ten angels swearing I was right won't make a difference." You have to accept that you will feel bad about this "failure" for a while, and then get over it; then you have to "get back on the horse again."

As a physician, and particularly as an emergency physician in an academic setting, I have this same problem. I have to project confidence. It's an essential part of my job.

What do you do when you when you're an emergency medicine doctor (or a SAR team member) and don't know the answer? You have to be *confident that you don't know the answer*.

But you also need to be *confident in your ability to do the best you can do choose a course of action*. You can let others know that you don't have a definitive answer, and solicit input from others while still rapidly choosing the best course possible, given your level of knowledge. You can call this being uncertain but decisive.

When you run across a problem that's urgent but not emergent – you've got a little time – you say "I want to check an app on my phone to be sure that I have the latest updates on how to take care of this." Or: "I have some ideas about what's going on but I want to get one of my colleagues involved as well." And you sound confident and decisive as you say this, because you are. You are confident that this is the best way to deal with this particular problem. Yes, it might be a bit of showmanship, but it's also the best thing to do

for the patient (or the SAR situation.)

One thing every intern learns is that nobody is perfect. And nobody *is* perfect. Everyone makes mistakes, or what in a retrospectoscope seem to be mistakes.* But it is better to do the best you can to help others, knowing that sometimes it won't work, than to give up and do nothing. And people die, and sometimes there is nothing anyone can do to keep it from happening.

Pride Goeth Before a Fall

Just a bit ago, we considered the left-handed military compliment: "He is seldom wrong but never uncertain." It's for officers who are pretty good at what they do, but their confidence exceeds their expertise. This idea has been

around for several thousand years. The ancient Greeks called it hubris (υβρις), and Aristotle defined it as *shaming and humiliating someone solely for your own gratification and pleasure*. It is also paraphrased in the Biblical saying *Pride goeth before destruction, and an haughty spirit before a fall.* (Proverbs 16:18).

Although not found in the various versions of the Bible, a western Christian tradition names the *seven deadly sins*,† and pride gets pride of place as the first of them. They are pride, greed, lust, envy, gluttony, wrath and sloth.

Hubris is usually defined in English as *overweening pride*. Modern descriptions also generally refer to *overconfidence* and *arrogance* and a lack of *humility*. Protagonists brought low by their hubris in English literature include Lucifer in Milton's *Paradise Lost*, Victor in Mary Shelley's *Frankenstein*, and Okonkwe in Chinua Achebe's *Things Fall Apart*.

Most (but not all) Christian theological thinkers cast the sin of pride in terms reflecting the Greek idea of hubris. They argue that a justified but humble pride in good accomplishments is appropriate, when not attended by overconfidence, arrogance or a lack of humility. So: practice your decisiveness, but with humility. (Nobody said this was going to be easy.)

A classic theme of ancient Greek tragedy is a great leader struck down by the Olympian gods due to hubris. As you get better and better with SAR leadership, keep looking over your shoulder for an angry Zeus ready to cast a lightning bolt.

And now for something completely different: science against pride and authoritarianism. A book about the development of the calculus of infinitesimals might seem a strange place to look for advice for leading a volunteer SAR team, but it is what it is.‡

One can say that the Royal Society of London was the first organization devoted to the pursuit of Science with a capital S. They observed that the experimental method was pluralistic and democratic: once you publish the method of a scientific experiment, anyone can repeat it and see if it gets the same results. The Royal Society had a keen interest in applying science to society as well, and recommended a pluralistic basis

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* "Seen in the retrospectoscope" is an informal medical term for what is known more formally in the psychology literature as *hindsight bias*. See Fischhoff, B. and R. Beyth (1975). "I knew it would happen: Remembered probabilities of once—future things." Organizational Behavior and Human Performance 13(1): 1-16.

† There are also, from ancient Greek tradition, four cardinal virtues: prudence, justice, temperance (meaning restriction or restraint), and courage (or fortitude). Later Christian writers, notably Paul of Taursus, add faith, hope and charity to get to seven. which balances the seven deadly sins.

‡ Amir Alexander, *Infinitesimal: How a Dangerous Mathematical Theory Shaped the Modern World*, pp 251-3.

for states. They were opposed to the dogmatic, autocratic philosophy of Thomas Hobbes (of *Leviathan* fame) and René Descartes,

In his book *Infinitesimal*, Amir Alexander traces the influence of the method of infinitesimals (in modern terms: "calculus") on modern society, including the musings of Thomas Sprat, the Royal Society's Historian:

> In his writings, Descartes purported to dismantle all unsubstantiated presuppositions, reducing all knowledge to a single unshakeable truth: "I think, therefore I am." From this rock of certainty he then recreated the world through rigorous step-by-step reasoning, accepting the validity of only clear and distinct ideas. And since his reasoning was flawless, Descartes {and his followers) argued, his conclusions must inevitably be true.

> The problem with dogmatic philosophy, Sprat explained in his History of the Royal Society, "is thar it commonly inclines such men, who think themselves already resolv'd, and immovable in their opinions, to be more imperious, and impatient of contradiction." Such an attitude is detrimental to science because "it makes them prone to undervalue other men's labours, and to neglect the real advantage that may be gotten by their assistance. Least they should seem to darken their own glory." It "is a Temper of mind, of all others the most pernicious," Sprat continued, and one to which he attributes the 'slowness of the increase of knowledge amongst men." Even worse, this kind of arrogance easily leads to the subversion of the state: "The reason of men's contemning all Jurisdiction and Power proceeds from their idolizing of their own Wit ... they suppose themselves infallible." This leads inevitably to sedition, because "the most fruitful parent of Sedition is Pride, and a lofty conceit of men's own wisdom; whereby they presently imagine themselves sufficient to direct and censure all the Actions of their Governors.

> …

> The alternative to the dogmatic rationalism of Descartes and Hobbes, the founders of the Royal Society believed, was experimental philosophy. Instead of pride, experimentalism bred humility, and whereas the rationalist philosophies led to pettiness and envy of rival philosophers, experimentalism fostered cooperation and mutual trust. Most important, instead of sedition and subversion, "the influence of experiments is Obedience to the Civil Government." Unlike the rationalist philosopher, the experimentalist never claims he has discovered the only true system or that his results are absolutely and irrefutably true. Instead, making no assumptions about what he will find, he humbly proceeds from experiment to experiment, trying to make sense of what he finds. His conclusions are always the best that he can supply at the moment, but can always be overturned by the next experiment. Not for him are Hobbes's bold pronouncements about matter, human nature, and the only viable commonwealth: To the contrary he proceeds slowly, conducting many different experiments many times over, and only then will he venture, carefully and somewhat reluctantly, to provide a provisional interpretation of the results.

As with anything, practicing controlling your hubris (or in terms of prior sections, your choleric or high-D nature) leads to better performance.

Perhaps the best-known self-help book along these lines is by Dale Carnegie, the classic *How to Win Friends and Influence People*. Dale Carnegie wrote this in 1936, but it is appropriate today as the day it was written. Having sold 15 million copies, it is one of the best-selling self-help book ever written. A slightly updated version was published in 1981. Our emergency medicine residency program has used this as required reading for residents (doctors in postgraduate training) in their second year of training. This was with an evening dinner discussion of how to apply it in the Emergency Department.

When puzzling out how to get across the vision and importance of this book, I finally realized that simply laying out the contents of the chapters, due to Carnegie's lucid

organization, would do a perfect job. See the sidebar. The book's a small paperback of 288 pages (also a Kindle eBook), and sells for just a few dollars used. It won't take long to read. Do it.

Embrace your Inner Whacker

One final note about whackerness. To one degree or another, all SAR team members are whackers. We all share at least most of those psychological characteristics Jeff Mitchell identified in the section on *Emergency Services Workers*. It's just that some of us grew up a bit and hide it better than others. So the title of this section, *Whacker Management*, applies to your inner whacker as well.

And in a sort of reversal, sometimes SAR team members, even non-medical types, call someone "a real whacker" in an admiring sort of tone. Sometimes it's *good* to be a whacker.

Leading Volunteers

Have you seen the YouTube video of herding cats? If not, take a look at it before you read this section.

Free the Peasants

In western Europe, the Mediæval period gradually shaded into the early Modern period. The next thing you know, there's the Industrial Revolution, and then western Europe takes over the entire world.

One of the things that shaped that western European transition was that peasants were no longer tied to the land. If the baron next door offered more or better land, or lower taxation, you were free to move. It was hundreds of years more before peasants were freed from the land in eastern Europe, and as a result, there were no Polish or Ukrainian colonies in Africa, the Americas, or the Far East.

This isn't a perfect analogy to SAR, but it's educational and let's continue.

If you're a baron in eastern Europe, you can tax your peasants until they starve. If you're a traditional non-union employer in the USA, you can keep making demands of your employees, and, other than complaining or quitting and losing their livelihood, there's nothing they can do. There is no penalty for employer hubris.

If you're a baron in western Europe, and you tax your peasants too much, they just move over to your more-inviting neighbor baron. If you're leader of a volunteer SAR team and you hassle your officers and members too much, they leave and join another SAR team. There is a *big* penalty for hubris. You'll need to care for your peasants.

Bottom line: as a volunteer SAR team leader, you need to be a baron who uses more carrots than sticks, or your peasants will leave.

There is a difference between leaders and supervisors/managers. If you're a supervisor or mid-level manager, then you're responsible to your superiors for the performance of your inferiors. Classic examples of these sort of "leaders" were the bureaucrats of the Chinese, Byzantine and Ottoman Empires and the US government civil service. These people seldom meet our ideals of a "leader"; yes, you might have the power to have your inferiors executed for non-performance, but your job is to ensure performance, not to be a charismatic motivational leader.

Those who cannot remember history are doomed to repeat the 10th grade. *

Assume you are a mid-level manager in a factory. Assume further that you have been directed to decrease the failure rate of your assembly line. There will be no increase in pay or benefits. You develop a program with posters in the lunch room, and weekly meetings with your workers, review progress, and speak loudly and passionately about the importance of this new corporate goal.

This probably won't go over that well. In the meetings, there may be soft mutters of "mickey-mouse bullshit." If this is not in the US, but in China during the Cultural Revolution, then those who mutter you will send to a reeducation camp, never to return. If you try this in a volunteer group, they won't be soft mutters, and people will simply stand up and leave.

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* The original was from American philosopher, essayist, poet, and novelist Jorge Agustín Nicolás Ruiz de Santayana y Borrás, known as George Santayana (December 16, 1863 – September 26, 1952). (Yes, he was from Spain but he lived in the USA and wrote in English.) His aphorism was 'Those who cannot remember the past are condemned to repeat it." But after this much history I figured we needed some comic relief.

On May 20, 1756, the French and British navies battled near the island of Minorca. The French won. After this, the British lost their garrison on Minorca. The British then executed Admiral John Byng for "failure to do his utmost" to relieve the garrison on Minorca. In the play *Candide*, Voltaire had a character speak admiringly of the British tendency to kill an admiral from time to time *pour encourager les autres* ("to encourage the others.")

But this is just the wrong model for volunteer SAR teams. Executing your admirals, or having your members leave to join another SAR team, are failures of leadership.

If this happens, it may be time to demand the team leadership consciously adopt a kinder, gentler approach to team leadership, providing understanding and support to those whose temporary personal or work life interferes with their volunteer commitments. Or perhaps suffer the fate of Captain Bligh.*

Management Consultants

Management consultants probably vied to advise the manager supervising the construction of the pyramids in Giza. None of the scrolls expounding their theories have survived, likely due to the Great Fire at the Library of Alexandria, so you can relax, you won't have to read about them here. But since SAR leaders are expected to be managers as well as somewhat charismatic

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* Watch the 1984 movie *The Bounty*, starring Anthony Hopkins, Mel Gibson, Laurence Olivier, Liam Neeson and Daniel Day-Lewis. In 1789, Acting Lieutenant Fletcher Christian and the crew set captain William Bligh and 18 of his officers adrift in the ship's boat in the middle of the South Pacific.

leaders, you *will* have to read about Frederick Winslow Taylor, M.E., Sc.D., and his 1911 book The *Principles of Scientific Management*. They call him the "The Father of Scientific Management." Indeed, scientific management is also sometimes called "Taylorism."

He made his point by documenting increased efficiency moving pig iron at Bethlehem Steel after they followed his advice. He did point out, however, that the principles of scientific management also applied to other organizations, including philanthropic ones (such as SAR teams).

His guiding principle was to maximize the prosperity of both managers and workers. He noted that factory workers tended to "soldier" or work minimally, as there was no incentive to work harder. He argued to incentivize workers. In SAR, as discussed in the section on *Heroic Efforts*, we pay people in intangibles, but those are still incentives we pay members, and we should always be conscious of that and pay our workers promptly and fully.

Taylor established four principles for managers:

1 They should develop a science for each element of a member's work, which replaces the old rule-of-thumb method.

2 They should scientifically select and then train, teach, and develop the members, whereas in the past he or she chose his own work and trained himself as best he could.

3 They should heartily cooperate with the members so as to ensure all of the work being
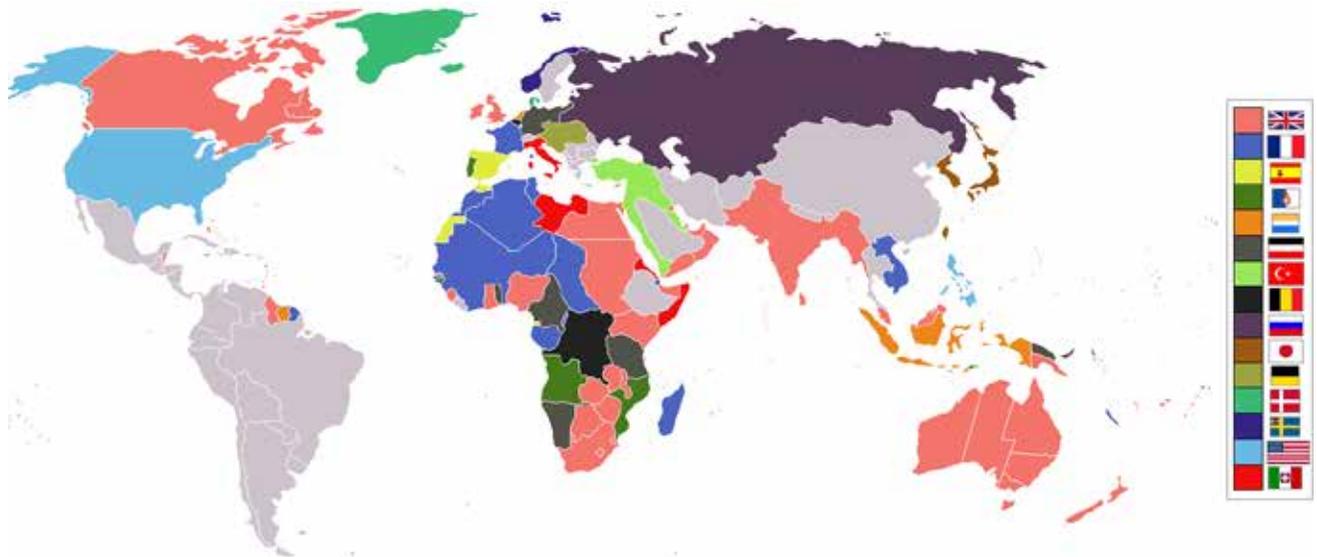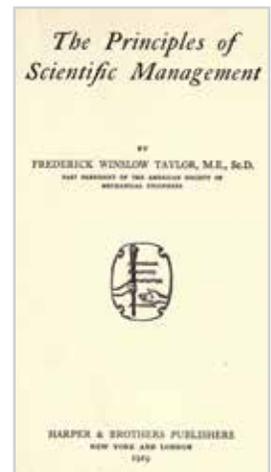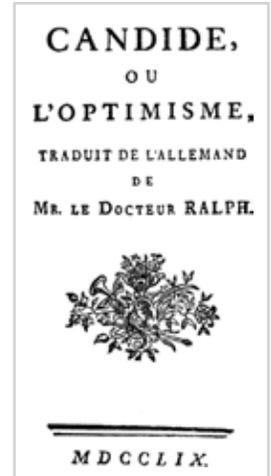
European Colonies, 1914. Note that Central and South America were, prior to this date, Spanish and Portuguese colonies, and the USA was a British colony.

done in accordance with the principles of the science which has been developed.

4 There is an almost equal division of the work and the responsibility between the management and the members. The management take over all work for which they are better fitted than the members, while in the past almost all of the work and the greater part of the responsibility were thrown upon the members.

