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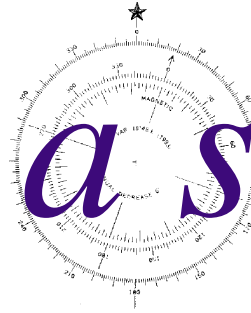
Rocket Science

"This isn't rocket science."

Who hasn't said this?

We sat on either side of the conference table in his top-floor office. He was an angry member of the executive committee who had approved a disastrous project, which was now threatening to double its previous cost estimate.

"If I had it to do over, I just wouldn't do it," he complained. "I feel cheated!" I nodded sympathetically. "The first increase," he continued, "we approved because it didn't seem unreasonable. The second increase seemed unreasonable, but we didn't want to forfeit our investment, so we approved it after some heated debate. Now we're so far into it that I don't think we'll ever see any return on the investment. We're just stuck!"

He had risen from his chair and moved like a caged tiger around the room, desperation seeping from just beneath his starched executive exterior. "I don't understand how this project got so out of control. After all," he said, returning to his seat and leaning toward me in a conspiratorial huddle, "This isn't rocket science."

The interview was nearly over. I acknowledged his frustration and appreciated him for finding time to talk with me about his catastrophe. I'd heard my share of cynical comments and I have to admit that in that moment, I filed the rocket science comment in my internal file drawer marked "cynic," and returned to my hotel to consider the stories I'd heard in my long day of interviewing project community members.

Some time after dinner, while milling around my empty hotel room, I reflected back on this cynical executive's despair. His rocket science comment revisited me, sparking a new perspective.

> *"He's wrong," I heard the voice in my head suggest, "this project is more like rocket science than it is like managing his manufacturing business."*

"He's wrong," I heard the voice in my head suggest, "this project is more like rocket science than it is like managing his manufacturing business. The problem is that he expects this project to behave like a manufacturing plant and it behaves more like a rocket. Managing this project IS a sort of rocket science!"

I am not a rocket scientist, but I've heard that the way rockets manage to reach their objective is by being off course most of the time. The guidance system, as I understand it, adapts to emerging conditions and retargets endlessly -- with infinite patience -- understanding that in the end only the last inch or so of the path must be on target in order for the rocket to hit its objective.

When this disastrous project had strayed off course, the executive committee subjected it to rigorous criticism, identifying the "root cause" of each deviation and punishing those responsible for creating the problem. Each subsequent deviation was managed similarly. Guilty parties were identified and punished before the project was set back "on course" with the expectation that it would not deviate again. But, of course, it deviated again and again.

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...Rocket Science Continued

The expectation that this unique development project could behave as if it were a replicable manufacturing process was the real root cause of this project's problems. The project had to deviate from the anticipated course to satisfy the objective -- it could not possibly predict all the turbulence it would meet between launch and goal. My distraught executive was exactly wrong, his project was rocket science and he was no rocket scientist.

Rocket Scientist

When I was writing the Mastering Projects Workshop, I saw an ABC Nightline broadcast celebrating what the correspondent referred to as the great success of NASA's Galileo Jupiter exploration program. The broadcast then interviewed many members of this program's community, and a remarkable story emerged.

The project was first envisioned in the early seventies. A series of design modifications and the Challenger disaster changed the idea of how the ship would be launched. With each new step, another insurmountable roadblock was uncovered and the team transformed each of these roadblocks into another workaround solution. It was the series of positive responses to these catastrophes that produced the success, not the project's ability to avoid catastrophe. They met, and defeated in turn, each showstopper. **This** is rocket science!

How often have you found your project being judged according to unreasonable success criteria? The absence of a shared metaphor for the project causes this situation, where each constituency expects the project to behave as if it were like something it is not and could never be. A classic example is the old --on time, on budget, on spec-- success criteria. As ambiguity increases, the usefulness of such criteria diminishes, causing reasonable boundaries to become unreasonable expectations that might encourage destructive interventions, like holding a rocket accountable for behaving as if it were a manufacturing plant.

One of the key purposes for planning as a community is the development of a shared way of understanding the project. This understanding is a powerful cohering force, allowing each project community member to act independently while staying in synch with the whole. The absence of this shared meaning shows up in a variety of symptoms, often experienced as just "one damned thing after another," and each unresolvable without first creating a collective understanding. Addressing this simple, powerful element evaporates the symptoms.

Be aware that each project constituency carries unconscious expectations for what defines reasonable behavior for their project. Each group bases their expectations upon experiences in situations perhaps only distantly related to the present context, thereby creating unreasonable boundaries for the project. Uncovering these "project prejudices" and engineering more deliberate possibilities can be a key to project success.

