

# Developing a Quantum Mind-Set for an eXtreme Reality

*We are facilitators of disorder.*

MARGARET WHEATLEY,

*LEADERSHIP AND THE NEW SCIENCE*

Just like a software package, our brains come with default settings—a mind-set. By *mind-set*, I mean a set of beliefs and assumptions about how the world works. This is our internal programming. In this chapter I take a closer look at the eXtreme, or quantum, mind-set, contrast it sharply with the Newtonian worldview, and highlight the absurd project management behavior that results when one attempts to apply Newtonian thinking in a quantum world.

Here is a quick review of the key ideas to keep in mind:

- By quantum mind-set, I mean a worldview that is compatible with change and unpredictability. The quantum mind-set assumes that change is the norm.
- The Newtonian or linear mind-set assumes that stability is the norm.
- eXtreme projects need to be managed with a predominantly quantum mind-set.
- Applying a quantum mind-set to a traditional project will ensure a poor result.
- Applying a Newtonian mind-set to an eXtreme project will wreak havoc.

Unlike the Newtonian cause-and-effect mind-set and related principles, eXtreme project management recognizes that although goals are achievable, how we get there is unpredictable. Hence, adaptability is more important than predictability. And since outcomes are not predicable, this paradigm shift in mind-set opens the door to applying the right-brained principles of quantum mechanics to project management. Quantum mechanics is the study of motion in the subatomic realm. This domain deals with unpredictability and the forces and laws that lie beneath and beyond the physical world. The Newtonian world is about predictability and how the physical world works. The quantum world is about patterns and probability and how the subatomic world of particles and energy works.

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A critical component of the quantum world is Heisenberg's uncertainty principle, which says that with subatomic particles such as electrons, we cannot know both the particle's precise position and its momentum (or velocity). The more precisely we measure its position, the less we can know about its momentum, and vice versa. The uncertainty principle does not state that it is hard to measure both simultaneously or that we don't have good enough instruments. It states that we cannot do so in principle because the act of measurement affects what we measure.

In the Newtonian world, we can measure these two quantities as precisely as we please (more or less). In other words, a traffic officer can point a radar gun at your car and tell exactly where the car is and its precise speed, simultaneously. Imagine a traffic officer who lived in a subatomic world. He could never issue a speeding ticket. If he measured a car's speed, he wouldn't know where it was (and so couldn't know it's in a 35 mph zone). If he pinpointed exactly where a car was (in the 35 mph zone), he couldn't measure its speed. When dealing with eXtreme projects, we have to realize that a similar uncertainty principle applies. The more we try to control one aspect of a project, the less control we will have over others.

## Is There a Method to Your Madness?

The importance of adopting a quantum mind-set to eXtreme projects is illustrated by a story.

While having lunch in the serene and sylvan setting of the Sterling Farms Golf and Country Club in Stamford, Connecticut, my stomach started to knot up. On this sweltering summer day, my chicken caesar salad ended up mostly untouched. It wasn't the warm creamy dressing and the soggy croutons that were getting to me. It was the scenario being described by my luncheon guest, Tammy. Tammy (not her real name) was the head of software application development for a high-flying and very visible dot.com company. We were talking about project management when I asked her to tell me about the major challenges in running projects in a dot.com environment. She described a "typical" project environment, one that would make chaos seem like a snooze under the umbrella on a quiet beach.

Marketing, sales, finance, application development, customer support, network services, database management, senior management, and eight outside vendors were all interacting with one another, she told me, and mostly in an ad hoc way. On top of that, the information technologies they were working with were also in a state of flux. Moreover, this dot.com wasn't the only game on the net. So on top of it all, Tammy's application development group had to react to what the competition was up to. Change was frequent and relentless. Time frames and budget didn't mean anything. And management wanted accurate forecasts. The impact of these dynamics made for a stress-filled workplace and an unfulfilled workforce.