Reading this, especially after I substituted "members" for "workmen," certainly makes *me* feel better thinking back on all the time I've put in on developing and implementing ASRC, ASTM and other SAR standards over the past 40+ years.

If we're talking about famous management consultants, we have to mention the husband-and-wife team of Frank and Lillian Gilbreth, who dual-handedly originated the term "efficiency expert." They famously invented the time-and-motion study of assembly-line workers by filming them; some of there movies are posted on Wikipedia. They even applied such studies to their family life including their kids, resulting in the 1948 book, the 1950 movie *Cheaper by the Dozen,* and the 2003 Steve Martin remake. Not much application to SAR, but if we're mentioning famous management consultants, we have to mention the Gilbreths. And my wife loves the movie.

One of the most famous management consultants of more recent times was W. Edwards Deming, an engineer and management consultant. His famous **Fourteen Points for Management** first appeared in his 1982 book *Out of the Crisis*. These are principles for significantly improving the effectiveness of a business. Below is a condensation of the 14 Points for Management as they appeared in the book.

1. Create constancy of purpose toward improvement of product and service, with the aim to become competitive and to stay in business, and to provide jobs.
2. Adopt the new philosophy. We are in a new economic age. Western management must awaken to the challenge, must learn their responsibilities, and take on leadership for change.
3. Cease dependence on inspection to achieve quality. Eliminate the need for inspection on a mass basis by building quality into the product in the first place.
4. End the practice of awarding business on the basis of price tag. Instead, minimize total cost.

Move toward a single supplier for any one item, on a long-term relationship of loyalty and trust.
5. Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs.
6. Institute training on the job.
7. Institute leadership (see Point 12). The aim of supervision should be to help people and machines and gadgets to do a better job. Supervision of management is in need of overhaul, as well as supervision of production workers.
8. Drive out fear, so that everyone may work effectively for the company.
9. Break down barriers between departments. People in research, design, sales, and production must work as a team, to foresee problems of production and in use that may be encountered with the product or service.
10. Eliminate slogans, exhortations, and targets for the work force asking for zero defects and new levels of productivity. Such exhortations only create adversarial relationships, as the bulk of the causes of low quality and low productivity belong to the system and thus lie beyond the power of the work force. Eliminate work standards (quotas) on the factory floor. Substitute leadership. Eliminate management by objective. Eliminate management by numbers, numerical goals. Substitute leadership.
11. Remove barriers that rob the hourly worker of his right to pride of workmanship. The responsibility of supervisors must be changed from sheer numbers to quality.
12. Remove barriers that rob people in management and in engineering of their right to pride of workmanship. This means, inter alia,* abolishment of the annual or merit rating and of management by objective.
13. Institute a vigorous program of education and self-improvement.
14. Put everybody in the company to work to accomplish the transformation. The transformation is everybody's job.

There are many other theories about how to do management right. Here are some of the currently-famous buzzwords:
• Theory of Constraints
• Management by Objectives (or Management by Objectives and Results)
• Re-engineering

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* To show off your knowledge of Latin. Means "among other things."

- Six Sigma
- Agile software development
- Toyota method
- Lean
- Disney

Look them up if you wish. I think we've covered enough management-speak for now, and we are going to move on to:

Rhetoric

For the past century or two, the word rhetoric has had a bad name. People speak of politician's speeches as "empty rhetoric." Indeed, the speech of politicians is famous for twisting the truth.*

But the study of rhetoric is neither good nor evil. It's just the study of how public speech works (and doesn't). It's basically applied psychology. And traditional education in rhetoric teaches not only how to persuade others, but how *not* to be swayed by politicians' fallacious arguments.

You may be getting the impression that knowing a bit about public speaking (even if it's called "rhetoric") might make you a better leader. True, but if you have a feeling that you're going to learn something a bit sleazy, get that idea out of your head right now.

Rhetoric is inextricably intertwined with democracy and democratic principles. Yes, rhetoric and charisma were tools Hitler used; but dictator Josef Stalin needed neither charisma nor rhetoric to dominate the Soviet Union and wipe out millions of innocent people.

But rhetoric is *essential* for democracy. Democracy involves not only voting, but listening to others trying to persuade you how you should vote and casting that vote appropriately. Even volunteer SAR groups sometimes have contested votes.† Those speakers knowledgable in the principles of rhetoric know they are more likely to succeed, which is their motivation for studying rhetoric. Those interested in the public good want *every* voter to understand the principles.‡

Some of the principles of rhetoric have likely been known and passed down by oral tradition since humans started using language. But if we look to the written historical record, we first see discussion of rhetoric in that shining (but slightly tarnished) example of democracy: ancient Athens.

The Greek city-states of the classical period used different styles of government, including absolute dictatorship. But Athens was a democracy, and those who were adult, male, not a slave, who had completed their military training as ephebes, and owned land (in other words, about 10% of the Athenian population) were able to attend meetings at the Pnyx and literally cast their votes via casting different-colored shards of pottery into amphorae.§ And at the peak of Athens' power in Greece, Pericles rose to power. Perhaps the most famous rhetorician of all time, he persuaded the voters to support his policies for years. Indeed, we call this period Periclean Greece in his honor.

Pericles seems to have mastered tricks of speaking to, persuading and leading a large multitude, without the aid of a wireless mike or a sound system. Does that sound like a useful skill for SAR operations?

You can certainly spend lots of money on a voice coach, and if you're considering a run for public office, you probably should. If you're not independently wealthy with lots of time on your hands, a reasonable alternative might be to read on, pick up a few tips, and then practice a bit.¶

One of Pericles' problems was projecting his voice to be heard, even at the back of the crowd. Everyone said he had a powerful and pleasant voice, but I'm sure even he had to work to be heard. Over the millennia since then (Pericles was at his peak from 461 to 429 BCE) a few simple principles ("tricks" if you will) have been distilled down for you.

When addressing a crowd, make eye contact with someone at the back of the crowd. Eye contact is good, and moving your eye contact around the crowd is good. But first, pick out someone in the back and talk to that person. It makes you unconsciously speak loud enough to reach that

Authority vs Responsibility

This is not only about terminology. It applies mostly to rigidly-structured organizations, which SAR teams may aspire to but certainly aren't.

If you have responsibility for something, your superior will hold you accountable for getting it done. Your superior has the power to compel you to do something.

If you have authority for something, your superior has delegated the power to compel those beneath you to do what you tell them.

The worst situation is to have responsibility but no authority.

If you delegate responsibility, also delegate the authority to go with it.

Detail, Bust of Pericles of Athens

person at the back of the crowd.

When stressed, or trying to address a large group, we tend to tighten up our vocal cords, and the pitch of our voice rises. No. Keep those vocal cords relaxed.* Keep your pitch low. To increase the volume of your speech, take deep breaths often. This way you can force more air through your vocal cords. Practice pushing out lots of air with each phrase.

Pause early and often. When we get excited or stressed, we tend to speak more quickly. I tend to speak quickly all the time – I suppose being an emergency physician in a busy urban tertiary care Level I Trauma/Burn/Stroke/Cardiac teaching hospital has something to do with it.

I have had to spend a lifetime learning to slow down when I'm teaching and speaking in public. Maybe you don't have this problem, but if you do, start practicing slowing down now.

Aristotle famously wrote *the* textbook of rhetoric (called, simply enough, *Rhetoric*) that is studied to this day. It is said that all subsequent rhetorical theory is but a series of responses to issues raised by Aristotle's *Rhetoric*.

Socrates (at least according to Plato) famously derided Athenian sophists (teachers for hire) who professed to teach their students how to persuade others that white is black and black is white. But Socrates never denied that proper public speaking was important to the success

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* There are exercises online at pittsburghese.com that will help you develop a more relaxed speaking style. It will help with your orations, and if you spend a while on the website, you will be better able to speak the local dialect if you come visit Allegheny Mountain Rescue Group in Pittsburgh.

The Pnyx with the speaker's platform, the meeting place of the people of Athens.

of democracy. Socrates, Plato, and Aristotle opposed the teachings of the sophists who, at least according to this high-test trio of philosophers, taught how to persuade others through the emotions while ignoring inconvenient facts.

They argued for a rhetoric grounded in philosophy and the pursuit of enlightenment, and argued for training in rhetoric as a defense against the empty persuasive techniques of the sophists. (So: instead of complaining about politicians' "empty rhetoric" we should really accuse them of "empty sophistry.")

Aristotle famously defines rhetoric as *the ability, in any particular case, to see the available means of persuasion.*

Aristotle teaches there are three genres of rhetoric, corresponding to three types of audience:

- **Deliberative rhetoric**: dealing with finance, war and peace, national defense, imports and exports, and the framing of laws.
- **Forensic rhetoric**: dealing with issues of praise or blame; a lawyer's argument before a court that will determine guilt or innocence is a good example, which Aristotle examines in some detail. However, it could apply to praising or dissing a plan someone proposed for your SAR team.
- **Epideictic rhetoric**: rhetoric for ceremonial occasions, such as the opening and closing of the Olympics. If you don't think this is important, read up on the 1936 Olympics in Berlin, and the roles of Jesse Owens, Adolph Hitler, Albert Speer and Leni Riefenstahl; this was epideictic rhetoric as spectacle, developed by the Roman Empire and now further expanding into the new media world of television.†

The *Rhetoric* describes three different methods of persuasion (Aristotle liked threes):

- credibility (***ethos***)
- the emotions and psychology of the audience (***pathos***), and
- patterns of reasoning (***logos***)

I told you that Aristotle likes things in three; here's another trio: when you're playing with people's emotions (via ethos), you should do so with wisdom (*phronesis*), virtue (*arete*), and good will (*eunoia*).

Aristotle goes on to advise on how to arouse emotions in general, then how to address different audiences: young, old, wealthy and

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† For more, see the book *Performing the Nation in Interwar Germany: Sport, Spectacle and Political Symbolism, 1926-36,* by N. Rossol; it's expensive to buy but you can get it through inter-library loan from your local library.

The School of Athens, with Plato and Aristotle in the center, Raffaello Sanzio da Urbino (Raphael), 1511, wall mural in the Apostolic Palace, the Vatican.

powerful or less-wealthy. He goes on to address the two *paradigms*: comparisons to the past, and creating fables; and then, developing *maxims*: succinct, clever statements about actions. The final part of the Rhetoric gives specific "how-to" examples of the proper use of style and grammar.

People say the new (1991) translation of the *Rhetoric* by 1991 George A. Kennedy is the best; I had to study an earlier and not-so-good translation in college, so count yourself lucky if this is the first time you're going to read it. And if you plan to be an administrative team leader, you should probably read this book.

In Iszatt-White's *Leadership*, she gives rhetoric short shrift compared to Aristotle, but in her discussion of charismatic or transformational leadership, she give four examples of good rhetorical techniques to support these styles of leadership:

- Communicating the vision by adapting the content to suit the audience
- Highlighting the intrinsic value of the vision by emphasizing how it represents ideals worth pursuing
- Choosing the right language-words and symbols – to make it motivating and inspiring
- Using inclusive language that links people to the vision and makes them feel part of the process

This short section just serves to give you that first *awareness level* about rhetoric; you'll have to read some by yourself, or take a course, to learn enough to get to the *operations level*.

In the Middle Ages, rhetoric became one of *The Liberal Arts*, those skills that experts thought were required for anyone taking part in the discourse of a civilized society. The three main Liberal Arts are:

- Grammar
- Logic
- Rhetoric

And secondary Liberal Arts include

- Arithmetic
- Geometry
- Music
- Astronomy

This is reflected in our colleges and universities today, which offer a BA: *Bachelor of Arts*, Arts in this case meaning Liberal Arts.

In 1969, Laurence J. Peter and Raymond Hull published a book entitled *The Peter Principle: Why Things Always Go Wrong.* The basic idea is that employees only stop being promoted once they can no longer perform effectively, and "managers rise to the level of their incompetence."

In time, every post tends to be occupied by an employee who is incompetent to carry out its duties ... work is accomplished by those employees who have not yet reached their level of incompetence.

Alessandro Pluchino, Andrea Rapisarda, and Cesare Garofalo created a computer-based model where the Peter Principle was an invariable rule. They found that one of the two best ways around the Peter Principle was to promote people randomly. The other best method was to promote the best *and the worst* members.

For this work, they won one of the 2010 Ig Nobel Prizes.

Google it and then draw your own conclusions.

Surprisingly and disappointingly, you can now get a BA without ever taking a course in rhetoric; many liberal arts programs don't even offer courses in rhetoric. Deans of mediæval universities, if they were alive today, would be appalled, and rightly so.

Leadership Styles

There are many different *styles* of leadership, management, or command, whichever you want to call it. Regardless of which of those four temperaments or 15 DISC personality types apply to you, you can adopt different *styles* to fit different leadership *situations*.

If you are inciting a mob of peasants with torches and pitchforks to go after Dr. Frankenstein's monster, you might adopt one style of leadership. If you are trying to get together a small group to sneak into the castle and put a wooden stake in Dracula's heart, you might adopt a somewhat different style.

As with personality analysis, there are many different competing scholarly theories about leadership styles, each with its own proponents, some of whom view those with other views as heretics. We will look at a few of these leadership-style theories, those that seem to offer useful insights.

First, let's look at a couple of leadership styles, no, let's call them management styles, no, let's call them non-management styles. Iszatt-White gives these in her book *Leadership:*

Management by exception – *this type of leadership involves corrective criticism, negative feedback, and negative reinforcement activities by the leader in response to follower activities. It can take two forms: active and passive. Active management by exception requires the leader to watch followers closely for mistakes, rule violations, and other shortcomings and to take corrective action on each occasion. Passive management by exception occurs when the leader intervenes only after certain standards have not been met or certain goals have been missed, with smaller or less significant contraventions being allowed to pass uncorrected.*

I should note that this method of dealing with error is known in the literature on human error as *blame and train* or *blaming the person on the sharp end.*[*] It is universally decried as an

ineffective method to reduce error. Instead, the experts say, you need to do a root-cause analysis, looking for failures in the system and making changes in the system to make such errors less likely. It's a great way to piss off all your subordinates if the only time they hear from you it's about something bad: "Being called to the principal's office." And "they" say that, for every unkind word you say, it takes a thousand kind words to make up for it.[†]

It is true that some managers are so strapped for time that they only have time to "put out fires": deal with problems as they occur, which means lots of negativity and not much positivity, at least as seen by subordinates. Even if it isn't primarily the manager's fault, and it's more the manager's manager's fault, it's still a major leadership failure.

Iszatt-White also gives us:

Laissez-faire leadership – *effectively the absence of leadership, representing behaviours that are non-transactional such as abdicating responsibility, delaying decisions, giving no feedback, and so on. The name comes from the French phrase meaning 'hands off' or to let things ride, and hence this kind of approach is unlikely to result in the meeting of organizational goals or the development of individuals within the organization.*

Charisma

We need to also consider the issue of pure charismatic leadership, not backed up by other adequate leadership skills. A great example is the recent government of Venezuela. In 1998, Hugo Chavez, a very charismatic leader who had the support of most of the population, took control after an election in 1998. He stayed in control until his death in 2013. His massive reforms did attack concentrations of wealth and worked to better the lives of the poor, but his programs were economically unsustainable. After his death, the much-less charismatic Nicolás Maduro took over. He had less charisma and much less popular support. The results of Chavez's economic mismanagement combined with the drop in oil prices (the country's main source of wealth) plunged Venezuela into economic and political chaos.

Even charisma backed up by performance

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[*] See, for example, James Reason's book *Human Error* for more about this.

[†] really, 1,000 ± 12 according to unnamed scientific experts.

may not hold things together past the charismatic leader's death. After Alexander the Great died, his generals took over different parts of his empire and then warred with each other.

Some claim that Steve Jobs of Apple was such a leader. The term "cult of personality" comes to mind, but that term in my mind applies better to Reverend Jim Jones who could persuade hundreds of followers to go with him to a steaming jungle and then commit suicide via grape Kool-Aid.

Lest this seem empty historical detail, can you think of any SAR teams that might have had similar occurrences? I can. Well, not the grape Kool-Aid, but falling apart after the loss of a charismatic leader.

Iszatt-White in her *Leadership* suggests two ways to for the organization to survive loss of a charismatic leader:

1. By transferring charisma to a designated successor through rites and ceremonies. The problems here are that it is seldom possible to find an equally extraordinary successor for an extraordinary leader and that the existing leader may be unwilling to identify a strong successor early enough to ensure a smooth transition.