There is a class of activities that do not respond to traditional planning, tracking, and controlling. As heretical as this might seem, worse is the effect of planning the unplannable and punishing those who are coerced into committing to such plans. The project is lost before the first milestone is reached. Remember this the next time you hear yourself muttering what your project isn't. Perhaps your expectations are the problem and the rocket is simply behaving as if it is what it really was all along. das

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More Substitutes for Time

Correspondent Steve Smith responds to my request for more substitutes for time with the following:

"I have experienced these substitutes: listening, collaboration, and process. Listening expands my time by opening me up to outside experience, information, and ideas. They can expand my ability to complete a task. Collaboration (like compromise) expands my time by building a win-win situation. This concept requires me to think of time strategically (long term) instead of tactically (short term). Process expands my time by creating a work flow. Process helps make the state of the system known. Without this knowledge, thinking time is diverted into unneeded and distracting flows. For instance, a meeting with an agenda that has success criteria for each item channels the thinking. A meeting without an agenda depends on luck and requires more time."

David's Note:

Hi, for those of you who don't yet know me, I'm David A. Schmaltz, President of *True North pgs, Inc.*

I am very pleased to acknowledge the growth of True North. Amy Schwab, who joins the firm in February, brings a wealth of experience and knowledge in process improvement, marketing, and project management. III, who joins the firm as a contract trainer, brings many, many years of experience as both a trainer and a performer. You should know that I consider teaching to be a performance art.

I am also very pleased to announce that True North pgs, Inc. has acquired the sole license for the intellectual property of the Ontara Corporation, the Silicon Valley consulting and training firm that pioneered many of the concepts now used by True North pgs. This is for you, Larry. das

Can Your Project Succeed?

How coherent is your project community? Coherence is a measure of how well information trickles through your project community. It's a way to determine if everyone is on the same page and speaking the same language.

Is the end result clear enough to everyone? Does everyone who needs to know understand why this project is being done? Do community members share an understanding of what success looks like? Is the plan adequate to support the levels of dedication necessary to complete this work?

How can you tell if a project community is incoherent? Even the best project schedule becomes a Rorschach test if those using it don't share a sense of what constitutes an adequate project plan. Even the best-intended efforts to make your project more manageable fail unless the project's community speaks the same language.

> *"Even the best project schedule becomes a Rorschach test if those using it don't share a sense of what constitutes an adequate project plan."*

True North project guidance strategies offers a means for you to get a clearer picture of where your project is flying blind. Our Project Assessment Survey provides a simple way for determining the coherence of a project community and for diagnosing interventions that will resolve the problem creating the problems.

How is coherence related to ability to function? Coherence is no guarantee of ability to function, but incoherence is like a tax on everything your project team tries. Many poorly performing communities are coherent, in that they are in perfect agreement about the inadequacy of their project. These "coherent and poorly functioning" communities need better project tools and techniques. The incoherent communities couldn't use better tools if they had them. An incoherent community is like an unflyable airplane, more pilots --more project management-- won't help until the base unflyability issues are resolved. Resolving incoherence creates the context within which a community can finally succeed.
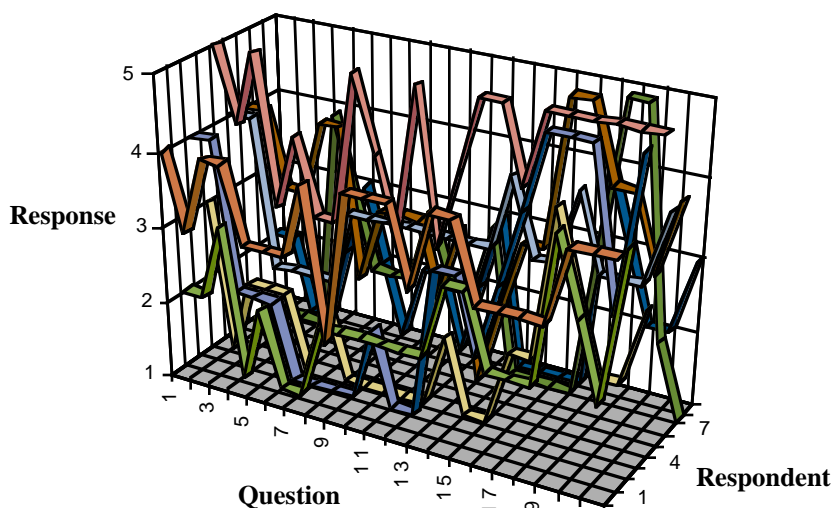
A Portrait of Incoherence

What does coherence and incoherence look like? In survey results, coherence shows up as similar responses. If the survey asks if team members are valued for their contributions, most community members respond similarly (whether positive or negative). In an incoherent community, as shown in the above chart taken from a client's real, live project community, the range of each response is greater than the average response, such that every response becomes a 3, plus or minus 2, on a five point scale. This translates directly into unpredictable results for the project, and creates a unmanageable context within which project management can have little effect.

