The Gauge That Pays: Project Navigation and Team Building

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Managers can build better, more efficient teams and successfully navigate the toughest project environments in tandem by reading a set of human gauges (indicators) provided by their project team. Reading these gauges requires observation of, and listening to, some rarely utilized aspects of teaming. Once collected, the gauges act as essential leading indicators that provide insight into building stronger teams and arriving at a project destination safely and on time.

Teaming is a fragile thing and no one person or organization has the market cornered. Some do it well on a more consistent basis, but all have difficulties. The question is, why is teaming so difficult and how can we regularly get better? We might find some answers in the following story of how an old navigator taught a lesson on teamwork as related by the co-author of this article, Tim Border:

An older gentleman who was squeezed into an old Air Force uniform stood next to me while in line at the airport. I felt compelled to thank him for his service to our country, and he humbly apologized for the way he looked in his old uniform, explaining that he had been asked to participate at a World War II convention.

Coincidentally, we were seated next to each other on the plane and picked up our conversation where we left off. He began to tell me a story of when he was a young navigator, and he felt green along side the more seasoned pilots on his very first mission.

They headed for their destination with a team of three inside the cockpit and many more supporting them on the ground. Watching the instruments closely, he noticed they were slightly off course. He explained to me that if you are one degree off course and fly that way for one hour you will be one mile off course. He kept waiting for the pilots to make the correction. Suddenly, almost without warning, enemy aircraft were firing on their plane. It happened so fast, he knew they were not going to make it.

Both the pilot and co-pilot were killed in the crash.

“I didn’t say anything to them about being off course. I thought they knew. They had to know they were in enemy territory. If only I could do it again. I would boldly state to my ranking officers we were off course. It was my job and I didn’t say anything. I am still haunted by the memory. As a navigator, I am responsible to the team to keep us flying on course.” He continued, “Eighty percent of any given flight is off course, from ascending, moving through traffic, storms, and the descent. Flying requires constant monitoring and adjusting. Our instruments are critical in helping us navigate course challenges, and we consider them to be vital in providing accurate, timely information so we have the awareness to make necessary changes if needed.”

He told me he has spent a lifetime telling that story hoping individuals and teams would learn from his mistakes and listed the following principles as successful keys:

- Know where you are going.
- Be aware of what could take you off course.
- Make the necessary course corrections as soon as possible when off course.
- Execute with integrity and communicate continually.

We now apply and share his wisdom in regard to building, maintaining, and most importantly, guiding successful teams.

Hard and Soft Gauges: Traditional Versus Human Indicators

Much like the navigator needed instrumentation, we need to choose the correct gauges to keep our team on the road to success. Some common and useful hard gauges are cost, quality, and schedule. These are valuable for showing managers they are off track and are easily measurable. However the information indicates very little about what actually happened in the process. The information provided by these gauges is not enough to ascertain where things went wrong and, more importantly, why things went wrong. These hard gauges, while useful, leave managers wanting for additional information to make decisions on how to efficiently correct what has gone wrong. This wanting hints at the need for additional gauges that provide more leading indicators of early warnings and paint a more complete picture of reality when combined with the hard gauges.

It would be nice to have a single warning light that burned red at the moment projects go astray. Unfortunately, that gauge does not exist, but we may have gauges that can produce the same warning if astutely measured and monitored.

So what is the gauge that pays? It is the human gauge or soft gauge – otherwise known as the individual members of our project teams. It becomes essential in times of project peril to speak with the people performing the work. Team members act as the soft gauges, or early warning systems. Some useful soft gauges are relational conflict, communications, and functional conflict (see Figure 1). Managers, with the use of soft gauges, can pinpoint a desired destination and correct the team’s course when combined and contrasted with hard gauge readouts. Soft gauges provide added information to arriving safely and on time, all while building a highly dynamic team en route to success.

This article includes soft gauge information regarding reading the gauge, making course corrections, and performing observational insights (OI). The OI section reflects observations of a team formed four years ago as it struggled, grew, and overcame obstacles through the use of soft gauges.

Relational Conflict Gauge: How Far Off Track Are We?

Teams will always have an intrinsic flaw that can potentially derail progress. That flaw resides in the fact that they are composed of members of the human race. One significant difficulty we humans have is the sometimes conflictive ways in which
we interact, communicate, and function in an interdependent environment. The resultant conflict contained in team interaction is a powerfully destructive force, but it is also a source of unification when used correctly.