2. By creating administrative structures that will continue to implement the leader's vision. This can be difficult to sustain when a vibrant, living vision is replaced by a bland, bureaucratic set of rules. It can also strangle the organization as the vision becomes tired through lack of personal renewal.

3. By perpetuating the leader's vision by embedding it in the organizational culture. This requires followers to be persuaded to internalize the vision and feel empowered to implement it. Of the three, this approach is probably the most likely to be successful, though it is not without its pitfalls and limitations, not least of which is the fact that sooner or later a new leader with ideas of their own is likely to be required.

Task-Oriented Leadership

Every couple of decades there seems to be a renewed interest in looking at leadership from a *task-oriented* viewpoint instead of, or compared to, a *people-oriented* viewpoint. In the English literature, you can easily trace this back to the 1950s. I suspect if you were really interested you could trace this back to Roman times and further to the Greek empire of Alexander the Great. ("General, if you don't capture that city within three days, then you will lose your head!")

The current buzzwords for this debate include
- Task-oriented leadership
- Task-focused leadership
- Relationship-oriented leadership
- Relationship-focused leadership

In the main, this is an attempt to classify different types of leadership styles along a spectrum from pure relationship-oriented leaders to pure task-oriented leaders. Or perhaps different strategies adopted by leaders at different times.

It might be worthwhile to consider some examples, to get a better feeling for this dimension of leadership. The examples in the literature are terribly boring so I decided to make up my own.

Examples of people who I would expect to be task-oriented leaders include:
- **A mid-level official** in the Chinese Zhou dynasty imperial bureaucracy in 500 BCE (which bureaucracy some say invented the idea of the Mandate of Heaven).
- **A mid-level official** in Constantinople during the Byzantine (later Roman) empire in 964 AD (where else do you think the phrase "Byzantine bureaucracy" originated?)
- **A supervisor of auditors** in the U.S. Internal Revenue Service who is looking at your tax return right now.

These sound like caricature-ish unfeeling, fussy, OCD*-ish middle-manager characters from fiction, don't they? But those archetypes,† even if exaggerated, do come from real life.

Here's another task-oriented leader caricature:
- **The owner** of a small Internet startup company. Drives himself (or herself) and the five other partners/subordinates to the point of illness with too much work, not enough sleep, and a diet of nothing but Jolt Cola, pizza and very large chocolate chip cookies. For more, read the book *Accidental Empires: How the Boys of Silicon Valley Make Their Millions, Battle Foreign Competition, and Still Can't Get a Date*

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* Obsessive-Compulsive Disorder: an example is the compulsive need to read all the footnotes in a document.

† Archetype = *original pattern from which copies are made*. First entered English in ~1540. From the Latin noun archetypum, latinisation of the Greek noun ἀρχέτυπον, Can refer to (1) *a Platonic philosophical idea* (just can't get away from those Greek philosophers) *referring to pure forms which embody the fundamental characteristics of a thing*; (2) for those believe in Carl Jung's bizarre but attractive idea of a collective unconscious, *a collectively-inherited unconscious idea, pattern of thought or image that is universally present in individual psyches*; or (3) *a constantly recurring symbol or motif in literature, painting, or mythology.*

by the pseudonymous Robert X. Cringely.

- **An academic** involved in cut-throat competition for the prestige of being appointed the endowed Chair of Philogenetic Semiotics at the University of Lower Slobbovia. If you don't think that academic competition can be as bad as competition for money, read the literature on it, both real-life stories and fiction. My favorite is from Jack Vance, back in the Golden Age of science fiction. In 1954, he wrote a short story called *First Star I See Tonight*, a chilling academic murder mystery.

- **An MBA student.** As previously noted, his scores on an ethical dilemma test are the same as convicts in a minimum-security prison. Task: "He who dies with the most toys wins!" Collateral damage to any and all others entirely acceptable. Thinks Warren Buffet of Berkshire-Hathaway (fifth largest public company in the world, respected investment guru) is a wimp. Jeffrey Skilling of Enron* and Martin Shkreli of Turing Pharmaceuticals† would be his heroes except they got caught. Recognizes his need for a more well-rounded personality, so has started studying history. Particularly interested in efforts in Mongolia to rehabilitate the reputation of Temüjin, who created the greatest contiguous empire of all time. While acknowledging how Temüjin (Genghis Khan) unified his empire by promoting religious toleration and a uniform written language, was particularly interested in how Genghis used to slaughter an entire city and make a vast pyramid of severed heads, bringing the art of intimidation to its highest point, ever.

Here are a couple of almost-pure relationship-oriented leaders:

- **A pastor or parish priest** in a poor inner city

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* Enron was an American energy, commodities, and services company based in Houston, Texas. It employed 20,000 people and claimed revenues of nearly $111 billion during 2000. *Fortune* magazine called it "America's Most Innovative Company" for six consecutive years (thanks, guys). Due to cheating, lying and stealing by top leadership, most notably Jeffrey Skilling and Andrew Fastow, the company went bankrupt in 2001, taking their auditor, "Big 5" accounting firm Arthur Anderson, down with them. Tens of thousands of people lost their jobs, and investors lost gobs of money. Skilling is scheduled to get out of Federal prison in 2020. Fastow forfeited $23.8 million in family assets and was released from Federal prison in 2011. He now lectures on corporate ethics; he charges $10,000-$20,000 per lecture per an online booking agent. Not mentioned are any extra fees for audience members throwing rotten fruit.

† Martin Shkreli founded Turing Pharmaceuticals in February 2015. The company bought the rights to Daraprim (pyrimethamine)to the main drug used to treat toxoplasmosis, a relatively rare infection that affects those with HIV infection but also some who are not immunosuppressed. He jacked up the price 5000%, and was very surprised when people complained; after all, he was just socking it to rich insurance companies. He'd forgotten about those without insurance. Despite his attempts to deal with this after the fact, it brought him more unwanted attention than quick profits. On December 17, 2015, Shkreli was arrested by the FBI on charges of securities fraud and released on bail. He was brought to testify to a House of Representative panel to which he basically said "screw you, I'm not telling you anything" and afterwards Tweeted "Hard to accept that these imbeciles represent the people in our government." I keep waiting for him to be hit by a lightning bolt from Zeus.

neighborhood.

- **The owner of a family business** struggling with competition from big-box retailers.

Both value relationships with "their people" over regulations of the Church or the city government. They will break the law if they need to, to protect "their people."

One example of such a two-axis leadership/management model is that of Robert R. Blake and Jane Mouton, published in 1964 in *The Managerial Grid: The Key to Leadership Excellence*. The basic model analyzes leadership styles along an x,y graph, with the x axis being concern for production (for SAR, perhaps substitute mission performance) and the y axis being concern for subordinates. This sounds very like the linear-spectrum task-oriented vs. people-oriented discussion we just had, but now in a two-dimensional x.y grid.

As you can see from the graph reproduced on the next page, they give names to the extreme cases. There are some value judgments here, as the "team style" (high on both axes) is almost always described with positive terms.

Kim Jong-il, the dictator of North Korea points out that he is a good example of a "team style" leader. If you disagree you will be summarily executed, which leaves only "team players," and which proves his point.

Some extend this model noting that opportunistic managers may switch among the strategies as needed for personal gain. Others note that, when stressed, managers may switch models. Proponents of this management model (and most of the others) seem to be cast from the "**my way is the one TRUE way**!" mold, or perhaps the "**buy ALL my books!**" mold. Or, as perhaps with most things in life, a little bit of both.

There are other leadership grid models with different leadership characteristics on the x and y axes. Some have said that creating an x,y grid with new axes is a rite of passage‡ for new leadership researchers.

Later work building on this model has added an additional motivation axis to form a three-dimensional grid. Some others add even more axes to form n-dimensional grids. This, like some of those personality theories, makes my brain hurt but doesn't seem to make me appreciably more knowledgable, wiser or a better

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‡ A rite of passage is a celebration of the passage which occurs when an individual leaves one group to enter another, such as moving from childhood to adulthood.

leader.

The Sun King

There are other ways of classifying leadership styles.

One style of leadership is sometimes termed *autocratic* or *command and control*, and this is often referenced as the *military model*. However, in its purer form, think of the *divine right of kings* in early modern Europe, culminating in Louis XIV of France, "The Sun King." At the time of his reign in the late 1600s and early 1700s, France was by far the most powerful nation in Europe, and Louis famously said "L'État, c'est moi." (The state, that is me.) Louis had absolute power, and his word was law. Literally.

It was only later, particularly in England, that the idea of a parliamentary monarchy really took hold, which required a different style of leadership.

After his military victory over Napoleon at Waterloo in 1815, Arthur Wellesley received the title of Duke of Wellington. In 1828, he became Prime Minister. After his first Cabinet meeting, he was reported to say "Extraordinary! I gave them their orders and they wanted to sit there discussing them."

As far as the military/"command and control" model, we might consult military historians – who will talk your ear off about this given half a chance – about the different leadership styles of the German and Russian armies during World War II. Although the Russian army eventually won, historians say this was solely because the Russians had more resources. Considered as individual units, the German army essentially always outfought the Russian army.

Most ascribe this to different "command and control" models. The Russians followed the "my word is law" Louis XIV model: commanders were supposed to simply carry out their orders and not exercise any independent judgment: do or die. Quite often they died in massive numbers.

The German military, however, expected commanders to exercise judgment in carrying out their orders, and to adapt tactics and even sometimes strategy as needed to deal with changing situations in the field. This is also sometimes called *distributed decision-making*.*

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* Yes, Adolph Hitler gave some really stupid orders which contributed to the German defeat. Nonetheless, the generalization about leadership styles still stands.

Other terms used in the leadership/management literature are *collective leadership*, *shared leadership*, *collaborative leadership*, and *participative leadership*.

One of the more extreme versions of this kind of distributed leadership in the business community is the online shoe n 'at† retailer Zappos. A brief excerpt from Wikipedia will explain:

> On average, Zappos employees answer 5,000 calls a month, and 1,200 e-mails a week (except in the holiday season, when call frequency increases significantly). Call center employees don't have scripts, and there are no limit on call times. The longest call reported is 10 hours 29 minutes.

> Zappos employees are encouraged to go above and beyond traditional customer service. In particular, after a late night of bar-hopping and closed room service, Hsieh bet a Skechers rep that if he called the Zappos hotline, the employee would be able to locate the nearest late-night pizza delivery. The call center employee, although initially confused, returned two minutes later with a list of

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† A contraction of "and that." Commonly used in the Pittsburghese dialect of English (see pittsburghese.com). True Pittsburghers also liberally sprinkle this throughout their conversation, where those from other areas might say "um." Also sometimes spelled an' 'at.
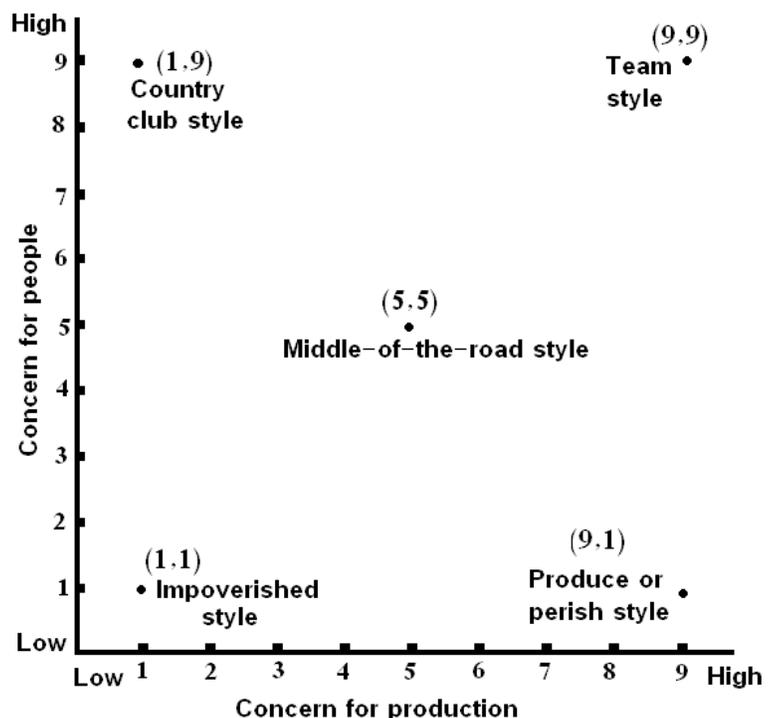
A graphical representation of the managerial grid model

the five closest late night pizza restaurants. Inc. Magazine notes another example when a woman called Zappos to return a pair of boots for her husband because he died in a car accident. The next day, she received a flower delivery, which the call center rep had billed to the company without checking with her supervisor.

With volunteer SAR teams, the Louis XIV "my word is law" variant of the "command and control" leadership method is unlikely to be tolerated, except briefly in certain field situations where rapid unquestioning action is essential. One of the goals of any field team leader should be to never *get* into such a situation, but as the saying goes, shit happens.

The German-army variation, where there is a hierarchical leadership structure, but sub-leaders are expected to exercise broad judgment in carrying out their orders, is much more common for SAR teams, and this is as it should be.

Indeed, unless you're a soldier in North Korea, soldiers are expected to exercise some judgment in carrying out orders from above. Even in the military, it is a crime to carry out criminal orders. Wikipedia states:

Superior orders, often known as the Nuremberg defense, lawful orders or by the German phrase Befehl ist Befehl ("only following orders", literally "an order is an order"), is a plea in a court of law that a person, whether a member of the armed forces or a civilian, not be held guilty for actions which were ordered by a superior officer or a public official.

One of the most noted uses of this plea, or "defense", was by the accused in the 1945–46 Nuremberg Trials, such that it is also called the "Nuremberg defense". The Nuremberg Trials were a series of military tribunals, held by the main victorious Allied forces after World War II, most notable for the prosecution of prominent members of the political, military, and economic leadership of the defeated Nazi Germany. It was during these trials, under the London Charter of the International Military Tribunal which set them up, that the defense of superior orders was no longer considered enough to escape punishment; but merely enough to lessen punishment.

Given this is a matter of international law, it gets much more complicated. The take-home lesson is that "I was ordered to do it" isn't much

of a defense in a court of law.

A whacker or simply a very contentious member can mess up distributed leadership by trying to dominate the discussion by being the loudest, or at least the most repetitive, in the room (or forest, or cliff, or cave). However, an experienced leader can usually at least contain such a member so he or she doesn't cause any major harm to the operation. Cave rescue people sometimes (jokingly?) say to "flat rock" him: hit him in the head with a flat rock. Pointy rocks cause too much bleeding.

Change and Transformation

One big topic in corporate leadership-speak over the last several decades has been "change." Chapter 9 in Iszatt-White's *Leadership* is entitled *Leading change: Leadership's natural habitat?*

Corporate leaders, according to this emphasis, are responsible for guiding "change." As with other management fads that come and go, this leads to corporate managers talking a lot about how they need to lead the organization through "change." While organizations that don't change with the times wither and die, this emphasis on "change" seems to me to be a bit overdone. Corporate mangers feel they aren't doing their jobs unless they find things to change, sometimes for change's sake, not in response to real pressures on the organization. Sometimes, people call this transformation or *transformational leadership* as if this means something different than change. It doesn't. I prefer the shorter word just because it's shorter. But people like the word "transformation," as it implies change for the better, almost a religious rebirth, and this helps justify an outrageous CEO salary. However, the effect on the worker-bees, especially minimum-wage employees who take out the trash, may be negligible. Even on employee-doctors, the effects of this "transformation" may be minimal compared to incremental changes brought about through Toyota-like efforts from the bottom of the hierarchy.

As I write this, it is Presidential primary season in the USA, and every candidate talks about "change." I take all this talk with a grain of salt, as I do announcements of change from new corporate leaders. Sometimes, corporate leaders are satisfied with giving new names to old things and calling it "change." This causes minor confusion to people, and wastes time and money, but the real harm is that this attention

to superficial "change" can distract from actual changes that need to be made. Rather than changing names, it's better to tweak the existing organization in ways that make it more adaptive to evolutionary pressures.

Do I seem cynical about this? Am I belaboring the point. Several times top leadership for an organization for which I worked talked about "transformation" and "change." As far as I can tell, the only benefits accrued to the top leadership who seem to be **DOING SOMETHING BIG** as opposed to the incremental change and transformation that is the lifeblood of any organization.