I was sure that all this frustration had to overflow into everyone's family life as well. A toxic scenario.

Six months later I again had lunch with Tammy. This time there was no time to enjoy a sylvan setting, so we ate in the employee cafeteria. Since the day of our first lunch together, the company had gone public, and there was heightened pressure for accountability and predictability. To help get things under control and to establish some project management standards, a new software tool had been brought in, along with a time reporting system. Tammy related that the training on the software tool was thorough and that the vendor provided a support person who had been on

site for the past three months. An experienced project manager was also recruited to head the project office and establish best practices.

Yet this was not a happy place. There was little dot.calm at this dot.com. In fact, the increased project reporting structure was alienating people and beginning to cause some to leave the company.

Why was the new software and new methodology not producing results? The new scheduling tool was based on the old Newtonian mind-set and model of the world, which assumes a linear (cause-and-effect-like) relationship among tasks and events. We recognize this as the waterfall model, which reflects the time-honored plan-and-control approach to getting results. As we have seen, this model is a useful tool for certain kinds of projects—those that have a well-defined, concrete goal and a proven path to get there. But the waterfall model was not well suited to Tammy's dot.com project endeavors, which feature high velocity, high change, and high uncertainty. Tom Tarnow, former vice president and head of project management organization at Morgan Stanley Dean Witter, says, "Standardized project management approaches will likely fail in an entrepreneurial and individual-oriented business setting." Those cascading, sequentially flowing Gantt charts with eight levels of detail fail to capture the dynamics of the dot.com world of projects.

## **Linear Lunacy**

To apply the linear and classical (plan and control) approach to an eXtreme project is lunacy, which is why people in Tammy's organization were so unhappy. The good news is that organizations that do this sooner or later recognize that it's not working. But the bad news is that they typically pick the wrong cure. Usually this process begins with the observation that not everyone is on board with the newly released software tools and the requisite project methodology. At this point, Newtonian-minded management leaps to the conclusion that if everybody were following the same rules, then there would finally be consistent and predictable results, as if cranking out projects was like stamping out cookies in a factory. "We need to bring in more discipline" is the cry. In other words, the prevailing management philosophy is, "If it's not working, let's do more of it."

Remember Heisenberg's uncertainty principle: it's not that measurement of a subatomic particle's position and momentum requires

lots and lots of high-tech measurement equipment and rigorous training to use it. It states that such measurement is physically impossible. So it is with eXtreme projects and the quantum mind-set. If we adopt a quantum mind-set, we can see that eXtreme projects by their very nature cannot be forced into the Newtonian straitjacket of project schedules and Gantt charts. So millions of dollars are misspent on training programs that teach and certify people in traditional project management approaches, which backfire on eXtreme projects. I refer to this as linear lunacy, an advanced form of project management insecurity that ultimately leads to what I call *tootoolitarianism* (pronounced *tow-tool-ah-tarian-ism*).

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Tootoolitarianism manifests itself in the form of heightened project governance through which tools and rules from above are substituted for spontaneity and decision making from below. Tootoolitarianism often manifests itself as the project office, which sets project policy. As Margaret Wheatley, renowned author of *Leadership and the New Science* (1992), pointed out in a speech, “The only difference between the word ‘policy’ and ‘police’ is just one letter of the alphabet.” People intuitively know this. As a result, the term *project office*, which smacks of bureaucracy, is being replaced in some circles by the more project-friendly name of *project support group*, or the innocuous-sounding *Project Management Organization* (PMO).

PMOs can be a valuable asset to an organization when they encourage and support a suite of approaches that can be matched to the type of project at hand. Unfortunately, most try to enforce adherence to a single set of tools, and these tools do not work with eXtreme projects.