What can I do about incoherence in my project community? Interventions focused upon increasing coherence often fail because they attempt to engineer coherence from the outside-in. This merely adds to the overall incoherence of the project community. I have yet to meet a community that could not create coherence for themselves. Often, merely identifying the incoherence creates an immediate improvement because incoherence thrives on its own blindness. Like a person who cannot help but smooth down his cowlick once he's seen it in a mirror, project communities naturally seek to resolve what they know isn't working and what they feel able to resolve.

> *"Often, merely identifying the incoherence creates an immediate improvement because incoherence thrives on its own blindness."*

The reason why project management training is so often a placebo is because it is the wrong cure for what really ails most projects. The Mastering Projects Workshop is specifically designed to provide those contextual elements necessary to create and maintain coherence in a project's community.

Let us show you how. das

Notices:

Upcoming Weinberg and Weinberg Problem Solving Leadership Workshop (I'll be facilitating):

March 29-April 4, Albuquerque

June 14-20, Albuquerque

Contact Suzi Brame at Wk: (503) 721-0908 or Fx: (503) 226-9066 for details.

An open enrollment Mastering Projects Workshop will be sponsored by the Software Productivity Centre in Vancouver, BC March 23-24. Contact Geoff Flamank at gflamank@spc.ca for details.

"You are the most powerful

project management tool

you will ever use."

Address Correction Requested

What Do You Do When You Don't Know What To Do?

Project Management is a knowledge-intensive occupation. We are expected to be "Jacks of all Trades," but of course we cannot be Jacks of all the trades we must manage on a cross-functional team. Gone are the days of the leader who could step in to take over for any failing team member. These days, we are often in the position of knowing few specifics of the many critical functions we manage. In addition to all of our knowledge and skill-based tools, our tool kits need something to help us respond when we don't know what to do.

Operating within our skills and knowledge can feel comfortable and confirming, allowing us to approach even complicated problems with confidence. When operating outside these boundaries, we may feel amused, confused, or even terrified. Our response to this most challenging of all conditions, what to do when we don't know what to do, can be a defining moment for a project manager.

Virginia Satir identifies five classic responses to this feeling of not knowing what to do. Satir calls these responses: placating, blaming, computing, distracting, and leveling. Becoming more aware of how you tend to react when you don't know what to do can be the first step in developing the ability to respond more deliberately and more effectively. Which one of the following responses sounds like you?
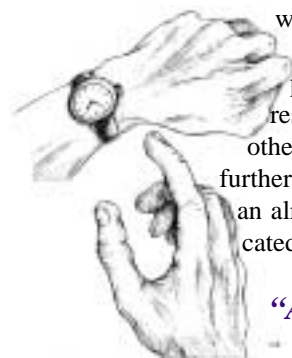
You're meeting with a subcontractor working for you on the project and feel over your head. Technical issues are being tossed around and you have no idea how they should be resolved. You respond by:

1. Placating: "Whatever you decide is okay. You're the expert in this field. Just let me know the effect on the schedule and budget."

2. Blaming: "What's the matter with you? If you were as good as you led me to believe you were, these issues would have never come up in the first place!"

3. Computing: "Considering the considerable expense we have projected for this endeavor, one might expect a more reasonable if not more satisfying process for issue resolution to have emerged. I read a fascinating account in last month's Scientific American..."

4. Distracting: "Did you hear the one about how many Republicans it takes to screw in a light bulb?"

5. Leveling: "I'm feeling a little lost in this conversation. I recognize the importance of these issues but feel unable to help resolve them. Can we slow down for a minute and see if we can come up with a way for us all to participate?"

Satir notes that we tend to fall into the habit of overusing one of these classic responses. She also says that it's "anything but easy to break old habit patterns and become a leveler." Still, only the leveling pattern offers opportunity to resolve the situation. Admitting your weakness can be your most powerful response. The other responses further complicate an already complicated situation.

"Admitting your weakness can be your most powerful response."

I've heard that World War Two Navy fighter planes had a watch embedded in the steering mechanism. The first step in the procedure for starting the plane was "wind the watch." The first step in every emergency procedure was also "wind the watch." The watch never needed winding in an emergency, but Navy psychologists had learned that the pilot needed a watch to wind. This millisecond step spent the unconscious startle response on something that could do no damage, clearing the pilot's mind to respond to the real emergency at hand.

The next time you find yourself over your head (and if you're like most project managers, you won't have to wait long for the opportunity) watch what you do. This is critically important information. If you've fallen into the habit of placating, blaming, computing, or distracting when you don't know what to do, consider adding a step to your personal emergency procedures: find a watch to wind. The millisecond this takes can be more than enough time to choose a more powerful response when you don't know what to do. das

What Is *True North* pgs, Inc.?