Perhaps this is a good place to talk about the *Toyota Method*. This is sometimes mistakenly taken to mean Lean but it is reamore tan that. A maverick engineer named Ohno Taiichi (lastname, firstname in the Japanese style) came up with a bunch of ideas that transformed Toyota from a fourth-rate also-ran company to one of the biggest, and in some ways best, companies in the world. The story is told in the book *The Machine That Changed the World: The Story of Lean Production: Toyota's Secret Weapon in the Global Car Wars That Is Now Revolutionizing World Industry*,* which I recommend to you.

Although most of the Toyota method focuses on industrial production… and the "lean" is very tightly focused on that… one of the other innovations of Ohno sometimes gets lost in the shuffle: short feedback loops. Any repetitive process – searching is a good example – works better if everyone, at every level, is encouraged to keep an eye out for how to make things better: improve the Task Assignment Form, improve dispatch procedures, whatever. And leaders at all levels need to make the time to solicit these ideas, and then when appropriate, act on them. Those who are being briefed and sent out into the field on a regular basis are actually *better* experts on search tactics than the Base weenies (that's a technical SAR term), and are more likely to come up with ideas for improving things. That's the *essential* element of the Toyota method, to my mind.

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* My family's cars all have names, and my used 2006 Scion xA (Scion is a Toyota brand) is named Taiichi. It's my city car, it gets 37 MPG on the open road. I picked his first name because the car is small and friendly and we seem to be on a first-name basis with it. My SAR truck is a 2011 Toyota Land Cruiser Series 200; we call it Shingo after Shingo Shigeo (lastname, firstname; we use his last name just because this kind of truck is more dignified and should go by his last name) who brought the Toyota Method to the USA. It gets 16 mpg on the open road if I'm lucky, but I can drive comfortably at highway speeds to a SAR operation then just keep going off-road if I need to.

In the February 25, 2016 edition of *The New York Times*, Charles Duhigg provides an article "What Google Learned From Its Quest to Build the Perfect Team: New research reveals surprising truths about why some work groups thrive and others falter." The article goes on in some detail about Google's Project Aristotle (there he is *again*), which looked at factors that made some work groups, teams, or whatever you call them, work better than others. The reported research is quite interesting, but we will skip to the bottom line.

…on the good teams, members spoke in roughly the same proportion, a phenomenon the researchers referred to as "equality in distribution of conversational turn-taking." On some teams, everyone spoke during each task; on others, leadership shifted among teammates from assignment to assignment. But in each case, by the end of the day, everyone had spoken roughly the same amount. "As long as everyone got a chance to talk, the team did well," Woolley said. "But if only one person or a small group spoke all the time, the collective intelligence declined."

Second, the good teams all had high "average social sensitivity" – a fancy way of saying they were skilled at intuiting how others felt based on their tone of voice, their expressions and other nonverbal cues. One of the easiest ways to gauge social sensitivity is to show someone photos of people's eyes and ask him or her to describe what the people are thinking or feeling – an exam known as the Reading the Mind in the Eyes test. People on the more successful teams … scored above average on the Reading the Mind in the Eyes test. They seemed to know when someone was feeling upset or left out. People on the ineffective teams, in contrast, scored below average. They seemed, as a group, to have less sensitivity toward their colleagues.

One lesson here, perhaps, is to simply have people sitting so they can all see each other's eyes.

Psychologists refer to these features as *conversational turn-taking* and *social sensitivity*. These in turn create an atmosphere of *psychological safety*. In an oft-cited 1999 article,† Amy Edmondson defines psychological safety as

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† Edmondson, A. (1999). "Psychological safety and learning behavior in work teams." Administrative science quarterly 44(2): 350-383.

shared belief held by members of a team that the team is safe for interpersonal risk taking. She specifically says:

> *…learning behavior consists of activities carried out by team members through which a team obtains and processes data that allow it to adapt and improve. Examples of learning behavior include seeking feedback, sharing information, asking for help, talking about errors, and experimenting.*

> *…those in a position to initiate learning behavior may believe they are placing themselves at risk; for example, by admitting an error or asking for help, an individual may appear incompetent and thus suffer a blow to his or her image. In addition, such individualism may incur more tangible costs if their actions create unfavorable impressions on people who influence decisions about promotions, raises, or project assignments.*

> *…in some environments, people perceive the career and interpersonal threat as sufficiently low that they do ask for help, admit errors, and discuss problems.*

> *… Team psychological safety is not the same as group cohesiveness, as research has shown that cohesiveness can reduce willingness to disagree and challenge others' views, such as in the phenomenon of groupthink, implying a lack of interpersonal risk taking. The term is meant to suggest neither a careless sense of permissiveness, nor an unrelentingly positive affect but, rather, a sense of confidence that the team will not embarrass, reject, or punish someone for speaking up.*

Going back to the New York Times article, Duhigg writes "Google's data indicated that psychological safety, more than anything else, was critical to making a team work." He goes on to tell a story about a team leader who

Spread of Christianity to AD 325 colored in orange, to 600 colored in yellow.

improved the performance of his team by disclosing some personal health data: he had Stage IV cancer and didn't have all that much longer to live. You probably don't have to be dying of cancer to be willing to discuss at least some personal struggles and vulnerabilities. This may help create that feeling of psychological safety that leads to trust and better team performance.

On the other hand, I suppose it can get the other high-D/choleric people in the room to dismiss you as a total wimp. Naaah, won't happen. Probably.

This echoes some of the comments about the effects of trust by Stephen Covey *fils* that we discussed earlier. And maybe, if we're getting this from two such different sources, Stephen Covey and Google, we should pay *serious* attention.

Memes and Meaning

A FINAL AND QUITE MEANINGFUL analysis of leadership styles focuses on leaders as *managers of meaning* or *thought leaders*. This is the rule in politics; if you can get other people to accept the labels you put on things, half the battle's won. *Pro-life. Pro-choice.* (It's never good to be "anti-" as that's *such* a negative word.) The *War on Terrorism.* Of course, with any definition like this, people's definition of such vague terms may reasonably differ. As I type this, a cease-fire is due to go into place in the Syrian civil war, except for attacks on "terrorists" – and the US and Russia disagree on who are the "terrorists."

We considered Richard Dawkins' idea of the selfish gene before, which is a powerful idea that has really caught on. Speaking of ideas, Dawkins also posits the idea of selfish *memes*. Genes are the elements of genetic herdity; memes are elements of thought; ideas that can spread through a society. Have you ever had a song you couldn't get out of your head? That's a strong meme. So is "the selfish gene."

Unlike the idea of thought leaders, memes exist separately from people, and can spread among large swathes of the population. Have you heard of a YouTube video *going viral?*

How about the spread of Christianity across the Roman Empire* and beyond? Yes, the

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* Some, for example Gibbon in *The Decline and Fall of the Roman Empire*, hold that Christianity weakened the Roman Empire and caused its fall. However, even after the fall of the Western Roman Empire, traditionally dated to 476 AD, (a) nobody at the time thought it had fallen, and (b) the Eastern Roman Empire, headquartered in Constantinople, previously Byzantium and subsequently Istanbul lasted for about another thousand years. Some also consider that the spread of Christianity, and saving ancient Latin and Greek texts in far-flung monasteries, preserved Roman and Greek ideas that later became the basis of things like the Renaissance in Europe from the 1300s to the 1600s. See, for
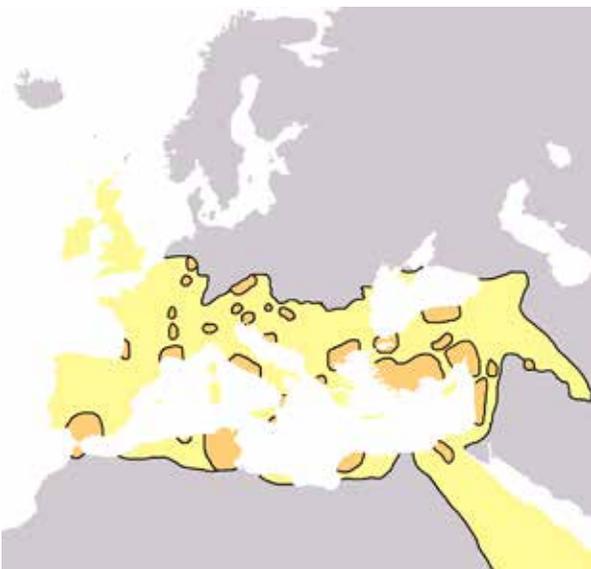
meme mutated as do genes, which is why we have Catholic and Orthodox and all flavors of Protestant Christianity. Or what about the spread of Islam out of Arabia some 500-600 years later, also now with various flavors of Sunni and Shia?

These memes had charismatic leaders to start with, but then the memes became self-propagating.

The final meme we should consider is of volunteer SAR teams. It probably is a mutation of volunteer fire companies, but with its own unique story. In some areas, the Sheriff's deputies do SAR as part of their job, but even in these area, the meme of the volunteer SAR team sometimes springs up. It would be a fascinating research project to try to figure out where this meme began.

The Rules

One of the rules is that leaders and managers make the rules.

But making a long list of "thou shalt" and "thou shalt not" rules might not be the best idea.

Do you know how big-rig truck drivers do a work slowdown when they are not allowed to strike? They follow the rules. All of the rules. All of the time. They never exceed the speed limit. They come to a complete stop for a couple of seconds at every stop sign. They follow driving time rules to the second. Efficiency drops drastically.

From the human error literature, we know that the response to bad things is, first of all, to blame it on "human error" rather than a system failure, as we talked about with critiques and retrospectoscope (hindsight) bias. We discussed the maladaptive "blame and train" "blaming those on the sharp end" response to this as part of a *management by exception* leadership (or anti-leadership) style.

But the response to "human error" can be to set up more and more "safety rules" as a response, and the human error literature quite clearly classes this as, for the most part, maladaptive. Why?

Broad "safety" rules made in response to a single unusual incident tend to be over-broad. And you get more and more of these "safety" rules, so many that it's impossible to observe them all and get anything done with any

reasonable degree of efficiency. So people start skimping on the rules to get their work done, because they're also being pressured to be efficient. In the extreme case, you get what error theorists call an *n-tuple bind*.* This is when you are presented with enough rules that it is simply impossible to observe them all. This is also known by the term a set of *mutually incompossible* rules.

This is not to say that we should have *no* safety rules. It's hard to argue that those who work next to high-speed traffic on a highway don't really need high-visibility clothing.

Once upon a time, in a place far, far away, a SAR team member fell in a raging river without a flotation vest and drowned. Therefore your team now has a rigid rule that "During a search or rescue task, no team member may go within 10 feet of a body of water unless wearing a flotation vest." However, the team also has a rule "All assigned search segments shall be searched completely, no exceptions."

So you are an FTL of a team out searching in an area you know well from prior searches and your own hiking. There are no rushing streams or large bodies of water so you are not carrying flotation vests. You come to a foot-wide stream that the trail crosses. Can you permit your team to go across it without their vests on?

It's time for a rest stop and for some hydration. One of your team members pulls out a Nalgene water bottle and opens it to drink. Is she allowed near this "body of water" without a vest on? (The term for this rhetorical technique, BTW, is *reductio ad absurdum:* following the reasoning until you get an absurd result, disproving the original argument.)

You come across a small pond a few feet off the trail. You'd like to search the edges for footprints, but then there's that rule. You know that this pond is no more than three feet deep in the middle, because you've found that wading into it in the summer can be refreshing. Do you have your team search the edge of the pond?

You make a careful calculation of the risk vs benefit of allowing your team to search the edges of the pond. As would any reasonable FTL, you think "screw the rule" and have your team search the edge. You find multiple footprints matching the unique sole pattern of the subject, heading away to the east. You call this in, the LKP (Last Known Point) is updated,

* I would think that the term "multiple bind" might make more sense, but then I'm not an academic error theorist.

A leader must:
· Possess **authority**
· Assume **responsibility**
· **Account** for his or her actions

Authority can and should, when appropriate, be delegated.

Responsibility means "liable to be called on to answer." Responsibility cannot be delegated. Even if you demand responsibility of your subordinates, it is still ultimately your responsibility to make sure they do their jobs.

Accountability means you must bear the consequences if you do not accomplish tasks for which you are responsible. "Called to account" implies possible punitive actions for failure. You can hold your subordinates responsible and accountable, and can discipline them, but still you are accountable for their actions and inaction.

and a dog team is sent out to the east of your task. The dog team quickly finds the subject on another trail with a broken ankle, dehydrated and hypothermic but still alive. Your team joins the dog team and starts treating the patient; soon a litter arrives from base, and you get the patient out. The patient survives, and your field team is, by unofficial acclamation of the rest of the SAR team's members, credited with a save.

However, at the next business meeting, the head of your SAR team, who is an authoritarian "command and control" *management by exception* Louis XIV style leader, starts a disciplinary hearing against you for violating team safety rules. I made up this scenario but I know of very similar ones I can't ethically relate here.

It's attractive to make up a long list of "thou shalt" and "though shalt not" safety rules. But do you really think you are smart enough, and imaginative enough, to think of all the times and places where these rules might actually might have to applied? Including situations where those rules might be incompossible, or actually make things *less* safe?

Don't be guilty of *rule-making hubris.*

Bottom line: *rigid rules* are in general bad. *Best practices* are good. A best practice is a recommendation as to the generally best way to do something, with the proviso that when and where to apply this best practice depends on the situation. A system that uses best practices rather than rigid rules requires education of members about these best practices, and independent judgment by members. But the gains in efficiency and safety (not to mention morale) can be impressive.

Authority and Power

On the website of the Mountain Rescue Association (mra.org), you can find a 2002 PDF pamphlet titled *Field Team Leadership in Search and Rescue Operations*, by Leonard R. Daughenbaugh. He says

In a military hierarchy or chain of command, FTLs would be the sergeants.

…

once troops get into the field and the bullets start flying, sergeants must carry out the plan, make alterations, etc., which generally involves making life or death decisions under extreme time and situational pressure for both themselves and their people. As with SAR FTLs, it takes years to accumulate the

specialized knowledge, experience, and judgment to become a good sergeant. A newly promoted sergeant might immediately be put in charge, but, because of the wealth of refined skills it took to reach that rank, it could easily be justified.

…

General George Patton was probably a difficult person to work for, but he would have been an excellent SAR manager. He clearly understood his limitations as a manager when he said, "Never tell people how to do things. Tell them what to do and they will surprise you with their ingenuity." (Theodore Roosevelt was a little more explicit when he said, "The best executive is one who has sense enough to pick good people to do what he wants done, and self restraint enough to keep from meddling with them while they do it.")

I recommend this pamphlet to anyone aspiring to be a FTL; it contains much wisdom. As far as leadership styles, Daughenbaugh says

It seems to be generally accepted that, to be consistent, a leader must adopt one, and only one, of the available leadership styles. In SAR, this is patently untrue and unwise. All aspects of SAR leadership activities, including leadership styles, are driven by the presenting situation.

He goes on to discuss different leadership styles, focusing closely on the dangers of groupthink, which is defined by Wikipedia thus:

Groupthink is a psychological phenomenon that occurs within a group of people, in which the desire for harmony or conformity in the group results in an irrational or dysfunctional decision-making outcome. Group members try to minimize conflict and reach a consensus decision without critical evaluation of alternative viewpoints, by actively suppressing dissenting viewpoints, and by isolating themselves from outside influences.

Daughenbaugh, writing with what sounds like the voice of experience, says

*It becomes groupthink at its worst if a cohesive in-group is combined with an authoritarian, charismatic leader who is not impartial or amenable to having his/her point of view challenged, and is not willing to voluntarily accept accountability for his/her actions or inactions. **The most identifiable characteristic of this type of leader is that he/she will bring up an issue, then***

adapted from Iszatt-White, M. (2014). *Leadership.* New York, NY, Oxford University Press.

Proactive Influencing Tactic	Description
Rational Persuasion	Use facts, evidence and logic to argue that a plan or proposal will work.
Apprising	Focus on how achieving a goal will personally benefit your subordinates (or superiors) in terms of their career, skills or profile.
Inspirational Appeals	Get a person's emotional commitment to a task or plan: appeal to the person's values, ethics, hopes or ideals.
Consultation	Have a subordinate develop the plan or task, so he or she is invested in it. You pick what the broad task will be, but you consult on some details.
Exchange	Offer something of value in return for support for your plan, or for work on a task. Often called *quid pro quo*,[1] or *normal politics*.
Collaboration	Offer resources and help, in return for a willingness to carry out a plan or task.
Personal Appeals	Base your appeal on friendship or personal loyalty. "We've worked together for a long time, and I'd like your help…"
Ingratiation	Complimenting and praising someone in order to get their help or support. Could be seen as manipulative. In fact, hard to do unless you're really sincere; over the millennia humans, have evolved special invisible antennae that immediately detect false praise.
Legitimating Tactics	Using position, policy, organisational[2] rules or norms to make a request appear legitimate.
Pressure[3]	AKA *coercion*. Use threatening words and behaviour, such as intimidating body language and invading people's personal space; micro-manage and keep demanding a response. Works most effectively if authorization to use this technique is delegated to others such as Gestapo or NKVD agents.
Coalition Tactics	Building a coalition of colleagues in order to influence a specific person. AKA gang warfare.