There is an old riddle that asks, what can blind a man yet make him see? What erodes mountains yet constructs buildings? The answer is sand, as it is a fundamental element in the making of glass (spectacles/eyeglasses) and brick (the building blocks of many an edifice). Sand also blinds those poor souls who are trapped in a desert storm, and wears down mountains and structures through erosion. The answer could very well have been conflict as it possesses the same qualities as sand. One component of conflict can destroy relationships, bonds, and synergy when attempting to build teams. But, when used correctly, there is an underutilized component of conflict that unites, clarifies, focuses, and moves teams forward. Think of conflict as a tool. This tool, like most others, can be used for destruction or construction. Stephen P. Robbins [1] describes the destructive components of conflict as relational and the constructive component as functional. Monitoring and utilizing these two types of conflict are essential in building an effective team.

Relatively little time is needed to understand the use of relational conflict as a gauge. Relational conflict resides in emotional differences that have little to do with process, purpose, or function. These emotions trigger the fight or flight response in the brain, draining blood away from the higher functioning portion called the neocortex. Reasoning and decision making are then sent to the brain stem, sometimes referred to as the reptilian brain, where reasoning capabilities are significantly reduced. Such emotional differences might include conflict over personal styles, choices, and work habits. Relational conflict often may stem from issues unrelated to work or even social or political issues, stall the project team’s creative engines as blaming begins and sides of issues are chosen, and cause the team to fracture, decompose, and reduce overall efficiencies. This decomposition is usually the result of either perceived or actual lack of respect for fellow teammates. As quoted in [2], “Respect is like air. We don’t think about it until it’s gone – once it’s gone, it’s all we think about.”

Like an engine temperature gauge, relational conflict requires constant monitoring as team differences inevitably arise. Observation and awareness are the first steps in any course correction, and managers need only to begin to take and make note of team behavior. Conflict is not always easy to spot. In most cases, conflict begins with subtleties that commonly go unnoticed. Such subtleties grow into larger conflicts, and by that time, the damage has been done and team chemistry has broken down. It is suggested that managers make unobtrusive fly-on-the-wall type observations so as not to intrude on the work performed or create artificial behaviors from the team and then witness authentic team dynamics and behaviors.

The concept of conflict appears rudimentary on the surface, but the real understanding of conflict occurs in recognizing the ramifications stemming from conflicting groups and individuals. The actual extent and cost of conflict is difficult to assess, but managers can pinpoint the source of conflict through monitoring team interactions and note the point at which teams become derailed when observed with a watchful eye. Allowing, or merely coping with, conflict is too damaging and expensive to permit. Simply addressing the conflict without understanding the very nature of the issue is dangerous and can compound problems. Observations noting significant breakdowns in communication need to be taken during team meetings or other team interactions on weekly intervals. Managers can look at the interaction amongst the team to decipher if relational conflict is present and to what degree it has affected the team. Relational conflict typically causes team decomposition in the following three stages:

• The first stage is communicative detachment, where people become unwilling to constructively communicate with one another due to the belief that a person is doing things incorrectly or that they have been personally wronged. Individuals now need to prove themselves right by taking a hard stand against the other(s) in defense of their point-of-view. Managers may notice a reduction in lines of communication or posturing and position-taking as overall willingness to work together dissipates. Negotiations and solution-finding are stymied until the positional impasse is resolved.
• The second stage is selective detachment. Here, alliances are formed based on the individual team member’s views of who is right and wrong in respect to

![Figure 1: Soft Gauges](https://www.stsc.hill.af.mil)
The third and final stage factionism refers to the state of functionality of a decomposing team. During factionism, multiple teams function where a singular team once existed. Effort is duplicated and confusion insidiously increases. The collective intellectual power is hampered and team proficiency levels drop. Micro-teams begin to establish new, ad-hoc processes as to how to perform work in a new and dysfunctional environment. Individual cultures are formed. Incidentally, factionism cultures breed future factions until one team possibly becomes many warring individuals battling in personal isolation.

It is helpful to understand this systematic decomposition of typical, dysfunctional teams to better understand the depth of the dysfunction, and to further recognize how to avoid or diffuse relational conflict in our own teams.

**Reading the Relational Conflict Gauge**

1. Record and retain the frequency of negative personal or team comments made in team meetings.
   * Note: An increase in negative comments is a lead indicator of impending team decomposition.

2. Chart what members are on which side of the issue but do not take a position. Categorize the depth of decomposition in terms of communicative detachment, selective detachment, or factionism via the previous definitions. Take note of the issue that is driving the disagreement so it can be readdressed later during the functional conflict stage.

**Making Course Corrections**

Begin to listen and gather (document) points-of-view from both sides. Make every attempt to understand each side of the story without agreeing with or aligning yourself with one side or the other.

**Observational Insights**

The observed team cycled through each of the three stages of team decomposition three times in their four years together. Each cycle began with a singular act of communicative detachment between two members.