True North pgs (project guidance strategies), Inc. is a Portland, Oregon-based project management training and consulting firm dedicated to developing and sharing ideas that support the following tenets:

1. You are the most powerful project management tool you will ever use.

2. The key to managing projects effectively is to create self-managing projects.

3. The key to creating self-managing projects is to encourage open system behavior within the project community.

4. Project work is more effective when it's fun.

True North pgs designed the Mastering Projects Workshop and the Sun Microsystems' Managing Projects@Sun course to teach these basic skills to people who are assigned to manage projects as a part of the rest of their work, even though they do not share the title, authority, or career goals of a project manager.

III's No Crowd!

It was a dark and stormy day. The November wind and rain had been with us all week along the central coast of Oregon. We were a group of consultants at Norm Kerth and Paul Blattner's first annual Consultant's Retreat, sharing insights, frustrations, and fellowship.

David invited me to lunch on Wednesday. We spent several hours discussing our work, our perspectives, and our feelings about project issues. I was delighted to discover a kindred soul, someone who shares my perspectives about people and how they work together and how they sometimes work themselves apart. Over a great meal, we swapped stories, getting off some good one-liners and sounding each other out, discovering that we were already members of the same network, with many, many colleagues in common. By the time the check arrived, our dialogue was exploring future possibilities.

Just a few days later, a shipment of materials arrived at my San Francisco home. There was a copy of the Mastering Projects Workshop materials and a video of David presenting them. I read the course book, watched the video, and said to myself, "Self, this is neat stuff!"

During almost two decades of teaching many dialects of project management courseware, I have been continually perplexed at the failure of virtually all of it to deal with the real issues that arise in projects. I would figure out ways of slipping pieces of my own understanding into the standard materials in order to present a practical and achievable approach, and I felt like a heretic straying from the party line, which said, "success on projects is caused by good Work Breakdown Structures and orderly Gantt charts." Now I was reading and watching a collection of ideas, exercises, and guidelines that looked a lot like the way I had always wanted to teach! A subsequent meeting at Edgefield Manor near Portland sealed our mutual destinies.

True North pgs, Inc. of Portland and my firm, Systemodels of San Francisco, will be working together. We will retain our individual practices while creating opportunities to work together. I am honored and excited about the confidence David has invested in me and about the chances I will have to share True North's project guidance strategies with professionals who want to make their projects manageable and their work life more fun.

Let me introduce myself. My name is III (pronounced like the name of the value between II and IV). My home base is in San Francisco. My primary experience is in information systems development. I have made my career disclaiming any technology expertise, focusing instead on things you can do in the dirt with a stick.

"I have made my career disclaiming any technology expertise, focusing instead on things you can do in the dirt with a stick."
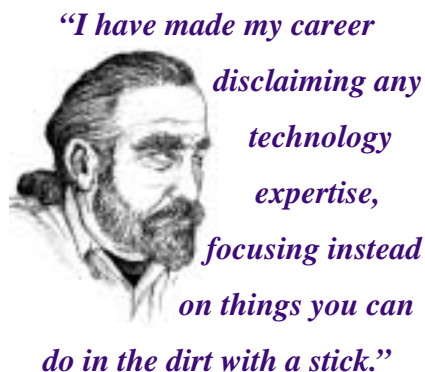
A significant portion of my work has been with modelers of system essence (some call this requirements). Project management, facilitation, chartering, and brain liberty are also areas where my clients have called upon me to provide assistance. My formal training is in theater, with a degree and most of an MFA in acting from the University of California. I have been my own consulting firm for fifteen years, and have worked almost everywhere and in most of the major business sectors. One of these days I'm probably going to have to create a business card for myself, and I still face the quandary of choosing a title. For the longest time, "System Provocateur" was my favorite; then, "Information Reconnaissance" seemed appropriate. The one I like best, though, was suggested a few years ago by Jerry Weinberg: he said my role was that of a "Jiggler".

What started on that cold and windy day last November has moved toward the bright and promising prospect of working with David and, I hope, with many of you in the months and years to come. I look ahead with joy and excitement to what our futures may bring. iii

Appreciations:

- Celeste Armstrong of Dialogic for her enthusiasm!

- Sean McGowan of Catalyst for investigating coherence.

- Amy Schwab for getting in my shoe.

- III for being here, too.

- Wilder Schmaltz for the Graphics.

- Kathy Carey for editing!

- Jerry Weinberg for pointing out the area under the curve!

- Geoff Flamank of SPC in Vancouver for staying engaged even when the end looked bleak!

- Sharon Petrella for being delightful.

- Jim Goughenour for having his data input port surgically enlarged and sharing his resulting understandings.

- Cathy Howard for licensing Ontara.

Two Sicknesses

There are, the Zen masters say, only two sicknesses in the world. One is to get on a donkey to look for a donkey. The second is to refuse to get off of your donkey when you say you want to change. From Instant Zen Waking Up In The Present Tr by Thomas Cleary