1 Quid pro quo: more Latin to impress your friends. "Something for something," "this for that," "give and take", "tit for tat", or "you scratch my back, and I'll scratch yours".

2 Note the British English spellings of organisational and behaviour; not surprising in a book from Oxford University. I have retained these simply because Americans think they're cool. But Noah Webster would be appalled. He wanted to rescue "our native tongue" from "the clamour of pedantry" and develop uniquely American spellings to separate us from the grammatical tyranny of George III of England and his ilk, as published in his 1786 *The American Spelling Book*. My how things have changed.

3 I also considered adding in a line for *sexual and physical harassment* but finally decided these are already included under "pressure."

immediately express a personal opinion concerning it.[emphasis added] *At that point, any argument tends to revolve around whether or not the leader is right, rather than whether the leader's preferred alternative is the best one. Effective decision-making procedures go by the wayside. The group experiences "tunnel vision." Other alternatives will not be explored, or will only be superficially evaluated. The search for information will be cursory and incomplete, and the only information gathered will support the leader's preferred decision(s). Hazards, consequences, costs, etc will be minimized, or maybe not even mentioned. The possibility of positive outcomes will be overstated. The goal of concurrence will supersede the pragmatic evaluation of alternative courses of action. Further, if the group is operating in a stressful situation, such as under time pressure, the leader's solution will usually be adopted more quickly because group members will want to minimize their stress by having the decision made as soon as possible. Since the solution was technically the leader's idea, the group will then transfer accountability to the leader. But, since the decision was "ratified" by the group, the leader will usually consider the group accountable.*

Maintaining unanimity (or at least the appearance of unanimity), along with amicable (no arguing), congenial (be nice) relationships with fellow group members becomes consciously or subconsciously more important than arriving at good decisions. Therefore, group members begin to "self censor." A group member may initially exhibit skepticism, resistance, disagreement, etc., but, when confronted with opposition from the group leader and/or a significant number of others, he/she will be expected to conform. Conformity is measured either by agreement or silence. Individuals who persistently express a different view from that of leadership and/or a majority of the group will be labeled as uncooperative and made to feel at least uncomfortable. It becomes easier to conform to the group and then complain to individuals both in and outside the group afterward rather than continue the fight.

Perhaps the solution to this kind of problem is to have more whackers in the group? Naaah. That just results in chaos.

The solution is to have members who are willing to go along with authority, but who are willing to speak up and maintain their opinions despite authority or peer pressure, at least when life-or-death decisions must be made. In a word,

► As the Medieval shaded into the early Modern period of history, western European lords freed their peasants, which led to the Industrial Revolution and thence to the western European domination of the world. Lords had to stop being autocratic and had to understand and support their peasants. If you want to succeed as a SAR leader, care for your peasants.

► Executing your admirals will get famous French authors to make fun of you in public; driving away team members who disagree with you may destroy your SAR team. It's the same thing.

► Management consultants have many theories about how to better run a business or a SAR team. Some are worth listening to.

► Relevant to SAR, Frederick Winslow Taylor says that setting standards, and using them to establish an efficient training program, will make your team more effective.

► Watch the 1950 movie *Cheaper by the Dozen*.

► Read W. Edwards Deming's *Fourteen Points for Management* and figure out which portions of them apply to SAR teams.

► Learn how to project your voice to a group, and to speak effectively.

► Rhetoric should used for good rather than evil, and should not be empty sophistry, but full of good reasoning and effective persuasion. Learn rhetoric.

► Academics have named different leadership styles; there are probably no examples of someone using solely one type of leadership, as we use a mixture, and change our styles to suit the situation. But it's still useful to consider different styles.

► *Management by exception* is like being a nun-teacher with a ruler, and not being afraid to use it.

► *Laissez-fair leadership* means not having to worry. About anything.

► *Charismatic leadership* can lead to the empire of Alexander, the destruction of Germany, or the freedom of India from the British Empire.

► *Task-focused leadership* and *relationship-focused leadership* are two ends of a spectrum, or two coordinates on an x,y graph called "the management grid."

► *Autocratic,* "command-and-control," military, and *Louis XIV* are terms applied to a **very** top-down hierarchical approach to leadership. Useful in very bad SAR situations that you should never get into, otherwise leave

this to Kim Jung-il of North Korea.

► *Distributed decision-making,* also known as *collective leadership, shared leadership, collaborative leadership,* and *participative leadership* all refer to the idea that those down the chain should be expected to exercise a fairly high degree of independent judgment. Zappos.com made it work impressively well.

► *Transformational leadership*, AKA known as *change leadership*, is a way to shake up an organization and make a big name for the leader (even if only known for destroying the organization). Occasionally it is needed, but usually in smaller doses than the leader thinks. Think of the primary campaigns of those running for President, all of whom are "all about change."

► *The Toyota method* of Taiichi Ohno incorporates many different management techniques. The one most appropriate to SAR is of **short feedback loops:** listen to all your members, especially the newest, and get their ideas on how to improve things.

► The best teams have *psychological safety*: shared belief held by members of a team that the team is safe for interpersonal risk taking. Google found this was the most important factor in creating high-performance teams. Stephen Covey *fils* agrees.

► Leaders may be *managers of meaning* AKA *thought leaders*. Leaders may create *memes* (the mind equivalent of the selfish gene) that may assume an independent existence and spread. Like a religion. Volunteer SAR is such a meme.

► Rigid "safety rules" can destroy both efficiency and safety; *best practices* are better. A best practice is a recommendation, not a rule. Rigid rules **do** make it easier to find someone to blame after the fact if that's your goal.

► *Groupthink* is when the members of the group are willing to go along with others, especially authoritative-seeming others, and not voice their concerns. This is bad.

► *Authority* and *power* are very similar concepts. They can come from your position in the chain of command, from your expertise, or from your prior personal relations with others. *Legitimate* authority or power means those under you accept your authority, for whatever combination of the above reasons.

good followers.

Daughenbaugh suggests that, when a leader is soliciting input on a decision, that he or she should not voice his or her opinion until the member's opinions have been heard, so as not to sway opinion, and so as not in intimidate members into not speaking. And an experienced leader speaking an opinion, no matter how softly or tentatively, can be intimidating even if there is no intent to intimidate. He also points out that sometimes it's wise to postpone a decision for a while, if you can; second thoughts can be useful.

The Greek historian Herodotus (c. 484–425 BC) pointed out that the Persians used to reconsider their major decisions after getting drunk together. Perhaps this is not a good model for SAR team decision-making, at least in the field.

Daughenbaugh discusses analytical methods for field team decision-making, but this should be taken with a grain of salt. The earlier section in this chapter, *Sources of Power,* discusses how this is probably not the best decision-making method, at least under time and other pressures.

In their book *Leadership in Land Search and Rescue,* available free in PDF form at www.

eri-intl.com, Tony Jones, Rick LaValla and Chris Long write:

> It is appropriate to draw clear distinctions between leadership, command and management. All three are significant and interrelated but without effective leadership command and management will fail to provide a quality of service required of any SAR operations. Ultimately the safety of all may be compromised.

We can perhaps equate relationship-based leadership with their "leadership" and task-oriented leadership with their command and management. Or perhaps we can use the x,y "management grid" approach and equate their "leadership" with "Concern for People" and their "command and management" with "Concern for Production."

Jones, LaValla and Long talk about *authority*. By this they mean the power to get others to do what you say and follow your lead. They distinguish four sources of authority:

- **Authority from a leader's position in the chain of command.** They call this "legitimate" authority. But I suspect everyone reading this has at least *heard* of someone in a position of command who is not "legitimate" in terms of subordinates' trust, or perceived competence. In combat, this can lead to subordinates killing their superior officers; the term "fragging" (from fragmentation grenade) evolved to describe this practice during the Vietnam War.
- **Expert authority**. This comes from competence, as judged by subordinates: the leader has the requisite knowledge, experience and judgment.
- **Personal authority.** This comes from prior interpersonal relations with members, and from charisma.
- **Referent authority**. They state this is the leader's acceptance by other team or party members. Seems to me that this is the product of the first three types of authority.

Iszatt-White's book *Leadership* lists several types (or perhaps views) of leadership power in similar but slightly different terms, and using the word "power" instead of "authority":

> *Informational power is the ability to provide information about a subject or task in such a way that the recipient will accept that information and behave in the way the influencing agent is suggesting. Raven argues that this type of power can create socially independent change, change in a behaviour that*

continues even without future supervision or intervention.

> **Reward power** and **coercive power** are both said to lead to socially dependent change. This is due to the dependence on the ability to reward (in terms of pay, promotion, extra leave, etc.) or to threaten (with disciplinary action, dismissal, etc.). Raven argues that where this type of power is used, the target is only compliant if they think the influencing agent is watching them, measuring them and so having evidence from which to reward/punish them. Hence, surveillance is necessary if a leader chooses to use this form of power. More recently Raven updated the Reward and Coercive Power idea to go beyond the obvious, tangible elements to more intangible ones, such as approval or rejection from a well liked boss.

> **Legitimate, expert,** and **referent power** are all also classed as leading to socially dependent change, but Raven argues that this change would not require surveillance.

> **Legitimate power** means the person being influenced accepting that the influencer has the right to direct, request, or demand a change. This right is usually associated with the position of a person in the hierarchy, or with the job title that the person possesses. Expert power is where the agent possesses, or is believed to possess, knowledge or insights that are accepted as superior and therefore influence the target to change behaviour. Finally, referent power is where the target holds the agent in high regard, admiring their behaviour and trusting their judgement, and so is happy to emulate them.

It is clear to anyone who has served under more than one leader/manager/commander/boss, that there are different styles of leadership. Despite all of the academic attempts to classify leadership styles, the most prominent of which we have discussed in this chapter, leaders don't see themselves in these terms. Leaders use a bit of this, a bit of that, and that they change their leadership styles over times with experience and observing other leaders, and may change them to suit different situations.

Iszatt-White's book *Leadership* recommends seeing the 1998 movie *Saving Private Ryan*, nominated for 11 Academy Awards, to appreciate different styles of leadership by the same person:

> In the film Saving Private Ryan, after

Some want power to compel others to do what they want.

Some want the prestige that comes from being an acknowledged leader.

Some believe that a higher power has designated them to lead people.

Some believe strongly in a goal, and believe the best way to accomplish this goal is to get others to follow them.

Some don't want to be leaders but find it thrust upon them, as they are best qualified to help others.

Think about
King Solomon,
Confucius,
Lao Tze,
Buddha,
Jesus,
Muhammed,
George Washington,
Thomas Jefferson,
Joseph Smith,
Genghis Khan,
Adolf Hitler,
Joseph Stalin,
Jim Jones,
Mahatma Gandhi,
Jeffrey Skilling of Enron,
Martin Winterkorn of Volkswagen, and
Martin Shkreli of Turing Pharmaceuticals.

Think of the old maxim *Power corrupts, and absolute power corrupts absolutely.*

storming the beaches of Normandy in the Second World War, Captain John Miller and his unit are sent on a mission behind enemy lines to find and extract an American soldier, Private Ryan. On their journey they encounter a machine gun emplacement, and this becomes the backdrop for Miller to demonstrate an ability to adapt his leadership to different situations. First the need to storm the emplacement is contested by the troops, and Miller uses his positional power, and his communication skills to force the completion of the task. During the action a member of the team is killed, leading to arguments after the event between the soldiers, first on what to do with a German prisoner they capture, and secondly on whether they will follow Miller again after he decides to release the prisoner. In an emotionally charged scene, Miller appeals to the troops in a relational way, describing his job before the war, and how he wants to return there knowing he has done the right thing. The difference from the first task-focused approach to the second relationship-focused approach is stark. The task itself can be seen to change, and with

it the degree of relationship-focus needed by the leader.

Research on this topic, and 40+ years of search and rescue experience both as a leader a follower, leads me to think SAR team leaders do a really, really good job for no pay except for recognition from their peers and a feeling of doing good for others.

If there is any trend for which SAR leaders should try to avoid, it's the tendency to resort to the Louis XIV authoritarian "command and control" mode when it's not needed. If you find yourself wanting to use this mode, analyze the cause of your stress, and make a conscious effort to be a kinder, gentler leader. Bend over backwards to listen to others, validate their concerns, and then move on.

I would hope that even experienced leaders learned a bit from the forgoing discussion of different styles. Mix this with your observations of other leaders, perhaps colored by what you learned here, and keep updating your own unique leadership style, which is fitted to your personality type and the needs of those you lead.

Followership

We have covered the field of leadership in detail. Even if you're still not entirely clear on what leadership is, more material in this chapter will not help. It's time to switch to another topic, which is how to be a good *follower*.

Competing Roles

I've been doing search and rescue for about 45 years. I've acted as Incident Commander on some large searches. I've led teams on difficult rescues. But that was a long time ago. I still do searches and rescues, and sometime I serve in Base, but as I'm not certified as a Search Manager any more, I mostly go into the field. I've done a number of rescues over the more recent decades, but none of them I'd really call *difficult*. But some time ask me about the operation on Old Rag mountain in Shenandoah National Park where we got an official commendation from the Director of the National Park Service. Or the Crossroads Cave rescue.

As I was finishing my undergraduate degree at the University of Virginia, I made the decision

to go to medical school, and to become a specialist in Emergency Medicine, which wasn't even a recognized specialty yet. Up until then, I had been vigorous in keeping up with the latest in technical rescue, search management and other search and rescue disciplines.

But my commitment to medical school, residency and academic emergency medicine practice would take massive amounts of time. Yes, I'd be a *lot* better at wilderness first aid. But I would have to relinquish my position at the cutting edge of technical rescue and search management. I wouldn't be able to respond to operations very often. I would have to give up my Incident Commander certification.

So, despite my long background being a leader in search and rescue, I needed to learn followership. It wasn't easy. I think learning followership is hard for any SAR team member, and the more of a whacker you are, the harder it is.

A quick bit of side advice to the increasing ranks of search and rescue doctors out there: you'll often need to do *doctor stuff*. That's what

the non-medical SAR people call it. So even if you know lots about other search and rescue disciplines, you need to train up other non-doctor leaders who can take charge when you suddenly abandon your leadership role to do *doctor stuff*. That's how others in the team see it, and how you should see it, too.

In addition to search and rescue, I sometimes respond to disasters. I'm Chief Medical Officer/Team Medical Director (the title seems to change from time to time) for the National Disaster Medical System's PA-1 Disaster Medical Assistance Team (DMAT). And in both disaster and SAR responses, I sometimes find myself in a leadership role, based on my experience and non-medical training. For either disaster or SAR being a physician and serving as a leader is an invitation to problems. I was going to say an *invitation to disaster* but sometimes this occurs *during* disasters. During that Katrina response, I suddenly had to transition from leading a team to doing *doctor stuff*. The sudden transition of leadership to the second in command was painful for all involved.

On subsequent disaster deployments I've deliberately stayed away from leadership roles, except perhaps as the chief of the physicians within a team. This works much better than suddenly having to abandon a leadership role to do doctor stuff. I may sound like a broken record here, but physicians and surgeons: heed what I say.

I've been talking about being a physician, and you may figure this doesn't apply to you. But this also may apply if you're an Advanced Practice Provider (AP is the new "in" term for Physician's Assistants and Nurse Practitioners), or a paramedic or a Wilderness EMT. Whenever you're in a leadership position and you've got the best first aid or medical credentials around, this applies to you. If we're talking about a search with a possible difficult technical rescue, and you're the best-qualified tech-rescue person at Base, this might apply to you, too.

So let's assume you're the best medical person on a large search. You're acting as Ops Section Chief, as there is nobody else with the right training and experience to do this job right now. You also don't have an assistant to whom it will be reasonable to turn over the Ops Chief job. Suddenly, the search subject is found a half-mile up the hill from Base. A team with a litter is heading out from Base. The Field Team Leader who found the subject says the patient is critically ill and requests that Base send out a medical kit and the best medical personnel possible to care for the patient.

Do you go with the team to treat the patient? How can you refuse this request? What if you refuse to go and the patient dies? How would you feel? What would the jury decide?