## **Newtonian Neurosis and the eXtreme Project Manager**

Psychologist Carl Rogers uses the term *cognitive dissonance* to refer to the discrepancy between our mental model of how we see or want the world to be versus the reality of the situation. For example, the reality is that an eXtreme project is a squiggly line. It looks

like the strand of despondent spaghetti I mentioned earlier. But most classically trained project managers have quite a different mental model, albeit unconscious, of what a project should look like. They want it to look like this:

Start —————> End

This is solid, left-brained linear thinking at its best and is the underlying cause of Newtonian neurosis: the compulsive need to make an eXtreme project into a straight line. Tim Lister, senior consultant and fellow of the Cutter Consortium, refers to project managers who think this way as “flatliners.” Flatliners relentlessly attempt to bludgeon every squiggly line project into submission through the excessive use of project management tools, rules, templates, policies, and procedures.

Sooner or later, flatliners realize it’s not working. They typically complain that the organization is not properly supporting them and does not believe in project management. They also admit their own shortcomings. If you were to peek into the head of a despondent project manager, the self-talk you hear might go something like this: “The world is not conforming to my plan. I must not be a good planner or project manager after all. I’d better take more project management courses and get more PDUs [professional development units]. I will do better and promise to use more templates and tools.”

*The world is not conforming to my plan.* Let that sink in. Is the world supposed to conform to our project plan? How arrogant can we get? Newtonian neurosis leads to the futile practice of attempting to change the world to fit your plan, which is fiction in the first place. Why would anyone want to change reality to conform to fiction? Newtonian neurosis, that’s why.

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Traditional project management concepts are inappropriate for eXtreme projects. Percentage complete, for example, is the most basic measure of progress, but it is a silly measure for an

eXtreme project because the plan for an eXtreme project is not a prediction. That means the end date, given our best estimate, is only fiction. So if we are four months into a so-called ten-month project, are we really 40 percent complete? Percent complete (4/10, as someone pointed out to me) is merely Fantasy divided by Fiction.

Don't misunderstand me. I believe that certification in project management is a good thing for job mobility, and it beefs up the resumé. So do proudly display your PMP® (Project Management Professional designation) on your business card. Even get a tattoo. But don't think that the tools and concepts you learned apply all the time, everywhere. On eXtreme projects, many of them don't.

Newtonian neurosis is by no means limited to managers of eXtreme projects. It's common to run into this insidious affliction among project sponsors, customers, and senior managers who insist that linear and Newtonian approaches be applied in an effort to stabilize an increasingly unpredictable world.

## Self-Diagnostic Tool

Which of the two mind-sets, Newtonian or quantum, represents your predominant worldview? Let's take a look at how you're wired. Does your brain default to Newtonian or to quantumian?

### Your Belief System

Your belief system represents your view of how the world works. For each row, check the phrase that best describes you:

*Newtonian Mind-Set:*  
*Stability is the norm*

*Quantum Mind-Set:*  
*Chaos is the norm*

The world is linear and predictable.

Uncertainty reigns.

It's controllable.

Murphy's law rules.

We can minimize change.

We should welcome change.

Add rigor to the process to increase the feeling of security.

Relax controls to increase the feeling of security.

If most of the items you circled fall under the Newtonian mind-set, you may have trouble coping with eXtreme projects. For your

own sanity and quality of life, you may want to find a work situation that offers a more predictable and stable environment. But do keep reading, as I hope to show you that living in an eXtreme world can be satisfying and rewarding. Being aware of your own mind-set is the first step on the way of taking control of it and possibly changing it. If you came down in the quantum mind-set, then you are already a step further than many other people on coming to grips with eXtreme projects. Be careful though: the items you circled may not really reflect your underlying assumptions about life and the world. As I discuss below, some people espouse a quantum mind-set but really don't act as if they believe it.

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By temperament and preference, some people are simply not cut out for managing or participating in these high-stress, demanding adventures. If this is true about you, there is nothing wrong with you. Instead you are getting a strong signal that you have another calling. Congratulations! Answer the phone. Head for Chapter Three, Leadership Begins with Self Mastery, which covers Critical Success Factor 1. It will help you reinvent your life.