**Communication Gauge: Communication Saturation and Understanding**

The communication gauge is read by individually asking team members about the purpose of what they do, why this project exists, and what success looks like for the purpose of team understanding. Projects are guaranteed to be off-track if any number of team members cannot answer these questions in a consistent manner. Frequently, the goal of a project is misunderstood. A survey of more than 700 employees and frontline managers from various fields taken during the last four years reveals that only one of six employees feel they received adequate initial communications regarding the purpose and direction of the project on which they worked [3]. The survey also indicates that only one in nine employees received ongoing clarification regarding project purpose and direction. The survey reveals an ongoing need for managers to discover what points of a project are misconstrued and then clarify in order for the team to better understand the overall purpose of the project execution. The goal of this gauge is to reach a level called communication saturation, meaning, every person on the team possesses all the information and understanding needed to do their job effectively and in concert with other team members. Communication saturation among team members includes knowing the purpose or goal of a project, the interconnectedness of their individual tasks with those both upstream and downstream, a vivid description of a successful project outcome, and how progress will be measured. Such communication facilitates team empowerment and assists managers in providing guidance that is most needed.

Franklin Covey Organizational Solutions reports that, on average, only 15 percent of employees can correctly list their companies’ top three goals, and only 12 percent can ascertain how well they are doing in regard to those goals [4].

Dr. Randall W. Jensen, noted cost estimator, stated the following:

Software development is the most communication intensive of all engineering processes. This unique software process characteristic suggests significant productivity gains are more likely to be realized through communication improvement, rather than through technology. Communication effectiveness is a people issue controlled by organization structure, management approach, and the development environment. [5]

Communication among team members becomes increasingly critical on software teams due to the interconnectivity of software, hardware, systems, networks, and most importantly, the people attempting to manage the relationship of them all.

**Reading the Communication Gauge**

1. On a regular but not too frequent basis (quarterly is suggested), gather input from the team on the following questions:
   a. What is the goal or the purpose of the project?
   b. How does your job relate to others in the process?
   c. What does a successful project look like?
   d. How are we measuring progress?
   e. What would you do differently to improve the process?
   * Note: These questions are also useful as part of an annual performance review to clarify and align goals and measurements. Maintaining safety during reviews is best achieved when the manager approaches team members in an authentic spirit of helping and for the purpose of better understanding by all parties.

2. Concurrently ask team members to describe how they directly add to the success of the project and how they are measuring success.
   * Note: Successful projects require all members of a team to be vividly clear regarding the answers to the above questions. One or two unclear or unfocused team members are lead indicators of future confusion. Remember: confusion breeds confusion.

**Making Course Corrections**

1. Listen for ambiguity and misdirection in the individual’s response, then clarify and redirect energies. Be open and allow input on how individuals will add to and measure future success.

2. Communicate the larger vision and specify detailed instructions where
needed. This is an opportunity for managers to clearly convey their goals and specific needs in relation to larger organizational goals while gathering fresh ideas from the team.

3. Retain individual ideas from the team for future proposals during the functional conflict phase, as it will require newly proposed ideas for constructive discussions.

4. Together with the team member, redefine the description of the team member’s role in alignment with the project goal, and document it in the team charter.

Observational Insights
The observed team regularly held meetings where input from individuals was gathered and used in team strategies. Redundancies were removed and responsibilities were better understood by the entire team which led to better overall team efficiency. There still remains some ambiguity regarding individual roles, but confusion regarding who does what and why was significantly reduced.

The team also held a meeting to create a team charter where the previous questions were addressed. Each member defined their own role, provided input to team goals and purposes, and then cross-checked the document with management to assure alignment. The team charter has since been used many times to provide team guidance regarding process and procedures.

Functional Conflict Gauge: Course Correction (Getting Back On Track)
The useful portion of conflict is functional conflict, and it is an effective means of getting teams going in the right direction again. Functional conflict is a disagreement regarding how to do the job, the goal of the project, which processes to use, or which methodology to employ, and it is devoid of emotion. Decomposing teams can use focused functional discussions to regain unity. Factionism stage teams are in need of a compelling and bonding force to marshal its efforts and move in a common direction. Functional conflict provides that force by offering some common ground. That common ground is found in generally held beliefs such as the importance of quality or customer satisfaction. Team discussions need to begin somewhere and high-level topics such as quality or customer satisfaction are normally safe launching areas to more in depth discussions. Managers can drill-down to more polarizing and specific issues once safety to discuss these subjects without blaming is restored.

Safety is fragile and is best achieved by speaking in terms of facts as opposed to sharing opinions or stories. Crucial Conversations [2] suggests restoring safety by following the STATE methodology:

- Share your facts. Begin by speaking solely in terms of facts to build a foundation.
- Tell your story. Explain how you see what has happened in the past.
- Ask for others’ opinions. Ask others how they see the situation.
- Talk tentatively. Do not overstate things or draw conclusions.
- Encourage Testing. Ask others to find flaws in your story.