But if you leave, what happens to the rest of the teams in the field? What if your abandonment of the Ops position means that a Field Team ends up getting stuck out overnight and a member dies?

I don't have any magic answers to this dilemma. I will say, however, that each time something similar has happened to me, I have responded to the field.

There are (at least) two proactive approaches to this kind of situation. One is to make sure you have an assistant Ops Section Chief who is ready to take over when you suddenly run out of Base. Perhaps a better approach is for you to simply not accept the role of Ops Section Chief. Instead, you pick a trainee as Ops Section Chief and you mentor that person. It makes the transition smoother if you suddenly disappear from Base. I've done this multiple times in both SAR and disaster settings and found it to be both rewarding and effective.

I used the example of Ops Section Chief, but I think you can apply this to other positions such as Field Team Leader. Indeed, this principle of having trainees officially in a leadership position, with an experienced person along to mentor, is something we should probably do more often. If you're experienced, you should, when someone asks you to assume a leadership role, say "Why don't you appoint someone else and let me serve as a mentor?"

If you're an experienced leader – *especially* if you're an experienced leader – it's important to develop your followership skills. If you don't like the idea of being a "follower," think about it as "giving less-experienced members a chance to lead while you mentor from the rear." Or perhaps "developing depth in the team's leadership bench." Regardless of how you rationalize it, it's the right thing to do.

Even if you buy into this idea of followership, learning to actually do it right isn't necessarily easy. Practice.

There was a very silly joke one of the authors (MIW} remembers hearing in her childhood about a Martian landing on Earth and the first thing he saw was a petrol station. Mistaking the petrol pump for the resident life form of the planet, he went up to it and said 'take your finger out of your ear, and take me to your leader!' This childish play on the 'anatomical' features a human might have ir:1 common with a petrol pump nonetheless demonstrates the prominence which leadership as an idea has in our minds, even from an early age. Indeed, it is a measure of the ubiquity of leadership in our lives that even the average 5-year-old will have some concept of what it is: as children in school we have all had the experience of lining up for class, in the playground or on a school trip, and so recognize 'the leader' as 'the one in front'.

Adult Education

WE HAVE DISCUSSED people skills. One important people-skill followership role is that of the *teacher*. I include this under followership because it fits here better than under leadership. If you're teaching, you're in a support role, providing people with the information they need to go out and do stuff, including leading others. When you're teaching, you're supposed to be meeting the needs of those who are your students. Your needs are subservient to their needs. And everyone in SAR has to teach. Even if it's just when you're an FTM assigned to lead a team of non-SAR volunteers, your "briefing" the team about safety *is* teaching them. We call it "just-in-time training."

There's a saying that "those who can't do, teach." But in SAR it's usually not true, the people teaching usually do have SAR street cred. Maybe that's because SAR people have those six Jeff Mitchell emergency services workers characteristics, and won't tolerate someone who is faking it.

This can be one-on-one in a mentoring relationship, or one-to-many, as when teaching knots or search tactics to a group of members.

There are principles of education that have been around for millennia, dating to ancient Mesopotamia and China. In classical Greece and during the Roman Empire, these were updated with some understanding of learning styles, what we would now call psychology. But over the past fifty years or so, our understanding of learning has progressed in parallel with our understanding of the psychology of learning. Rather than delving into the research that underpins this understanding of adult learning – a quick web search will provide this to anyone interested – the following will provide an awareness-level overview, and perhaps a few critical comments.

First, you need to understand the basic principles of "adult education." Then, you need to understand the personalities of the people you are going to be teaching, and if you've read this chapter up to this point, you've got a leg up on *that*. Then you need to assess your students, and then tailor your teaching to their motivations, desires and needs.

We should mention at this point the idea of different learning styles. As with personality analysis in terms of The Four Temperaments or DISC axes, people may partake of a little bit of

this and a little bit of that. However, appreciating these different *learning* styles may help you broaden your *teaching* styles.

As with personality theories and assessment, there are a variety of theories about different learning styles, engendering an almost-religious sectarian strife. The Wikipedia entry on Learning Styles lists seven main competing models, all quite inconsistent. You will be relieved to know we will not be reviewing them all.

The priests of each of the various learning-style sects insist that people be classed as far as how they learn, and teaching should be customized for each student. However, (1) this is a hassle, and (2) no studies have shown this actually works, so I recommend avoiding these sects' evangelistic efforts.

But, perhaps, under all this smoke there is probably a bit of fire.

Neil Fleming's VAK/VARK model seems to be popular, can be related to teaching styles, and might actually help you improve your teaching style. He identifies four different kinds of learning:
- Visual learning
- Auditory learning
- Read/write learning
- Kinesthetic learning

This suggests a shotgun approach: if you want to get something across to people, have them read about it (give a reading assignment), have them hear about it (ideally in group or individual Socratic questioning mode), demonstrate it with pictures or diagrams on a screen or in real life, and then have people actually do something hands-on. Hit all those four styles of learning.

Actually, the best advice about adult education is something I found in a fortune cookie: *I hear and I forget. I see and I remember. I do and I understand.*

Though sometimes attributed to Confucius, this is actually an English approximation of a statement by Xun Kuang, a 3rd century BC follower of Confucius, a philosopher and teacher, known as "Master Xun" ("Xunzi"). It's from the book *Xunzi* that is traditionally attributed to him. It translates more closely as: "Not hearing is not as good as hearing, hearing is not as good as seeing, seeing is not as good as knowing, knowing is not as good as acting; true learning continues until it is put into action." The version from the fortune cookie first appeared, as near as I can tell, in the English education literature

in the 1960s. I like the fortune cookie translation much better.

I hear and I forget.
I see and I remember.
I do and I understand.

We can't talk about "adult education" without talking about Malcolm Shepherd Knowles (August 24, 1913 – November 27, 1997), and in particular his papers and books on adult education, specifically *Informal adult education: a guide for administrators, leaders, and teachers* (1950), and *The adult learner: A neglected species* (1973, revised 1990). Knowles came up with a list of ways that adult learners were different from kids. They became dogma.

Then it turned out that if kids were educated in line with these "adult" principles, they enjoyed it and learned better. Part of the reason for this was that people thought that the traditional way of educating kids was the best way, and it turned out the difference was that kids were powerless to object, and adults did have that power and did object to the BS that kids couldn't reject.

I have a special take on this, given that I have bought into the Waldorf school model of early childhood education… my daughter, now 16 as I write this, went to a Waldorf school in Pittsburgh up through the 8th grade, and I'm glad she did. Many things that are often hailed as "innovations" in public education, Waldorf schools have been doing for decades, if not the century they've been around. Examples include looping: having the same teacher through all the grades. Or integrated education, such as learning geography and history and art at the same time as you draw a detailed map of the Roman Empire. And, in the early grades, of integrating indoor exercise into arithmetic by doing bean-bag tossing games to the chant of math lessons. When I first went to the Waldorf school to see if I wanted my daughter there, I watched the kindergarten class for a while. One of the toys in the room (all the toys had to be made out of natural materials) was a wicker backet of large rounded river rocks. "Aren't you worried about them hitting each other with the rocks?" "Well, that's part of our jobs as early childhood educators, to socialize them so they don't do that." Hmm, OK. And I watched them using sharp knives to cut up apples for snack, and baking biscuits in a hot oven. And I heard

the rules about climbing trees: one tree was OK for all the kids to climb, but another was only for the upper grades, as the limbs were further apart. And so I got my daughter her first Swiss Army Knife when she was five. My wife and and I are very definitely not "helicopter parents."

The supposed principles of adult education are as follows, per Knowles. Adults tend to be:
- Autonomous and self-directed
- Have accumulated a foundation of expertise and knowledge
- Are goal oriented
- Are relevancy-oriented
- Are practical
- Need to be shown respect

Duh. Applies to kids, too. Kids may be smarter than you think, and may know more than you think. They're just smaller so they're easier to boss around.

Speaking of bossing around students, do you remember that list of psychological characteristics Jeff Mitchell came up with for emergency services workers? It bears repeating here. Emergency services workers:
- Have obsessive/compulsive personality traits
- Need to be in control
- Are risk oriented
- Are action-oriented
- Need to be needed
- Are dedicated

Sounds vaguely like that list of six "adult education principles" above. Except, from a mentor/teacher standpoint, it's even worse. "We don't take no BS."*

Which, as long as you're not going to be dishing out BS, but delivering good information tailored to the job and the person or people who will be learning, is just fine.

First, you have to tailor the information to the job at hand. This may sound like common sense, but if you've been assigned to teach a particular topic to members of a SAR team, the first question is (and pardon my language): do they give a shit? If they don't give a shit about what you're teaching, they will get up and leave.

Once upon a time I was in the Civil Air Patrol, primarily to help the state CAP Wing develop its Ground Search and Rescue program

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* If you are having an English-teacher moment and complain about my using a double-negative, think again. Shakespeare used double-negatives regularly to emphasize the negative effect of a sentence. He also used "aks" for "ask" sometimes. In a related note, Sidney Morgenbesser, Columbia University John Dewey Professor of Philosophy, was once sitting in a lecture on the structure of language by Oxford philosopher J. L. Austin, who asserted that, though in English, a double negative can imply a positive meaning (i.e. "I'm not unlike my father…"), there is no language in which a double positive implies a negative. To which Morgenbesser reportedly replied "Yeah, yeah."

based on input from the Appalachian Search and Rescue Conference. I was sent to a CAP multi-state regional *Ground Search and Rescue Instructor Workshop*. That's what it was called. The first night, we had a fire service instructor who gave a class about how to search a building, with us crawling around in the dark.

Most of us were there thinking that, given the title, the session would have something to do with looking for downed aircraft or people lost in a wild area. We didn't give a shit about crawling around with the lights out. So a group of us seceded from the class and met in a hangar. The regional leadership was furious.

This revolutionary group then went on to establish a Ground Search and Rescue program for our CAP state Wing.* With input from others in the Appalachian Search and Rescue Conference, I wrote a textbook for the wing, the *GSAR Manual*, in 1979. Mark Pennington took over the manual after me and updated it bit, and then it morphed into the standard text used by the state government's SAR program.

The point being, don't try to teach adults (or even sassy kids) stuff that is irrelevant to the topic at hand.

Not only do you need to tailor the instruction to fit the expected relevant topic, you need to tailor the instruction to the students' needs and prior training. Sometimes you will know this ahead of time, sometimes you will not.

A quick discussion with the students may provide you an assessment of their levels of expertise. And, you may identify a student who has expertise who can assist in the instruction (or a bad whacker who should *not* assist in the instruction). Or, you may realize you have a subset of students who are quite unprepared for the planned instruction, and you'll need to split them off with an assistant instructor. With group instruction of adults, especially SAR people meeting the emergency services worker psychological profile, this *Semper Gumby†* approach is essential.

Mentoring

If you're mentoring a single person, the principles apply just as well: assess motivation, desires and needs first, then tailor your mentoring accordingly.

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* A "Wing" is a state-level CAP organization.

† *Semper Gumby* is an unofficial military motto, referring to the animated clay character Gumby, and means "Always Flexible."

Mentoring also means supporting others in becoming teachers.

Part of followership is also being a good *student* to those you are mentoring. Assume you are in the audience while another team member is giving a talk. On a topic about which you know much more than the team member talking. What should you do?

Best is for you and the team member giving the presentation to get your heads together beforehand, at least briefly, to discuss the presentation and review the most important points to make. But sometimes that just doesn't happen.

There are competing principles here. First, it's important that team members get the right information; for some search and rescue topics, this may mean the difference between life and death. So, at times, speaking up is absolutely necessary. But these situations should be few and very far between.

But you might speak up to bring up an important point. When you are pretty sure the instructor knows about this point, you can phrase this as a question: "Do you think they need to know about xxxx?"

You can't do this too often. And you can't do it in a challenging way. You need to do it in a way that supports the speaker; this support is critical to your being a good mentor. Slapping someone down for an innocent mistake is *not* good mentoring.

Ask questions for those members who might not understand a point, but are afraid to speak up and ask a question. If someone thinks you're stupid for asking such a question, it's worth it in terms of the benefit for all those people who needed to know but were afraid to ask. It also breaks the ice and makes it easier for others to ask questions.

If you are teaching, you may learn something from someone in your audience who knows more about the subject than you do. If this happens, rejoice in it! And keep on asking this person questions to guide the discussion to meet the needs of your audience and your plan for what you wanted to discuss.

Even if you're new to a team, you bring some life experience with you, and may know something the others on your field team might not know. So part of being a good follower is to keep an eye out to do a little good followership-type mentoring even for your superiors, at least in an area where you have some expertise.

And this brings us to perhaps his most

important contribution to Western thought: Socrates' dialectic method of inquiry, known as the *Socratic method* or method or *elenchus*:

The Socratic Method

IT WAS FIRST DESCRIBED by Plato in the *Socratic Dialogues*.

To solve a problem, break it down into a series of questions; select questions so the answers gradually reveal the solution to the problem.

Socratic questioning can also be an effective teaching technique, getting students to focus on the question as well as the answer.

Using Socratic questioning in a group also gets students to teach each other, and incite discussion with students of opposing viewpoints, into which you can throw tidbits of information, or ask other questions, to keep the debate going. Much more interesting than listening to you or me drone on.

There is a formal method of "Socratic Circles," but usually Socratic questioning is less formal. The idea of gathering in a circle, however, is a good one, for it promotes the equality of all, making it easier for students to speak up. or as we discussed earlier, helps provide *psychological safety*.

Socratic questioning has been the technique of choice in law schools for centuries.* You question a student, who you pick at random; or because you like the student, or because you don't like the student, or because the student seems to be falling asleep.

In medical school,† this is referred to as "pimping the student" and is a time-honored technique. Nobody is sure how this using of the word "pimp" originated. The earliest reference to pimping is attributed to Dr. William Harvey of London, who was first to accurately describe blood circulation, in 1628. The two meanings of the term may have grown up in parallel. In 1989, Dr. Frederick L. Brancati of the Department of Medicine of the University of Pittsburgh wrote an article in the Journal of the American Medical Association, in which he noted:

On the surface, the aim of pimping appears to be Socratic instruction. The deeper motivation, however, is political. Proper pimping inculcates the intern with a profound and abiding respect for his attending physician while ridding the intern of needless self-esteem. Furthermore, after being pimped, he is drained of the desire to ask new questions – questions that his attending may be unable to answer. In the heat of the pimp, the young intern is hammered and wrought into the framework of the ward team. Pimping welds the hierarchy of academics in place, so the edifice of medicine may be erected securely, generation upon generation. Of course, being hammered, wrought, and welded may, at times, be somewhat unpleasant for the intern. Still, he enjoys the attention and comes to equate his initial anguish with the aches and pains an athlete suffers during a period of intense conditioning.

During my medical school clinical rotations‡ at George Washington University, there was a neurosurgery attending who was known as a total arrogant asshole.§ He would sometimes physically push you up against the wall and ask questions until you got something wrong, and then laugh in your face, which was unpleasant, especially since busy neurosurgeons have trouble finding time to brush their teeth. We still liked him better than the other and more aloof neurosurgery attendings,¶ though, as he would then deliver an excellent
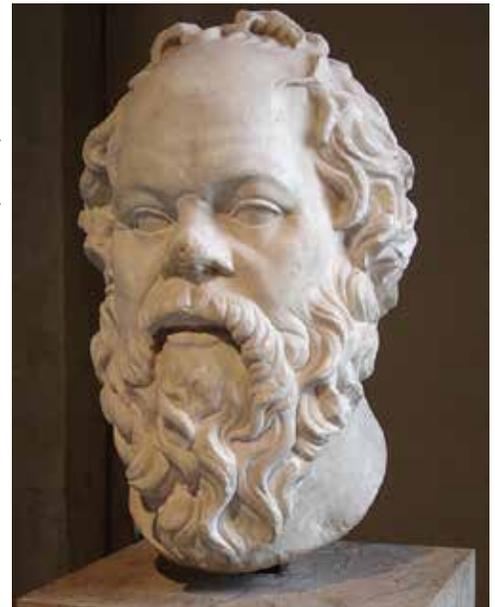
Portrait of Socrates. Marble, Roman artwork (1st century), perhaps a copy of a lost bronze statue made by Lysippos.

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* Law schools existed in Rome and Beiruit in 450 BC, but did not survive various disasters; the University of al-Qarawiyyin was established in Fez Morocco in 450 AD, and includes a law school that is still in operation; this is the oldest continually-operating university in the world.