## Your Management Style

Your management style reflects how your belief system translates into how you do your job. As a project manager running an eXtreme project (or if you are a project customer, sponsor, or senior manager), which of the two hats do you wear most of the time? For each question, decide whether you wear hat A or hat B:

*Newtonian Hat*

*Quantum Hat*

My job as a project manager is to:

A. Deliver on the planned result

B. Discover the desired result

The best way to do this is to:

A. Use the plan to drive results.

B. Use results to drive planning

My preferred approach is to:

- |                   |                                    |
|-------------------|------------------------------------|
| A. Aim, aim, fire | B. Fire. Then, redirect the bullet |
|-------------------|------------------------------------|

I always try to:

- |                                      |                           |
|--------------------------------------|---------------------------|
| A. Keep tight control on the process | B. Keep the process loose |
|--------------------------------------|---------------------------|

When things start to slip out of control, I try to:

- |   |   |
|---|---|
| A. Establish stronger procedures and policies | B. Agree on guidelines, principles and values |
|---|---|

When the project goes off course, I:

- |                                     |                               |
|-------------------------------------|-------------------------------|
| A. Correct to the original baseline | B. Correct to what's possible |
|-------------------------------------|-------------------------------|

I see my role as a:

- |               |                         |
|---------------|-------------------------|
| A. Taskmaster | B. Relationship manager |
|---------------|-------------------------|

A successful project:

- |                                  |                                |
|----------------------------------|--------------------------------|
| A. Gets its right the first time | B. Gets it right the last time |
|----------------------------------|--------------------------------|

If you are wearing a Newtonian hat and using a Newtonian compass to navigate your way through a quantum world, you are likely to feel frustrated and under stress most of the time. You will not be at ease. You will suffer from dis-ease, namely, Newtonian neurosis.

Now, what about your organization? If you were applying the above diagnostic tool to assess your organization, what is its predominant mind-set? Even if you personally have a quantum belief system and wear a quantum management hat, it is likely that your organization is thoroughly Newtonian in its belief system and management approach. Is this a cause for despair? Does this mean that your eXtreme project is dead out of the starting gate? Not at all. As we discussed above, reality happens. eXtreme project management does not try to change reality; rather, it works to deal with it. The eXtreme project management model presented in this book is specifically designed to help you deal with all the Newtonian land mines that litter typical organizations.

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## **Do You Walk Your Talk?**

I run into a fair number of project managers who espouse a quantum belief system yet act in a Newtonian way. Their behavior is not congruent with their beliefs, even though their intentions are noble. This phenomenon, unconscious Newtonianism, is at the heart of Newtonian neurosis and is the root cause of totoolitarianism, which is the institutionalization of what doesn't work. Unconscious Newtonianism accounts for the promulgation of inappropriate and monumental project management methodologies and explains why organizations develop elaborate systems, procedures, and policies in a futile attempt to get a grip on eXtreme projects. They unwittingly legislate, reward, and lock in dysfunction.

eXtreme projects call for a predominantly quantum mind-set *and* quantum hat. Traditional construction and engineering projects and other waterfall-like, predictable endeavors do very well with the Newtonian approach. But you can't manage the unknown in the same way that you manage the known. To be successful in managing the apparent chaos of eXtreme projects, it is fundamental that one's belief system and management style be consistent with the quantum reality. If your system and style are not, you need to fake it until you make it. Act as if. Subsequent chapters in this book will show you how. Your ability to succeed on an eXtreme project that is organizationally complex requires it.

## **It's Jazz, Not Classical Music**

eXtreme projects are like jazz. To the unaccustomed ear, jazz might appear to be random and chaotic, but it is not. There is a framework, and the jazz musician has a lot of room to improvise within it. Jazz is not ad hoc. Nor is eXtreme project management, as many mistakenly believe.