Managers can drill-down to more polarizing and specific issues once safety to discuss these subjects without blaming is restored.

The STATE methodology is easy to apply and constructive when used as rules for team discussions. Each member of the team is given the opportunity to share their viewpoint on the issues at hand. Using STATE produces safety that in turn produces more accurate, untainted reporting. It is here where managers gather essential cause and effect data that truly indicates where problems with budget, schedule, and quality originated. STATE limits the emotional flare-ups caused by relational conflict and refocuses discussions to functional topics. Functional conflict unites teams by focusing their attention and energies back on solving problems and accomplishing tasks rather than justifying positions in a conflict. Participants in functional conflict require their brains to use cognitive reasoning skills to discuss facts and solutions via the neocortex as well as other higher capacities of the larger cerebral cortex. Blood flow returns to this indispensable grey matter as individuals begin complex problem solving or rationally addressing possible strategies for achieving goals without derailing emotions present. The human brain is less likely to focus on relational conflict issues because it is limited to cognitively focusing on a singular issue. Functionally thinking individuals are now more apt to reason with each other and combine to find the best answer for the purpose of team success or solving a difficult problem as opposed to proving one side right or wrong. The environment becomes one of safety where people can disagree with each other respectfully without fear of offense. This process reunites teams as they explore potential solutions together. Managers monitor this gauge by embedding themselves in team discussions, observing discussion topics, and noting the nature of the discussions. This is the time to share the team’s ideas collected from discussions held during the reading of the communication gauge (communication gauge – making course corrections No. 3). Managers assist team members to stay on task by refocusing discussions on function, not personal stories or opinions.

Robbins states the following:

Conflict is constructive when it improves the quality of decisions, stimulates creativity and innovation, encourages interest and curiosity among group members, provides the medium through which problems can be aired and tensions released. [1]

Re-stated, functional conflict is the method for engagement in creative problem solving and inquisitiveness. Robbins’ studies indicate that, at the end of this process, a team will be more cohesive and have more robust processes, products, and services.

Reading the Functional Conflict Gauge
1. During team interactions, chart the frequency of functional comments such as commentary regarding process, procedures, measurements, objectives, goals, and proposed solutions to problems.
   * Note: An increase of functional comments indicates an increase in team health, ingenuity, clarity, creativity, and focus.
2. Review the charts made during the
relational conflict stage (reading the relational conflict gauge #2) to dis-


tinguish if micro-teams are dissolving back into the team at large. Be aware that more effort and more focus on functional matters will be required to reunite teams depending upon the depth of decomposition, i.e., communicative detachment, selective detachment, or factionism.

Making Course Corrections
1. Set team meeting ground rules to use the STATE methodology.
2. Actively redirect and refocus team members on functional matters only.
3. Begin team functional discussions using safe, high-level topics.
4. Move into fore volatile issues only after safety is restored.
5. Empower the team by infusing collected team ideas (communication gauge – making course corrections #3) after reunification has begun.
6. Implement team decisions and watch them go.

Observational Insights
The observed team hit their low point in year three. A specific and successful functional conflict meeting was held in an effort to build back up from the factionism stage. The meeting was governed by ground rules where no opinions/stories could be told. All dialogue was pointed toward solutions and facts. As a result, the team recovered and began to strengthen both socially and functionally. Later, the team discovered and implemented STATE methodologies as part of their culture.

Since that meeting, the team has suffered three additional occurrences of communicative detachment and has yet to decompose into selective detachment.

Currently the team is beginning to demonstrate characteristics of a highly dynamic team such as increased communications, sociability, forthrightness, utilization of individual’s diverse strengths, and a willingness to support other members.

Conclusion – Putting It All Together
The information needed to apply the four principles of a successful mission offered by the navigator (know where you are, be aware of what could take you off course, make necessary corrections, execute with integrity and communicate continually) are sometimes hidden in our traditional hard gauges, but it is more apparent and readily available in our soft gauges. We only need to be willing to observe and listen. Longevity and good team health will result from a disciplined and measurable approach to the following:

• Observed relational conflict.
• Increased communications.
• Focused functional discussions.

Teams will always flounder and fail to some degree, but learning the cause and making the correction at an early juncture will save time and money. Soft gauges provide the earliest warning system when monitored correctly, iteratively, and diligently. Soft gauges provide information for managers to know how to successfully navigate project paths and allow their teams to arrive at their destinations on time and intact. Team members, like the navigator, are invaluable and possess a need to feel safe in providing what they view as pertinent information to those who can act upon it. The navigator learned the lesson that team success is reliant upon one another the hard way. Tom Demarco states, “An individual can only succeed to the extent that the whole prospers. And the whole can only prosper to the extent that everyone does well” [6]. Managers cannot be successful unless their team is successful and monitoring these soft gauges will confirm that the human gauge is the one that pays.

References