† Medical training used to be by apprenticeship, but in about 850 AD, the Schola Medica Salernitana opened in Salerno, Italy. I'm not sure what the contemporary Italian word for "pimping" was, but I suspect the students complained about it all the time.

‡ In the US, medical school traditionally requires students to first secure a 4-year undergraduate degree, then complete four years of medical school in order to obtain their MD or DO degree. The first two years are mostly in the classroom. The third and fourth years are rotating assignments to different medical and surgical specialties, mostly required ones during the third year, and some electives in the fourth year. Do you know the difference between a third-year medical student and a pile of bullshit? Nobody ever goes out of their way to step on a pile of bullshit.

§ Their words, not mine! Really!

¶ In the US, once you finish your post-MD or post-DO residency, you become known as an "attending" or attending physician. That is, unless you really like the slave-labor aspects of residency (which was originally named this as you had to live in the hospital), and you stay on for additional postgraduate training as a fellow. Some attendings also have an academic professorship, but the address "Doctor" is still used instead of "Professor." I've had a professorship appointment for maybe 25 years, and in that time, nobody has ever called me "Professor." Actually, in the ED, almost all the nurses call me "Keith." If one of the nurses calls me "Dr. Conover" I immediately get worried that I've done something terribly wrong.

*Don't let being given a title
make you feel entitled.*

—anon.

5-minute overview of the topic that was enlightening to all.

Socrates would be aghast. Or, maybe he would approve; Plato implies most of his students found his questioning uncomfortable, and after all, due to his excessive questioning, the Athenians made him drink poison hemlock.

As an academic physician, I routinely pimp all my medical students and residents. As a nod to tradition, I tell them that my pay gets docked if I don't make at least one intern* or student cry during a shift.

I guess I am a failure by that criterion. If a resident or student can't answer my question, I either (a) give the answer right away if needed for immediate patient care, or (b) direct them to a printed article I provide†, or an online resource. Later we review the topic and I assess and supplement their understanding, so the students and residents leave at the end of the shift with a solid understanding of at least that one topic.

This sort of pimping, if done in the kinder and gentler way that is more common these days, is a good way to do teaching in SAR as well. Those long, boring search tasks are a perfect time for this, as is downtime in Base.

The Right Attitude

WHAT IS THE RIGHT ATTITUDE‡ to take when you're a Field Team Member or a subsidiary Base dweeb in Base?

You could follow the Louis XIV, World War II Russian Army, autocratic, "command and control" model and simply carry out your orders without questioning them. Do or die. Return with your shield or on it. That's an ancient Greek phrase from Sparta, which was a completely military polis (city). Women would say this to their husbands when they left for a battle. It translates to "Either come back alive and well enough to carry your shield, or die so that you

have your body comes back using your shield as a litter for carrying it."

Not that I think SAR people would tolerate this, but it is one of the possibilities. But even if some people might think it is the right way for a SAR team to operate, there is good evidence it is not. One of the lessons of Crew Resource Management, which we discussed near the beginning of the chapter, is that this followership style kills people.

There are examples where the pilot was probably making a mistake, by missing a subtle but important point. But the copilot, steeped in the "don't challenge authority" culture of the airline, which was also the crew's national culture, said nothing. And the plane crashed. The co-pilot's Catch-22§ is sometimes given as: "You are damned if you ignore the Captain's mistakes and you are damned if you do something about them."

A 2010 study of 6,500 nurses and nurse managers in the USA found that 84% of respondents reported >10% of their colleagues taking dangerous shortcuts and 26% said these shortcuts had actually harmed patients. However, despite these risks, only 17% shared their concerns with the colleague in question.¶

Now this is about nurses, and nurses work with physicians. And surgeons. And surgeons are known in the medical field for having what is called a "surgical personality." The "surgical personality" is a set of behaviors, not exhibited by most surgeons, but up until the past few decades, exhibited by enough surgeons (and cardiologists, and other medical physicians) that the term "surgical personality" is still widely-understood in the medical field. Anyone who has had kids and have had to deal with the "terrible twos" (which is actually the "terrible 1-4s peaking about 3") know what it is. Think "continuous temper tantrum."

Here's one example from my personal direct knowledge. Once upon a time, a surgeon in the operating room got upset over something most of us would think trivial, and picked up the tray of surgical instruments and threw it across the room. One of the surgical residents held up his hand to protect himself from the flying instruments. A bloody scalpel went through his hand.

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* "Intern" is an old term for the first postgraduate year (after medical school and the MD or DO degree) of residency training, but it's still used every day. "First-year resident" and "R-1" are the politically-correct terms these days.

† I keep a website at http://www.conovers.org/ftp/ where I keep things I can rapidly print from any computer attached to the Internet and to a printer. That's where I keep this and the other chapters of Appalachian Search and Rescue Conference, too.

‡ Dut did you see the movie *The Right Stuff*? "The story of the original Mercury 7 astronauts and their macho, seat-of-the-pants approach to the space program" (as IMDB puts it), which won 4 Oscars? As Robert Greenberg points out in one of his Teaching Company podcasts, the most triumphant music celebrating these macho American astronauts was stolen directly from Peter Ilyich Tchaikovsky, changing just a few notes so there wouldn't need to be a credit to a Russian. A *gay* Russian. I'm not sure what this shows, but I just had to put it in here. And if you want to listen to the very best lecturer I know, and pick up some of his techniques, buy some of his podcasts from The Teaching Company.

§ "Catch-22" is the title of a novel by Joseph Heller from 1961. It's also a modern equivalent of the term "double bind." In the novel, people who were crazy were not allowed to fly missions; but anyone who requested to stop flying was considered sane.

¶ Maxfield, D., et al. (2011). "The silent treatment: why safety tools and checklists aren't enough to save lives." VitalSmarts, AORN & AACN, www. silenttreatment study. com/silencekills.

Here's another. At a hospital near me, the hospital developed a program to deal with out-of-control surgeons in the OR. There was a special code they called over the overhead speakers in the OR – I wish I could remember what it was called –which meant "every free person in the operating suite" (usually some 10-20 people) go to the designated room and stare at the asshole surgeon." This was back about 1990; by 2000 or so, they discontinued it, as this kind of surgical behavior, at least in its severest form, had died out. I wonder if surgeons in ancient Greece and Rome acted the same way? Maybe we're making progress. Finally.

Lest it seem that I'm just dissing surgeons, let me give you another true story. Once when working overnight in the ED, I got a paramedic call about a patient with crushing substernal chest pain radiating to the left arm associated with shortness of breath and diaphoresis. (To you nonmedical types, diaphoresis is just sweating. Remember that academic doctors get paid by the syllable, with extra credit for Latin and Greek roots.) The EKG they sent to the in the ED looked like an acute anterior myocardial infarction ("MI," "heart attack"; the other thing that's often called "heart attack" is sudden cardiac arrest, which is a good argument for using those extra syllables). I called in the cardiologist on call for urgent cardiac catheterization in accordance with our formal policies. It was in the middle of the night, so the cardiologist was pretty grumpy.

He did the cardiac cath, which turned out to be normal despite the classic MI presentation. He came down to the ED, pulled me into an empty patient room, grabbed the front of my shirt, pushed me up against the wall, and spent a couple of minutes cussing me out for calling him in for a normal cardiac cath. (Despite the fact that he had agreed that we should always call in the doc on call for cardiac cath whenever we see this presentation.)

I was good. I didn't kill him. I didn't even take him down and cuff him. (Years ago I worked as a National Park Service Ranger and I still always carry a pair of disposable cable-tie style handcuffs just in case.) I did my best to calm him down. He finally stomped out without physical harm to either of us. I formally complained to the administration about this, and the answer was "well, he's better than he used to be." I guess if you bring lots of money to the hospital, the administration doesn't care about collateral damage.

He never apologized to me, but he's been nice to me ever since, even calling me for advice from time to time. I think that if you have a surgical personality this is the equivalent of an apology.

Now we were talking about nurses, so you can imagine what it's like for a nurse to work under a surgeon who has a surgical personality. But who also brings hundreds of thousands of dollars to the hospital, so the hospital administrators will bend over backwards to forgive him for even the most outrageous behavior. (Almost but always it's a "him," though I do know a couple of female surgeons who have similar personalities.)

So the nurses, who are a lot worse off than SAR team members, have come up with suggestions how to deal with such problems, or better, to deal with someone with a surgical personality who's about to make a bad mistake.

There are a variety of suggestions for how to speak up when you're a subordinate of someone with a surgical or flight-captain or just high-D/choleric personality. The basic idea is called "graded assertiveness."* A 2003 publication of the International Association of Fire Chiefs, *Crew Resource Management: A positive change for the fire service,* provides a five-step approach:

- *Opening or attention getter: Address the individual. "Hey Chief," or "Captain Smith," or "Bob," or however the name or title that will get the person's attention.*
- *State your concern: Express your analysis of the situation in a direct manner while owning your emotions about it. "I'm concerned that we may not have enough fuel to fly around this storm system," or "I'm worried that the roof might collapse."*
- *State the problem as you see it: "We're showing only 40 minutes of fuel left," or "This building has a lightweight steel truss roof, and we may have fire extension into the roof structure."*
- *State a solution: "Let's divert to another airport and refuel," or "I think we should pull some tiles and take a look with the thermal imaging camera before we commit crews inside."*
- *Obtain agreement (or buy-in): "Does that sound good to you, Captain?"*

The most common summary of graded assertiveness I have found uses the PACE

* Lewis, G. H., et al. (2011). "Counterheroism, common knowledge, and ergonomics: concepts from aviation that could improve patient safety." Milbank Q 89(1): 4-38.Besco, R. (1999).

- Some people are born leaders.
- Leaders defeat enemies.
- Leadership is a person, some have it and some do not.
- Leadership is no more than getting others to do what you want them to do.
- Leadership always involves action.

Leadership Truths

- Leadership is learned.
- Leaders help others accomplish group goals, which need not involve an enemy.
- Anyone can be a leader, at any time, if that person helps the group meet its goals.
- Manipulative leaders eventually arouse opposition.
- Sometimes leadership involves not taking action.

—from training materials of the ASRC's Shenandoah Mountain Rescue Group

► Even if you're the most experienced leader, but you have special expertise, such as medical or technical rescue, it may be better for someone *else* to act as a Field Team Leader. This frees you to use your special expertise. You can still mentor and support the "apprentice" FTL.

► Being a good follower, even if you're a leader-type, may mean mentoring and teaching others.

► When mentoring and teaching, consider different types of learning styles: *visual, auditory, read/write,* and *kinesthetic*. Address all four, and remember what the fortune cookie said: *I hear and I forget, I see and I remember, I do and I understand*.

► Remember that the other learners in the group are already know quite a bit, are self-directed and goal- and relevancy-oriented, and need to be shown respect.

► If you are in a class, and you know more about the topic than the speaker, don't cut him or her off at the knees. Be supportive.

► If you are in a class, and you are worried others have questions but are afraid to ask them, be brave. Ask the question even if you already know the answer.

► If you are mentoring others, or even just working together with others to learn, use the Socratic

method of questioning. If you need a backgrounder on Socratic questioning, watch a few episodes of the old TV series *Columbo* on YouTube.

► If you are just serving as a peon (a FTM or low-level base weenie), you should still exercise a bit of independent judgment. Don't just say *befehl ist befehl* ("orders are orders") and unquestioningly do what you're told. If you see a safety concern, or even a better way to do something, you should (respectfully) **speak up**.

► If a leader ignores or dismisses your safety concerns, CRM (crew resource management) says you should, nay you **must**, use increasing grades of assertiveness to bring up your concern again.

► When you're on an operation, you should always try to call people by their **first** names (except on the radio where the ICS says to use last names or positions). This improves safety.

► You can graph members on an x,y graph with competence along one axis and commitment along the other. Where do you fit? Where do the others fit?

► As a follower, you are responsible, jointly with your fellow-followers, for bestowing *The Mandate of Heaven* on leaders. And, if necessary, withdrawing that mandate.

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mnemonic:*

• **Probe**: "I don't understand why we're not using a separate belay line to a second anchor when this slope is so steep."

• **Alert**: "I'm concerned that, if there is a shock load, this anchor might fail."

• **Challenge**: "This is really questionable as a single anchor."

• **Emergency**: "STOP. There is a major life safety problem. This anchor is unsafe and we should not continue until it is changed or backed up."

As a good follower, if you start along this path, and the leader repeatedly refuses to listen to your concerns or discounts them unreasonably, then your leader is a defective part and should be replaced by whatever means are needed to assure the safety of the team. Perhaps simply saying "you have lost the Mandate of Heaven" will be enough to confuse and distract the leader so you can take appropriate corrective action directly.

It's good that Pittsburgh is pretty much a first-name sort of place. Seems to me I'm also lucky to work in an Emergency Department where nurses mostly call me by my first name (which CRM insists on, as opposed to "Chief" or "Captain" or "Doctor" to provide a social

leveling effect), and feel free to question my orders. And my choice of food for lunch. I think this has made me much less prone to medical error, though as far as lunch we have had to agree to disagree.

And indeed, CRM insists that teams like our ED medical team, a flight team, or a SAR team should operate on a first name basis, as the social leveling effect tends to break down barriers and allow junior personnel more latitude to voice their concerns, improving overall safety.

In certain cities – London and Boston come to mind – physicians expect to be addressed by their title "Dr. This" or "Professor That," and get peeved if they aren't accorded to this token of respect. This is exactly what CRM wants to get away from. I find that relations with my patients also are better, and they are more willing to voice their concerns, due to the way I introduce myself: "Hi, my name is Keith Conover, I'm one of the supervising doctors, emergency medicine specialist."† In this case, I'm encouraging them to call me by my first name, and some indeed do. I prefer to rely on authority from the fact that I'm doing a brilliant job of diagnosing and treating their problems as opposed to any titles or degrees I might have.

So, if you have a concern about safety, you

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* "PACE: Probe, Alert, Challenge, and Emergency Action." Business and commercial aviation 84(6): 72-74. This not a peer-reviewed scientific publication, it's a free "throwaway" magazine. Surprising where you can find good ideas.

† In medical school, I was taught to say "My name is Doctor Conover." That is just *so* wrong.

have to speak up. And, if you have a suggestion for how to do the job better, I think you still *need* to speak up. As long as you observe the above principles, you are unlikely to get you "in trouble" unless maybe you're in North Korea. And besides, if we're telling you this is the right thing to do, you should still do it even if you "get in trouble."

I have to close this section with the idea of "The Power Behind the Throne." This is reflected in the history of political handlers, from Boss Tweed (William M. Tweed) in 1800s New York City, who basically invented "machine politics,"* to Carl Rove, regarded as the late-20th-century Republican "kingmaker." And who could leave this topic without considering that archetypal figure, the Evil Vizier?† I suspect much of this character has to do with good political spin by reigning monarchs, who after all had to have someone to blame for the occasional bad thing that happened. The term "scapegoat" comes to mind.‡

My favorite source for learning the character of the Evil Vizier is the 2000 Disney film *The Emperor's New Groove*. The emperor's advisor Yzma,§ while she is indubitably evil and loses in the end, gets all the best lines. If you're got to be the evil advisor, at least you deserve some good lines.

Speaking of getting all the best lines, one of the tropes¶ that appears in Western literature is that the devil gets the best lines. Perhaps the most important example of this is Goethe's**

Faust, in which Mephistopheles (another name for Satan or the devil) is a somewhat sympathetic character, and Faust, though he sells his soul to obtain knowledge, uses that knowledge for the betterment of humanity.

But real life is a bit more like the StarKid sendup of the Disney film *Aladdin*. It's called *Twisted: The Untold Story of a Royal Vizier* (note the similarity of the title to the multiple Tony and Grammy award-winning musical *Wicked: The Untold Story of the Witches of Oz)*. In *Twisted*, we hear the story from the point of view of Ja'far, the Royal Vizier, who saves the kingdom from the evil Aladdin. At the end, Ja'far learns that Aladdin became old and fat, and sold second-hand goods until he was killed by a thief for a loaf of bread at age 55.††

I don't know about other search and rescue organizations, but in the Appalachian Search and Rescue Conference and its Groups, leaders sometimes die but many of them just fade away slightly, sticking around to assist here and there and guide their teams and the Conference for years after they have completed their formal leadership roles. I'm not sure what to call these people. The Loyal Opposition? The collective subconscious of the organization? Whatever you call it, these leaders who stick around still provide leadership or followership or a combination of both. A most valuable resource. In primitive societies, these "elders" would have a standard role; in SAR teams, this is not so clear-cut. Allegheny Mountain Rescue Group has instituted a Fellowship status to recognize such status. We may consider these people mentors-at-large, or perhaps we should call them *coaches*. I am one such. And even if some see us as Evil Viziers, we still get the best lines.