Traditional projects are more like classical music. They are well orchestrated and directed. You stick to the score, or the conduc-

tor will tap his baton at you. Some organizations are beginning to see the light. They recognize that ultrademanding projects get bogged down with heavy-duty methods and too many templates, best practices, and policies. Their response, though, is to take a traditional, heavyweight methodology and scale it down. But that doesn't work. eXtreme project management is not traditional project management on a crash diet. Moving back to the music metaphor, if you left out the percussion section and violins from a classical music performance, the piece would remain classical music because the mind-set and the rigor remain intact (just on a smaller scale). It's still Newtonian neurosis.

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*eXtreme project management is not traditional project management on a crash diet.*

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## **Toward Peaceful Coexistence**

I'm not saying that there is no place for the rigor of traditional or Newtonian principles on an eXtreme project. There are parts of eXtreme projects that absolutely require rigor, such as software testing procedures or the execution of a scientific experiment. Both the Newtonian and quantum worldviews are necessary. But to succeed on an eXtreme project, the venture is far better served when the predominant mind-set is quantum. This means that you need to use both the left and right sides of the brain and know when to use each. eXtreme projects are primarily quantum, right brain endeavors. (Think of it this way. Your right hand may be your dominant hand, but that doesn't mean you tie your left hand behind your back. Don't park your right brain at the door either.)

There is nothing inherently wrong or right with either Newtonian or quantum principles. Which to use depends on the circumstances. The same knife that can be used in surgery to save a life can also be used by a thug to take a life.

At its best, the Newtonian mind-set provides the needed predictability and control when predictability and control are possible. At its worst, the Newtonian mind-set is ego driven, arrogant, and warlike. It's fear based: fear of change, fear of failure. The

mentality is to keep bad from happening. It seeks to change reality to fit someone's notion of how things should be. It seeks to win through domination. Applying this traditional approach in unpredictable environments can be hazardous to projects and to your personal health and well-being.

At its worst, the quantum mind-set will relax all controls when controls are vitally needed. Imagine New York City with no traffic regulations. (You'd get Rome.) At its best, eXtreme project management is reality based, on the offensive, change embracing, and future oriented. The mentality is to make good happen. It's peaceful yet proactive. Applying eXtreme project management means to look at the world the way it is, as it presents itself, and not fight it each step of the way. After all, by the time it has presented itself, it is already a reality. Attempting to change reality is an attempt to change history. It's futile. Instead, we forgive the past, join hands with reality, and change the plan to fit reality, not the other way around. There's no Undo button on your computer for reality.

Using eXtreme project management means to take responsibility and respond with ability. Under conditions of high speed, high change, high uncertainty, and high complexity, applying the traditional approach is to respond with disability.

In his masterful book *The Dancing Wu Li Masters: An Overview of the New Physics* (1979), Gary Zukav sums it up: "The Wu Li Masters perceive in both ways, the rational and the irrational, the assertive and the receptive, the masculine and the feminine. They reject neither one nor the other. They only dance" (p. 44). (*Wu Li* is Chinese for physics.)

## Conclusion

Both traditional and eXtreme project management start out with a set of requirements and a path. But the requirements and the path are merely speculation when managing eXtreme projects. Both are being constructed as the project goes along. It's jazz. The prevailing mind-set is that we will discover the desired result as time goes by. This means recurring trial and error. Tom Peters, the management guru, calls this approach "fast failures." In eXtreme project management, the team and sponsor are wed to the future, to what's possible, and not to sticking to the original baseline.

In the next chapter, I provide an overview of the eXtreme project management model. In the meantime, the serenity prayer can work wonders. It's the secret for inner peace. I recommend you say it at the beginning of each day and put it on a sign for your desk. Read it early and often:

Grant me the serenity to accept the things I cannot change  
The courage to change the things I can,  
And the wisdom to know the difference.

Reinhold Niebuhr (1892–1971)