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* Read *Machine Made: Tammany Hall and the Creation of Modern American Politics* by Terry Golway to get a better picture of this ultimately tragic figure who actually did much to create today's political world, and in the eyes of this author, saved us from having a more oligarchic republic than we would otherwise have.

† Vizier is a term that originated in the Abbasid Caliphate in about 800 AD, and continued to be used by its successor empires up until the dissolution of the Ottoman Empire in the early 1900s. "Top advisor to the President" is an equivalent term in American English and politics. The Evil Vizier character features in Arabic and Persian literature for the past thousand years or more. And, as with many things in modern Western culture and science (algebra, algorithms), as a result of interaction between the West and the great Islamic empires of the past 1500 years or so, this trope of the Evil Vizier has come into Western literature. For example, Die *Entführung aus dem Serail* or *The Abuction from the Seraglio*, an opera by Mozart, features the evil vizier Osmin, whose evil is finally stopped by the wise and generous Turkish leader (Pasha) Selim.

‡ From Leviticus, the third book of the Hebrew Bible, the third of the five books of the Torah (or Pentateuch), and the third book of the Old Testament of the Christian Bible. In Leviticus 16:8, a goat is designated to be cast into the desert with the sins of the community. More modern methods involve casting the blame on a convenient person who is then driven out of the company, leaving the company pure and unadulterated with the evil that had heretofore spread its tentacles throughout the entire leadership structure.

§ Pronounced EASE-ma.

¶ Trope: a commonly recurring literary or rhetorical device, motif, or cliché.

** Goethe set out to prove that German was a language of world-class literature and science. He succeeded so well, not only have no German writers or scientists been able to truly match his contributions, but also those of us who speak other languages have to consider him right up there with the best in our native language, for instance, in English, Shakespeare. Many SAR teams are in college towns or cities (my own Pittsburgh metro area has some 27 four-year colleges or universities), and colleges and universities have proliferated

over the past 50 years. Thus holding your own in an academic conversation may be important to you. I remember walking into an ASRC Board meeting at Shenandoah National Park and finding those who had already arrived chanting Beowulf together. Another time, while sitting at the top of a cliff eating lunch during a vertical training session, several of us had a spirited conversation about whether Justinian's actions were good or bad for the later Roman empire. You don't need to hold multiple Ph.D.s in different disciplines to hold your own, though. For example, just drop a comment like "Well, as William says, *non sunt multiplicanda entia praeter necessitatem*" (Occams Razor: the simplest explanation is likely the best) implying that you and the English philosopher William of Ockham (1287–1347) are friends on Facebook and text each other all the time. That's the literary equivalent of cutting the others off at the knees. Or saying "Just last week I was thinking about the subtext of knowledge leading to environmental degradation in Goethe's *Faust*." But to pull this off you have to learn how to pronounce Goethe's name. It contains two vowel sounds that are not normally found in English unless you've just been punched in the stomach. There is a link in Wikipedia to the pronunciation. Practice. This is the literary equivalent of slaughtering everyone and the room and piling up their severed heads in a pyramid, *just so*.

†† Thanks to my teenage daughter Laurel for the great popular-culture references.

LEADERSHIP LESSON

If you don't have anything nice to say, don't say anything.
  –Your Mother

LEADERSHIP LESSON

It's fine to celebrate success but it is more important to heed the lessons of failure.
  –Bill Gates

LEADERSHIP LESSON
from the Tao Te Ching

Sometimes you lead, sometimes you follow.

If you want to lead them, you must place yourself behind.

Accomplish but don't boast.

Accomplish without show, arrogance, grabbing, or forcing.

Then, when the work is complete and the job is finished,

Everybody says: "We did it!"

—Lao Tzu

Yet Another Graph

I will resist the temptation to show another x,y graph in the margin; perhaps you can create it in your mind or draw it out on a bit of paper yourself.

As with the task-oriented vs. relationship-oriented aspects of leadership, would could graph two dimensions of followership: *competence* and *commitment*. Blanchard* describes four interesting places on this x,y graph:

- **Low competence, high commitment**: the *enthusiastic beginner*.
- **Moderate competence, low commitment**: the *disillusioned learner*.
- **High competence, low commitment**: the *reluctant contributor*.
- **High competence, high commitment**: the *peak performer*.

If you're a leader, you could use this Cartesian† analysis to tailor your leadership style for each of these archetypes. If you're a follower, you can use it for to analyze yourself and figure out what you need to be a better follower. If you're a follower, you can also use it to analyze your fellow-followers (say that fifteen times quickly, it's good public speaking practice) and figure out how best to support their becoming better followers and leaders.

One final and critically important point about good followership: you are responsible for bestowing *The Mandate of Heaven*, and when necessary, withdrawing that mandate. Iszatt-White in *Leadership* sees followers as "constructors of leadership," but *Mandate of Heaven* is much more poetic.

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* Blanchard, K. H., et al. (2005). Self-leadership and the one minute manager : discover the magic of no excuses! : increasing effectiveness through situational self leadership. New York, W. Morrow.

† Plotting things on x,y graphs was a favorite pastime of René Descartes; indeed we call these x/y plots The Cartesian Plane in his honor, and it has contributed massively to understanding of algebraic relations by those who are visual learners, and sleepless nights before math tests for those who were not. The power of this method of analysis is shown by its use for graphing two variables that may or not exist, and certainly can't be measured with anything approaching scientific certainty. We also have to mention that Mssr. Descartes is most famous for something he said in his 1637 *Discourse on the Method*: Cogito, ergo sum: "I think, therefore I am." (Sometimes this is mistranslated from the Latin as "I think, therefore, I am hungry for Chinese Dim Sum.") He built a philosophical house of cards based on this (given his name, this was expected) but later empirical scientists, notably those in The Royal Society that we discussed earlier, knocked it over.

Closing

Specific SAR Tasks

It is said that good generals are masters of tactics, better generals are masters of strategy, and great generals are masters of logistics. Let's try applying this to search and rescue.

Leading a Field Team on a search task is **tactical**. Your tasks as a Field Team Leader might include:

- **Manage** a small group of people, who are not themselves supervising other people.
- **Execute** the Field Team's assigned tactics effectively and safely, both search tasks and semi-tech rescue tasks.
- **Communicate** effectively with higher management.

Serving as Ops Section Chief on a medium-sized search is **strategic**. Your tasks as Ops might include:

- **Convert** the Incident Commander's goals into a detailed strategic plan.
- **Establish** specific tasks to carry out this strategy.
- **Assign** these tasks to Field Teams, then **brief** the Field Teams assigned tactics effectively and safely.
- **Communicate** effectively with Field Teams and with the IC.
- **Analyze** the Field Team's findings and adjust the strategy accordingly.

Serving as Plans Section Chief, or as IC or as an Agency Representative surrogate-IC is **logistics**. Not logistics in the sense of the ICS Logistics Section, but in a broader sense. Typical things you might need to consider, including:

- **How likely** will we need to keep going tomorrow?
- **If so,** how many people will be leaving tonight, and how many do we need to replace them?
- **Will we need** to expand the operation?
- **If so,** how many more people will we need, both in Base, and in the field?

Perhaps we have stretched this analogy farther than it will tolerate, and it's time to switch gears anyway.

Lest you think that you can be a leader without worrying too much about these sorts of tasks – because a good leader delegates, right? – think of what Stalin once said: *quantity has a*

quality of its own.* Delegating is indeed a task itself, and being able to delegate lots of tasks well is a requirement of a top leader.

There is indeed an art to delegating. To quote the leading MBA textbook on leadershi:† *Task involves telling people what they are supposed to do with great clarity, including how, where, and when to do the task, and whose responsibility the task is. The relationship aspect is measured by the way a leader communicates to both individuals and groups, and how well they listen to and support their people.*

Leading a team in the field is one thing, managing an operation at Base is one thing, and administrating a SAR team (or an organization as large as the Appalachian Search and Rescue Conference, with hundreds of members in multiple states) is quite a different kettle of fish. Or perhaps "herd of cats" is a better metaphor.

As with Grant and Caesar, the fact that you are good at leading a team in the field, or organizing a large search and rescue operation, doesn't mean that you can succeed as the President of a search and rescue team or as the Emperor of a large assemblage of SAR teams, such as one of the various state SAR Councils or a multi-state organization such as the ASRC. Or as the Group Training Officer. They're all different skill sets. But being good at any one of them probably gives you a leg up on doing one of the other ones.

Thus far, this chapter has mostly focused on leadership in general. But as we saw back in *Sources of Power*, the ability to make rapid, good decisions is somewhat specific to the context. We do learn from examples we hear from others. Which means when old SAR types like me tell interminable stories about the "good old days" you should listen patiently; somewhere in there may be a little nugget of usefulness, a lesson you can use to improve your leadership styles.

And we get better at this with practice, either in real life or in simulations. Practice makes perfect, or at least much better.

In this chapter, we will not further detail what to do to fulfil the requirements of the various SAR management positions; that will occur in other chapters. But whatever those tasks might

be, the leadership lessons of this chapter may help you carry them out more effectively.

<div style="text-align:center"><small>Words of Wisdom</small></div>

OVER THE PAST TWO OR THREE thousand years, a lot has been written about leadership, much of which is bogus or useless. But we've covered some of the best of that literature.

There is a saying in medicine: *if there are multiple ways to treat a problem, either they all work or none of them work.* In trying to get a handle on "leadership," they all work, at least in terms of helping you understand the slippery concepts of leadership and followership, and to improve your ability to lead and follow (usually both at the same time).

We have looked to the past to try to get a handle on leadership in general. Now it is time to look to the past of SAR for what leadership wisdom we can find.

In 1970, Paul Williams, of the Seattle-area Mountain Rescue Council, published a pamphlet entitled *Mountain Rescue Leadership*. In 1986, this was adopted and became an official publication of the Mountain Rescue Association.

Rita Cloutier, Ray Cole, Gene Harrison and I founded the Appalachian Search and Rescue Conference in the early 1970s. Gene Harrison got a copy of Paul's pamphlet; he photocopied it and distributed it to all of us. We all read it and took it to heart.

It is no longer in print. However, I've scanned my copy and it's available at conovers.org/ftp/MRC-Leadership.pdf.

Most of it is about operational doctrine, and very specific to the Seattle area in the late 1960s. For you young'uns, this was well before cellphones, GPS, EMTs, paramedics, and the Incident Command System.

For those of a certain age, it brings back memories of the early days in SAR. For SAR people of any age, it provides insight into the history of mountain rescue. It opens thus:

The role of volunteer rescue leader is most demanding, requiring great skills, including knowledge of rescue procedures and jurisdictions of responsible agencies. But most important is a knowledge of psychology, the ability to deal with volunteers, and a great sense of tact and diplomacy.

Even today, the sections about the *politics* and *psychology* of leadership are as appropriate as in 1970. They presage lessons to be discussed

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* I have heard this attributed to both Napoleon and American policy analysts. I suspect someone first said it back in ancient Sumer as the barbarians were overwhelming the defenses of Ur and Sumer, brining on the first of a regular series of Dark Ages. But online I did find a reference to Josef Stalin (just plain old Joe Jughashvili back then) saying this before WWII in Полное собрание сочинений - Том 14.

† Iszatt-White, M. (2014). Leadership. New York, NY, Oxford University Press.

in the chapter on *Incident Management*, and the *Heroic Efforts* and *Whacker Management* sections earlier in this chapter. Here, in its entirety, is Paul Williams telling us about:

Rescue Psychology and Personnel Problems

Rescue work attracts a strange grab-bag of personalities. Many rescue leaders are square diamonds: people who, because of their experience, background, intelligence and determination, have risen to the leadership of their units. However, they are likely to have strong opinions as to the right and wrong way to proceed, and may be quick to criticize. By the same token, they may be quite unreceptive to criticism. Place two square diamonds together and they will begin to bang corners. This situation is often found in a multi-unit rescue operation, and is especially prevalent in lengthy searches when tempers become frayed over several days. The square diamond may take the form of an experienced deputy, or an old-time military man in a Civil Defense capacity. One of the important jobs of the rescue leader is to evaluate the square diamonds and make certain that they are placed in positions where they do not come in direct conflict. If you are a square diamond (as are most rescue leaders) and someone arrives at base camp with whom you find it most difficult to work, one possible solution is to relinquish your responsibilities to a replacement and go into the field. Diplomacy is an important part of the rescue leader's make-up, and you will have to work with these same people many times in the future.

You will also find, in this rescue grab-bag, the rescue hero type. He is in it for the glory of wearing the patch and impressing the girls and his friends. Beware of this man! He may be unsuccessful in his private life, and in this public endeavor he tries to create a hero image which is totally false. Frequently this man is psychologically equipped to misrepresent his abilities and capacities. He may be so unreliable that you will ultimately be forced to eject him from the unit.

There are many well-meaning volunteers who over-estimate their abilities. We have one man who comes out jingling with pitons and carabiners, and is only capable of keeping up with his team for four of five miles of good trail. He is reasonably smart, but must

be used only on projects within his capacity. He is an excellent support man, will do a fine job of handling a radio relay point, and is dedicated and dependable within his limitations.

You may also have the problem of the "hotshot" who, because of his extreme strength and his technical ability, is a real addition to any team, but who normally wishes to participate only in the technical type rescue with a live victim. When it comes to a body carryout over average terrain, his attitude is "Don't call me, I'll call you." Your average slightly-out-of-shape, getting-toward-middle-age, dedicated to the core mountain rescuer is going to regard this prima donna with some hostility. Our experience is that every two or three years we are faced with a highly technical problem: i.e., extreme exposure on a high cliff, severe storms, or a critically injured person in a remote place, demanding an advance team with great stamina. When these challenges come, it is nice to have a few "hotshots" on call. Try to get them out on a few nontechnical operations, so they will understand how you operate.

These challenges bring forth the best in the operation leader. It is his job to see that, insofar as possible, he knows his rescue members and gives each a job tailored to his abilities and capacities. By the time your unit has existed from six to ten years, the bulk of the rescuers will be between 30 and 40, partly out of condition, and somewhat overweight. These men will not be there to be heroes, but to do a small job at considerable personal expense, and without thought of personal glory. Remember these limitations as you run your rescues, and keep a few "hotshots" around for the more dangerous and difficult jobs.

Much of the advice about SAR team leadership is a random list of leadership, command, and management principles, sounding like aphorisms from Poor Richard's Almanack* such as *Early to bed, early to rise, makes a man healthy, wealth and wise.* Or the Boy Scout Law: *A Scout is trustworthy, loyal, helpful, friendly, courteous, kind, obedient, cheerful, thrifty, brave, clean, and*

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* Published by Benjamin Franklin from 1732 to 1758, under the pseudonym Richard Saunders (thus the "poor Richard,") the yearly Almanack offered seasonal weather forecasts, household hints, puzzles, aphorisms and sage advice. *There are no gains without pains. Industry pays debts while despair increases them. Diligence is the mother of good luck. One today is worth two tomorrows. The proud hate pride – in others. Wink at small faults; remember thou hast great ones. Hear no ill of a friend, nor speak any of an enemy.*

reverent. Or something your father or mother might tell you on turning 18, or something you might hear at a high school or college commencement address.

However, in *Leadership in Land Search and Rescue,* Jones, LaValla and Long have a list that is better than most, so I will give it to you verbatim:

- *Know yourself and seek self improvement.*
- *Be technically and tactically proficient.*
- *Seek responsibility and take responsibility for your actions.*
- *Make sound and timely decisions.*
- *Set the example.*
- *Know your team members and look out for their well being.*
- *Keep your team members informed.*
- *Develop a sense of responsibility in your team members.*
- *Ensure the task is understood, supervised, and accomplished.*
- *Build the team.*
- *Employ the team in accordance with its capabilities.*
- *Know when the situation is dangerous or beyond your capabilities.*
- *Praise in public, criticize in private.*
- *Know your rescuers, their capabilities and limitations.*
- *Train your rescuers as a team.*
- *Stress safety, balancing the risks with the mission to be accomplished.*

Let me end with something Paul Williams found in an early issue of the Tacoma Mountain Rescue Unit's newsletter, *The Rescue Rucksack.* He used it to bring his *Mountain Rescue Leadership* to a close, and I will use it similarly here:

> *"Handling people need not be so difficult. All you need is inexhaustible patience, unfailing insight, unshakable nervous stability, an unbreakable will, decisive judgment, infrangible physique, irrepressible spirits and an awful lot of experience."*